

# DEVELOPMENT CHARGES BACKGROUND STUDY

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City of North Bay



Version for Public Consultation

**HEMSON** Consulting Ltd.

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## EXECUTIVE SUMMARY

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### A. PURPOSE OF 2019 DEVELOPMENT CHARGES (DC) BACKGROUND STUDY

#### 1. Legislative Context

The City of North Bay 2019 Development Charges (DC) Background Study is presented as part of the process to lead to the approval of a new DC by-law in compliance with the *Development Charges Act, 1997 (DCA)*. The study is prepared in accordance with the DCA and associated Regulation, including the amendments that came into force on January 1, 2016 and June 6, 2019.

#### 2. Key Steps in Determining Future Development-Related Projects

In accordance with the DCA and associated regulation, several key steps are required to calculate development charges. This includes preparing a development forecast, establishing historical service levels, determining the increase in need for services arising from development and appropriate shares of costs, attribution to development types (i.e. residential and non-residential) and the final adjustment to the calculated rate of a cash flow analysis.

#### 3. DC Eligible and Ineligible Costs

Development charges are intended to pay for the initial round of capital costs needed to service new development over an identified planning period. This is based on the overarching principle that “growth pays for growth”. However, the DCA and associated regulation includes several statutory adjustments and deductions that prevent these costs from fully being recovered by growth. Such adjustments include, but are not limited to: ineligible costs, including operating and maintenance costs; ineligible services, including, tourism facilities, parkland acquisition, etc.; statutory ten per cent discount for general services; deductions for costs that exceed historical service level caps; and statutory exemptions for specific uses (i.e. industrial expansions).

#### 4. The Development-Related Capital Program is Subject to Change

It is recommended that Council adopt the development-related capital program developed for the purposes of the 2019 DC Background Study. However, it is recognized that the DC Background Study is a point-in-time analysis and there may be changes to project timing, scope and costs through the City’s normal annual budget process.

## B. DEVELOPMENT FORECAST

### 1. Residential and Non-Residential

The table below provides a summary of the anticipated residential and non-residential growth over the 2019-2028 planning period. The development forecast is further discussed in Appendix A.

RESIDENTIAL FORECAST	Existing	2019-2028	
	As At Mid-Year 2018	Forecast Change	As at 2028
Census Population	51,679	420	52,099
<b>Dwelling Units</b>		<b>706</b>	
<i>Population in New Units</i>		1,895	

NON-RESIDENTIAL FORECAST	2019-2028	
	Forecast Change	
<b>Employment in New Space Growth</b>		350
<b>Non-Residential Building Space (sq.m)</b>		20,000

## C. CALCULATED DEVELOPMENT CHARGES

The table below provides the City-wide development charges for residential and non-residential development based on the aforementioned forecast.

	Unit Type			
	Detached & Semi-Detached	Multiples	Apartments	Rural Area
Discounted Services	\$1,953	\$1,504	\$998	\$1,953
Non-Discounted Services	\$18,807	\$14,486	\$9,618	\$8,415
<b>Total Development Charge</b>	<b>\$20,760</b>	<b>\$15,990</b>	<b>\$10,616</b>	<b>\$10,368</b>

	Calculated Non-Residential Charge per Sq.M	Calculated Non-Residential Charge per Sq.Ft.
Discounted Services	\$0.00	\$0.00
Non-Discounted Services	\$101.65	\$9.44
<b>Total Development Charge</b>	<b>\$101.65</b>	<b>\$9.44</b>

The rates calculated as part of this Background Study are the maximum permissible rates under the current legislation. Council may implement rates lower than those calculated and the revenue shortfall will need to be made up from other sources namely property taxes, user fees and water and wastewater utility rates.

**D. LONG-TERM CAPITAL AND OPERATING COSTS**

An overview of the long-term capital and operating costs for the capital facilities and infrastructure to be included in the DC by-law is provided in the study. This examination is required as one of the provisions of the DCA. Additional details on the long-term capital and operating impact analysis is found in Appendix G. By 2028 the City's net operating costs are estimated to increase by about \$703,600 per annum.

**E. ASSET MANAGEMENT PLAN**

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.

By 2029, the City will need to fund an additional \$391,000 per annum in order to properly fund the full life cycle costs of the new assets supported under the 2019 Development Charges By-law.

**F. MODIFICATIONS TO THE CITY'S DEVELOPMENT CHARGES BY-LAW ARE PROPOSED**

The City is proposing to modify the current development charges by-law. The proposed draft by-law will be made available, under separate cover, a minimum of two weeks in advance of the statutory public meeting.

## I INTRODUCTION

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This City of North Bay Development Charges Background Study is presented as part of a process to lead to the approval of a new development charge by-law in compliance with the *Development Charges Act, 1997 (DCA)*.

The *DCA* and *Ontario Regulation 82/98 (O. Reg. 82/98)* require that a development charges background study be prepared in which development charges are determined with reference to:

- A forecast of the amount, type and location of housing units, population and non-residential development anticipated in the City;
- The average capital service levels provided in the City over the ten-year period immediately preceding the preparation of the background study;
- A review of capital works in progress and anticipated future capital projects, including an analysis of gross expenditures, funding sources, and net expenditures incurred or to be incurred by the City to provide for the expected development, including the determination of the growth and non-development-related components of the capital projects; and
- An examination of the long-term capital and operating costs for the capital infrastructure required for each service to which the development charges by-law would relate.

This study presents the results of the review that determines the development-related net capital costs which are attributable to new development that is forecast to occur in the City of North Bay. These development-related net capital costs are then apportioned among various types of development (residential; non-residential) in a manner that reflects the increase in the need for each service attributable to each type of development. Therefore, the study arrives at proposed development charges for various types of development.

The *DCA* provides for a period of public review and comment regarding the proposed development charges. Following completion of this process, in accordance with the *DCA* and Council's review of this study and the comments it receives regarding this study or other information brought to its attention about the proposed charges, it is intended that Council will pass new development charges for the City.

## II THE METHODOLOGY USES A CITY-WIDE APPROACH TO ALIGN DEVELOPMENT-RELATED COSTS AND BENEFITS

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Several key steps are required in calculating any development charge. However, specific circumstances arise in each municipality which must be reflected in the calculation. Therefore, this study has been tailored for the City of North Bay's unique circumstances. The approach to the proposed development charges is focussed on providing a reasonable alignment of development-related costs with the development that necessitates them.

### A. A CITY-WIDE DEVELOPMENT CHARGE IS PROPOSED

The City provides a wide range of services to the community it serves and has an extensive inventory of facilities, land, infrastructure, vehicles and equipment. The *DCA* provides municipalities with flexibility to define services that will be included in the development charge by-law, provided that the other provisions of the *Act* and its associated regulations are met. The *DCA* also requires that the by-law designate the areas within which the by-law shall be imposed. The development charges may apply to all lands in the municipality or to other designated development areas as specified in the by-law.

#### 1. Services Based on a City-Wide Approach

For the majority of services that the City provides, a range of capital facilities, land, equipment and infrastructure is available throughout the City; arenas, community centres, fire stations, arterial roads, transit, parks and so on. As new development occurs, new facilities will need to be added so that service levels in newly developing areas are provided at levels enjoyed in existing communities. A widely accepted method for sharing the development-related capital costs for such City services is to apportion them over all new development anticipated in the City.

The following services are included in the City-wide development charge calculation:

#### General Services

- General Government;
- Parks and Recreation Services;
- Protection Services: Fire and Police;
- Transit;

#### Engineered Services

- Services Related to a Highway: Public Works and Roads and Related;
- Water Services; and
- Sanitary Sewer.



Under this Study, General Government and Parks & Recreation Services make up the discounted component of the rates shown in Section VI. These services form a reasonable basis on which to plan and administer the development charges. It is noted that the analysis of each of these services examines the individual capital facilities and equipment that make them up. For example, Parks and Recreation Services includes various indoor facilities such as community centres, arenas; and associated land requirements as allowed under the *DCA*; and equipment.

The resulting development charge for these services would be imposed against all development anywhere in the City.

## **B. KEY STEPS IN DETERMINING DEVELOPMENT CHARGES FOR FUTURE DEVELOPMENT-RELATED PROJECTS**

Several key steps are required in calculating development charges for future development-related projects. These are summarized in Figure 1 and discussed further in the following sections.

### **1. Development Forecast**

The first step in the methodology requires a development forecast to be prepared for the ten-year study period, 2019–2028, for all City-wide services. The forecast of the future residential and non-residential development used in this study is based on development anticipated to occur within approved Official Plan City boundaries.

The non-residential portion of the forecast estimates the Gross Floor Area (GFA) of building space to be developed over the ten-year period, 2019–2028. The forecast of GFA is based on the employment in new space forecast for the City.

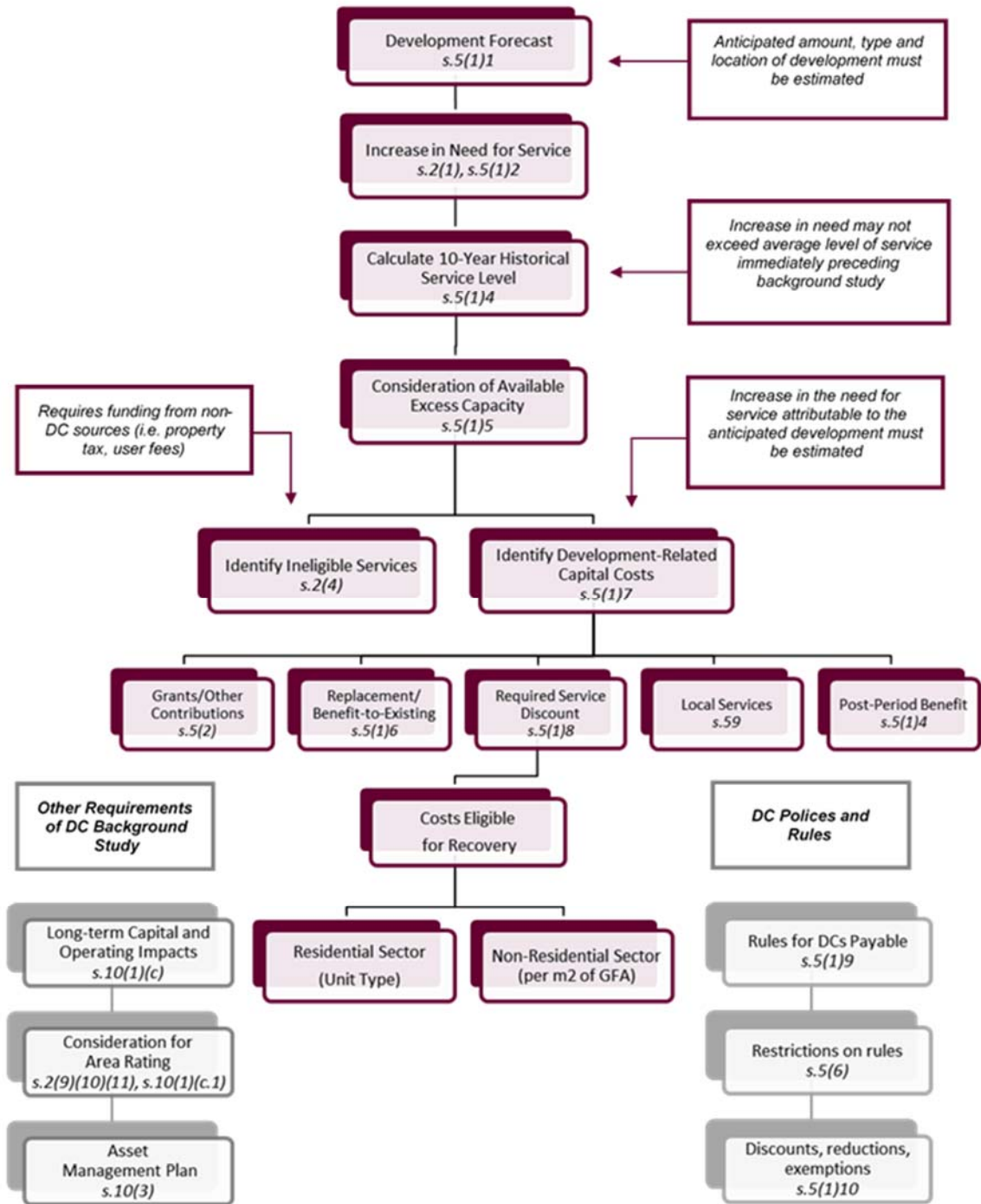
### **2. Service Categories and Historical Service Levels**

The *Development Charges Act* 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.)

Historical ten-year average service levels thus form the basis for development charges. A review of City's capital service levels for buildings, land, vehicles and so on, has therefore been prepared as a reference for the calculation, so that the portion of future capital projects that may be included in the development charge can be determined. The historical service levels have been calculated based on the period 2009–2018.

Figure 1: Overview of Development Charges Calculation



### 3. **Development-Related Capital Forecast and Analysis of Net Capital Costs to be Included in the Development Charges**

A development-related capital forecast has been prepared by the City's departments as part of the present study. The forecast 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 provides 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.)

In conjunction with *DCA*, s. 5. (1) 4. referenced above, these sections have the effect of requiring that the development charge be calculated on the lesser of the historical ten-year average service levels or the service levels embodied in future plans of the City. 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 City from non-development charges sources. The amount of City funding for such non-growth shares of projects is also identified as part of the preparation of the development-related capital forecast.

There is also a requirement in the *DCA* to reduce the applicable development charge by the amount of any "uncommitted excess capacity" that is available for a service. Such capacity is available to partially meet the future servicing requirements.

Finally, in calculating development charges, the development-related net capital costs must be reduced by 10 per cent for General Government and Parks & Recreation (*DCA*, s. 5. (1) 8.) and the resulting City funding responsibility from non-development charge sources is identified.

#### **4. Attribution to Types of Development**

The next step in the determination of development charges is the allocation of the development-related net capital costs between the residential and the non-residential sectors. This is done by using different apportionments for different services in accordance with the demands which the two sectors would be expected to place on the various services and the different benefits derived from those services. For all services the apportionment is based on shares of population in new units and employment.

Finally, the residential component of the City-wide development charge is applied to different housing types on the basis of Persons Per Unit (PPU). The non-residential component is applied on the basis of gross building space in square metres.

#### **5. Final Adjustment**

The final determination of the development charge results from adjustments made to development-related net capital costs for each service and sector resulting from the application of any unallocated reserve fund balances available to finance the development-related capital costs in the capital forecast. 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*.

#### **6. Note on Rounding**

Due to rounding, in some tables, numbers may not add up precisely to the totals indicated and percentages may not precisely reflect the absolute figures for the same reason.

### **III DEVELOPMENT FORECAST**

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This section provides the basis for the development forecasts used in calculating the development charges and provides a summary of the forecast results. Appendix A contains additional material related to the development forecast and the City's demographics.

In 2019, Hemson Consulting completed a *Growth Forecast to 2046* (2019 Forecast Report) on behalf of the City. The report includes forecasts of population, dwelling units and employment for the City to 2046. The development forecasts used in this study are generally based on the 2019 Forecast Report.

#### **A. RESIDENTIAL FORECAST**

The residential forecast is based on a forecast of total new dwelling units and population in the City. Table 1 provides a summary of the residential forecast for the ten-year planning period, 2019 to 2028. The ten-year planning period is used throughout this study for all City services (general and engineered services).

Over the ten year planning period from 2019-2028, the total number of occupied dwelling units is forecast to increase by 706 units, which translates into a population in new units of 1,895. The population in new housing units was estimated based on a Statistics Canada special run of data on occupancy patterns of household unit types by period of construction.

#### **B. NON-RESIDENTIAL DEVELOPMENT FORECAST**

Place of work employment figures record where people work rather than their place of residence. The 2019 Forecast Report forecasts have been adjusted to incorporate employees without fixed work place addresses who live in municipalities that surround North Bay but who work primarily within the City.

The non-residential portion of the forecast estimates the amount of building space to be developed in the City over the ten-year planning period. The forecast is based on the projected increase in employment levels and the anticipated amount of new building space required to accommodate them.

The ten-year forecast projects an increase of approximately 350 employees which can be accommodated in 20,000 square metres of new non-residential floor space.

Table 1 provides a summary of the non-residential development forecasts used in this analysis. Additional forecast details are found in Appendix A.

**TABLE 1**  
**CITY OF NORTH BAY**  
**SUMMARY OF RESIDENTIAL & NON-RESIDENTIAL**  
**DEVELOPMENT FORECAST**

<b>RESIDENTIAL FORECAST</b>	<b>Existing</b>	<b>2019-2028</b>	
	As At Mid-Year 2018	Forecast Change	As at 2028
Census Population	51,679	420	52,099
<b>Dwelling Units</b>		<b>706</b>	
<i>Population in New Units</i>		<i>1,895</i>	

<b>NON-RESIDENTIAL FORECAST</b>	<b>2019-2028</b>	
	Forecast Change	
<b>Employment in New Space Growth</b>		350
<b>Non-Residential Building Space (sq.m)</b>		20,000

## **IV SUMMARY OF HISTORICAL CAPITAL SERVICE LEVELS**

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The *DCA* and *Ontario Regulation 82/98* require that the development charges be set at a level no higher than the average service level provided in the municipality over the ten-year period immediately preceding the preparation of the background study, on a service by service basis.

For non-engineered services (Protection, Parks and Recreation, etc.) the legislative requirement is met by documenting historical service levels for the preceding ten years, in this case, for the period 2009–2018. The service levels for non-engineered services are measured as a ratio of inputs per capita or per population plus employment.

*O. Reg. 82/98* requires that when determining historical service levels both quantity and quality of service be taken into consideration. In most cases, the service levels are initially established in quantitative terms. For example, service levels for buildings are presented in terms of square feet per capita. The qualitative aspect is introduced by the consideration of the monetary value of the facility or service. In the case of buildings, for example, the cost would be shown in terms of dollars per square foot to replace or construct a facility of the same quality. This approach helps to ensure that the development-related capital facilities that are to be charged to new development reflect not only the quantity (number and size) but also the quality (value or replacement cost) of service provided historically by the City. Both the quantitative and qualitative aspects of service levels used in the present analysis are based on information provided by City staff, and is based on historical records and their experience with costs to acquire or construct similar facilities, equipment and infrastructure.

Table 2 summarizes service levels for all applicable services included in the development charge calculation. Appendices B, C, D and E provide detailed historical inventory data upon which the calculation of service levels is based.

**TABLE 2**  
**CITY OF NORTH BAY**  
**HISTORICAL AVERAGE SERVICE LEVELS**

Service	Historical Average Service Level 2009 - 2018
<b>PARKS &amp; RECREATION</b>	<b>\$3,125.78 per capita</b>
- Indoor Recreation	\$1,650.17 per capita
- Park Development	\$647.04 per capita
- Park Facilities	\$393.45 per capita
- Outdoor Buildings and Rolling Stock & Equipment	\$435.12 per capita
<b>PROTECTION - FIRE &amp; POLICE</b>	<b>\$572.12 per pop and emp</b>
- Buildings	\$378.93 per pop and emp
- Land	\$12.15 per pop and emp
- Rolling Stock	\$120.92 per pop and emp
- Furniture & Equipment	\$60.12 per pop and emp
<b>PUBLIC WORKS</b>	<b>\$589.24 per pop and emp</b>
- Buildings	\$240.62 per pop and emp
- Land	\$186.65 per pop and emp
- Rolling Stock	\$149.66 per pop and emp
- Furniture & Equipment	\$12.31 per pop and emp
<b>ROADS AND RELATED</b>	<b>\$11,670.47 per pop and emp</b>
- Roads	\$10,446.31 per pop and emp
- Bridges and Culverts	\$501.92 per pop and emp
- Traffic Signals	\$146.76 per pop and emp
- Sidewalks	\$171.11 per pop and emp
- Rail Grade Separations	\$404.37 per pop and emp



## **V THE DEVELOPMENT-RELATED CAPITAL PROGRAM**

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### **A. A DEVELOPMENT-RELATED CAPITAL PROGRAM IS PROVIDED FOR COUNCIL'S APPROVAL**

The *DCA* requires the Council of a municipality to express its intent to provide future capital facilities at the level incorporated in the development charges calculation. 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.*

Based on the development forecasts summarized in Section III and detailed in Appendix A, City staff, in collaboration with the consultants developed a development-related capital program setting out those projects that are required to service anticipated development. For all municipal services, the capital plan covers the ten-year period from 2019–2028.

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

### **B. THE DEVELOPMENT-RELATED CAPITAL PROGRAM FOR GENERAL SERVICES**

A summary of the development-related capital forecast for general services is presented in Table 3.

CITY OF NORTH BAY  
SUMMARY OF GENERAL SERVICES DEVELOPMENT-RELATED CAPITAL PROGRAM  
2019-2028

Service	Gross Cost (\$000)	Grants/ Subsidies (\$000)	Capital Cost (\$000)	Total Net Capital Forecast (\$000)									
				2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
<b>1.0 GENERAL GOVERNMENT</b>	<b>\$760.0</b>	<b>\$0.0</b>	<b>\$760.0</b>	<b>\$360.0</b>	<b>\$100.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$50.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$250.0</b>	<b>\$0.0</b>	<b>\$0.0</b>
Development-Related Studies	\$760.0	\$0.0	\$760.0	\$360.0	\$100.0	\$0.0	\$0.0	\$50.0	\$0.0	\$0.0	\$250.0	\$0.0	\$0.0
<b>2.0 PARKS &amp; RECREATION</b>	<b>\$44,731.8</b>	<b>\$7,776.7</b>	<b>\$36,955.0</b>	<b>\$840.5</b>	<b>\$379.0</b>	<b>\$200.0</b>	<b>\$30,000.0</b>	<b>\$2,995.5</b>	<b>\$1,560.0</b>	<b>\$680.0</b>	<b>\$0.0</b>	<b>\$300.0</b>	<b>\$0.0</b>
Park Facilities	\$14,731.8	\$7,776.7	\$6,955.0	\$840.5	\$379.0	\$200.0	\$0.0	\$2,995.5	\$1,560.0	\$680.0	\$0.0	\$300.0	\$0.0
Buildings, Land and Furnishings	\$30,000.0	\$0.0	\$30,000.0	\$0.0	\$0.0	\$0.0	\$30,000.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
<b>3.0 PROTECTION - FIRE &amp; POLICE</b>	<b>\$1,005.0</b>	<b>\$25.0</b>	<b>\$980.0</b>	<b>\$430.0</b>	<b>\$150.0</b>	<b>\$150.0</b>	<b>\$250.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>
Buildings, Land & Furnishings	\$305.0	\$25.0	\$280.0	\$280.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Studies	\$100.0	\$0.0	\$100.0	\$0.0	\$0.0	\$0.0	\$100.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Specialized Equipment	\$600.0	\$0.0	\$600.0	\$150.0	\$150.0	\$150.0	\$150.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
<b>4.0 TRANSIT SERVICES</b>	<b>\$188.0</b>	<b>\$0.0</b>	<b>\$188.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$100.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$88.0</b>
Transit Infrastructure	\$188.0	\$0.0	\$188.0	\$0.0	\$0.0	\$0.0	\$100.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$88.0
<b>TOTAL - 10-YEAR GENERAL SERVICES</b>	<b>\$46,684.8</b>	<b>\$7,801.7</b>	<b>\$38,883.0</b>	<b>\$1,630.5</b>	<b>\$629.0</b>	<b>\$350.0</b>	<b>\$30,350.0</b>	<b>\$3,045.5</b>	<b>\$1,560.0</b>	<b>\$680.0</b>	<b>\$250.0</b>	<b>\$300.0</b>	<b>\$88.0</b>

The table provides a summary for all general services analysed over the ten-year period, 2019 to 2028. Further details on the capital plans for each individual service category are available in Appendix B, C and D.

The development-related capital program for general services estimates a total gross cost of \$46.68 million. Approximately, \$7.80 million in senior government grants, subsidies or other recoveries are expected to offset the cost of the program. Therefore, the net municipal cost of the capital program is \$38.88 million.

This capital forecast incorporates those projects identified to be related to development anticipated in the next 10 years. It is not implied that all of these costs are to be recovered from new development by way of development charges (see the following Section VI for the method and determination of net capital costs attributable to growth). Portions of this capital forecast may relate to providing servicing for development which has occurred prior to 2019 (for which development charge reserve fund balances exist), for replacement of existing capital facilities or for growth anticipated to occur beyond the 2019-2028 planning period. In addition, the amounts shown on Table 3 have not been reduced by 10 per cent for various or general services as mandated by s. 5 (1) 8. of the *DCA* .

Of the \$38.88 million in ten-year net municipal capital costs for general services, \$36.96 million (95 per cent) is related to the provision of Parks and Recreation Service. The new Twin Pad Arena and King's Landing Commercialization of the Waterfront are included in the capital program.

The development-related capital program for Protection - Fire & Police relates to the acquiring of new equipment and new fire master plan. The net municipal cost for this program totals to \$980,000 and represents 3 per cent of the net municipal capital costs for general services.

The development-related capital program for General Government which represents \$760,000 (2 per cent) of the capital program and provides for development-related studies, including commercial studies, Official Plan updates, and future development charges studies.

The development-related capital forecast for Transit Services totals about \$188,000 (0.5 per cent). The program includes the construction of new bus shelters and bicycle racks and storage equipment.

### **C. THE DEVELOPMENT-RELATED CAPITAL FORECAST FOR ENGINEERED SERVICES**

In addition to the development-related capital forecast for general services, Table 4 summarizes the capital programs for the engineered services of services.

The development-related capital forecast for engineered services totals \$215.24 million. Approximately, \$19.94 million in senior government grants, subsidies or other recoveries are expected to offset the cost of the program. Therefore, the net municipal cost of the capital program is \$195.29 million.

The roads and related capital program totals approximately \$90.18 million, or 46 per cent of the total net municipal cost. The anticipated roads and related works planned to 2028 include widening, reconstructions, extensions, signalization projects and related stormwater works.

Approximately 28 per cent of the engineered services capital program is associated with sanitary sewer services, with a net municipal cost of \$55.11 million. Development-related projects anticipated to 2028 include electrical upgrades and structural repairs to the wastewater treatment plant.

The capital program associated with water services totals \$49.17 million, or 25 per cent of the total program. The capital program provides for various watermain projects and linear infrastructure upgrades.

Finally, Public Works Service adds \$825,000, or 0.4 per cent to the capital program. This includes a public works storage structure, sidewalk plow and a new generator.

CITY OF NORTH BAY  
SUMMARY OF ENGINEERED SERVICES DEVELOPMENT-RELATED CAPITAL FORECAST  
2019-2028

Service	Gross Cost (\$000)	Grants/ Subsidies (\$000)	Net Capital Cost (\$000)	Total Net Capital Forecast (\$000)										
				2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	
<b>1.0 PUBLIC WORKS</b>	<b>\$825.0</b>	<b>\$0.0</b>	<b>\$825.0</b>	<b>\$575.0</b>	<b>\$250.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>
Buildings and Land	\$250.0	\$0.0	\$250.0	\$250.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Fleet and Equipment	\$575.0	\$0.0	\$575.0	\$325.0	\$250.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
<b>2.0 ROADS AND RELATED</b>	<b>\$101,435.6</b>	<b>\$11,254.6</b>	<b>\$90,181.1</b>	<b>\$14,902.7</b>	<b>\$7,500.5</b>	<b>\$3,785.5</b>	<b>\$3,675.5</b>	<b>\$4,485.5</b>	<b>\$12,065.5</b>	<b>\$7,055.5</b>	<b>\$4,905.5</b>	<b>\$13,619.0</b>	<b>\$18,185.5</b>	
Road Works (1)	\$100,011.6	\$11,254.6	\$88,757.1	\$14,760.3	\$7,358.1	\$3,643.1	\$3,533.1	\$4,343.1	\$11,923.1	\$6,913.1	\$4,763.1	\$13,476.6	\$18,043.1	
Active Transportation	\$1,424.0	\$0.0	\$1,424.0	\$142.4	\$142.4	\$142.4	\$142.4	\$142.4	\$142.4	\$142.4	\$142.4	\$142.4	\$142.4	
<b>3.0 WATER SERVICES</b>	<b>\$57,235.8</b>	<b>\$8,062.0</b>	<b>\$49,173.8</b>	<b>\$6,351.7</b>	<b>\$5,486.5</b>	<b>\$1,636.5</b>	<b>\$436.5</b>	<b>\$336.5</b>	<b>\$4,306.5</b>	<b>\$3,071.5</b>	<b>\$7,575.3</b>	<b>\$9,236.5</b>	<b>\$10,736.5</b>	
City-Wide Water Projects	\$56,685.8	\$8,062.0	\$48,623.8	\$6,051.7	\$5,236.5	\$1,636.5	\$436.5	\$336.5	\$4,306.5	\$3,071.5	\$7,575.3	\$9,236.5	\$10,736.5	
Equipment and Fleet	\$550.0	\$0.0	\$550.0	\$300.0	\$250.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	
<b>4.0 SANITARY SEWER</b>	<b>\$55,741.7</b>	<b>\$627.6</b>	<b>\$55,114.1</b>	<b>\$7,943.3</b>	<b>\$2,066.2</b>	<b>\$2,766.2</b>	<b>\$4,936.2</b>	<b>\$9,306.2</b>	<b>\$8,446.2</b>	<b>\$10,096.2</b>	<b>\$1,591.2</b>	<b>\$2,806.2</b>	<b>\$5,156.2</b>	
City-Wide Sanitary Sewer Projects	\$55,566.7	\$627.6	\$54,939.1	\$7,768.3	\$2,066.2	\$2,766.2	\$4,936.2	\$9,306.2	\$8,446.2	\$10,096.2	\$1,591.2	\$2,806.2	\$5,156.2	
Equipment and Fleet	\$175.0	\$0.0	\$175.0	\$175.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	
<b>TOTAL 10-YEAR ENGINEERED SERVICES</b>	<b>\$215,238.2</b>	<b>\$19,944.2</b>	<b>\$195,294.0</b>	<b>\$29,772.7</b>	<b>\$15,303.2</b>	<b>\$8,188.2</b>	<b>\$9,048.2</b>	<b>\$14,128.2</b>	<b>\$24,818.2</b>	<b>\$20,223.2</b>	<b>\$14,072.0</b>	<b>\$25,661.7</b>	<b>\$34,078.2</b>	

## **VI PROPOSED DEVELOPMENT CHARGES ARE CALCULATED IN ACCORDANCE WITH THE *DCA***

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This section summarizes the calculation of development charges for each service category and the resulting total development charge by type of development. For all City-wide services, the calculation of the “unadjusted” per capita (residential) and per square metre (non-residential) charges is reviewed. Adjustments to these amounts resulting from a cash flow analysis that takes interest earnings and borrowing costs into account are also discussed.

For residential development, the adjusted total per capita amount is then converted to a variable charge by housing unit type using various unit occupancy factors. For non-residential development, the charges are based on gross floor area (GFA) of building space.

It is noted that the calculation of the City-wide development charges does not include any provision for exemptions required under the *DCA*, such as the exemption for enlargements of up to 50 per cent on existing industrial buildings. Such legislated exemptions, or other exemptions that Council may choose to provide, will result in loss of development charge revenue for the affected types of development. However, any such revenue loss may not be made up by offsetting increases in other portions of the calculated charge.

### **A. UNADJUSTED DEVELOPMENT CHARGE CALCULATION FOR CITY-WIDE SERVICES**

A summary of the “unadjusted” residential and non-residential development charges for City-wide services is presented in Tables 5 and 6. The totals in the table separate the general services from the engineered services. Further details of the calculations for each individual City Service category are available in Appendix B for General Government and Parks and Recreation services, Appendix C for Protection Services, Appendix D for Transit and Appendix E for Engineered services.

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TABLE 5

CITY OF NORTH BAY  
SUMMARY OF UNADJUSTED RESIDENTIAL AND NON-RESIDENTIAL DEVELOPMENT CHARGES  
GENERAL SERVICES 2019-2028

10-Year Population in New Dwelling Units	1,895
10-Year Growth in Square Metres	20,000

	Development-Related Capital Forecast						Residential Share		Non-Residential Share	
	Total (Net of Grants/ Subsidies) (\$000)	Replacement/ Benefit to Existing Share (\$000)	Statutory Reduction (\$000)	Available DC Reserve Funds (\$000)	Post 2028 Growth (\$000)	Development-Related Net Capital Costs 2019-2028 (\$000)	%	\$000	%	\$000
<b>1.0 GENERAL GOVERNMENT</b>	\$760.0	\$330.0	\$43.0	\$218.4	\$168.6	\$0.0	85%	\$0.0	15%	\$0.0
Unadjusted Development Charge Per Capita								\$0.00		
Unadjusted Development Charge Per Sq.M										\$0.00
<b>2.0 PARKS &amp; RECREATION</b>	\$36,955.0	\$16,773.0	\$2,018.2	\$434.7	\$16,597.0	\$1,132.1	100%	\$1,132.1	0%	\$0.0
Unadjusted Development Charge Per Capita								\$597.48		
Unadjusted Development Charge Per Sq.M										\$0.00
<b>3.0 PROTECTION - FIRE &amp; POLICE</b>	\$980.0	\$190.0	\$0.0	\$420.2	\$0.0	\$369.8	85%	\$314.4	15%	\$55.5
Unadjusted Development Charge Per Capita								\$165.91		
Unadjusted Development Charge Per Sq.M										\$2.77
<b>4.0 TRANSIT SERVICES</b>	\$188.0	\$66.0	\$0.0	\$5.3	\$0.0	\$116.7	85%	\$99.2	15%	\$17.5
Unadjusted Development Charge Per Capita								\$52.37		
Unadjusted Development Charge Per Sq.M										\$0.88
<b>TOTAL 10-YEAR GENERAL SERVICES</b>	<b>\$38,883.0</b>	<b>\$17,359.0</b>	<b>\$2,061.2</b>	<b>\$1,078.6</b>	<b>\$16,765.6</b>	<b>\$1,618.7</b>		<b>\$1,545.7</b>		<b>\$73.0</b>
<b>Unadjusted Development Charge Per Capita</b>								<b>\$815.76</b>		
<b>Unadjusted Development Charge Per Sq.M</b>										<b>\$3.65</b>

CITY OF NORTH BAY  
SUMMARY OF UNADJUSTED RESIDENTIAL AND NON-RESIDENTIAL DEVELOPMENT CHARGES  
ENGINEERED SERVICES 2019-2028

10-Year Population in New Dwelling Units	1,895
10-Year Growth in Square Metres	20,000

	Development-Related Capital Forecast						Residential Share		Non-Residential Share	
	Total (Net of Grants/ Subsidies) (\$000)	Replacement/ Benefit to Existing Share (\$000)	Statutory Reduction (\$000)	Available DC Reserve Funds (\$000)	Post 2028 Growth (\$000)	Development-Related Net Capital Costs 2019-2028 (\$000)	%	\$000	%	\$000
<b>1.0 PUBLIC WORKS</b>	\$825.0	\$187.5	\$0.0	\$60.6	\$123.2	\$453.7	85%	\$385.7	15%	\$68.1
Unadjusted Development Charge Per Capita								\$203.54		
Unadjusted Development Charge Per Sq.M										\$3.40
<b>2.0 ROADS AND RELATED</b>	\$90,181.1	\$52,664.9	\$0.0	\$1,214.5	\$31,465.8	\$4,835.8	85%	\$4,110.5	15%	\$725.4
Unadjusted Development Charge Per Capita								\$2,169.38		
Unadjusted Development Charge Per Sq.M										\$36.27
<b>3.0 WATER SERVICES</b>	\$49,173.8	\$25,141.9	\$0.0	\$542.7	\$20,679.1	\$2,810.2	85%	\$2,388.6	15%	\$421.5
Unadjusted Development Charge Per Capita								\$1,260.65		
Unadjusted Development Charge Per Sq.M										\$21.08
<b>4.0 SANITARY SEWER</b>	\$55,114.1	\$29,046.1	\$0.0	\$608.5	\$21,167.1	\$4,292.4	85%	\$3,648.5	15%	\$643.9
Unadjusted Development Charge Per Capita								\$1,925.59		
Unadjusted Development Charge Per Sq.M										\$32.19
<b>TOTAL 10-YEAR ENGINEERED SERVICES</b>	<b>\$195,294.0</b>	<b>\$107,040.4</b>	<b>\$0.0</b>	<b>\$2,426.4</b>	<b>\$73,435.2</b>	<b>\$12,392.1</b>		<b>\$10,533.3</b>		<b>\$1,858.8</b>
Unadjusted Development Charge Per Capita								<b>\$5,559.16</b>		
Unadjusted Development Charge Per Sq.M										<b>\$92.94</b>



## 1. General Services

A summary of the “unadjusted” residential and non-residential development charges for the City-wide general services is presented in Table 5.

The capital forecast for the general services incorporates those projects identified to be related to development anticipated in the next ten years. However, not all of the capital costs are to be recovered from new development by way of development charges. Table 5 shows that \$17.36 million of the capital forecast relates to replacement of existing capital facilities or for shares of projects that provide benefit to the existing community. This amount results from the replacement portion of the New Arena and shares of development-related studies. These portions of capital costs will have to be funded from non-development charge revenue sources.

An additional share of \$1.08 million has been identified as available development charges reserves and represents the revenue collected from previous development charges. This portion has been netted out of the chargeable capital costs. Another share of the forecast, \$16.76 million, is attributable to development beyond the 2028 period (and may therefore be recovered under future development charge studies).

The DCA, s. 5 (1) 8 requires that development-related net capital costs for general services be reduced by 10 per cent in calculating the applicable development charge. The discount does not apply to the Protection Services or Transit Services. The 10 per cent share of development-related net capital costs not included in the development charge calculations must be funded from non-development charge sources. In total, about \$2.06 million is identified as the required 10 per cent reduction.

The total costs eligible for recovery through development for general services is \$1.62 million. This amount is allocated between the residential and non-residential sectors to derive the unadjusted development charges. Parks and Recreation Services are deemed to benefit residential development only, while the remaining services are allocated between both sectors based on shares of population in new units and employment growth. Approximately \$1.55 million of the general services development charges eligible capital program is deemed to benefit residential development. When this amount is divided by the ten-year growth in population in new dwelling units (1,895) an unadjusted charge of \$815.76 per capita is the result. The non-residential share of the general services capital program totals \$73,000 and when this amount is divided by the ten-year forecast of non-residential space growth (20,000 square metres) an unadjusted charge of \$3.65 per square metre is the result.

## 2. Engineered Services

Table 6 describes the calculation of the unadjusted rates for Engineered Services: Services Related to a Highway of Public Works and Roads and Related, Water and Sanitary Sewer.

Not all of the net municipal costs are to be recovered from new development by way of development charges. Table 6 shows that \$107.04 million of the capital programs relate to replacement of existing capital works or for shares of projects that provide benefit to the existing community. This amount has been netted off the chargeable capital cost. Another deduction is made to account for development charges collected from prior growth (\$2.43 million) and will be funded by available DC reserves. A post period share in the amount of \$73.44 million is also netted off of the development-related costs, as it is deemed to benefit development occurring beyond 2028.

The remaining \$12.39 million is related to development in the 2019-2028 period and has been included in the development charge calculation.

Like the general services, the capital program eligible for recovery through development charges is allocated to the residential and non-residential sectors based on future shares of population in new units and employment growth over the planning period to 2028. On this basis, the allocation to the residential and non-residential sectors is calculated at 85 per cent and 15 per cent, respectively. The residential sector's "unadjusted" development charge is calculated at \$5,559.16 per capita.

The non-residential development sector's share results in an "unadjusted" development charge of \$92.94 per square metre.

### **3. Adjusted rates for City-Wide Residential and Non-Residential Development Charges**

Final adjustments to the "unadjusted" development charge rates summarized above are made through a cash flow analysis. The analysis, details of which are included in the Appendices, considers the borrowing cost and interest earnings associated with the timing of expenditures and development charge receipts for each service.

Tables 7 and 8 summarize the results of the adjustments for the residential and non-residential components of the City-wide rates respectively. As shown on Table 7, the adjusted per capita rate for discounted services of General Government and Parks & Recreation increases from \$597 to \$632 after the cash flow analysis. For the non-discounted and engineered services, the charge increases after the cash flow analysis, from \$5,777 to \$6,087 per capita. Residential City-wide development charges are proposed to vary by dwelling unit type to reflect their different occupancy patterns and resulting demand for services.

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TABLE 7

CITY OF NORTH BAY  
CITY-WIDE DEVELOPMENT CHARGES  
RESIDENTIAL DEVELOPMENT CHARGES

SERVICE	Unadjusted Charge Per Capita	Adjusted Charge Per Capita	Charge By Unit Type (1)			
			Detached & Semi-Detached	Multiples	Apartments	Rural Area
<b>Discounted Services</b>						
General Government	\$0	\$0	\$0	\$0	\$0	\$0
Parks & Recreation	\$597	\$632	\$1,953	\$1,504	\$998	\$1,953
<b>Sub-Total Discounted Services</b>	<b>\$597</b>	<b>\$632</b>	<b>\$1,953</b>	<b>\$1,504</b>	<b>\$998</b>	<b>\$1,953</b>
<b>Non-Discounted Services</b>						
Transit Services	\$52	\$51	\$157	\$121	\$80	\$157
Protection - Fire & Police	\$166	\$180	\$555	\$428	\$284	\$555
Public Works	\$204	\$238	\$736	\$567	\$377	\$736
Roads And Related	\$2,169	\$2,255	\$6,967	\$5,366	\$3,563	\$6,967
Water Services	\$1,261	\$1,321	\$4,081	\$3,143	\$2,087	\$0
Sanitary Sewer	\$1,926	\$2,042	\$6,311	\$4,861	\$3,227	\$0
<b>Sub-Total Non-Discounted Services</b>	<b>\$5,777</b>	<b>\$6,087</b>	<b>\$18,807</b>	<b>\$14,486</b>	<b>\$9,618</b>	<b>\$8,415</b>
<b>TOTAL DEVELOPMENT CHARGE PER UNIT</b>	<b>\$6,375</b>	<b>\$6,719</b>	<b>\$20,760</b>	<b>\$15,990</b>	<b>\$10,616</b>	<b>\$10,368</b>
(1) Persons Per Unit Factors:			3.09	2.38	1.58	

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**TABLE 8**

**CITY OF NORTH BAY  
 CITY-WIDE DEVELOPMENT CHARGES  
 NON-RESIDENTIAL DEVELOPMENT CHARGES**

<b>SERVICE</b>	<b>Unadjusted Charge per Sq.M</b>	<b>Adjusted Charge per Sq.M</b>
<b>Discounted Services</b>		
General Government	\$0.00	\$0.00
Parks & Recreation	\$0.00	\$0.00
<b>Sub-Total Discounted Services</b>	<b>\$0.00</b>	<b>\$0.00</b>
<b>Non-Discounted Services</b>		
Transit Services	\$0.88	\$0.85
Protection - Fire & Police	\$2.77	\$3.01
Public Works	\$3.40	\$3.98
Roads And Related	\$36.27	\$37.65
Water Services	\$21.08	\$22.05
Sanitary Sewer	\$32.19	\$34.11
<b>Sub-Total Non-Discounted Services</b>	<b>\$96.59</b>	<b>\$101.65</b>
<b>TOTAL DEVELOPMENT CHARGE PER SQ.M</b>	<b>\$96.59</b>	<b>\$101.65</b>
<i>TOTAL DEVELOPMENT CHARGE PER SQ.FT</i>	<i>\$ 8.97</i>	<i>\$ 9.44</i>

As shown in the table, the proposed residential charge for City services ranges from \$10,368 for units in the designated rural area to \$20,760 for single detached and semi-detached units. The proposed charge for multiple units is \$15,990, and \$10,616 for apartments.

Table 8 shows that the adjusted rate for non-residential development increases slightly from \$96.59 to \$101.65 per square metre or \$8.97 per square foot to \$9.44 per square foot.

## **VII COMPARISON OF CALCULATED AND CURRENT DEVELOPMENT CHARGES**

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Tables 9 and 10 present a comparison of total proposed City-wide development charges for a single/semi-detached housing unit and per square metre respectively with the City's existing charges.

Table 9 shows that the calculated charge per single/semi detached unit of \$20,760 will produce an increase of \$10,946, or 112 per cent, over the present development charge.

Table 10 shows the calculated charge for the non-residential sector. The calculated charge of \$101.65 per square metre represents an increase of about 39 per cent (\$28.78) from the existing rate of \$72.87.

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TABLE 9

CITY OF NORTH BAY  
COMPARISON OF CURRENT AND CALCULATED  
RESIDENTIAL DEVELOPMENT CHARGES

SERVICE	Current Residential SDU Charge	Calculated Residential SDU Charge	Difference in Charge	
<b>Discounted Services</b>				
General Government	\$0	\$0	\$0	0%
Parks & Recreation	\$895	\$1,953	\$1,058	118%
<b>Sub-Total Discounted Services</b>	<b>\$895</b>	<b>\$1,953</b>	<b>\$1,058</b>	<b>118%</b>
<b>Non-Discounted Services</b>				
Transit Services	\$32	\$157	\$125	391%
Protection - Fire & Police	\$644	\$555	(\$89)	-14%
Public Works	\$307	\$736	\$429	140%
Roads And Related	\$2,000	\$6,967	\$4,967	248%
Water Services	\$2,914	\$4,081	\$1,167	40%
Sanitary Sewer	\$3,022	\$6,311	\$3,289	109%
<b>Sub-Total Non-Discounted Services</b>	<b>\$8,919</b>	<b>\$18,807</b>	<b>\$9,888</b>	<b>111%</b>
<b>TOTAL DEVELOPMENT CHARGE PER UNIT</b>	<b>\$9,814</b>	<b>\$20,760</b>	<b>\$10,946</b>	<b>112%</b>

TABLE 10

**CITY OF NORTH BAY  
COMPARISON OF CURRENT AND CALCULATED  
NON-RESIDENTIAL DEVELOPMENT CHARGES**

SERVICE	Current Non-Residential Charge per Sq.M	Calculated Non-Residential Charge per Sq.M	Difference in Charge	
<b>Discounted Services</b>				
General Government	\$0.00	\$0.00	\$0.00	-
Parks & Recreation	\$0.00	\$0.00	\$0.00	-
<b>Sub-Total Discounted Services</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>-</b>
<b>Non-Discounted Services</b>				
Transit Services	\$0.32	\$0.85	\$0.53	163%
Protection - Fire & Police	\$5.27	\$3.01	(\$2.26)	-43%
Public Works	\$2.48	\$3.98	\$1.50	61%
Roads And Related	\$16.36	\$37.65	\$21.29	130%
Water Services	\$23.90	\$22.05	(\$1.85)	-8%
Sanitary Sewer	\$24.54	\$34.11	\$9.57	39%
<b>Sub-Total Non-Discounted Services</b>	<b>\$72.87</b>	<b>\$101.65</b>	<b>\$28.78</b>	<b>39%</b>
<b>TOTAL DEVELOPMENT CHARGE PER SQ.M</b>	<b>\$72.87</b>	<b>\$101.65</b>	<b>\$28.78</b>	<b>39%</b>
<i>TOTAL DEVELOPMENT CHARGE PER SQ.FT</i>	<i>\$6.77</i>	<i>\$9.44</i>	<i>\$2.67</i>	<i>39%</i>



## VIII LONG-TERM CAPITAL AND OPERATING COSTS

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This section provides a brief examination of the long-term capital and operating costs for the capital facilities and infrastructure to be included in the development charges by-law. This examination is required as one of the features of the *Development Charges Act, 1997*.

### A. NET OPERATING COSTS FOR THE CITY'S SERVICES ESTIMATED TO INCREASE OVER THE FORECAST PERIOD

Table 11 summarizes the estimated increase in net operating costs that the City will experience for additions associated with the planned capital program.

As shown in Table 11, by 2028, the City's net operating costs are estimated to increase by \$703,600 annually. Overall, increases in net operating costs will be experienced as new facilities and infrastructure are emplaced and acquired. Operating and maintenance costs will also increase as additions to the City's road network are made. The net operating costs are estimated for the purposes of this study and will be amended as more detailed analyses are completed.

### B. LONG-TERM CAPITAL FINANCING FROM NON-DEVELOPMENT CHARGE SOURCES TOTALS \$126.46 MILLION

Table 11 also summarizes the components of the development-related capital program that will require funding from non-development charge sources as discussed in Section VI. In total \$126.46 million will need to be financed from non-development charge sources over the next ten years. This includes about \$2.06 million in respect of the mandatory ten per cent discount required by the *DCA* for eligible discounted services and about \$124.40 million for shares of projects related to capital replacement and for non-growth shares of projects that provide benefit to the existing community.

In addition, \$90.20 million in interim financing may be required for projects related to growth in the post-2028 period. Because the by-law must be revisited at least every five years, it is difficult to determine the quantum of interim financing that may be required. Appendix G provides a breakdown of the non-development charge financing requirements by service.

**TABLE 11**  
**CITY OF NORTH BAY**  
**SUMMARY OF LONG TERM CAPITAL AND**  
**OPERATING COST IMPACTS FOR GENERAL SERVICES**  
(in thousands of constant dollars)

Cumulative Net Operating Impacts	2028
<b>NET OPERATING IMPACTS (1)</b>	
GENERAL GOVERNMENT	\$0.0
PARKS & RECREATION	\$380,000.0
PROTECTION - FIRE & POLICE	\$90,500.0
TRANSIT SERVICES	\$9,400.0
PUBLIC WORKS	\$82,500.0
ROADS AND RELATED	\$141,200.0
WATER SERVICES	\$0.0
SANITARY SEWER	\$0.0
<b>NET OPERATING IMPACTS</b>	<b>\$703,600.0</b>

Cumulative Long-Term Capital Impacts	2028	Total
<b>LONG-TERM CAPITAL IMPACTS</b>		
Total Net Cost	\$34,166.2	\$234,177.0
Net Cost From Development Charges	\$502.8	\$14,010.8
Prior Growth Share from DC Reserve Balances (2)	\$19.3	\$3,504.9
Portion for Post 2028 Growth (3)	\$26,065.0	\$90,200.7
<b>Funding From Non-DC Sources</b>		
- Discount Portion	\$0.0	\$2,061.2
- Replacement	\$7,579.2	\$124,399.4
<b>FUNDING FROM NON-DC SOURCES</b>	<b>\$7,579.2</b>	<b>\$126,460.6</b>

## Notes:

(1) See Appendix G.

(2) Existing development charge reserve fund balances collected from growth prior to 2019 are applied to fund initial projects in growth-related capital forecast.

(3) Post 2028 growth-related net capital costs may be eligible for development charge funding in future DC by-laws.

*Note: Only tax supported operating cost impacts are shown in this table. Additional operating costs for rate supported services (water, sanitary sewer) are assumed to be recovered through future rate increases.*

## **IX DEVELOPMENT CHARGES ADMINISTRATION**

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No significant changes are recommended to the City's current policies and practices regarding development charge administration. In this regard:

- 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 City should codify any rules regarding application of the by-law and exemptions within the development charges by-law 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 City's normal capital budget process.
- The City consider levying:
  - No charge for an entry level detached and semi-detached rate (for units 1,200 square feet or less); and
  - A charge for detached and semi-detached units (for units greater than 1,200 square feet but less than 1,500 square feet) equivalent to 50% of the detached and semi-detached rate (currently the rate is 60% of the detached and semi-detached rate).

## APPENDIX A

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### *DEVELOPMENT FORECAST*

## APPENDIX A

### DEVELOPMENT FORECAST

This appendix provides details of the development forecast used to prepare the 2019 Development Charges Background Study for the City of North Bay. The appendix provides a review of the forecast methods as well as key inputs and assumptions. The forecast results are provided in a series of tables.

#### A. FORECAST APPROACH AND KEY ASSUMPTIONS

The *Development Charges Act* (DCA) requires the City as part of its development charge background study, to estimate “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 and be specific enough with regards to the quantum, type, location and timing of such development to allow the City to prepare a reasonable development-related capital program. In this study, a ten-year planning period from 2019 to 2028 has been used to calculate development charges for all municipal services.

The City’s residential and non-residential development forecast is based on development that is anticipated to occur in areas that have been designated for development in the City’s Official Plan.

In 2019 Hemson Consulting, on behalf of the City completed a *Growth Forecast to 2046* (2019 Forecast Report). The report includes forecasts of population, dwelling units and employment for the City to 2046. The ten-year development forecasts from 2019 to 2028 used in this DC Study are based on the 2019 Forecast Report. The long-term 2046 growth forecast targets in the 2019 Forecast Report remain unchanged in this study.

#### B. HISTORICAL DEVELOPMENT IN THE CITY

The City has experienced periods of population and employment growth and decline. Historical growth and development figures presented here are based on Statistics Canada Census data supported by additional data sources such as building permits. A “Census-based” definition of population is used for the purposes of the DC Study. This definition does not include the Census net undercoverage, which is typically included in the definition of “total” population commonly used in municipal

planning documents. For development charges purposes, a ten-year historical period of 2009 to 2018 is used for calculating historical service levels. Since 2016 was the last year of the Census, figures for 2018 and 2019 are estimated.

Table 1 shows that the overall population declined across the City over the historical period from 2009 to 2018. The population in the City decreased by 2,163 with the majority of the decline occurring between 2012 to 2016. Following the decline the population, occupied dwellings and employment have been increasing modestly following 2016.

Total employment numbers used in Table 1 are based on Statistics Canada place of work data. Place of work employment figures record where people work rather than their place of residence. The employment figures shown in this table include workers with no fixed address. Table 1 shows that the City's employment decreased over the last decade, from about 30,845 jobs in 2009 to 28,459 jobs in 2018 – the decrease can also be attributed to the general economic downturn following 2008 recession.

Table 2 provides details on historical occupancy patterns in the City of North Bay. The overall average occupancy level in the City is 2.23 persons per dwelling unit (PPU). Occupancy levels for recently constructed units (2006-2016) are higher than the overall average, which shows PPU's in all units constructed in the City. The average PPU for single and semi-detached units built in the City in the period 2006-2016 is 3.09. As data regarding recently constructed units (2006-2016) is limited for row housing and apartments, the overall average PPU's of 2.38 and 1.58 respectively are used in this study.

## **C. FORECAST METHOD AND RESULTS**

The forecast described herein is consistent with governing legislation and represents a best estimate of the amount and type of development that is likely to occur. The forecasts are premised on the City achieving population and employment targets outlined in the 2019 Forecast Report. Population and dwelling unit forecast numbers are presented in Table 2.

### **1. Residential Forecast**

The residential forecast is based on a forecast of new dwelling units and population in the City. The allocation of development related capital costs between the residential and non-residential sector is based on forecasts of population in new dwelling units and employment. The population in new housing units was estimated based Statistics

Canada special run of data on occupancy patterns of household unit types by period of construction.

Over the ten-year planning period from 2019-2028, the total number of occupied dwelling units is forecast to increase by 706 units (Table 3 and 4). These 706 units will generate population growth in new units of 1,895 (Table 5). The population growth in new dwelling units is estimated by applying the following PPUs to the dwelling unit forecast: 3.09 for single and semi-detached units; 2.38 for rows and other multiples; and 1.58 for apartments.

## **2. Non-Residential Forecast**

Development charges are levied on non-residential development as a charge per unit of Gross Floor Area (GFA). As with the residential forecast, the non-residential forecast requires both a projection of employment growth, as well as a projection of the employment growth associated with new floor space in the City. As with the residential forecast, the GFA forecast covers the ten year period from 2019 to 2028 for all municipal services.

The employment and floor space forecast for the City is summarized in Table 6. Total employment in new space is forecast to grow by 350 employees over the ten-year forecast period from 2019 to 2028 and these employees are anticipated to be accommodated in 20,000 square metres over the same period. No additional floor space has been calculated for employees that work at home. This is due to the nature of this type of employment and the assumption that employees in this sector are not likely to generate additional floor space or place additional demand on municipal servicing.

**APPENDIX A - TABLE 1  
CITY OF NORTH BAY  
HISTORICAL POPULATION, OCCUPIED DWELLINGS & EMPLOYMENT SUMMARY**

Mid-Year	Census Population	Growth	Occupied Dwellings	Annual Growth	Av. Household Size (PPU)	Place of Work Employment	Annual Growth	Activity Rate
2009	53,780	-62	22,983	132	2.34	30,845	371	57.4%
2010	53,718	-62	23,116	133	2.32	31,220	375	58.1%
<b>2011</b>	<b>53,655</b>	<b>-63</b>	<b>23,250</b>	<b>134</b>	<b>2.31</b>	<b>31,600</b>	<b>380</b>	<b>58.9%</b>
2012	53,227	-428	23,116	-134	2.30	30,938	-662	58.1%
2013	52,803	-424	22,983	-133	2.30	30,290	-648	57.4%
2014	52,382	-421	22,851	-132	2.29	29,655	-635	56.6%
2015	51,964	-418	22,720	-131	2.29	29,034	-621	55.9%
<b>2016</b>	<b>51,550</b>	<b>-414</b>	<b>22,590</b>	<b>-130</b>	<b>2.28</b>	<b>28,425</b>	<b>-609</b>	<b>55.1%</b>
2017	51,614	64	22,660	70	2.28	28,442	17	55.1%
2018	51,679	65	22,730	70	2.27	28,459	17	55.1%
Growth 2009-2018		-2,163		-121			-2,015	

Source: Statistics Canada, Census of Canada and CMHC Housing Completion Data

Note\*: Total employment Includes workers with No Fixed Address, but excludes work at home employment.

Note: Activity Rate represents the ratio between total employment and Census population.



APPENDIX A - TABLE 2  
CITY OF NORTH BAY  
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	Pre 2006	2006-2016	Total
<b>Singles/Semis</b>													
Household Population	3,810	6,910	5,720	6,655	4,765	1,530	955	990	1,315	860	31,335	2,175	33,510
Households	1,655	3,080	2,395	2,600	1,735	555	335	335	445	260	12,690	705	13,395
Household Size	2.30	2.24	2.39	2.56	2.75	2.76	2.85	2.96	2.96	3.31	2.47	3.09	2.50
<b>Rows</b>													
Household Population	125	410	930	1,025	805	430	250	70	100	95	4,045	195	4,240
Households	65	160	370	445	325	170	100	30	80	40	1,665	120	1,785
Household Size	1.92	2.56	2.51	2.30	2.48	2.53	2.50	2.33	N/A	2.38	2.43	1.63	2.38
<b>Apartments (no duplex)</b>													
Household Population	1,045	1,370	1,575	1,985	1,835	730	475	95	125	95	9,110	220	9,330
Households	695	815	1,030	1,260	1,180	420	270	70	100	65	5,740	165	5,905
Household Size	1.50	1.68	1.53	1.58	1.56	1.74	1.76	1.36	1.25	1.46	1.59	1.33	1.58
<b>Duplex</b>													
Household Population	620	790	585	585	340	75	40	65	50	60	3,100	110	3,210
Households	300	370	275	295	160	25	25	35	20	20	1,485	40	1,525
Household Size	2.07	2.14	2.13	1.98	2.13	3.00	1.60	1.86	2.50	3.00	2.09	2.75	2.10
<b>All Units</b>													
Household Population	4,980	8,690	8,225	9,665	7,405	2,690	1,680	1,155	1,540	1,050	44,490	2,590	47,080
Households	2,415	4,055	3,795	4,305	3,240	1,145	705	435	625	365	20,095	990	21,085
Household Size	2.06	2.14	2.17	2.25	2.29	2.35	2.38	2.66	2.46	2.88	2.21	2.62	2.23

Source: Statistics Canada, 2016 Census Special Run

**APPENDIX A - TABLE 3  
CITY OF NORTH BAY  
FORECAST POPULATION & DWELLING UNITS SUMMARY**

Mid-Year	Census Population	Total Occupied Dwellings			
		Single/Semi	Multiples	Apartments	Total
<b>2016</b>	<b>51,550</b>	<b>14,851</b>	<b>3,138</b>	<b>4,602</b>	<b>22,590</b>
2017	51,614	14,897	3,147	4,616	22,660
2018	51,679	14,943	3,157	4,630	22,730
2019	51,744	14,989	3,167	4,644	22,800
2020	51,809	15,035	3,176	4,659	22,870
<b>2021</b>	<b>51,873</b>	<b>15,081</b>	<b>3,186</b>	<b>4,673</b>	<b>22,940</b>
2022	51,914	15,127	3,196	4,687	23,010
2023	51,955	15,173	3,206	4,701	23,080
2024	51,996	15,219	3,215	4,716	23,150
2025	52,037	15,265	3,225	4,730	23,220
<b>2026</b>	<b>52,079</b>	<b>15,311</b>	<b>3,235</b>	<b>4,744</b>	<b>23,290</b>
2027	52,089	15,359	3,245	4,759	23,363
2028	52,099	15,407	3,255	4,774	23,436

Source: Hemson Consulting Ltd., 2019

Source: Forecast based upon projections outlined in the City of North Bay Growth Forecast to 2046, May 2009

Note: Total employment forecast includes No Fixed Address Employment

**APPENDIX A - TABLE 4  
CITY OF NORTH BAY  
GROWTH IN HOUSEHOLDS BY UNIT TYPE**

Mid-Year	Occupied Households				Shares By Unit Type			
	Singles/Semis	Rows	Apartments	Total	Singles/Semis	Rows	Apartments	Total
2019	46	10	14	70	66%	14%	20%	100%
2020	46	10	14	70	66%	14%	20%	100%
<b>2021</b>	<b>46</b>	<b>10</b>	<b>14</b>	<b>70</b>	66%	14%	20%	100%
2022	46	10	14	70	66%	14%	20%	100%
2023	46	10	14	70	66%	14%	20%	100%
2024	46	10	14	70	66%	14%	20%	100%
2025	46	10	14	70	66%	14%	20%	100%
<b>2026</b>	<b>46</b>	<b>10</b>	<b>14</b>	<b>70</b>	66%	14%	20%	100%
2027	48	10	15	73	66%	14%	20%	100%
2028	48	10	15	73	66%	14%	20%	100%
Growth 2019-2028	464	98	144	706				

Source: Hemson Consulting Ltd., 2019

**APPENDIX A - TABLE 5  
CITY OF NORTH BAY  
FORECAST POPULATION IN NEW HOUSEHOLD BY UNIT TYPE**

Mid-Year	Persons Per Unit				Population Forecast			
	Singles/Semis	Rows	Apartments	Total	Singles/Semis	Rows	Apartments	Total
2019	3.09	2.38	1.58	2.68	142	23	23	188
2020	3.09	2.38	1.58	2.68	142	23	23	188
<b>2021</b>	<b>3.09</b>	<b>2.38</b>	<b>1.58</b>	<b>2.68</b>	<b>142</b>	<b>23</b>	<b>23</b>	<b>188</b>
2022	3.09	2.38	1.58	2.68	142	23	23	188
2023	3.09	2.38	1.58	2.68	142	23	23	188
2024	3.09	2.38	1.58	2.68	142	23	23	188
2025	3.09	2.38	1.58	2.68	142	23	23	188
<b>2026</b>	<b>3.09</b>	<b>2.38</b>	<b>1.58</b>	<b>2.68</b>	<b>142</b>	<b>23</b>	<b>23</b>	<b>188</b>
2027	3.09	2.38	1.58	2.68	148	24	23	196
2028	3.09	2.38	1.58	2.68	148	24	23	196
Growth 2019-2028	3.09	2.38	1.58	2.68	1,434	233	227	1,895

**APPENDIX A - TABLE 6  
CITY OF NORTH BAY  
NON-RESIDENTIAL GROWTH FORECAST**

Mid-Year	<u>Employment in new Space Growth</u>	
	Empl Growth	Space (m <sup>2</sup> )
2019	35	2,000
2020	35	2,000
<b>2021</b>	<b>35</b>	<b>2,000</b>
2022	35	2,000
2023	35	2,000
2024	35	2,000
2025	35	2,000
<b>2026</b>	<b>35</b>	<b>2,000</b>
2027	35	2,000
2028	35	2,000
Growth 2019-2028	350	20,000

*Note: Employment forecast includes No Fixed Address Employment*

## **APPENDIX B**

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### ***GENERAL SERVICES TECHNICAL APPENDIX***

## APPENDIX B

### GENERAL SERVICES TECHNICAL APPENDIX

The following two appendices provide the detailed analysis undertaken to establish the development charge rates for each of the general services in North Bay:

Appendix B.1	General Government
Appendix B.2	Parks and Recreation Services

The tables provide the background data and analysis undertaken to arrive at the calculated development charge rates for that particular service. An overview of the content and purpose of each of the tables is provided below. Historical service levels are not required for General Government. Under this Study, these two categories form the discounted services component of the rates as shown in Tables 7-10 (pages 24, 25, 28 and 29).

#### TABLE 1 HISTORICAL SERVICE LEVELS

Table 1 presents the data used to determine the ten-year historical service level. The *DCA* and *Ontario Regulation 82/98* require that development charges be set at a level no higher than the average service level provided in the municipality over the ten-year period immediately preceding the preparation of the background study, on a service by service basis. For the purpose of this study, the historical inventory period is defined as 2009–2018.

*O. Reg. 82/98* requires when defining and determining historical service levels, both the quantity and quality of service be taken into consideration. In most cases, the service levels are initially established in quantitative terms. For example, service levels for buildings are presented in terms of square feet. The qualitative aspect is introduced by considering the monetary value of the facility or service. In the case of buildings, for example, the cost would be shown in terms of cost per square foot to replace or construct a facility of the same quality. This approach helps to ensure that the development-related capital facilities that are to be funded by new growth reflect not only the quantity (number and size), but also the quality (replacement value or cost) of service provided by the municipality in the past. Both the quantitative and qualitative aspects of service levels used in the current analysis are based on information provided by City staff in consultation with Hemson. This information is generally based on historical records and experience with costs to acquire or construct similar facilities, equipment and infrastructure.

Table 1 also shows the calculation of the maximum allowable funding envelope, net of uncommitted excess capacity and the legislated ten per cent reduction (for all applicable services). The maximum allowable funding envelope is defined as the ten-year historical service level (expressed as \$/capita or a \$/population and employment) multiplied by the forecast increase in census population over the future planning period and the forecast increase in employment. The resulting figure is the value of capital infrastructure that would have to be constructed for that particular service so that the ten-year historical service level is maintained.

There is also a requirement in the *DCA* to consider “excess capacity” within the City’s existing infrastructure that may be available to partially meet the future servicing requirements. If Council has expressed its intent, before or at the time the capacity was created, to recoup the cost of providing the capacity from new development, it is considered “committed excess capacity” under the *DCA*, and the associated capital cost is eligible for recovery. Should notional “uncommitted excess capacity” exist, and is determined to be available to service new development, appropriate adjustments are made to the calculations.

**TABLE 2      2019 – 2028 DEVELOPMENT-RELATED CAPITAL PROGRAM AND  
CALCULATION OF THE “UNADJUSTED” DEVELOPMENT CHARGES**

In order to impose a development charge, it is not sufficient to merely base the charge on historical service levels. The *DCA* requires that Council express its intent to provide future capital facilities to support future growth. Based on the development forecasts presented in Appendix A, City staff, in collaboration with consultants, have developed a development-related capital program which sets out the projects required to service anticipated development for the ten-year period from 2019–2028.

To determine the share of the program that is eligible for recovery through development charges, the project costs are reduced by any anticipated grants, subsidies or other recoveries, “replacement” shares and benefit to existing shares, and the legislated “10 per cent reduction” for any eligible service.

A replacement share occurs when a new facility will, at least in part, replace a facility that is demolished, redeployed or will otherwise not be available to serve its former function. The replacement share of the capital program is not deemed to be development-related and is therefore removed from the development charge calculation. The capital cost for replacement will require funding from non-development charge sources, typically property taxes.

When calculating development charges, the development-related net capital cost must be reduced by 10 per cent for all services except Protection services (Appendix C), Transit (Appendix D), and Engineered Services (Appendix E) (*DCA* s.5.(1)8.). The 10 per cent discount is therefore applied to all general services considered in this appendix. As with replacement shares, the 10 per cent mandatory reduction must be funded from non-development charge sources.

The capital program less any replacement shares or benefit to existing shares and 10 per cent discount shares yields the development-related costs. Although deemed development-related, not all of the net development-related capital program may be recoverable from development charges in the period from 2019–2028. For some services, reserve fund balances may be available to fund a share of the program. In addition, for some services, a portion of the capital program may service growth occurring after 2028. This portion of the capital program is deemed “pre-built” service capacity and is considered as committed excess capacity to be recovered under future development charges. The capital costs associated with pre-built service capacity are also removed from the development charge calculation.

The remaining portion of the net capital program represents the development-related cost that may be included in the development charge. In all cases, as required, this amount is equal to or less than the maximum allowable capital amount as calculated at the end of Table 1. The result is the discounted development-related net capital costs eligible for recovery against growth over the forecast period from 2019–2028.

### **Calculation of the Unadjusted Development Charges Rates**

The section below the capital program displays the calculation of the “unadjusted” development charge rates. The term “unadjusted” development charge is used to distinguish the charge that is calculated prior to cash flow financing considerations. The cash flow analysis is shown in Table 3.

The first step in determining the unadjusted development charge rate is to allocate the development-related net capital cost between the residential and non-residential sectors. The development-related costs associated with Parks and Recreation Services has been allocated 100 per cent to the residential sector, as the need for these services is generally driven by residential development. The development-related costs for General Government are based on shares of population and employment growth over the next ten years and are 85 percent and 15 percent, respectively.



The residential share of the 2019–2028 DC eligible costs are then divided by the ten-year forecasted population in new units. This gives the unadjusted residential development charge per capita. The non-residential development-related net capital costs are divided by the forecast increase in non-residential gross floor area (GFA). This yields a charge per square metre of new non-residential development.

**TABLE 3      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 accounted for in the calculation as allowed under the *DCA*. Based on the growth forecast, the analysis calculates the development charge rate 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 charge 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 per cent is used for the funding requirements, an interest rate of 5.5 per cent is used for borrowing on the funds and an interest rate of 3.5 per cent is applied to positive balances.

Table 3 displays the results of the cash flow analysis and provides the adjusted or final per capita residential and per square metre (of GFA) non-residential development charges.

## **APPENDIX B.1**

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### ***GENERAL GOVERNMENT***

## APPENDIX B.1

### GENERAL GOVERNMENT

The *DCA* allows the cost of development-related studies and other general government functions to be included in the calculation of the development charges, as long as they are permitted under the legislation.

**TABLE 1      2019 – 2028 DEVELOPMENT-RELATED CAPITAL PROGRAM AND CALCULATION OF THE “UNADJUSTED” DEVELOPMENT CHARGES**

As shown in Table 1, the 2019-2028 development-related gross cost is \$760,000. The capital program includes future development charges studies, updates to the City’s Official Plan and other development-related studies.

Recognizing that not all projects under this service are entirely a result of new growth in the City, “benefit to existing” shares have been netted off the total cost. These shares are 50 per cent of all project costs, with the exception of the two development charges studies, which can be fully attributed to development. Replacement shares amount to \$330,000, which will not be recovered through development charges. The legislated ten per cent discount totals \$43,000 and is removed from the capital costs. The remaining DC eligible share totals \$387,000.

An amount of \$218,418 is available in the General Government DC reserves, all of which is used to cover the costs of some studies. The remaining amount of \$168,582 is considered to benefit development beyond the ten-year planning period and may be recovered under subsequent DC studies. Therefore, there is no residual amount to be recovered for in-period and no development charge for this service is calculated.

**TABLE 2      CASH FLOW ANALYSIS**

The adjusted development charge remains at \$0 per capita and \$0 per square metre.

10-year Hist. Service Level Per Pop & Emp	GENERAL GOVERNMENT					
	2019-2028		Unadjusted		Adjusted	
	Growth-Related Total	Capital Program Net DC Recoverable	Development Charge		Development Charge	Development Charge
			\$/capita	\$/sq.m	\$/capita	\$/sq.m
N/A	\$760,000	\$0	\$0.00	\$0.00	<b>\$0.00</b>	<b>\$0.00</b>

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APPENDIX B.1  
TABLE 1

CITY OF NORTH BAY  
DEVELOPMENT-RELATED CAPITAL PROGRAM  
GENERAL GOVERNMENT

Project Description	Reference #	Timing	Gross Project Cost	Grants/ Subsidies/Other Recoveries	Net Municipal Cost	Ineligible Costs		Total DC Eligible Costs	DC Eligible Costs		
						Replacement & BTE Shares	10% Reduction		Available DC Reserves	2019-2028	Post 2028
<b>1.0 GENERAL GOVERNMENT</b>											
<b>1.1 Development-Related Studies</b>											
1.1.1 Trout Lake Watershed Study	3418PZ	2019	\$ 60,000	\$ -	\$ 60,000	\$ 30,000	\$ 3,000	\$ 27,000	\$ 18,000	\$ -	\$ 9,000
1.1.2 Commercial Strategy Study	3509PZ	2019	\$ 100,000	\$ -	\$ 100,000	\$ 50,000	\$ 5,000	\$ 45,000	\$ 45,000	\$ -	\$ -
1.1.3 Population Study	3509PZ	2019	\$ 50,000	\$ -	\$ 50,000	\$ 25,000	\$ 2,500	\$ 22,500	\$ 22,500	\$ -	\$ -
1.1.4 Official Plan	3509PZ	2019	\$ 100,000	\$ -	\$ 100,000	\$ 50,000	\$ 5,000	\$ 45,000	\$ -	\$ -	\$ 45,000
1.1.5 Development Charges Study	3509PZ	2019	\$ 50,000	\$ -	\$ 50,000	\$ -	\$ 5,000	\$ 45,000	\$ 45,000	\$ -	\$ -
1.1.6 Lakeshore Node and Corridor Study	3509PZ	2020	\$ 100,000	\$ -	\$ 100,000	\$ 50,000	\$ 5,000	\$ 45,000	\$ 42,918	\$ -	\$ 2,082
1.1.7 Development Charges Study	N/A	2023	\$ 50,000	\$ -	\$ 50,000	\$ -	\$ 5,000	\$ 45,000	\$ 45,000	\$ -	\$ -
1.1.8 Commercial Strategy Study	3509PZ	2026	\$ 100,000	\$ -	\$ 100,000	\$ 50,000	\$ 5,000	\$ 45,000	\$ -	\$ -	\$ 45,000
1.1.9 Population Study	3509PZ	2026	\$ 50,000	\$ -	\$ 50,000	\$ 25,000	\$ 2,500	\$ 22,500	\$ -	\$ -	\$ 22,500
1.1.10 Official Plan	3509PZ	2026	\$ 100,000	\$ -	\$ 100,000	\$ 50,000	\$ 5,000	\$ 45,000	\$ -	\$ -	\$ 45,000
Subtotal Development-Related Studies			\$ 760,000	\$ -	\$ 760,000	\$ 330,000	\$ 43,000	\$ 387,000	\$ 218,418	\$ -	\$ 168,582
<b>TOTAL GENERAL GOVERNMENT</b>			<b>\$ 760,000</b>	<b>\$ -</b>	<b>\$ 760,000</b>	<b>\$ 330,000</b>	<b>\$ 43,000</b>	<b>\$ 387,000</b>	<b>\$ 218,418</b>	<b>\$ -</b>	<b>\$ 168,582</b>

<b>Residential Development Charge Calculation</b>		
Residential Share of 2019 - 2028 DC Eligible Costs	85%	\$0
10-Year Growth in Population in New Units		1,895
Unadjusted Development Charge Per Dwelling Unit		<b>\$0.00</b>
<b>Non-Residential Development Charge Calculation</b>		
Non-Residential Share of 2019 - 2028 DC Eligible Costs	15%	\$0
10-Year Growth in Square Metres		20,000
Unadjusted Development Charge Per Square Metre		<b>\$0.00</b>

Uncommitted Reserve Fund Balance	
Balance as at December 31, 2018	\$218,418

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TABLE 2

**CITY OF NORTH BAY  
CASHFLOW AND DETERMINATION OF DEVELOPMENT CHARGE  
GENERAL GOVERNMENT  
RESIDENTIAL DEVELOPMENT CHARGE  
(in \$000)**

<b>GENERAL GOVERNMENT</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>2025</b>	<b>2026</b>	<b>2027</b>	<b>2028</b>	<b>TOTAL</b>
OPENING CASH BALANCE	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
2019 - 2028 RESIDENTIAL FUNDING REQUIREMENTS											
- General Government : Non Inflated	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	<b>\$0.0</b>
- General Government : Inflated	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	<b>\$0.0</b>
NEW RESIDENTIAL DEVELOPMENT											
- Population Growth in New Units	188	188	188	188	188	188	188	188	196	196	<b>1,895</b>
REVENUE											
- DC Receipts: Inflated	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	<b>\$0.0</b>
INTEREST											
- Interest on Opening Balance	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	<b>\$0.0</b>
- Interest on In-year Transactions	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	<b>\$0.0</b>
TOTAL REVENUE	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	<b>\$0.0</b>
CLOSING CASH BALANCE	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	

<b>2019 Adjusted Charge Per Capita</b>	<b>\$0.00</b>
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<b>Allocation of Capital Program</b>	
Residential Sector	85.0%
Non-Residential Sector	15.0%
<b>Rates for 2019</b>	
Inflation Rate:	2.0%
Interest Rate on Positive Balances	3.5%
Interest Rate on Negative Balances	5.5%

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APPENDIX B.1  
TABLE 2

CITY OF NORTH BAY  
CASHFLOW AND DETERMINATION OF DEVELOPMENT CHARGE  
GENERAL GOVERNMENT  
NON-RESIDENTIAL DEVELOPMENT CHARGE  
(in \$000)

GENERAL GOVERNMENT	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	TOTAL	
OPENING CASH BALANCE	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00		
2019 - 2028 NON-RESIDENTIAL FUNDING REQUIREMENTS												
- General Government : Non Inflated	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
- General Government : Inflated	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
NON-RESIDENTIAL SPACE GROWTH												
- Growth in Square Metres	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	20,000
REVENUE												
- DC Receipts: Inflated	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
INTEREST												
- Interest on Opening Balance	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
- Interest on In-year Transactions	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
TOTAL REVENUE	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
CLOSING CASH BALANCE	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	

2019 Adjusted Charge Per Square Metre	\$0.00
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<b>Allocation of Capital Program</b>	
Residential Sector	85.0%
Non-Residential Sector	15.0%
<b>Rates for 2019</b>	
Inflation Rate	2.0%
Interest Rate on Positive Balances	3.5%
Interest Rate on Negative Balances	5.5%

**APPENDIX B.2**

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***PARKS AND RECREATION***

## APPENDIX B.2

### PARKS AND RECREATION

The Parks, Recreation and Leisure Services Departments are responsible for the provision of Parks and Recreation services in the City of North Bay. Recreation services are delivered through a variety of indoor facilities including arenas, community centres, and an aquatic centre, as well as parkland and outdoor facilities. Cultural facilities are not eligible to be recovered through development charges and are excluded from this study. For the purposes of this DC Background Study, the Parks and Recreation service is considered to be City-wide.

#### TABLE 1 HISTORICAL SERVICE LEVELS

The City of North Bay currently operates four indoor recreation facilities of various types. These facilities total about 228,777 square feet with a total value of \$87.45 million. The land associated with the various indoor recreation centres totals 8.43 hectares valued at \$3.29 million.

The City owns a substantial amount of equipment used to provide recreation services. The total replacement value of all indoor recreation equipment in 2018 was \$1.94 million.

North Bay provides outdoor recreation services to the local population through a sizeable inventory of parkland. The inventory comprises 2.26 hectares of floral areas, 52.92 hectares of neighborhood parks, 49.27 hectares of district parks, 465.28 hectares of City-wide parks, and 45.22 kilometres of developed trails. This outdoor recreation space totals \$34.01 million. Park space that remains in a natural state without municipal maintenance has not been assigned a dollar figure and, is therefore not included in the total value.

Also comprised in the outdoor recreation inventory is a variety of park facilities that includes soccer fields, softball diamonds, skateboard parks, football fields, tennis courts, boat ramps, playgrounds and beach volleyball courts. In total, there are 59 park facilities offered with a total value of \$21.36 million in 2018.

Finally, the Parks, Recreation and Leisure Services Department maintains several other park facilities, including storage buildings, park washrooms, picnic shelters and floating docks. Altogether, these facilities amount to \$19.36 million. Small equipment and rolling stock inventory are valued at approximately \$2.81 million.



The combined value of capital assets for Parks and Recreation is valued at \$170.23 million. The ten-year historical average service level is \$3,125.78 per capita, and this, multiplied by the ten-year growth in population, results in a ten-year maximum allowable funding envelope of \$1.31 million. No excess capacity has been identified for this service.

Parks and Recreation is a service for which development-related capital costs must be reduced by ten per cent under the *DCA*. The resulting net maximum allowable funding envelope brought forward to the development charges calculation is reduced to \$1.18 million.

**TABLE 2        2019–2028 DEVELOPMENT-RELATED PROGRAM & CALCULATION  
OF THE “UNADJUSTED” DEVELOPMENT CHARGES**

The development-related Parks and Recreation capital program for the City of North Bay totals \$44.73 million and provides for various park facilities across the City, as well as a new Twin Pad Arena. The cost for the arena is estimated and may change as the City undertakes a detailed design and cost estimate.

Of the gross projects costs, \$7.78 million is to be funded through grants, subsidies and other recoveries. The grants are for King's Landing Commercialization of Waterfront, Waterfront Building Rehab, Active Transportation Projects, Trail System Program (West Link) and a Splash Pad. The Bourke Park Building has replacement shares that total \$360,000 and the Waterfront Building Rehab share of \$1.41 million that have been netted off the calculation. In addition, the New Twin Pad Arena is replacing the current single pad at West Ferris and \$15.00 million is considered to benefit the existing residents and has been netted off calculation of the charges. The legislated ten per cent discount totals \$2.02 million and is netted off the net municipal costs. Approximately, \$434,737 is available in the Parks and Recreation DC reserve fund, which is used to fund part of the Trail System Development Program (West Link) and the New Twin Pad Arena. The capital program for Parks and Recreation exceeds the calculated funding envelope and the amount of \$16.60 million is considered to benefit development beyond 2028 and may be considered for recovery through subsequent DC studies or similar development-related recoverable studies.

The 2019–2028 DC cost eligible for recovery is \$1.13 million, which is allocated entirely against future residential development in the City. This results in an unadjusted development charge of \$597.48 per capita.

**TABLE 3 CASH FLOW ANALYSIS**

After cash flow consideration, the residential calculated charge increases to \$631.95 per capita. The following table summarizes the calculation of the Parks and Recreation development charge.

<b>PARKS &amp; RECREATION</b>						
10-year Hist. Service Level Per Capita	2019-2028 Growth-Related Capital Program		Unadjusted Development Charge		Adjusted Development Charge	
	Total	Net DC Recoverable	\$/capita	\$/sq.m	\$/capita	\$/sq.m
\$3,125.78	\$44,731,750	\$1,132,088	\$597.48	\$0.00	<b>\$631.95</b>	<b>\$0.00</b>

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TABLE 1

CITY OF NORTH BAY  
INVENTORY OF CAPITAL ASSETS  
PARKS & RECREATION  
INDOOR RECREATION - MAJOR FACILITIES

BUILDINGS Facility Name	# of Square Feet										UNIT COST (\$/sq. ft.)
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	
Memorial Gardens <sup>(1)</sup>	74,684	74,684	74,684	74,684	74,684	102,742	102,742	102,742	102,742	102,742	\$385
West Ferris Community Centre	38,000	38,000	38,000	38,000	38,000	38,000	38,000	38,000	38,000	38,000	\$310
Pete Palangio Arena	54,100	54,100	54,100	54,100	54,100	54,100	54,100	54,100	54,100	54,100	\$310
Aquatic Centre (YMCA)	33,935	33,935	33,935	33,935	33,935	33,935	33,935	33,935	33,935	33,935	\$570
<b>Total (sq.ft.)</b>	<b>200,719</b>	<b>200,719</b>	<b>200,719</b>	<b>200,719</b>	<b>200,719</b>	<b>228,777</b>	<b>228,777</b>	<b>228,777</b>	<b>228,777</b>	<b>228,777</b>	
<b>Total (\$000)</b>	<b>\$76,647.3</b>	<b>\$76,647.3</b>	<b>\$76,647.3</b>	<b>\$76,647.3</b>	<b>\$76,647.3</b>	<b>\$87,449.6</b>	<b>\$87,449.6</b>	<b>\$87,449.6</b>	<b>\$87,449.6</b>	<b>\$87,449.6</b>	

Note 1: The expansion of Memorial Gardens

LAND Facility Name	# of Hectares										UNIT COST (\$/ha)
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	
Memorial Gardens (1)	3.02	3.02	3.02	3.02	3.02	3.02	3.02	3.02	3.02	3.02	\$390,100
West Ferris Community Centre	2.78	2.78	2.78	2.78	2.78	2.78	2.78	2.78	2.78	2.78	\$390,100
Pete Palangio Arena	1.92	1.92	1.92	1.92	1.92	1.92	1.92	1.92	1.92	1.92	\$390,100
Aquatic Centre (YMCA)	0.71	0.71	0.71	0.71	0.71	0.71	0.71	0.71	0.71	0.71	\$390,100
<b>Total (ha)</b>	<b>8.43</b>	<b>8.43</b>	<b>8.43</b>	<b>8.43</b>	<b>8.43</b>	<b>8.43</b>	<b>8.43</b>	<b>8.43</b>	<b>8.43</b>	<b>8.43</b>	
<b>Total (\$000)</b>	<b>\$3,288.5</b>	<b>\$3,288.5</b>	<b>\$3,288.5</b>	<b>\$3,288.5</b>	<b>\$3,288.5</b>	<b>\$3,288.5</b>	<b>\$3,288.5</b>	<b>\$3,288.5</b>	<b>\$3,288.5</b>	<b>\$3,288.5</b>	

EQUIPMENT Facility Name	Total Value of Furniture and Equipment									
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Memorial Gardens (1)	\$51,000	\$99,000	\$99,000	\$144,000	\$144,000	\$151,000	\$523,000	\$717,000	\$872,000	\$872,000
West Ferris Community Centre	\$62,000	\$62,000	\$62,000	\$62,000	\$62,000	\$62,000	\$62,000	\$62,000	\$62,000	\$62,000
Pete Palangio Arena	\$50,000	\$50,000	\$50,000	\$71,500	\$71,500	\$71,500	\$71,500	\$71,500	\$71,500	\$71,500
Aquatic Centre (YMCA)	\$565,000	\$565,000	\$565,000	\$603,000	\$603,000	\$603,000	\$603,000	\$603,000	\$603,000	\$603,000
Zambonis	\$319,000	\$319,000	\$319,000	\$330,000	\$330,000	\$330,000	\$330,000	\$330,000	\$330,000	\$330,000
<b>Total (\$000)</b>	<b>\$1,047.0</b>	<b>\$1,095.0</b>	<b>\$1,095.0</b>	<b>\$1,210.5</b>	<b>\$1,210.5</b>	<b>\$1,217.5</b>	<b>\$1,589.5</b>	<b>\$1,783.5</b>	<b>\$1,938.5</b>	<b>\$1,938.5</b>

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APPENDIX B.2  
TABLE 1

CITY OF NORTH BAY  
INVENTORY OF CAPITAL ASSETS  
PARKS & RECREATION  
PARK DEVELOPMENT & FACILITIES - PARK DEVELOPMENT

FLORAL AREAS Park Name	# of Hectares of Developed Area										UNIT COST (\$/ha)
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	
Aerospace Defence Park	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	\$143,200
City Hall Parkette	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59	\$143,200
Main St & Fraser St Parkette	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	\$143,200
Main St & Cassells St Parkette	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	\$143,200
Copeland St Parkette	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	\$143,200
Richardson's Fountain Parkette	0.02	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	\$143,200
Algonquin Parkette and Streetscape	0.00	0.00	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	\$143,200
Fisher Street Parkette	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35	\$143,200
Cassells & Victoria Floral Island	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	\$143,200
Jacques Cartier Monument	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	\$143,200
Algonquin Regiment Memorial	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	\$143,200
Jane St & Bloem St Parkette	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	\$143,200
Premier Rd Floral Island	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	\$143,200
<b>Total Floral Areas (ha)</b>	<b>2.18</b>	<b>2.18</b>	<b>2.26</b>	<b>2.26</b>	<b>2.26</b>	<b>2.26</b>	<b>2.26</b>	<b>2.26</b>	<b>2.26</b>	<b>2.26</b>	
<b>Total Development Value (\$000)</b>	<b>\$312.18</b>	<b>\$312.18</b>	<b>\$323.63</b>	<b>\$323.63</b>	<b>\$323.63</b>	<b>\$323.63</b>	<b>\$323.63</b>	<b>\$323.63</b>	<b>\$323.63</b>	<b>\$323.63</b>	

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APPENDIX B.2  
TABLE 1

CITY OF NORTH BAY  
INVENTORY OF CAPITAL ASSETS  
PARKS & RECREATION  
PARK DEVELOPMENT & FACILITIES - PARK DEVELOPMENT

NEIGHBOURHOOD PARKS Park Name	# of Hectares of Developed Area										UNIT COST (\$/ha)
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	
Fricke Wallace Park - natural state	1.17	1.17	1.17	1.17	1.17	1.17	1.17	1.17	1.17	1.17	\$0
Greenhill Park	2.48	2.48	2.48	2.48	2.48	2.48	2.48	2.48	2.48	2.48	\$253,700
Kenwood Hills Parkland Holdings - not developed	5.86	5.86	5.86	5.86	5.86	5.86	5.86	5.86	5.86	5.86	\$0
Kenwood Hills Playground	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	\$253,700
Laurentian Heights Parkland Holdings - not developed	2.91	2.91	2.91	2.91	2.91	2.91	2.91	2.91	2.91	2.91	\$0
Stone Manor East Parkland Holdings - not developed	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	\$0
Stone Manor West Parkland Holdings - not developed	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	\$0
Kiwanis Playground	0.34	0.34	0.34	0.34	0.34	0.34	0.34	0.34	0.34	0.34	\$253,700
Bellevue Park	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	\$253,700
Circle Lake Playground	1.42	1.42	1.42	1.42	1.42	1.42	1.42	1.42	1.42	1.42	\$253,700
Pumphouse Playground	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	\$253,700
Sage Road Park - natural state, linear park	4.31	4.31	4.31	4.31	4.31	4.31	4.31	4.31	4.31	4.31	\$0
Graniteville Playground	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	\$253,700
Veronica Park	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	\$253,700
Metcalfe Park - natural state	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	\$0
Police Playground	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	\$253,700
Rockview Park - natural state	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	\$0
Bourke Playground	0.63	0.63	0.63	0.63	0.63	0.63	0.63	0.63	0.63	0.63	\$253,700
Kennedy Park - natural state, linear park	6.92	6.92	6.92	6.92	6.92	6.92	6.92	6.92	6.92	6.92	\$0
Kinette Playground	1.65	1.65	1.65	1.65	1.65	1.65	1.65	1.65	1.65	1.65	\$253,700
Besserer Road Parkland Holdings* - not developed	4.14	4.14	4.14	4.14	4.14	4.14	4.14	4.14	4.14	4.14	\$0
Feronia Playground*	0.48	0.48	0.48	0.48	0.48	0.48	0.48	0.48	0.48	0.48	\$253,700
Four Mile Lake Playground*	2.97	2.97	2.97	2.97	2.97	2.97	2.97	2.97	2.97	2.97	\$253,700
Maple Ridge Playground*	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	\$253,700
Coombes Park	2.20	2.20	2.20	2.20	2.20	2.20	2.20	2.20	2.20	2.20	\$253,700
Kerr Park	1.58	1.58	1.58	1.58	1.58	1.58	1.58	1.58	1.58	1.58	\$253,700
Mariah Street Parkland Holdings - not developed	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	\$0
Marshall Avenue Park - natural state, linear park	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	\$0
Prince Edward Portage Park	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67	\$253,700
Superior Crescent Park	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	\$253,700
Van Horne Park - linear park	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	\$0
West Ferris Lions Park	3.13	3.13	3.13	3.13	3.13	3.13	3.13	3.13	3.13	3.13	\$253,700
<b>Total Neighbourhood Parks (ha)</b>	<b>52.92</b>	<b>52.92</b>	<b>52.92</b>	<b>52.92</b>	<b>52.92</b>	<b>52.92</b>	<b>52.92</b>	<b>52.92</b>	<b>52.92</b>	<b>52.92</b>	
<b>Total Development Value (\$000)</b>	<b>\$6,235.95</b>	<b>\$6,235.95</b>	<b>\$6,235.95</b>	<b>\$6,235.95</b>	<b>\$6,235.95</b>	<b>\$6,235.95</b>	<b>\$6,235.95</b>	<b>\$6,235.95</b>	<b>\$6,235.95</b>	<b>\$6,235.95</b>	

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CITY OF NORTH BAY  
 INVENTORY OF CAPITAL ASSETS  
 PARKS & RECREATION  
 PARK DEVELOPMENT & FACILITIES - PARK DEVELOPMENT

DISTRICT PARKS Park Name	# of Hectares of Developed Area										UNIT COST (\$/ha)
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	
Optimist Ball Fields	3.61	3.61	3.61	3.61	3.61	3.61	3.61	3.61	3.61	3.61	\$253,700
Armstrong Park	3.80	3.80	3.80	3.80	3.80	3.80	3.80	3.80	3.80	3.80	\$253,700
Centennial Park	5.07	5.07	5.07	5.07	5.07	5.07	5.07	5.07	5.07	5.07	\$253,700
Thomson Park	15.38	15.38	15.38	15.38	15.38	15.38	15.38	15.38	15.38	15.38	\$253,700
Larocque Road Parkland Holdings* - not developed	8.39	8.39	8.39	8.39	8.39	8.39	8.39	8.39	8.39	8.39	\$0
Lee Park/Amelia Park	10.30	10.30	10.30	10.30	10.30	10.30	10.30	10.30	10.30	10.30	\$253,700
Sam Jacks Recreation Complex	2.72	2.72	2.72	2.72	2.72	2.72	2.72	2.72	2.72	2.72	\$253,700
<b>Total District Parks (ha)</b>	<b>49.27</b>	<b>49.27</b>	<b>49.27</b>	<b>49.27</b>	<b>49.27</b>	<b>49.27</b>	<b>49.27</b>	<b>49.27</b>	<b>49.27</b>	<b>49.27</b>	
<b>Total Development Value (\$000)</b>	<b>\$10,371.26</b>	<b>\$10,371.26</b>	<b>\$10,371.26</b>	<b>\$10,371.26</b>	<b>\$10,371.26</b>	<b>\$10,371.26</b>	<b>\$10,371.26</b>	<b>\$10,371.26</b>	<b>\$10,371.26</b>	<b>\$10,371.26</b>	

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CITY OF NORTH BAY  
INVENTORY OF CAPITAL ASSETS  
PARKS & RECREATION  
PARK DEVELOPMENT & FACILITIES - PARK DEVELOPMENT

CITY-WIDE PARKS Park Name	# of Hectares of Developed Area										UNIT COST (\$/ha)
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	
Airport Lookout	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	\$253,700
Memorial Park	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	\$253,700
Waterfront Park	21.26	21.26	21.26	21.26	21.26	21.26	21.26	21.26	21.26	21.26	\$253,700
Escarpment West Property - natural state, linear park	6.81	6.81	6.81	6.81	6.81	6.81	6.81	6.81	6.81	6.81	\$0
Camelot Lake Park - natural state, not developed	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	\$0
Birchaven Cove	4.54	4.54	4.54	4.54	4.54	4.54	4.54	4.54	4.54	4.54	\$253,700
Delaney Lake Walkway - natural state, not developed	2.58	2.58	2.58	2.58	2.58	2.58	2.58	2.58	2.58	2.58	\$0
Lang Park - natural state, linear park	1.52	1.52	1.52	1.52	1.52	1.52	1.52	1.52	1.52	1.52	\$0
Escarpment East Property - natural state, linear park	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	\$0
O'Brien Street Park - natural state, linear park	1.47	1.47	1.47	1.47	1.47	1.47	1.47	1.47	1.47	1.47	\$0
Chippewa Creek Ravine - natural state, linear park	4.59	4.59	4.59	4.59	4.59	4.59	4.59	4.59	4.59	4.59	\$0
Kinsmen Beach	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38	\$253,700
Lavase Park - natural state, not developed	159.45	159.45	159.45	159.45	159.45	159.45	159.45	159.45	159.45	159.45	\$0
Springdale Acres - natural state, not developed	4.08	4.08	4.08	4.08	4.08	4.08	4.08	4.08	4.08	4.08	\$0
Black Forest Park - natural state, linear park	62.54	62.54	62.54	62.54	62.54	62.54	62.54	62.54	62.54	62.54	\$0
Portage Park	2.40	2.40	2.40	2.40	2.40	2.40	2.40	2.40	2.40	2.40	\$253,700
Peninsula Road Park - natural state, not developed	173.14	173.14	173.14	173.14	173.14	173.14	173.14	173.14	173.14	173.14	\$0
Silver Beach	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38	\$253,700
Parks Creek Park - linear park	4.20	4.20	4.20	4.20	4.20	4.20	4.20	4.20	4.20	4.20	\$0
Sunset Park	0.78	0.78	0.78	0.78	0.78	0.48	0.48	0.48	0.48	0.48	\$253,700
Champlain Park	11.71	11.71	11.71	11.71	11.71	11.71	11.71	11.71	11.71	11.71	\$253,700
<b>Total City-Wide Parks (ha)</b>	<b>465.58</b>	<b>465.58</b>	<b>465.58</b>	<b>465.58</b>	<b>465.58</b>	<b>465.28</b>	<b>465.28</b>	<b>465.28</b>	<b>465.28</b>	<b>465.28</b>	
<b>Total Development Value (\$000)</b>	<b>\$10,995.36</b>	<b>\$10,995.36</b>	<b>\$10,995.36</b>	<b>\$10,995.36</b>	<b>\$10,995.36</b>	<b>\$10,918.74</b>	<b>\$10,918.74</b>	<b>\$10,918.74</b>	<b>\$10,918.74</b>	<b>\$10,918.74</b>	

TRAILS Park Name	# of KM of Developed Trails										UNIT COST (\$/km)
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	
Kate Paceway (Paved)	15.30	15.30	15.30	15.30	15.30	15.30	15.30	15.30	15.30	15.30	\$200,000
Kinsman Trail (Paved)	5.92	5.92	5.92	5.92	5.92	5.92	5.92	5.92	5.92	5.92	\$200,000
Other Trails	24.00	24.00	24.00	24.00	24.00	24.00	24.00	24.00	24.00	24.00	\$80,000
<b>Total Trails (km)</b>	<b>45.22</b>	<b>45.22</b>	<b>45.22</b>	<b>45.22</b>	<b>45.22</b>	<b>45.22</b>	<b>45.22</b>	<b>45.22</b>	<b>45.22</b>	<b>45.22</b>	
<b>Total Development Value (\$000)</b>	<b>\$6,163.80</b>	<b>\$6,163.80</b>	<b>\$6,163.80</b>	<b>\$6,163.80</b>	<b>\$6,163.80</b>	<b>\$6,164.00</b>	<b>\$6,164.00</b>	<b>\$6,164.00</b>	<b>\$6,164.00</b>	<b>\$6,164.00</b>	

<b>Total Development Value (\$000)</b>	<b>\$34,078.54</b>	<b>\$34,078.54</b>	<b>\$34,089.99</b>	<b>\$34,089.99</b>	<b>\$34,089.99</b>	<b>\$34,013.57</b>	<b>\$34,013.57</b>	<b>\$34,013.57</b>	<b>\$34,013.57</b>	<b>\$34,013.57</b>
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TABLE 1

CITY OF NORTH BAY  
INVENTORY OF CAPITAL ASSETS  
PARKS & RECREATION  
PARK FACILITIES

SENIOR SOCCER Park Name	# of Fields										UNIT COST (\$/facility)	
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018		
<b>Lit - Synthetic Fields</b>												
Omischl Sports Complex	-	-	1	1	1	1	1	1	1	1	1	\$1,279,000
<b>Lit - Natural Fields</b>												
Armstrong Park	1	1	1	1	1	1	1	1	1	1	1	\$750,000
Veterans Park	1	1	1	1	1	1	1	1	1	1	1	\$750,000
Omischl Sports Complex	-	-	1	1	1	1	1	1	1	1	1	\$750,000
<b>Unlit - Natural Fields</b>												
Amelia Park	1	1	1	1	1	1	1	1	1	1	1	\$500,000
ONR Field at Veterans Park	1	1	1	1	1	1	1	1	1	1	1	\$500,000
<b>Subtotal (#)</b>	<b>4</b>	<b>4</b>	<b>6</b>	<b>6</b>	<b>6</b>	<b>6</b>	<b>6</b>	<b>6</b>	<b>6</b>	<b>6</b>	<b>6</b>	
<b>Subtotal (\$)</b>	<b>\$2,500,000</b>	<b>\$2,500,000</b>	<b>\$4,529,000</b>	<b>\$4,529,000</b>	<b>\$4,529,000</b>	<b>\$4,529,000</b>	<b>\$4,529,000</b>	<b>\$4,529,000</b>	<b>\$4,529,000</b>	<b>\$4,529,000</b>	<b>\$4,529,000</b>	

YOUTH SOCCER FIELDS Park Name	# of Fields										UNIT COST (\$/facility)	
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018		
<b>Unlit</b>												
Thomson Park	4	4	4	-	-	-	-	-	-	-	-	\$125,000
Tweedmuir Park	-	-	-	6	6	6	6	6	6	6	6	\$125,000
<b>Subtotal (#)</b>	<b>4</b>	<b>4</b>	<b>4</b>	<b>6</b>	<b>6</b>	<b>6</b>	<b>6</b>	<b>6</b>	<b>6</b>	<b>6</b>	<b>6</b>	
<b>Subtotal (\$)</b>	<b>\$500,000</b>	<b>\$500,000</b>	<b>\$500,000</b>	<b>\$750,000</b>	<b>\$750,000</b>	<b>\$750,000</b>	<b>\$750,000</b>	<b>\$750,000</b>	<b>\$750,000</b>	<b>\$750,000</b>	<b>\$750,000</b>	



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CITY OF NORTH BAY  
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PARKS & RECREATION  
PARK FACILITIES

SOFTBALL DIAMONDS Park Name	# of Softball Diamonds										UNIT COST (\$/facility)
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	
<b>Lit</b>											
Amelia Park	1	1	1	1	1	1	1	1	1	1	\$850,000
Armstrong Park	1	1	1	1	1	1	1	1	1	1	\$850,000
Laurentian Park	1	1	1	1	1	1	1	1	1	1	\$850,000
Optimist Park	2	2	2	2	2	2	2	2	2	2	\$850,000
Thomson Park	2	2	2	2	1	1	1	1	1	1	\$850,000
Tweedmuir Park	1	1	1	-	-	-	-	-	-	-	\$850,000
Veterans Park	1	1	1	1	1	1	1	1	1	1	\$900,000
Omischl Sports Complex	-	-	3	3	3	3	3	3	3	3	\$850,000
<b>Unlit</b>											
Kinette Playground	1	1	1	1	1	1	1	1	1	1	\$500,000
Tweedmuir Park	1	1	1	1	1	1	1	1	1	1	\$500,000
<b>Subtotal (#)</b>	<b>11</b>	<b>11</b>	<b>14</b>	<b>13</b>	<b>12</b>	<b>12</b>	<b>12</b>	<b>12</b>	<b>12</b>	<b>12</b>	
<b>Subtotal (\$)</b>	<b>\$8,700,000</b>	<b>\$8,700,000</b>	<b>\$11,250,000</b>	<b>\$10,400,000</b>	<b>\$9,550,000</b>	<b>\$9,550,000</b>	<b>\$9,550,000</b>	<b>\$9,550,000</b>	<b>\$9,550,000</b>	<b>\$9,550,000</b>	

SKATEBOARD PARK Park Name	# of Skateboard Parks										UNIT COST (\$/facility)
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	
West Ferris	1	1	1	-	-	-	-	-	-	-	\$300,000
Thomson Park	-	-	-	1	1	1	1	1	1	1	\$300,000
<b>Subtotal (#)</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	
<b>Subtotal (\$)</b>	<b>\$300,000</b>	<b>\$300,000</b>	<b>\$300,000</b>	<b>\$300,000</b>	<b>\$300,000</b>	<b>\$300,000</b>	<b>\$300,000</b>	<b>\$300,000</b>	<b>\$300,000</b>	<b>\$300,000</b>	

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INVENTORY OF CAPITAL ASSETS  
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PARK FACILITIES

FOOTBALL FIELDS Park Name	# of Fields										UNIT COST (\$/facility)	
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018		
<b>Lit - Synthetic Turf Fields</b>												
Omischl Sports Complex	-	-	1	1	1	1	1	1	1	1	1	\$1,400,000
<b>Lit - Natural Turf Fields</b>												
Thomson Park	1	1	1	1	1	1	1	1	1	1	1	\$700,000
<b>Subtotal (#)</b>	<b>1</b>	<b>1</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>2</b>	
<b>Subtotal (\$)</b>	<b>\$700,000</b>	<b>\$700,000</b>	<b>\$2,100,000</b>	<b>\$2,100,000</b>	<b>\$2,100,000</b>	<b>\$2,100,000</b>	<b>\$2,100,000</b>	<b>\$2,100,000</b>	<b>\$2,100,000</b>	<b>\$2,100,000</b>	<b>\$2,100,000</b>	

TENNIS COURTS Park Name	# of Courts										UNIT COST (\$/facility)	
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018		
Tweedmuir Park	3	3	3	3	3	3	3	3	3	3	3	\$100,000
<b>Subtotal (#)</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>3</b>	
<b>Subtotal (\$)</b>	<b>\$300,000</b>	<b>\$300,000</b>	<b>\$300,000</b>	<b>\$300,000</b>	<b>\$300,000</b>	<b>\$300,000</b>	<b>\$300,000</b>	<b>\$300,000</b>	<b>\$300,000</b>	<b>\$300,000</b>	<b>\$300,000</b>	

BOAT RAMPS Park Name	# of Boat Ramps										UNIT COST (\$/facility)	
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018		
Amelia Park	1	1	1	1	1	1	1	1	1	1	1	\$80,000
Sunset Park	1	1	1	1	1	1	1	1	1	1	1	\$80,000
Champlain Park	1	1	1	1	1	1	1	1	1	1	1	\$80,000
Armstrong Park	1	1	1	1	1	1	1	1	1	1	1	\$533,000
Waterfront Park	1	1	1	1	1	1	1	1	1	1	1	\$533,000
<b>Subtotal (#)</b>	<b>5</b>	<b>5</b>	<b>5</b>	<b>5</b>	<b>5</b>	<b>5</b>	<b>5</b>	<b>5</b>	<b>5</b>	<b>5</b>	<b>5</b>	
<b>Subtotal (\$)</b>	<b>\$1,306,000</b>	<b>\$1,306,000</b>	<b>\$1,306,000</b>	<b>\$1,306,000</b>	<b>\$1,306,000</b>	<b>\$1,306,000</b>	<b>\$1,306,000</b>	<b>\$1,306,000</b>	<b>\$1,306,000</b>	<b>\$1,306,000</b>	<b>\$1,306,000</b>	

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CITY OF NORTH BAY  
INVENTORY OF CAPITAL ASSETS  
PARKS & RECREATION  
PARK FACILITIES

PLAYGROUNDS Park Name	# of Playgrounds										UNIT COST (\$/facility)
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	
Bellview Park	1	1	1	1	1	1	1	1	1	1	\$110,000
Maple Ridge (Besserer Road)	1	1	1	1	1	1	1	1	1	1	\$80,000
Birchaven Park	1	1	1	1	1	1	1	1	1	1	\$110,000
Bourke Playground	1	1	1	1	1	1	1	1	1	1	\$110,000
Champlain Park	1	1	1	1	1	1	1	1	1	1	\$110,000
Circle Lake Playground	1	1	1	1	1	1	1	1	1	1	\$110,000
Feronia Playground	1	1	1	1	1	1	1	1	1	1	\$80,000
Graniteville Playground	1	1	1	1	1	1	1	1	1	1	\$110,000
Greenhill Playground	1	1	1	1	1	1	1	1	1	1	\$110,000
Kenwood Hills Playground	1	1	1	1	1	1	1	1	1	1	\$80,000
Kinette Playground	1	1	1	1	1	1	1	1	1	1	\$110,000
Laurentian Playground	1	1	1	1	1	1	1	1	1	1	\$110,000
Lee Park	1	1	1	1	1	1	1	1	1	1	\$175,000
West Ferris Lions	1	1	1	1	1	1	1	1	1	1	\$110,000
Olmsted Park	1	1	1	1	1	1	1	1	1	1	\$110,000
Portage Park	1	1	1	1	1	1	1	1	1	1	\$80,000
Pumphouse Playground	1	1	1	1	1	1	1	1	1	1	\$175,000
Superior Crescent Playground	1	1	1	1	1	1	1	1	1	1	\$110,000
Thomson Park	1	1	1	1	1	1	1	1	1	1	\$110,000
Tourist info Centre	1	1	1	1	1	1	1	1	-	-	\$80,000
Veronical Playground	1	1	1	1	1	1	1	1	1	1	\$110,000
Waterfront Park	1	1	1	1	1	1	1	1	1	1	\$200,000
Sunset Playground	-	-	-	-	-	-	-	-	1	1	\$80,000
<b>Subtotal (#)</b>	<b>22</b>	<b>22</b>	<b>22</b>	<b>22</b>	<b>22</b>	<b>22</b>	<b>22</b>	<b>22</b>	<b>22</b>	<b>22</b>	
<b>Subtotal (\$)</b>	<b>\$2,490,000</b>	<b>\$2,490,000</b>	<b>\$2,490,000</b>	<b>\$2,490,000</b>	<b>\$2,490,000</b>	<b>\$2,490,000</b>	<b>\$2,490,000</b>	<b>\$2,490,000</b>	<b>\$2,490,000</b>	<b>\$2,490,000</b>	

BEACH VOLLEYBALL Park Name	# of Courts										UNIT COST (\$/facility)
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	
Waterfront Park	2	2	2	2	2	2	2	2	2	2	\$20,000
<b>Subtotal (#)</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>2</b>	
<b>Subtotal (\$)</b>	<b>\$40,000</b>	<b>\$40,000</b>	<b>\$40,000</b>	<b>\$40,000</b>	<b>\$40,000</b>	<b>\$40,000</b>	<b>\$40,000</b>	<b>\$40,000</b>	<b>\$40,000</b>	<b>\$40,000</b>	

<b>Total Park Facilities (\$000)</b>	<b>\$16,836.0</b>	<b>\$16,836.0</b>	<b>\$22,815.0</b>	<b>\$22,215.0</b>	<b>\$21,365.0</b>	<b>\$21,365.0</b>	<b>\$21,365.0</b>	<b>\$21,365.0</b>	<b>\$21,365.0</b>	<b>\$21,365.0</b>	<b>\$21,365.0</b>
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APPENDIX B.2  
TABLE 1

CITY OF NORTH BAY  
INVENTORY OF CAPITAL ASSETS  
PARKS & RECREATION  
OUTDOOR BUILDINGS AND ROLLING STOCK & EQUIPMENT

OUTDOOR BUILDINGS	# of Square Feet										UNIT COST (\$/sq.ft)	
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018		
Lee Park Building (including Memorial Drive Office)	7,160	7,160	7,160	7,160	6,400	7,200	7,200	7,200	7,200	7,200	7,200	\$385
Lee Park Shop Building	2,670	2,670	2,670	2,670	2,670	2,670	2,670	2,670	2,670	2,670	2,670	\$385
Central City Maintenance Building	2,450	2,450	2,450	2,450	2,450	2,450	2,450	2,450	2,450	2,450	2,450	\$385
Armstrong Park 1B	608	608	608	608	608	608	608	608	608	608	608	\$440
Bourke	950	950	950	950	950	950	950	950	950	950	950	\$360
Caldwell-Ellam	1,558	1,558	1,558	1,558	1,558	1,558	1,558	1,558	1,558	1,558	1,558	\$360
Cedar Heights	672	672	672	672	672	-	-	-	-	-	-	\$360
Champlain Park	780	780	780	780	780	780	780	780	780	780	780	\$440
Circle Lake Playground	1,894	1,894	1,894	1,894	1,894	1,894	1,894	1,894	1,894	1,894	1,894	\$360
Birchaven Cove - Washroom	630	630	630	630	630	630	630	630	630	630	630	\$440
Birchaven Cove - Lifeguard Shack	84	84	84	84	84	84	84	84	84	84	84	\$360
Feronia (2 Buildings)	608	608	608	608	608	-	-	-	-	-	-	\$360
Ferris Lions Park	144	144	144	144	144	144	144	144	144	144	144	\$220
Four Mile Lake - Changerooms	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	\$360
Four Mile Lake - Storage	100	100	100	100	100	100	100	100	100	100	100	\$220
Graniteville Rink Changerooms	816	816	816	816	816	816	816	816	816	816	816	\$360
Graniteville Playground Storage	360	360	360	360	360	360	360	360	360	360	360	\$220
Greenhill	912	912	912	912	912	912	912	912	912	912	912	\$360

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APPENDIX B.2  
TABLE 1

CITY OF NORTH BAY  
INVENTORY OF CAPITAL ASSETS  
PARKS & RECREATION  
OUTDOOR BUILDINGS AND ROLLING STOCK & EQUIPMENT

OUTDOOR BUILDINGS CONTINUED	# of Square Feet										UNIT COST (\$/sq.ft)	
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018		
Kerr Rink Changerooms	1,426	1,426	1,426	1,426	1,426	1,426	1,426	1,426	1,426	1,426	1,426	\$360
Kerr Park Shack	100	100	100	100	100	100	100	100	100	100	100	\$220
Kinette Playground	2,240	2,240	2,240	2,240	2,240	2,240	2,240	2,240	2,240	2,240	2,240	\$360
Kinsmen Beach	768	768	768	768	768	768	-	-	-	-	-	\$220
Kiwanis Playground	1,200	1,200	1,200	1,200	1,200	-	-	-	-	-	-	\$360
Marathon Beach	2,550	2,550	2,550	2,550	2,550	2,550	2,550	2,550	2,550	2,550	2,550	\$360
Police Playground	1,236	1,236	1,236	1,236	1,236	1,236	1,236	1,236	1,236	1,236	1,236	\$360
Portage Park	144	144	144	144	144	144	144	144	144	144	144	\$440
Silver Beach	420	420	420	420	420	-	-	-	-	-	-	\$360
Sunset Beach	780	780	780	780	780	780	780	780	780	780	780	\$440
Veronica Park	120	120	120	120	120	120	120	120	120	120	120	\$220
Veterans Park	1,920	1,920	1,920	1,920	1,920	1,920	1,920	1,920	1,920	1,920	1,920	\$440
Marina Building (Waterfront)	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	\$360
Maintenance building (Omischl)	1,837	1,837	1,837	1,837	1,837	1,837	1,837	1,837	1,837	1,837	1,837	\$385
Staff tournament office (Omischl)	940	940	940	940	940	940	940	940	940	940	940	\$385
Thomson Park Baseball Score Tower	288	288	288	288	288	288	288	288	288	288	288	\$220
<b>Total (sq.ft)</b>	<b>41,065</b>	<b>41,065</b>	<b>41,065</b>	<b>41,065</b>	<b>40,305</b>	<b>38,205</b>	<b>37,437</b>	<b>37,437</b>	<b>37,437</b>	<b>37,437</b>	<b>37,437</b>	
<b>Total (\$000)</b>	<b>\$15,286</b>	<b>\$15,286</b>	<b>\$15,286</b>	<b>\$15,286</b>	<b>\$14,993</b>	<b>\$14,257</b>	<b>\$14,088</b>	<b>\$14,088</b>	<b>\$14,088</b>	<b>\$14,088</b>	<b>\$14,088</b>	

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APPENDIX B.2  
TABLE 1

CITY OF NORTH BAY  
INVENTORY OF CAPITAL ASSETS  
PARKS & RECREATION  
OUTDOOR BUILDINGS AND ROLLING STOCK & EQUIPMENT

OTHER PARK FACILITIES	# of Other Park Facilities										UNIT COST (\$/Unit)
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	
Storage Building Government Dock	1	1	1	1	1	1	1	1	1	1	\$93,700
Boat House (Memorial Drive)	1	1	1	1	1	1	1	1	1	1	\$37,147
Washroom (Omischl)	1	1	1	1	1	1	1	1	1	1	\$1,199,200
Lee Park Washrooms/Picnic Shelter	1	1	1	1	1	1	1	1	1	1	\$636,000
Boardwalks	1	1	1	1	1	1	1	1	1	1	\$144,500
Floating docks (Memorial Drive)	1	1	1	1	1	1	1	1	1	1	\$872,100
Other Floating Docks (Birchaven Park)	1	1	1	1	1	1	1	1	1	1	\$21,140
ACT Shelter (Memorial Drive)	1	1	1	1	1	1	1	1	1	1	\$56,400
Government Dock	1	1	1	1	1	1	1	1	1	1	\$1,444,600
Kiwanis Bandshell (Waterfont)	1	1	1	1	1	1	1	1	1	1	\$384,400
Rotary Shelter	1	1	1	1	1	1	1	1	1	1	\$101,700
King's Landing Box Office	1	1	1	1	1	1	1	1	1	1	\$279,500
<b>Total (sq.ft)</b>	<b>12</b>	<b>12</b>	<b>12</b>	<b>12</b>	<b>12</b>	<b>12</b>	<b>12</b>	<b>12</b>	<b>12</b>	<b>12</b>	
<b>Total (\$000)</b>	<b>\$5,270</b>	<b>\$5,270</b>	<b>\$5,270</b>	<b>\$5,270</b>	<b>\$5,270</b>	<b>\$5,270</b>	<b>\$5,270</b>	<b>\$5,270</b>	<b>\$5,270</b>	<b>\$5,270</b>	

SMALL EQUIPMENT AND ROLLING STOCK	Total Value of Small Equipment & Rolling Stock									
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Hand Tools	\$59,000	\$59,000	\$59,000	\$59,000	\$59,000	\$59,000	\$59,000	\$59,000	\$59,000	\$59,000
Large Shop Tools	\$80,000	\$80,000	\$80,000	\$80,000	\$80,000	\$80,000	\$80,000	\$80,000	\$80,000	\$80,000
Gas Powered Equipment	\$179,000	\$179,000	\$187,000	\$193,000	\$199,000	\$199,000	\$199,000	\$199,000	\$199,000	\$199,000
Rolling Stock & Equipment	\$2,275,230	\$2,645,080	\$2,824,780	\$2,734,109	\$2,818,009	\$2,735,009	\$2,660,009	\$2,609,109	\$2,516,066	\$2,475,450
<b>Total (\$000)</b>	<b>\$2,593.2</b>	<b>\$2,963.1</b>	<b>\$3,150.8</b>	<b>\$3,066.1</b>	<b>\$3,156.0</b>	<b>\$3,073.0</b>	<b>\$2,998.0</b>	<b>\$2,947.1</b>	<b>\$2,854.1</b>	<b>\$2,813.5</b>
<b>Total Outdoor Buildings &amp; Rolling Stock (\$000)</b>	<b>\$23,149</b>	<b>\$23,519</b>	<b>\$23,707</b>	<b>\$23,622</b>	<b>\$23,419</b>	<b>\$22,600</b>	<b>\$22,356</b>	<b>\$22,306</b>	<b>\$22,212</b>	<b>\$22,172</b>

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APPENDIX B.2  
TABLE 1

CITY OF NORTH BAY  
CALCULATION OF SERVICE LEVELS  
PARKS & RECREATION

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Historical Population	53,780	53,718	53,655	53,227	52,803	52,382	51,964	51,550	51,614	51,679

INVENTORY SUMMARY (\$000)

- Indoor Recreation	\$80,982.8	\$81,030.8	\$81,030.8	\$81,146.3	\$81,146.3	\$91,955.7	\$92,327.7	\$92,521.7	\$92,676.7	\$92,676.7
- Park Development	\$34,078.5	\$34,078.5	\$34,090.0	\$34,090.0	\$34,090.0	\$34,013.6	\$34,013.6	\$34,013.6	\$34,013.6	\$34,013.6
- Park Facilities	\$16,836.0	\$16,836.0	\$22,815.0	\$22,215.0	\$21,365.0	\$21,365.0	\$21,365.0	\$21,365.0	\$21,365.0	\$21,365.0
- Outdoor Buildings and Rolling Stock & Equipment	\$23,149.2	\$23,519.1	\$23,706.8	\$23,622.1	\$23,419.4	\$22,600.4	\$22,356.4	\$22,305.5	\$22,212.5	\$22,171.9
<b>Total (\$000)</b>	<b>\$155,046.6</b>	<b>\$155,464.4</b>	<b>\$161,642.6</b>	<b>\$161,073.4</b>	<b>\$160,020.7</b>	<b>\$169,934.6</b>	<b>\$170,062.7</b>	<b>\$170,205.8</b>	<b>\$170,267.7</b>	<b>\$170,227.1</b>

Average  
Service  
Level

SERVICE LEVEL (\$/capita)

- Indoor Recreation	\$1,505.82	\$1,508.45	\$1,510.22	\$1,524.53	\$1,536.78	\$1,755.48	\$1,776.76	\$1,794.79	\$1,795.57	\$1,793.31	\$1,650.17
- Park Development	\$633.67	\$634.40	\$635.36	\$640.46	\$645.61	\$649.34	\$654.56	\$659.82	\$659.00	\$658.17	\$647.04
- Park Facilities	\$313.05	\$313.41	\$425.22	\$417.36	\$404.62	\$407.87	\$411.15	\$414.45	\$413.94	\$413.42	\$393.45
- Outdoor Buildings and Rolling Stock & Equipment	\$430.44	\$437.82	\$441.84	\$443.80	\$443.52	\$431.45	\$430.23	\$432.70	\$430.36	\$429.03	\$435.12
<b>Total (\$/capita)</b>	<b>\$2,882.98</b>	<b>\$2,894.08</b>	<b>\$3,012.63</b>	<b>\$3,026.16</b>	<b>\$3,030.52</b>	<b>\$3,244.14</b>	<b>\$3,272.70</b>	<b>\$3,301.76</b>	<b>\$3,298.87</b>	<b>\$3,293.93</b>	<b>\$3,125.78</b>

CITY OF NORTH BAY  
CALCULATION OF MAXIMUM ALLOWABLE  
PARKS & RECREATION

<b>10-Year Funding Envelope Calculation</b>	
10 Year Average Service Level (2009-2018)	\$3,125.78
Net Population Growth 2019 - 2028	420
Maximum Allowable Funding Envelope	\$1,312,828
Less: Uncommitted Excess Capacity	\$0
Less: 10% Legislated Discount	\$131,283
<b>Discounted Maximum Allowable Funding Envelope</b>	<b>\$1,181,545</b>

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TABLE 2

CITY OF NORTH BAY  
DEVELOPMENT-RELATED CAPITAL PROGRAM  
PARKS & RECREATION

Project Description	Reference #	Timing	Gross Project Cost	Grants/ Subsidies/Other Recoveries	Net Municipal Cost	Ineligible Costs		Total DC Eligible Costs	DC Eligible Costs		
						Replacement & BTE Shares	10% Reduction		Available DC Reserves	2019-2028	Post 2028
<b>2.0 PARKS &amp; RECREATION</b>											
<b>2.1 Park Facilities</b>											
2.1.1 Splash Pad	3824PR	2019	\$ 770,500	\$ 641,000	\$ 129,500	\$ -	\$ 12,950	\$ 116,550	\$ -	\$ -	\$ 116,550
2.1.2 Bourke Park Building	3947PR	2019	\$ 100,000	\$ -	\$ 100,000	\$ 80,000	\$ 2,000	\$ 18,000	\$ -	\$ -	\$ 18,000
2.1.3 Active Transportation Projects	3930TR	2019	\$ 430,000	\$ 344,000	\$ 86,000	\$ -	\$ 8,600	\$ 77,400	\$ -	\$ -	\$ 77,400
2.1.4 Trail System Development Program (West Link)	3718PR	2019	\$ 850,000	\$ 325,000	\$ 525,000	\$ -	\$ 52,500	\$ 472,500	\$ 384,500	\$ 88,000	\$ -
2.1.5 Active Transportation Projects	3930TR	2020	\$ 145,000	\$ 116,000	\$ 29,000	\$ -	\$ 2,900	\$ 26,100	\$ -	\$ -	\$ 26,100
2.1.6 Bourke Park Building	3947PR	2020	\$ 350,000	\$ -	\$ 350,000	\$ 280,000	\$ 7,000	\$ 63,000	\$ -	\$ -	\$ 63,000
2.1.7 Trillium Woods Park - Playground Structure	3508PR	2021	\$ 200,000	\$ -	\$ 200,000	\$ -	\$ 20,000	\$ 180,000	\$ -	\$ -	\$ 180,000
2.1.8 Kings Landing Commercialization of Waterfront	3518PR	2023	\$ 3,386,250	\$ 2,274,736	\$ 1,111,514	\$ -	\$ 111,151	\$ 1,000,363	\$ -	\$ 478,231	\$ 522,131
2.1.9 Waterfront Building Rehab	3702PR	2023	\$ 2,000,000	\$ 116,000	\$ 1,884,000	\$ 1,413,000	\$ 47,100	\$ 423,900	\$ -	\$ -	\$ 423,900
2.1.10 King's Landing Commercialization of Waterfront	3518PR	2024	\$ 4,000,000	\$ 2,640,000	\$ 1,360,000	\$ -	\$ 136,000	\$ 1,224,000	\$ -	\$ -	\$ 1,224,000
2.1.11 King's Landing Commercialization of Waterfront	3518PR	2025	\$ 2,000,000	\$ 1,320,000	\$ 680,000	\$ -	\$ 68,000	\$ 612,000	\$ -	\$ -	\$ 612,000
2.1.12 Sugar Bush Park - Mini Soccer Fields/Playground	3508PR	2024	\$ 200,000	\$ -	\$ 200,000	\$ -	\$ 20,000	\$ 180,000	\$ -	\$ -	\$ 180,000
2.1.13 Cedar Heights - Mini Soccer Fields/Playground	3508PR	2027	\$ 200,000	\$ -	\$ 200,000	\$ -	\$ 20,000	\$ 180,000	\$ -	\$ -	\$ 180,000
2.1.14 Lavase Park Development Study	6445PR	2027	\$ 100,000	\$ -	\$ 100,000	\$ -	\$ 10,000	\$ 90,000	\$ -	\$ -	\$ 90,000
Subtotal Park Facilities			\$ 14,731,750	\$ 7,776,736	\$ 6,955,014	\$ 1,773,000	\$ 518,201	\$ 4,663,813	\$ 384,500	\$ 566,231	\$ 3,713,081
<b>2.2 Buildings, Land and Furnishings</b>											
2.2.1 New Arena (Twin Pad)	N/A	2022	\$ 30,000,000	\$ -	\$ 30,000,000	\$ 15,000,000	\$ 1,500,000	\$ 13,500,000	\$ 50,237	\$ 565,857	\$ 12,883,906
Subtotal Buildings, Land and Furnishings			\$ 30,000,000	\$ -	\$ 30,000,000	\$ 15,000,000	\$ 1,500,000	\$ 13,500,000	\$ 50,237	\$ 565,857	\$ 12,883,906
<b>TOTAL PARKS &amp; RECREATION</b>			<b>\$ 44,731,750</b>	<b>\$ 7,776,736</b>	<b>\$ 36,955,014</b>	<b>\$ 16,773,000</b>	<b>\$ 2,018,201</b>	<b>\$ 18,163,813</b>	<b>\$ 434,737</b>	<b>\$ 1,132,088</b>	<b>\$ 16,596,987</b>

Residential Development Charge Calculation		
Residential Share of 2019 - 2028 DC Eligible Costs	100%	\$1,132,088
10-Year Growth in Population in New Units		1,895
Unadjusted Development Charge Per Capita		<b>\$597.48</b>
Non-Residential Development Charge Calculation		
Non-Residential Share of 2019 - 2028 DC Eligible Costs	0%	\$0
10-Year Growth in Square Metres		20,000
Unadjusted Development Charge Per Square Metre		<b>\$0.00</b>

2019 - 2028 Net Funding Envelope	\$1,181,545
Uncommitted Reserve Fund Balance	
Balance as at December 31, 2018	\$434,737



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APPENDIX B.2  
TABLE 3

**CITY OF NORTH BAY  
CASHFLOW AND DETERMINATION OF DEVELOPMENT CHARGE  
PARKS & RECREATION  
RESIDENTIAL DEVELOPMENT CHARGE  
(in \$000)**

<b>PARKS &amp; RECREATION</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>2025</b>	<b>2026</b>	<b>2027</b>	<b>2028</b>	<b>TOTAL</b>
OPENING CASH BALANCE	\$0.0	\$31.3	\$155.6	\$286.7	(\$190.8)	(\$601.2)	(\$500.9)	(\$392.4)	(\$275.2)	(\$142.7)	
2019 - 2028 RESIDENTIAL FUNDING REQUIREMENTS											
- Parks & Recreation: Non Inflated	\$88.0	\$0.0	\$0.0	\$565.9	\$478.2	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$1,132.1
- Parks & Recreation: Inflated	\$88.0	\$0.0	\$0.0	\$600.5	\$517.7	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$1,206.1
NEW RESIDENTIAL DEVELOPMENT											
- Population Growth in New Units	188	188	188	188	188	188	188	188	196	196	1,895
REVENUE											
- DC Receipts: Inflated	\$118.7	\$121.1	\$123.5	\$126.0	\$128.5	\$131.1	\$133.7	\$136.4	\$145.1	\$148.0	\$1,312.0
INTEREST											
- Interest on Opening Balance	\$0.0	\$1.1	\$5.4	\$10.0	(\$10.5)	(\$33.1)	(\$27.5)	(\$21.6)	(\$15.1)	(\$7.8)	(\$99.1)
- Interest on In-year Transactions	\$0.5	\$2.1	\$2.2	(\$13.0)	(\$10.7)	\$2.3	\$2.3	\$2.4	\$2.5	\$2.6	(\$6.8)
TOTAL REVENUE	\$119.3	\$124.3	\$131.1	\$123.0	\$107.3	\$100.3	\$108.5	\$117.2	\$132.5	\$142.7	\$1,206.1
CLOSING CASH BALANCE	\$31.3	\$155.6	\$286.7	(\$190.8)	(\$601.2)	(\$500.9)	(\$392.4)	(\$275.2)	(\$142.7)	(\$0.0)	

<b>2019 Adjusted Charge Per Capita</b>	<b>\$631.95</b>
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<b>Allocation of Capital Program</b>	
Residential Sector	100.0%
Non-Residential Sector	0.0%
<b>Rates for 2019</b>	
Inflation Rate	2.0%
Interest Rate on Positive Balances	3.5%
Interest Rate on Negative Balances	5.5%

## APPENDIX C

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### *PROTECTION SERVICES TECHNICAL APPENDIX*

## APPENDIX C

### PROTECTION SERVICES TECHNICAL APPENDIX

The following appendix provides the detailed analysis undertaken to establish the development charge rates for Protection Services in the City of North Bay. This consists of Fire Protection Services and Police Services. Protection Services are considered City-wide services for the purposes of calculating the development charge.

An in-depth discussion of the calculation methodology and the purpose of each table can be found in the introduction to Appendix B. For Protection Services, the development-related costs have been apportioned 85 per cent residential and 15 per cent non-residential. This apportionment is based on the anticipated shares of population and employment growth over the ten-year forecast period.

The City of North Bay provides various protection services to its population, including Fire and Emergency Services, and Police. The City's Fire and Emergency Services is responsible for the provision of fire protection and prevention services across North Bay. The department has a complement of dedicated staff responding to fires, medical emergencies, transportation accidents, industrial accidents, rescues, and a wide range of other life-threatening emergencies. North Bay's Police Department offers policing and protection services as well as various community outreach programs.

#### **TABLE 1      HISTORICAL SERVICE LEVELS**

Table 1 displays the ten-year historical inventory for buildings, land, vehicles and equipment for fire and police. Fire and Emergency Services currently operates out of four stations with a total building area of 38,464 square feet. The total replacement value of the stations is \$12.88 million. The land associated with all four fire stations totals 1.69 hectares and is valued at \$659,100. The 2018 fire department fleet totals 23 vehicles with a replacement value of \$9.86 million. Equipment in all stations is valued at approximately \$2.79 million.

The North Bay Police Department currently operates out of one building, referred to in Table 1 as Police Headquarters. The building totals approximately 45,946 square feet, which is valued at \$18.38 million. The building occupies 0.88 hectares worth \$343,290. The police fleet eligible under the DCA (which have a useful over 7 years) is currently valued at \$103,000.

Finally, the total value of furniture and equipment associated with North Bay's Police Department adds \$2.34 million to the total value of the inventory.

The 2018 combined total replacement value of the inventory of capital assets for Protection Services (fire and police) is \$47.35 million, resulting in a ten-year historical average service level of \$572.12 per population and employee. The historical service level, multiplied by the ten-year growth in population and employment (770), results in a ten-year maximum allowable funding envelope of \$440,532.

**TABLE 2      2019–2028 DEVELOPMENT-RELATED CAPITAL PROGRAM &  
CALCULATION OF THE “UNADJUSTED” DEVELOPMENT CHARGES**

The Protection Services (Fire and Police) capital program mainly provides for the Mobile Training Centres in 2019 for a total of \$305,000. The capital program also provides for a Fire Master Plan in 2022 for a cost of \$100,000. Finally, New Specialized Equipment for Police is anticipated annually between 2019 to 2022 for a total cost of \$600,000.

Altogether, the ten-year capital forecast for Protection Services amounts to \$1.00 million. A transfer from a fire training reserve of \$25,000 is anticipated for the Mobile Training Centres resulting in the net cost to the municipality of \$980,000. Recognizing that the Mobile Training Centre will benefit existing residents and employees, 50 per cent or \$140,000 has been netted off the total net municipal cost. In addition, a 50 per cent share of the Fire Master Plan is identified as a benefit to the existing population. This share of the program amounts to \$190,000 and it will not be recovered through development charges. The available DC reserve funds of \$420,158 have been applied to the capital program to contribute funding to the projects occurring first. Given that protection services are exempt from the ten per cent reduction, no deduction is made.

The remaining \$369,842 is related to development in the 2019–2028 planning period and is eligible for DC recovery. The development-related net capital cost of \$369,842 is allocated 85 per cent to residential development (\$314,366) and 15 per cent to non-residential development (\$55,476). The residential share of the net development-related capital cost is divided by the ten-year population growth in new dwelling units to derive an unadjusted charge of \$165.91 per capita. The non-residential share of the net growth related capital cost is divided by the ten-year forecast growth in floor space, resulting in an unadjusted charge of \$2.77 per square metre.

**TABLE 3 CASH FLOW ANALYSIS**

After cash flow consideration, the residential charge increases to \$179.70 per capita and the non-residential rate increases to \$3.01 per square metre due to the timing of the capital program and development charges revenues. The following table summarizes the calculation of the Protection Services development charge.

<b>PROTECTION - FIRE &amp; POLICE</b>						
10-year Hist. Service Level Per Pop & Emp	2019-2028		Unadjusted		Adjusted	
	Growth-Related Total	Capital Program Net DC Recoverable	Development Charge \$/capita	\$/sq.m	Development Charge \$/capita	\$/sq.m
\$572.12	\$1,005,000	\$369,842	\$165.91	\$2.77	<b>\$179.70</b>	<b>\$3.01</b>

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CITY OF NORTH BAY  
INVENTORY OF CAPITAL ASSETS  
PROTECTION - FIRE SERVICES

BUILDINGS Station Name	# of Square Feet										UNIT COST (\$/sq. ft.)	
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018		
Station #1 - Princess Street	15,365	15,365	15,365	15,365	15,365	15,365	15,365	15,365	15,365	15,365	15,365	\$385
Station #2 - McKeown Street	5,595	5,595	5,595	5,595	5,595	5,595	5,595	5,595	5,595	5,595	5,595	\$385
Station #3 - Marshall	6,456	6,456	6,456	6,456	6,456	6,456	6,456	6,456	6,456	6,456	6,456	\$385
Station #4 - CFB	11,048	11,048	11,048	11,048	11,048	11,048	11,048	11,048	11,048	11,048	11,048	\$210
<b>Total (sq. ft.)</b>	<b>38,464</b>	<b>38,464</b>	<b>38,464</b>	<b>38,464</b>	<b>38,464</b>	<b>38,464</b>	<b>38,464</b>	<b>38,464</b>	<b>38,464</b>	<b>38,464</b>	<b>38,464</b>	
<b>Total (\$000)</b>	<b>\$12,875.2</b>	<b>\$12,875.2</b>	<b>\$12,875.2</b>	<b>\$12,875.2</b>	<b>\$12,875.2</b>	<b>\$12,875.24</b>	<b>\$12,875.24</b>	<b>\$12,875.24</b>	<b>\$12,875.24</b>	<b>\$12,875.24</b>	<b>\$12,875.24</b>	

LAND Station Name	# of Hectares										UNIT COST (\$/ha)	
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018		
Station #1 - Princess Street	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	\$390,000
Station #2 - McKeown Street	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.33	\$390,000
Station #3 - Marshall	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	\$390,000
Station #4 - CFB	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	\$390,000
<b>Total (ha)</b>	<b>1.69</b>	<b>1.69</b>	<b>1.69</b>	<b>1.69</b>	<b>1.69</b>	<b>1.69</b>	<b>1.69</b>	<b>1.69</b>	<b>1.69</b>	<b>1.69</b>	<b>1.69</b>	
<b>Total (\$000)</b>	<b>\$657.7</b>	<b>\$657.7</b>	<b>\$657.7</b>	<b>\$657.7</b>	<b>\$657.7</b>	<b>\$659.10</b>	<b>\$659.10</b>	<b>\$659.10</b>	<b>\$659.10</b>	<b>\$659.10</b>	<b>\$659.10</b>	

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CITY OF NORTH BAY  
INVENTORY OF CAPITAL ASSETS  
PROTECTION - FIRE SERVICES

VEHICLES (# at all stations & divisions) Type of Collection	# of Vehicles										UNIT COST (\$/vehicle)	
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018		
1987 Mac Pumper #183 init#6	1	-	-	-	-	-	-	-	-	-	-	\$650,000
1976 Mac Pumper #184 unit#7	1	-	-	-	-	-	-	-	-	-	-	\$650,000
1997 Quint Pumper #194 Unit #30	1	1	1	1	1	1	1	1	1	1	1	\$1,200,000
2007 Dodge Ram #631 unit#58	1	1	1	1	1	1	1	1	1	1	1	\$150,000
1999 GM Tanker Truck #330 unit#37	1	1	1	1	1	1	1	1	1	1	1	\$350,000
1973 Snorkel #186 unit#11	-	-	-	-	-	-	-	-	-	-	-	\$1,500,000
1993 Pumper -spartan #78 unit#22	1	1	1	1	1	1	1	1	1	1	1	\$650,000
1992 Mac Rescue #188 unit #20	1	1	1	1	-	-	-	-	-	-	-	\$400,000
1997 GM 4 X 4 3/4 ton #193 unit#29	1	1	-	-	-	-	-	-	-	-	-	\$55,000
2004 24"Trailer Hazardous waste #496 unit#49	1	1	1	1	1	1	1	1	1	1	1	\$10,700
1993 Oshcosh Tanker #201 unit#99	1	1	1	1	1	1	1	1	1	1	1	\$1,250,000
1998 GM Suburban 4 x 4 #196 unit#32	1	1	1	-	-	-	-	-	-	-	-	\$50,000
2005 Ford Excursion #503 unit#50	1	1	1	1	-	-	-	-	-	-	-	\$50,000
2013 ROS ARFF 4x4 #890 unit#67	-	-	-	-	1	1	1	1	1	1	1	\$1,250,000
1997 Safety Trailer #200 unit#36	1	1	1	1	1	1	1	1	1	1	1	\$25,850
2005 Vnose Trailer #871 unit#51	1	1	1	1	1	1	1	1	1	1	1	\$8,500
Station 1 Impala #671 unit#59	1	1	1	1	1	1	1	-	-	-	-	\$29,000

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CITY OF NORTH BAY  
INVENTORY OF CAPITAL ASSETS  
PROTECTION - FIRE SERVICES

VEHICLES (# at all stations & divisions) Con't Type of Collection	# of Vehicles										UNIT COST (\$/vehicle)
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	
2006 Impala #567 unit#55	1	1	1	1	-	-	-	-	-	-	\$29,000
2006 Impala #569 Unit #57	1	1	1	1	-	-	-	-	-	-	\$29,000
1988 Aerial #566 unit#54	1	1	1	1	1	1	1	1	-	-	\$1,500,000
2001 Aerial #437 unit #42	1	1	1	1	1	1	1	1	1	1	\$1,500,000
2001 Chev Sliverado #382 Unit 47	1	1	1	1	1	1	1	-	-	-	\$39,000
2001 Chev Silverado #381 unit#48	1	1	1	1	1	1	1	-	-	-	\$39,000
2013 Express Cargo van #871 unit#50	-	-	-	-	1	1	1	1	1	1	\$45,000
2009 Fire Prevent Focus #8	-	-	-	1	1	1	1	1	1	1	\$29,000
2012 Ford Escape #804 unit#9	-	-	-	-	1	1	1	1	1	1	\$29,000
2012 Ford Expedition #55	-	-	-	1	1	1	1	1	1	1	\$50,000
2012 Ford Expedition #57	-	-	-	1	1	1	1	1	1	1	\$50,000
2009 Pumper 1 #719 Unit #61	1	1	1	1	1	1	1	1	1	1	\$650,000
2009 Pumper 2 #720 unit#62	1	1	1	1	1	1	1	1	1	1	\$650,000
2010 3/4 ton 4x4 unit#63	-	1	1	1	1	1	1	1	1	1	\$55,000
2010 Express Cargo van unit#65	-	-	1	1	1	1	1	1	1	1	\$45,000
2012 Pumper unit#66	-	-	-	1	1	1	1	1	1	1	\$650,000
2016 -EONE-Aerial	-	-	-	-	-	-	-	1	1	1	\$1,200,000
2014-Dodge Journey SUV	-	-	-	-	-	1	1	1	1	1	\$29,000
2006-Polaris 500 Indy Trail	1	1	1	1	1	1	1	1	1	1	\$7,800
<b>Total (#)</b>	<b>24</b>	<b>23</b>	<b>23</b>	<b>26</b>	<b>25</b>	<b>26</b>	<b>26</b>	<b>24</b>	<b>23</b>	<b>23</b>	
<b>Total (\$000)</b>	<b>\$9,972.8</b>	<b>\$8,727.8</b>	<b>\$8,717.8</b>	<b>\$9,446.8</b>	<b>\$10,262.8</b>	<b>\$10,291.8</b>	<b>\$10,291.8</b>	<b>\$11,384.8</b>	<b>\$9,884.8</b>	<b>\$9,862.3</b>	



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CITY OF NORTH BAY  
INVENTORY OF CAPITAL ASSETS  
PROTECTION - FIRE SERVICES

FURNITURE & EQUIPMENT (\$)	Total Value of Furniture and Equipment (\$)									
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Hoses and Nozzles	\$200,100	\$200,100	\$200,100	\$200,100	\$200,100	\$200,100	\$200,100	\$200,100	\$200,100	\$200,100
Portable Pumps	\$25,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000
Thermal Imagine Cameras	\$48,000	\$48,000	\$48,000	\$72,000	\$72,000	\$72,000	\$72,000	\$60,000	\$60,000	\$60,000
Saws	\$9,700	\$9,700	\$9,700	\$9,700	\$9,700	\$9,700	\$9,700	\$9,700	\$9,700	\$9,700
Self Contained Breathing Apparatus	\$554,000	\$554,000	\$554,000	\$554,000	\$554,000	\$554,000	\$554,000	\$554,000	\$554,000	\$554,000
Light Trailer	\$26,650	\$26,650	\$26,650	\$26,650	\$26,650	\$26,650	\$26,650	\$26,650	\$26,650	\$0
Radio System	\$700,000	\$700,000	\$700,000	\$700,000	\$700,000	\$700,000	\$700,000	\$700,000	\$700,000	\$700,000
Chemical Biological Response Equipment	\$213,000	\$213,000	\$213,000	\$213,000	\$213,000	\$213,000	\$213,000	\$213,000	\$213,000	\$213,000
Jaws of Life	\$225,000	\$225,000	\$225,000	\$225,000	\$225,000	\$225,000	\$225,000	\$225,000	\$225,000	\$225,000
Furniture in buildings	\$269,380	\$269,380	\$269,380	\$269,380	\$269,380	\$269,380	\$269,380	\$269,380	\$269,380	\$269,380
Lifting Bag Equipment	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$8,500	\$8,500
Bunker Gear	\$261,000	\$261,000	\$261,000	\$261,000	\$261,000	\$261,000	\$453,000	\$453,000	\$453,000	\$453,000
PPV Fans	\$36,000	\$36,000	\$36,000	\$36,000	\$36,000	\$36,000	\$36,000	\$36,000	\$36,000	\$48,000
Ladders (included in truck cost)										
Defibrillators	\$12,000	\$12,000	\$12,000	\$12,000	\$12,000	\$12,000	\$12,000	\$12,000	\$12,000	\$12,000
Generators	\$8,000	\$8,000	\$8,000	\$8,000	\$8,000	\$8,000	\$8,000	\$8,000	\$8,000	\$8,000
Ice Water Rescye Equipment	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000
<b>Total (\$000)</b>	<b>\$2,607.8</b>	<b>\$2,592.8</b>	<b>\$2,592.8</b>	<b>\$2,616.8</b>	<b>\$2,616.8</b>	<b>\$2,616.8</b>	<b>\$2,808.8</b>	<b>\$2,796.8</b>	<b>\$2,805.3</b>	<b>\$2,790.7</b>

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CITY OF NORTH BAY  
 INVENTORY OF CAPITAL ASSETS  
 PROTECTION - POLICE SERVICES

BUILDINGS	# of Square Feet										2018	
	Station Name	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	UNIT COST (\$/sq. ft.)
Police Headquarters	45,946	45,946	45,946	45,946	45,946	45,946	45,946	45,946	45,946	45,946	45,946	\$400
<b>Total (sq.ft.)</b>	<b>45,946</b>	<b>45,946</b>	<b>45,946</b>	<b>45,946</b>	<b>45,946</b>	<b>45,946</b>	<b>45,946</b>	<b>45,946</b>	<b>45,946</b>	<b>45,946</b>	<b>45,946</b>	
<b>Total (\$000)</b>	<b>\$18,378.4</b>	<b>\$18,378.4</b>	<b>\$18,378.4</b>	<b>\$18,378.4</b>	<b>\$18,378.4</b>	<b>\$18,378.4</b>	<b>\$18,378.40</b>	<b>\$18,378.40</b>	<b>\$18,378.40</b>	<b>\$18,378.40</b>	<b>\$18,378.40</b>	

LAND	# of Hectares										UNIT COST	
	Station Name	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	(\$/ha)
Police Headquarters	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	\$390,100
<b>Total (ha)</b>	<b>0.88</b>	<b>0.88</b>	<b>0.88</b>	<b>0.88</b>	<b>0.88</b>	<b>0.88</b>	<b>0.88</b>	<b>0.88</b>	<b>0.88</b>	<b>0.88</b>	<b>0.88</b>	
<b>Total (\$000)</b>	<b>\$343.3</b>	<b>\$343.3</b>	<b>\$343.3</b>	<b>\$343.3</b>	<b>\$343.3</b>	<b>\$343.3</b>	<b>\$343.29</b>	<b>\$343.29</b>	<b>\$343.29</b>	<b>\$343.29</b>	<b>\$343.29</b>	

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CITY OF NORTH BAY  
INVENTORY OF CAPITAL ASSETS  
PROTECTION - POLICE SERVICES

ROLLING STOCK (# at all stations & divisions) Type of Collection	# of Vehicles										UNIT COST (\$/vehicle)	
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018		
Prisoner Econo Van 820 (old)	1	1	1	-	-	-	-	-	-	-	-	\$33,000
E350 Prisoner Econo Van 820	-	-	-	1	1	1	1	1	1	1	1	\$33,000
E350 SUPERDUTY-EXTENDED 818	-	-	-	-	1	1	1	1	1	1	1	\$38,000
E250 Econoline Cargo-Forensics 813	-	-	-	-	1	1	1	1	1	1	1	\$32,000
<b>Total (#)</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>3</b>	
<b>Total (\$000)</b>	<b>\$33.0</b>	<b>\$33.0</b>	<b>\$33.0</b>	<b>\$33.0</b>	<b>\$103.0</b>	<b>\$103.0</b>	<b>\$103.0</b>	<b>\$103.0</b>	<b>\$103.0</b>	<b>\$103.0</b>	<b>\$103.0</b>	

FURNITURE & EQUIPMENT (\$)	Total Value of Furniture and Equipment (\$)										
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	
Pistols	\$103,000	\$103,000	\$103,000	\$103,000	\$103,000	\$103,000	\$103,000	\$103,000	\$103,000	\$103,000	\$103,000
Training Pistols	\$17,000	\$17,000	\$17,000	\$17,000	\$17,000	\$3,900	\$3,900	\$3,900	\$3,900	\$3,900	\$3,900
Shotguns	\$23,200	\$23,200	\$23,200	\$23,200	\$23,200	\$23,200	\$23,200	\$23,200	\$23,200	\$23,200	\$23,200
Rifles	\$84,000	\$84,000	\$84,000	\$84,000	\$84,000	\$87,000	\$87,000	\$87,000	\$87,000	\$87,000	\$87,000
Eoteck Optics	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$8,500
Degausser	\$8,500	\$8,500	\$8,500	\$8,500	\$8,500	\$0	\$0	\$0	\$0	\$0	\$0
EU6500 Watt Generator	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000
Tasers	\$14,000	\$14,000	\$14,000	\$14,000	\$14,000	\$45,600	\$45,600	\$45,600	\$45,600	\$45,600	\$45,600
Specialized Weapons	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000
Electronic Finger Printing Equipment	\$80,000	\$80,000	\$80,000	\$80,000	\$80,000	\$80,000	\$80,000	\$80,000	\$80,000	\$80,000	\$80,000
Specialized Investigative Equipment	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000
Radio Communications	\$1,200,000	\$1,200,000	\$1,200,000	\$1,200,000	\$1,200,000	\$1,300,000	\$1,300,000	\$1,300,000	\$1,300,000	\$1,300,000	\$1,300,000
Maintenance Tools	\$20,000	\$35,000	\$35,000	\$35,000	\$35,000	\$35,000	\$35,000	\$35,000	\$35,000	\$35,000	\$35,000
Office/Specialized Furniture and Equipment	\$530,100	\$530,100	\$530,100	\$530,100	\$530,100	\$537,940	\$537,940	\$537,940	\$537,940	\$537,940	\$537,940
<b>Total (\$000)</b>	<b>\$2,195.8</b>	<b>\$2,210.8</b>	<b>\$2,210.8</b>	<b>\$2,210.8</b>	<b>\$2,210.8</b>	<b>\$2,331.6</b>	<b>\$2,331.6</b>	<b>\$2,331.6</b>	<b>\$2,331.6</b>	<b>\$2,331.6</b>	<b>\$2,340.1</b>

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CITY OF NORTH BAY  
CALCULATION OF SERVICE LEVELS  
PROTECTION - FIRE & POLICE

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Historical Population	53,780	53,718	53,655	53,227	52,803	52,382	51,964	51,550	51,614	51,679
Historical Employment	<u>30,845</u>	<u>31,220</u>	<u>31,600</u>	<u>30,938</u>	<u>30,290</u>	<u>29,655</u>	<u>29,034</u>	<u>28,425</u>	<u>28,442</u>	<u>28,459</u>
Total Population and Employment	84,625	84,938	85,255	84,165	83,093	82,037	80,998	79,975	80,056	80,138

INVENTORY SUMMARY (\$000)

- Buildings	\$31,253.6	\$31,253.6	\$31,253.6	\$31,253.6	\$31,253.6	\$31,253.6	\$31,253.6	\$31,253.6	\$31,253.6	\$31,253.6
- Land	\$1,001.0	\$1,001.0	\$1,001.0	\$1,001.0	\$1,001.0	\$1,002.4	\$1,002.4	\$1,002.4	\$1,002.4	\$1,002.4
- Rolling Stock	\$10,005.8	\$8,760.8	\$8,750.8	\$9,479.8	\$10,365.8	\$10,394.8	\$10,394.8	\$11,487.8	\$9,987.8	\$9,965.3
- Furniture & Equipment	\$4,803.6	\$4,803.6	\$4,803.6	\$4,827.6	\$4,827.6	\$4,948.5	\$5,140.5	\$5,128.5	\$5,137.0	\$5,130.8
<b>Total (\$000)</b>	<b>\$47,064.2</b>	<b>\$45,819.2</b>	<b>\$45,809.2</b>	<b>\$46,562.2</b>	<b>\$47,448.2</b>	<b>\$47,599.3</b>	<b>\$47,791.3</b>	<b>\$48,872.3</b>	<b>\$47,380.8</b>	<b>\$47,352.2</b>

SERVICE LEVEL (\$/pop & emp)											Average Service Level
- Buildings	\$369.32	\$367.96	\$366.59	\$371.34	\$376.13	\$380.97	\$385.86	\$390.79	\$390.40	\$390.00	\$378.93
- Land	\$11.83	\$11.79	\$11.74	\$11.89	\$12.05	\$12.22	\$12.38	\$12.53	\$12.52	\$12.51	\$12.15
- Rolling Stock	\$118.24	\$103.14	\$102.64	\$112.63	\$124.75	\$126.71	\$128.33	\$143.64	\$124.76	\$124.35	\$120.92
- Furniture & Equipment	\$56.76	\$56.55	\$56.34	\$57.36	\$58.10	\$60.32	\$63.46	\$64.13	\$64.17	\$64.02	\$60.12
<b>Total (\$/pop &amp; emp)</b>	<b>\$556.15</b>	<b>\$539.44</b>	<b>\$537.32</b>	<b>\$553.22</b>	<b>\$571.02</b>	<b>\$580.22</b>	<b>\$590.03</b>	<b>\$611.10</b>	<b>\$591.85</b>	<b>\$590.88</b>	<b>\$572.12</b>

CITY OF NORTH BAY  
CALCULATION OF MAXIMUM ALLOWABLE  
PROTECTION - FIRE & POLICE

10-Year Funding Envelope Calculation	
10 Year Average Service Level (2009-2018)	\$572.12
Net Pop and Employment 2019 - 2028	770
<b>Maximum Allowable Funding Envelope</b>	<b>\$440,532</b>

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TABLE 2

CITY OF NORTH BAY  
DEVELOPMENT-RELATED CAPITAL PROGRAM  
PROTECTION - FIRE & POLICE

Project Description	Reference #	Timing	Gross Project Cost	Grants/ Subsidies/Other Recoveries	Net Municipal Cost	Ineligible Costs		Total DC Eligible Costs	DC Eligible Costs			
						Replacement & BTE Shares	0% Reduction		Available DC Reserves	2019-2028	Post 2028	
<b>1.0 PROTECTION - FIRE &amp; POLICE</b>												
<b>1.1 Buildings, Land &amp; Furnishings</b>												
1.1.1 Mobile Training Centres	3603FD	2019	\$ 305,000	\$ 25,000	\$ 280,000	\$ 140,000	\$ -	\$ 140,000	\$ 140,000	\$ -	\$ -	\$ -
Subtotal Buildings, Land & Furnishings			\$ 305,000	\$ 25,000	\$ 280,000	\$ 140,000	\$ -	\$ 140,000	\$ 140,000	\$ -	\$ -	\$ -
<b>1.2 Studies</b>												
1.2.1 Fire Master Plan	3425FD	2022	\$ 100,000	\$ -	\$ 100,000	\$ 50,000	\$ -	\$ 50,000	\$ 25,000	\$ 25,000	\$ -	\$ -
Subtotal Studies			\$ 100,000	\$ -	\$ 100,000	\$ 50,000	\$ -	\$ 50,000	\$ 25,000	\$ 25,000	\$ -	\$ -
<b>1.3 Specialized Equipment</b>												
1.3.1 New Equipment	6455PD	2019	\$ 150,000	\$ -	\$ 150,000	\$ -	\$ -	\$ 150,000	\$ 150,000	\$ -	\$ -	\$ -
1.3.2 New Equipment	6455PD	2020	\$ 150,000	\$ -	\$ 150,000	\$ -	\$ -	\$ 150,000	\$ 105,158	\$ 44,842	\$ -	\$ -
1.3.3 New Equipment	6455PD	2021	\$ 150,000	\$ -	\$ 150,000	\$ -	\$ -	\$ 150,000	\$ -	\$ 150,000	\$ -	\$ -
1.3.4 New Equipment	6455PD	2022	\$ 150,000	\$ -	\$ 150,000	\$ -	\$ -	\$ 150,000	\$ -	\$ 150,000	\$ -	\$ -
Subtotal Specialized Equipment			\$ 600,000	\$ -	\$ 600,000	\$ -	\$ -	\$ 600,000	\$ 255,158	\$ 344,842	\$ -	\$ -
<b>TOTAL PROTECTION - FIRE &amp; POLICE</b>			<b>\$ 1,005,000</b>	<b>\$ 25,000</b>	<b>\$ 980,000</b>	<b>\$ 190,000</b>	<b>\$ -</b>	<b>\$ 790,000</b>	<b>\$ 420,158</b>	<b>\$ 369,842</b>	<b>\$ -</b>	<b>\$ -</b>

Residential Development Charge Calculation		
Residential Share of 2019 - 2028 DC Eligible Costs	85%	\$314,366
10-Year Growth in Population in New Units		1,895
Unadjusted Development Charge Per Capita		<b>\$165.91</b>
Non-Residential Development Charge Calculation		
Non-Residential Share of 2019 - 2028 DC Eligible Costs	15%	\$55,476
10-Year Growth in Square Metres		20,000
Unadjusted Development Charge Per Square Metre		<b>\$2.77</b>

2019 - 2028 Net Funding Envelope	\$440,532
Uncommitted Reserve Fund Balance Balance as at December 31, 2018	\$420,158

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TABLE 3

**CITY OF NORTH BAY  
CASHFLOW AND DETERMINATION OF DEVELOPMENT CHARGE  
PROTECTION - FIRE & POLICE  
RESIDENTIAL DEVELOPMENT CHARGE  
(in \$000)**

<b>PROTECTION - FIRE &amp; POLICE</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>2025</b>	<b>2026</b>	<b>2027</b>	<b>2028</b>	<b>TOTAL</b>
OPENING CASH BALANCE	\$0.0	\$34.3	\$31.0	(\$68.1)	(\$197.3)	(\$170.9)	(\$142.4)	(\$111.6)	(\$78.2)	(\$40.6)	
<b>2019 - 2028 RESIDENTIAL FUNDING REQUIREMENTS</b>											
- Protection - Fire & Police: Non Inflated	\$0.0	\$38.1	\$127.5	\$148.8	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	<b>\$314.4</b>
- Protection - Fire & Police: Inflated	\$0.0	\$38.9	\$132.7	\$157.9	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	<b>\$329.4</b>
<b>NEW RESIDENTIAL DEVELOPMENT</b>											
- Population Growth in New Units	188	188	188	188	188	188	188	188	196	196	<b>1,895</b>
<b>REVENUE</b>											
- DC Receipts: Inflated	\$33.8	\$34.4	\$35.1	\$35.8	\$36.5	\$37.3	\$38.0	\$38.8	\$41.2	\$42.1	<b>\$373.1</b>
<b>INTEREST</b>											
- Interest on Opening Balance	\$0.0	\$1.2	\$1.1	(\$3.7)	(\$10.8)	(\$9.4)	(\$7.8)	(\$6.1)	(\$4.3)	(\$2.2)	<b>(\$42.2)</b>
- Interest on In-year Transactions	\$0.6	(\$0.1)	(\$2.7)	(\$3.4)	\$0.6	\$0.7	\$0.7	\$0.7	\$0.7	\$0.7	<b>(\$1.5)</b>
<b>TOTAL REVENUE</b>	<b>\$34.3</b>	<b>\$35.5</b>	<b>\$33.5</b>	<b>\$28.7</b>	<b>\$26.3</b>	<b>\$28.5</b>	<b>\$30.9</b>	<b>\$33.3</b>	<b>\$37.7</b>	<b>\$40.6</b>	<b>\$329.4</b>
CLOSING CASH BALANCE	\$34.3	\$31.0	(\$68.1)	(\$197.3)	(\$170.9)	(\$142.4)	(\$111.6)	(\$78.2)	(\$40.6)	\$0.0	

<b>2019 Adjusted Charge Per Capita</b>	<b>\$179.70</b>
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<b>Allocation of Capital Program</b>	
Residential Sector	85.0%
Non-Residential Sector	15.0%
<b>Rates for 2019</b>	
Inflation Rate	2.0%
Interest Rate on Positive Balances	3.5%
Interest Rate on Negative Balances	5.5%

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TABLE 3

**CITY OF NORTH BAY  
CASHFLOW AND DETERMINATION OF DEVELOPMENT CHARGE  
PROTECTION - FIRE & POLICE  
NON-RESIDENTIAL DEVELOPMENT CHARGE  
(in \$000)**

<b>PROTECTION - FIRE &amp; POLICE</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>2025</b>	<b>2026</b>	<b>2027</b>	<b>2028</b>	<b>TOTAL</b>
OPENING CASH BALANCE	\$0.00	\$6.13	\$5.60	(\$11.82)	(\$34.53)	(\$29.80)	(\$24.68)	(\$19.13)	(\$13.15)	(\$6.70)	
<b>2019 - 2028 NON-RESIDENTIAL FUNDING REQUIREMENTS</b>											
- Protection - Fire & Police: Non Inflated	\$0.0	\$6.7	\$22.5	\$26.3	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	<b>\$55.5</b>
- Protection - Fire & Police: Inflated	\$0.0	\$6.9	\$23.4	\$27.9	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	<b>\$58.1</b>
<b>NEW NON-RESIDENTIAL DEVELOPMENT</b>											
- Growth in Square Metres	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	<b>20,000</b>
<b>REVENUE</b>											
- DC Receipts: Inflated	\$6.0	\$6.1	\$6.3	\$6.4	\$6.5	\$6.6	\$6.8	\$6.9	\$7.1	\$7.2	<b>\$65.9</b>
<b>INTEREST</b>											
- Interest on Opening Balance	\$0.0	\$0.2	\$0.2	(\$0.7)	(\$1.9)	(\$1.6)	(\$1.4)	(\$1.1)	(\$0.7)	(\$0.4)	<b>(\$7.3)</b>
- Interest on In-year Transactions	\$0.1	(\$0.0)	(\$0.5)	(\$0.6)	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1	<b>(\$0.3)</b>
<b>TOTAL REVENUE</b>	<b>\$6.1</b>	<b>\$6.3</b>	<b>\$6.0</b>	<b>\$5.1</b>	<b>\$4.7</b>	<b>\$5.1</b>	<b>\$5.5</b>	<b>\$6.0</b>	<b>\$6.5</b>	<b>\$7.0</b>	<b>\$58.4</b>
CLOSING CASH BALANCE	\$6.1	\$5.6	(\$11.8)	(\$34.5)	(\$29.8)	(\$24.7)	(\$19.1)	(\$13.2)	(\$6.7)	\$0.3	

<b>2019 Adjusted Charge Per Square Metre</b>	<b>\$3.01</b>
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<b>Allocation of Capital Program</b>	
Residential Sector	85.0%
Non-Residential Sector	15.0%
<b>Rates for 2019</b>	
Inflation Rate	2.0%
Interest Rate on Positive Balances	3.5%
Interest Rate on Negative Balances	5.5%

## **APPENDIX D**

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### ***TRANSIT SERVICES TECHNICAL APPENDIX***



## APPENDIX D

### TRANSIT SERVICES TECHNICAL APPENDIX

The following appendix provides the detailed analysis undertaken to establish the development charge rates for Transit Service in the City of North Bay. Transit Services are considered City-wide services for the purposes of calculating the development charge and are not subject to a statutory ten per cent discount

An in-depth discussion of the calculation methodology and the purpose of each table can be found in the introduction to Appendix B.

The City of North Bay's Transit Department is responsible for delivering public transit services to its residents and workforce. The capital costs associated with Transit Services functions are accounted for in this section.

#### TRANSIT RIDERSHIP AND PLANNED LEVEL OF SERVICE

The City of North Bay currently operates eight transit routes. Details on operating times and locations are outlined below, as posted on the City of North Bay website:

- Terminal is located at 190 Wyld Street.
- Conventional transit buses depart from the terminal every 30-minutes, Mondays through Sunday, reduced to hourly service after 6:00 p.m. Monday to Friday and on Weekends.
- Additional buses are added to increase service frequency during the post-secondary school year.
- Para Bus services are additionally provided as a scheduled service if you are unable to board the conventional Transit System or walk a distance of 175m due to a physical disability.
- Weekday service is offered between 6:15 a.m. and 12:00 a.m.; Saturday service is offered between 6:50 a.m. and 12:00 a.m.; and Sunday service is offered between 7:45 a.m. and 7:00 p.m.
- No service is offered on statutory holidays.

North Bay Transit ridership has generally increased by approximately 6% in recent years. As shown in the table below, in 2015 the conventional transit system's total yearly ridership was 1.57 million passenger boardings while reaching about 1.67 million boardings in 2018.

<b>Historical Transit Ridership City of North Bay Conventional Transit System</b>	
<b>Year</b>	<b>Ridership (Number of Passenger Boardings)</b>
2015	1,574,500
2016	1,360,300
2017	1,553,100
2018	1,667,800

Moving forward, the City expects this upward trend in transit ridership to continue in proportion to population and employment growth. The Transit capital program presented in Table 2 is therefore considered to reflect the planned level of service.

### **HISTORICAL INVENTORY**

Although a historical service level analysis is no longer required by legislation, a general review of the current inventory of assets has been completed. The current inventory of capital assets for the City of North Bay's Transit Services includes a transit garage, a transit terminal, bus shelters, conventional buses, paratransit buses and equipment associated with servicing the buses.

### **TABLE 1      2019 – 2028 DEVELOPMENT-RELATED CAPITAL PROGRAM AND CALCULATION OF THE UNADJUSTED DEVELOPMENT CHARGES**

The ten-year development-related capital program for Transit Services amounts to \$188,000 that includes the construction of five new bus pads and shelters at various locations as well as bicycle racks and bicycle storage for \$50,000 each. A third of the cost of the bicycle equipment, or \$66,000, is deemed to benefit existing transit users. The positive reserve fund amount of \$5,269 is applied to offset the cost of the bus shelters. The remaining cost of \$116,731 is brought forward to the DC charge calculation.

The full amount of \$116,731 is deemed related to development within the 2019 to 2028 period. As shown in Table 2, this amount is allocated 85 per cent, or \$99,221, to the residential sector and 15 per cent, or \$17,510, to the non-residential sector. This yields an unadjusted development charge of \$52.37 per capita and \$0.88 per square metre.

Transit asset management is discussed in Appendix H.

**TABLE 2 CASH FLOW ANALYSIS**

After cash flow analysis, the residential charge decreases to \$50.70 per capita and the non-residential charge decreases slightly to \$0.85 per square metre.

The following table summarizes the calculation of the Transit Services development charge:

<b>TRANSIT SERVICES</b>					
2019-2028		Unadjusted		Adjusted	
Growth-Related Capital Program	Net DC Recoverable	Development Charge	Development Charge	Development Charge	Development Charge
Total		\$/capita	\$/sq.m	\$/capita	\$/sq.m
\$188,000	\$116,731	\$52.37	\$0.88	<b>\$50.70</b>	<b>\$0.85</b>

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TABLE 1

CITY OF NORTH BAY  
DEVELOPMENT-RELATED CAPITAL PROGRAM  
TRANSIT SERVICES

Project Description	Reference #	Timing	Gross Project Cost	Grants/ Subsidies/Other Recoveries	Net Municipal Cost	Ineligible Costs		Total DC Eligible Costs	DC Eligible Costs			
						Replacement & BTE Shares	0% Reduction		Available DC Reserves	2019-2028	Post 2028	
<b>1.0 TRANSIT SERVICES</b>												
<b>1.1 Transit Infrastructure</b>												
1.1.1 New Bus Shelters (Various Locations)	n.a	2028	\$ 88,000	\$ -	\$ 88,000	\$ -	\$ -	\$ 88,000	\$ 5,269	\$ 82,731	\$ -	
1.1.2 Bike Racks	n.a	2022	\$ 50,000	\$ -	\$ 50,000	\$ 33,000	\$ -	\$ 17,000	\$ -	\$ 17,000	\$ -	
1.1.3 Bike Storage	n.a	2022	\$ 50,000	\$ -	\$ 50,000	\$ 33,000	\$ -	\$ 17,000	\$ -	\$ 17,000	\$ -	
Subtotal Transit Infrastructure			\$ 188,000	\$ -	\$ 188,000	\$ 66,000	\$ -	\$ 122,000	\$ 5,269	\$ 116,731	\$ -	
<b>TOTAL TRANSIT SERVICES</b>			\$ 188,000	\$ -	\$ 188,000	\$ 66,000	\$ -	\$ 122,000	\$ 5,269	\$ 116,731	\$ -	

Residential Development Charge Calculation		
Residential Share of 2019 - 2028 DC Eligible Costs	85%	\$99,221
10-Year Growth in Population in New Units		1,895
Unadjusted Development Charge Per Capita		\$52.37
Non-Residential Development Charge Calculation		
Non-Residential Share of 2019 - 2028 DC Eligible Costs	15%	\$17,510
10-Year Growth in Square Metres		20,000
Unadjusted Development Charge Per Square Metre		\$0.88

Uncommitted Reserve Fund Balance	
Balance as at December 31, 2018	\$5,269

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TABLE 2

CITY OF NORTH BAY  
CASHFLOW AND DETERMINATION OF DEVELOPMENT CHARGE  
TRANSIT SERVICES  
RESIDENTIAL DEVELOPMENT CHARGE  
(in \$000)

TRANSIT SERVICES	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	TOTAL
OPENING CASH BALANCE	\$0.00	\$9.69	\$19.92	\$30.70	\$10.64	\$21.51	\$32.96	\$45.03	\$57.74	\$71.60	
2019 - 2028 RESIDENTIAL FUNDING REQUIREMENTS											
- Transit Services: Non Inflated	\$0.0	\$0.0	\$0.0	\$28.9	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$70.3	\$99.2
- Transit Services: Inflated	\$0.0	\$0.0	\$0.0	\$30.7	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$84.0	\$114.7
NEW RESIDENTIAL DEVELOPMENT											
- Population Growth in New Units	188	188	188	188	188	188	188	188	196	196	1,895
REVENUE											
- DC Receipts: Inflated	\$9.5	\$9.7	\$9.9	\$10.1	\$10.3	\$10.5	\$10.7	\$10.9	\$11.6	\$11.9	\$105.3
INTEREST											
- Interest on Opening Balance	\$0.0	\$0.3	\$0.7	\$1.1	\$0.4	\$0.8	\$1.2	\$1.6	\$2.0	\$2.5	\$10.5
- Interest on In-year Transactions	\$0.2	\$0.2	\$0.2	(\$0.6)	\$0.2	\$0.2	\$0.2	\$0.2	\$0.2	(\$2.0)	(\$1.1)
TOTAL REVENUE	\$9.7	\$10.2	\$10.8	\$10.6	\$10.9	\$11.5	\$12.1	\$12.7	\$13.9	\$12.4	\$114.7
CLOSING CASH BALANCE	\$9.7	\$19.9	\$30.7	\$10.6	\$21.5	\$33.0	\$45.0	\$57.7	\$71.6	(\$0)	

2019 Adjusted Charge Per Capita	\$50.70
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<b>Allocation of Capital Program</b>	
Residential Sector	85.0%
Non-Residential Sector	15.0%
<b>Rates for 2019</b>	
Inflation Rate:	2.0%
Interest Rate on Positive Balances	3.5%
Interest Rate on Negative Balances	5.5%

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TABLE 2

CITY OF NORTH BAY  
CASHFLOW AND DETERMINATION OF DEVELOPMENT CHARGE  
TRANSIT SERVICES  
NON-RESIDENTIAL DEVELOPMENT CHARGE  
(in \$000)

TRANSIT SERVICES	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	TOTAL
OPENING CASH BALANCE	\$0.00	\$1.72	\$3.54	\$5.46	\$1.94	\$3.88	\$5.92	\$8.07	\$10.33	\$12.71	
2019 - 2028 NON-RESIDENTIAL FUNDING REQUIREMENTS											
- Transit Services: Non Inflated	\$0.0	\$0.0	\$0.0	\$5.1	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$12.4	\$17.5
- Transit Services: Inflated	\$0.0	\$0.0	\$0.0	\$5.4	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$14.8	\$20.2
NON-RESIDENTIAL SPACE GROWTH											
- Growth in Square Metres	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	20,000
REVENUE											
- DC Receipts: Inflated	\$1.7	\$1.7	\$1.8	\$1.8	\$1.8	\$1.9	\$1.9	\$1.9	\$2.0	\$2.0	\$18.6
INTEREST											
- Interest on Opening Balance	\$0.0	\$0.1	\$0.1	\$0.2	\$0.1	\$0.1	\$0.2	\$0.3	\$0.4	\$0.4	\$1.9
- Interest on In-year Transactions	\$0.0	\$0.0	\$0.0	(\$0.1)	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	(\$0.4)	(\$0.2)
TOTAL REVENUE	\$1.7	\$1.8	\$1.9	\$1.9	\$1.9	\$2.0	\$2.1	\$2.3	\$2.4	\$2.1	\$20.2
CLOSING CASH BALANCE	\$1.7	\$3.5	\$5.5	\$1.9	\$3.9	\$5.9	\$8.1	\$10.3	\$12.7	\$0.0	

2019 Adjusted Charge Per Square Metre	\$0.85
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<b>Allocation of Capital Program</b>	
Residential Sector	85.0%
Non-Residential Sector	15.0%
<b>Rates for 2019</b>	
Inflation Rate	2.0%
Interest Rate on Positive Balances	3.5%
Interest Rate on Negative Balances	5.5%

## APPENDIX E

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### *ENGINEERED SERVICES TECHNICAL APPENDIX*

## APPENDIX E

### ENGINEERED SERVICES TECHNICAL APPENDIX

The Engineering, Environmental & Works department ensures that the City's municipal services of roads, public works, water, and sanitary sewer systems are designed for the appropriate protection, health and quality of life of the public, and good engineering practices.

This appendix provides the detailed analysis undertaken to establish the development charge rates for the engineered services category for the City of North Bay. Four engineered services have been analysed herein as part of the development charges study:

Appendix E.1	Services Related to a Highway - Public Works
Appendix E.2	Services Related to a Highway - Roads & Related
Appendix E.3	Water Service
Appendix E.4	Sanitary Sewer

The development-related engineered services capital programs have been developed from the City's 10-year capital forecast as well as information provided by City staff. Infrastructure projects included in the program are required to service the demands of new development in the ten-year planning period from 2019 to 2028. This forecast is discussed in more detail in Appendix A.

Services related to a highway have three tables associated with each. The first table discusses the historical service level provided in the City over the previous ten-year period. The second table details the capital program and the amounts eligible for funding within the following ten-year period (2019 to 2028). Lastly, the third table is the cashflow analysis that takes into account borrowing costs and produces the final adjusted development charge rates.

Water and Sanitary Sewer services have the same tables as the Services Related to a Highway, without the first table detailing the service level calculations.



## APPENDIX E.1

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### *SERVICES RELATED TO A HIGHWAY – PUBLIC WORKS*

## APPENDIX E.1

### SERVICES RELATED TO A HIGHWAY - PUBLIC WORKS

This appendix covers the yards and fleet components of the City's operations. The Public Works and Services Division provides repair and maintenance services for roads, sidewalks, streetlights and other infrastructure, as well as water, culvert, and storm sewer information, flooding assistance and servicing of fallen trees. Only Public Works yards, engineering related equipment and fleet are included in this service. The service makes up part of the general category of Services Related to a Highway.

#### TABLE 1 HISTORICAL SERVICE LEVELS

The Public Works and Services Division primarily operates out of one location at 1399 Franklin Street. There is an additional sand dome located at the airport as well as a share of the Transit Wash Garage, which is used for public works activity. The current 70,099 square feet of Public Works building space has a total replacement value of \$20.23 million. The 39.46 hectares of land associated with the Public Works yards is valued at \$15.39 million. Furniture and equipment, excluding computers totals \$1.02 million. The Public Works vehicles and related equipment add an additional \$11.16 million to the value of capital assets.

The total value of the Public Works capital inventory is \$47.80 million. The ten-year historical average service level is \$589.24 per population and employment, and this, multiplied by the ten-year growth in net population and employment, results in a maximum allowable funding envelope of \$453,715 and the full amount is brought forward to the development charges calculation.

#### TABLE 2 2019 – 2028 DEVELOPMENT-RELATED CAPITAL PROGRAM & CALCULATION OF THE “UNADJUSTED” DEVELOPMENT CHARGES

The ten-year development-related capital program for Public Works totals \$825,000 and provides for a new Public Works Storage Structure, a new sidewalk plow and a generator.

No grants, subsidies or replacement shares are anticipated to offset the cost of the program. A benefit to existing share of 50 per cent has been identified for the generators and therefore the total DC eligible cost is \$637,500. The City has \$60,614 in reserves available and the full amount has been applied to the Sidewalk Plow. The capital program for Public Works exceeds the calculated funding envelope of \$453,715

by \$123,171 and this amount is considered to benefit development beyond 2028 and may be considered for recovery through subsequent DC studies or similar development-related recoverable studies. Therefore, the cost eligible for recovery in the 2019 to 2028 planning period is \$453,715.

This development related cost is allocated 85 per cent, or \$385,658 against new residential development, and 15 per cent, or \$68,057 against new non-residential development. This yields an unadjusted residential development charge of \$203.54 per capita and \$3.40 per square metre of new non-residential development.

**TABLE 3 CASH FLOW ANALYSIS**

After cash flow consideration, both the residential and non-residential calculated charges increase to \$238.31 per capita and \$3.98 per square metre, respectively.

The following table summarizes the calculation of the Public Works development charge.

10-year Hist. Service Level Per Pop & Emp	PUBLIC WORKS 2019-2028		Unadjusted Development Charge		Adjusted Development Charge	
	Growth-Related Total	Capital Program Net DC Recoverable	\$/capita	\$/sq.m	\$/capita	\$/sq.m
\$589.24	\$825,000	\$453,715	\$203.54	\$3.40	<b>\$238.31</b>	<b>\$3.98</b>

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APPENDIX E.1  
TABLE 1

CITY OF NORTH BAY  
INVENTORY OF CAPITAL ASSETS  
PUBLIC WORKS

BUILDINGS Depot Name	# of Square Feet										UNIT COST (\$/sq.ft)	
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018		
Public Works Admin & Garage Bldg - 1399 Franklin Street	20,600	20,600	20,600	20,600	20,600	20,600	20,600	20,600	20,600	20,600	20,600	\$360
Sand Dome -1399 Franklin	13,993	13,993	13,993	13,993	13,993	13,993	13,993	13,993	13,993	13,993	13,993	\$120
Sand Dome - Airport	6,866	6,866	6,866	6,866	6,866	6,866	6,866	6,866	6,866	6,866	6,866	\$120
Transit Wash, Stores, Garage - 1399 Frankin Street	23,160	23,160	28,640	28,640	28,640	28,640	28,640	28,640	28,640	28,640	28,640	\$360
<b>Total (sq.ft)</b>	<b>64,619</b>	<b>64,619</b>	<b>70,099</b>	<b>70,099</b>	<b>70,099</b>	<b>70,099</b>	<b>70,099</b>	<b>70,099</b>	<b>70,099</b>	<b>70,099</b>	<b>70,099</b>	
<b>Total (\$000)</b>	<b>\$18,256.7</b>	<b>\$18,256.7</b>	<b>\$20,229.5</b>	<b>\$20,229.5</b>	<b>\$20,229.5</b>	<b>\$20,229.5</b>	<b>\$20,229.5</b>	<b>\$20,229.5</b>	<b>\$20,229.5</b>	<b>\$20,229.5</b>	<b>\$20,229.5</b>	

LAND (hectares)	# of Hectares										UNIT COST (\$/ha)	
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018		
Parking Lot and General Land excluding buildings	6.42	6.42	6.42	6.42	6.42	6.42	6.42	6.42	6.42	6.42	6.42	\$390,100
Public Works Admin & Garage Bldg - 1399 Franklin Street	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	\$390,100
Sand Dome -1399 Franklin	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	\$390,100
Sand Dome - Airport	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	\$390,100
Worthington Dump Site	32.37	32.37	32.37	32.37	32.37	32.37	32.37	32.37	32.37	32.37	32.37	\$390,100
Leachate Sanitary Pump (Dump Site for Public Works)	0.0013	0.0013	0.0013	0.0013	0.0013	0.0013	0.0013	0.0013	0.0013	0.0013	0.0013	\$390,100
Transit Wash, Stores, Garage - 1399 Frankin Street	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	\$390,100
<b>Total (ha)</b>	<b>39.47</b>	<b>39.47</b>	<b>39.47</b>	<b>39.47</b>	<b>39.47</b>	<b>39.46</b>	<b>39.46</b>	<b>39.46</b>	<b>39.46</b>	<b>39.46</b>	<b>39.46</b>	
<b>Total (\$000)</b>	<b>\$15,395.8</b>	<b>\$15,395.8</b>	<b>\$15,395.8</b>	<b>\$15,395.8</b>	<b>\$15,395.8</b>	<b>\$15,393.9</b>	<b>\$15,393.9</b>	<b>\$15,393.9</b>	<b>\$15,393.9</b>	<b>\$15,393.9</b>	<b>\$15,393.9</b>	

FURNITURE AND EQUIPMENT	Total Value of Furniture and Equipment (\$000)										
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	
Hoists (6)	\$330,000	\$330,000	\$330,000	\$330,000	\$330,000	\$330,000	\$330,000	\$330,000	\$330,000	\$330,000	\$330,000
Gensets	\$250,000	\$250,000	\$250,000	\$250,000	\$250,000	\$250,000	\$250,000	\$250,000	\$250,000	\$250,000	\$250,000
Fuel Pumps	\$435,500	\$435,500	\$435,500	\$435,500	\$435,500	\$435,500	\$435,500	\$435,500	\$435,500	\$435,500	\$435,500
<b>Total (\$000)</b>	<b>\$1,015.5</b>	<b>\$1,015.5</b>	<b>\$1,015.5</b>	<b>\$1,015.5</b>	<b>\$1,015.5</b>	<b>\$1,015.5</b>	<b>\$1,015.5</b>	<b>\$1,015.5</b>	<b>\$1,015.5</b>	<b>\$1,015.5</b>	<b>\$1,015.5</b>

ROLLING STOCK & RELATED EQUIPMENT	Total Value of Rolling Stock and Related Equipment									
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Fleet	\$12,896	\$12,801	\$11,684	\$11,613	\$12,080	\$12,337	\$10,453	\$11,118	\$11,516	\$10,512
Small Equipment	\$645	\$649	\$657	\$658	\$663	\$660	\$660	\$660	\$660	\$653
<b>Total (\$000)</b>	<b>\$13,540.9</b>	<b>\$13,450.9</b>	<b>\$12,340.5</b>	<b>\$12,271.1</b>	<b>\$12,743.3</b>	<b>\$12,996.2</b>	<b>\$11,112.6</b>	<b>\$11,777.8</b>	<b>\$12,175.6</b>	<b>\$11,164.2</b>

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TABLE 1

CITY OF NORTH BAY  
CALCULATION OF SERVICE LEVELS  
PUBLIC WORKS

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Historical Population	53,780	53,718	53,655	53,227	52,803	52,382	51,964	51,550	51,614	51,679
Historical Employment	<u>30,845</u>	<u>31,220</u>	<u>31,600</u>	<u>30,938</u>	<u>30,290</u>	<u>29,655</u>	<u>29,034</u>	<u>28,425</u>	<u>28,442</u>	<u>28,459</u>
Total Population and Employment	84,625	84,938	85,255	84,165	83,093	82,037	80,998	79,975	80,056	80,138

INVENTORY SUMMARY (\$000)

- Buildings	\$18,256.7	\$18,256.7	\$20,229.5	\$20,229.5	\$20,229.5	\$20,229.5	\$20,229.5	\$20,229.5	\$20,229.5	\$20,229.5
- Land	\$15,395.8	\$15,395.8	\$15,395.8	\$15,395.8	\$15,395.8	\$15,393.9	\$15,393.9	\$15,393.9	\$15,393.9	\$15,393.9
- Rolling Stock	\$13,540.9	\$13,450.9	\$12,340.5	\$12,271.1	\$12,743.3	\$12,996.2	\$11,112.6	\$11,777.8	\$12,175.6	\$11,164.2
- Furniture & Equipment	\$1,015.5	\$1,015.5	\$1,015.5	\$1,015.5	\$1,015.5	\$1,015.5	\$1,015.5	\$1,015.5	\$1,015.5	\$1,015.5
<b>Total (\$000)</b>	<b>\$48,208.9</b>	<b>\$48,118.9</b>	<b>\$48,981.3</b>	<b>\$48,911.9</b>	<b>\$49,384.1</b>	<b>\$49,635.0</b>	<b>\$47,751.4</b>	<b>\$48,416.6</b>	<b>\$48,814.5</b>	<b>\$47,803.0</b>

Average  
Service  
Level

SERVICE LEVEL (\$/pop & emp)

- Buildings	\$215.74	\$214.94	\$237.28	\$240.36	\$243.46	\$246.59	\$249.75	\$252.95	\$252.69	\$252.43	\$240.62
- Land	\$181.93	\$181.26	\$180.59	\$182.92	\$185.28	\$187.65	\$190.05	\$192.48	\$192.29	\$192.09	\$186.65
- Rolling Stock	\$160.01	\$158.36	\$144.75	\$145.80	\$153.36	\$158.42	\$137.20	\$147.27	\$152.09	\$139.31	\$149.66
- Furniture & Equipment	\$12.00	\$11.96	\$11.91	\$12.07	\$12.22	\$12.38	\$12.54	\$12.70	\$12.68	\$12.67	\$12.31
<b>Total (\$/pop &amp; emp)</b>	<b>\$569.68</b>	<b>\$566.52</b>	<b>\$574.53</b>	<b>\$581.14</b>	<b>\$594.32</b>	<b>\$605.03</b>	<b>\$589.54</b>	<b>\$605.40</b>	<b>\$609.75</b>	<b>\$596.51</b>	<b>\$589.24</b>

CITY OF NORTH BAY  
CALCULATION OF MAXIMUM ALLOWABLE  
PUBLIC WORKS

<b>10-Year Funding Envelope Calculation</b>	
10 Year Average Service Level (2009-2018)	\$589.24
Net Population and Employment Growth 2019 - 2028	770
<b>Maximum Allowable Funding Envelope</b>	<b>\$453,715</b>

CITY OF NORTH BAY  
DEVELOPMENT-RELATED CAPITAL PROGRAM  
PUBLIC WORKS

Project Description	Reference #	Timing	Gross Project Cost	Grants/ Subsidies/Other Recoveries	Net Municipal Cost	Ineligible Costs		Total DC Eligible Costs	DC Eligible Costs			
						Replacement & BTE Shares	0% Reduction		Available DC Reserves	2019-2028	Post 2028	
<b>1.0 PUBLIC WORKS</b>												
<b>1.1 Buildings and Land</b>												
1.1.1 Public Works Storage Structure	3821RD	2019	\$ 250,000	\$ -	\$ 250,000	\$ -	\$ -	\$ 250,000	\$ -	\$ 250,000	\$ -	
Subtotal Buildings and Land			\$ 250,000	\$ -	\$ 250,000	\$ -	\$ -	\$ 250,000	\$ -	\$ 250,000	\$ -	
<b>1.2 Fleet and Equipment</b>												
1.2.1 Sidewalk Plow	n.a.	2019	\$ 200,000	\$ -	\$ 200,000	\$ -	\$ -	\$ 200,000	\$ 60,614	\$ 139,386	\$ -	
1.2.2 New Generator	3804RD	2019	\$ 125,000	\$ -	\$ 125,000	\$ 62,500	\$ -	\$ 62,500	\$ -	\$ 62,500	\$ -	
1.2.3 New Generator	3804RD	2020	\$ 250,000	\$ -	\$ 250,000	\$ 125,000	\$ -	\$ 125,000	\$ -	\$ 1,829	\$ 123,171	
Subtotal Fleet and Equipment			\$ 575,000	\$ -	\$ 575,000	\$ 187,500	\$ -	\$ 387,500	\$ 60,614	\$ 203,715	\$ 123,171	
<b>TOTAL PUBLIC WORKS</b>			<b>\$ 825,000</b>	<b>\$ -</b>	<b>\$ 825,000</b>	<b>\$ 187,500</b>	<b>\$ -</b>	<b>\$ 637,500</b>	<b>\$ 60,614</b>	<b>\$ 453,715</b>	<b>\$ 123,171</b>	

Residential Development Charge Calculation		
Residential Share of 2019 - 2028 DC Eligible Costs	85%	\$385,658
10-Year Growth in Population in New Units		1,895
Unadjusted Development Charge Per Capita		<b>\$203.54</b>
Non-Residential Development Charge Calculation		
Non-Residential Share of 2019 - 2028 DC Eligible Costs	15%	\$68,057
10-Year Growth in Square Metres		20,000
Unadjusted Development Charge Per Square Metre		<b>\$3.40</b>

2019 - 2028 Net Funding Envelope	\$453,715
Uncommitted Reserve Fund Balance	
Balance as at December 31, 2018	\$60,614

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TABLE 3

**CITY OF NORTH BAY  
CASHFLOW AND DETERMINATION OF DEVELOPMENT CHARGE  
PUBLIC WORKS  
RESIDENTIAL DEVELOPMENT CHARGE  
(in \$000)**

<b>PUBLIC WORKS</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>2025</b>	<b>2026</b>	<b>2027</b>	<b>2028</b>	<b>TOTAL</b>
OPENING CASH BALANCE	\$0.00	(\$348.66)	(\$322.99)	(\$293.36)	(\$261.15)	(\$226.21)	(\$188.35)	(\$147.41)	(\$103.19)	(\$53.21)	
2019 - 2028 RESIDENTIAL FUNDING REQUIREMENTS											
- Public Works: Non Inflated	\$384.1	\$1.6	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	<b>\$385.7</b>
- Public Works: Inflated	\$384.1	\$1.6	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	<b>\$385.7</b>
NEW RESIDENTIAL DEVELOPMENT											
- Population Growth in New Units	188	188	188	188	188	188	188	188	196	196	<b>1,895</b>
REVENUE											
- DC Receipts: Inflated	\$44.8	\$45.7	\$46.6	\$47.5	\$48.5	\$49.4	\$50.4	\$51.4	\$54.7	\$55.8	<b>\$494.8</b>
INTEREST											
- Interest on Opening Balance	\$0.0	(\$19.2)	(\$17.8)	(\$16.1)	(\$14.4)	(\$12.4)	(\$10.4)	(\$8.1)	(\$5.7)	(\$2.9)	<b>(\$106.9)</b>
- Interest on In-year Transactions	(\$9.3)	\$0.8	\$0.8	\$0.8	\$0.8	\$0.9	\$0.9	\$0.9	\$1.0	\$1.0	<b>(\$1.5)</b>
TOTAL REVENUE	\$35.4	\$27.3	\$29.6	\$32.2	\$34.9	\$37.9	\$40.9	\$44.2	\$50.0	\$53.8	<b>\$386.3</b>
CLOSING CASH BALANCE	(\$348.7)	(\$323.0)	(\$293.4)	(\$261.2)	(\$226.2)	(\$188.4)	(\$147.4)	(\$103.2)	(\$53.2)	\$0.6	

<b>2019 Adjusted Charge Per Capita</b>	<b>\$238.31</b>
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<b>Allocation of Capital Program</b>	
Residential Sector	85.0%
Non-Residential Sector	15.0%
<b>Rates for 2019</b>	
Inflation Rate:	2.0%
Interest Rate on Positive Balances	3.5%
Interest Rate on Negative Balances	5.5%

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TABLE 3

CITY OF NORTH BAY  
CASHFLOW AND DETERMINATION OF DEVELOPMENT CHARGE  
PUBLIC WORKS  
NON-RESIDENTIAL DEVELOPMENT CHARGE  
(in \$000)

PUBLIC WORKS	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	TOTAL
OPENING CASH BALANCE	\$0.00	(\$61.47)	(\$56.87)	(\$51.57)	(\$45.82)	(\$39.57)	(\$32.80)	(\$25.48)	(\$17.58)	(\$9.06)	
2019 - 2028 NON-RESIDENTIAL FUNDING REQUIREMENTS											
- Public Works: Non Inflated	\$67.8	\$0.3	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$68.1
- Public Works: Inflated	\$67.8	\$0.3	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$68.1
NON-RESIDENTIAL SPACE GROWTH											
- Growth in Square Metres	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	20,000
REVENUE											
- DC Receipts: Inflated	\$8.0	\$8.1	\$8.3	\$8.4	\$8.6	\$8.8	\$9.0	\$9.1	\$9.3	\$9.5	\$87.2
INTEREST											
- Interest on Opening Balance	\$0.0	(\$3.4)	(\$3.1)	(\$2.8)	(\$2.5)	(\$2.2)	(\$1.8)	(\$1.4)	(\$1.0)	(\$0.5)	(\$18.7)
- Interest on In-year Transactions	(\$1.6)	\$0.1	\$0.1	\$0.1	\$0.2	\$0.2	\$0.2	\$0.2	\$0.2	\$0.2	(\$0.3)
TOTAL REVENUE	\$6.3	\$4.9	\$5.3	\$5.8	\$6.2	\$6.8	\$7.3	\$7.9	\$8.5	\$9.2	\$68.2
CLOSING CASH BALANCE	(\$61.5)	(\$56.9)	(\$51.6)	(\$45.8)	(\$39.6)	(\$32.8)	(\$25.5)	(\$17.6)	(\$9.1)	\$0.1	

2019 Adjusted Charge Per Square Metre **\$3.98**

<b>Allocation of Capital Program</b>	
Residential Sector	85.0%
Non-Residential Sector	15.0%
<b>Rates for 2019</b>	
Inflation Rate	2.0%
Interest Rate on Positive Balances	3.5%
Interest Rate on Negative Balances	5.5%



## APPENDIX E.2

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### *SERVICES RELATED TO A HIGHWAY – ROADS AND RELATED*

## APPENDIX E.2

### SERVICES RELATED TO A HIGHWAY - ROADS AND RELATED

This appendix provides a brief outline of the municipal roads and related engineered services. These include the roads themselves as well as bridges, culverts, pedestrian and traffic signals, sidewalks, and guard rails.

The following tables set out the 2019 to 2028 development-related capital program and the calculation of the development charges for roads. The basis of the development-related capital program for roads and related infrastructure is the City's capital budget and detailed discussions with City staff. The projects identified in the capital program are required to service the demands of new development between 2019 and 2028, subject to annual capital budget reviews.

#### **TABLE 1      2009-2018 HISTORICAL SERVICE LEVELS**

The Roads and Related inventory of capital assets is extensive at a total replacement cost of \$969.02 million. This includes the roads themselves as well as traffic signals, bridges, culverts, sidewalks and rail grade separations.

Table 1 identifies a ten-year average service level for the provision of roads of \$11,670.47 per population and employee. Based on this average service level, the maximum allowable funding envelope is \$8.99 million (\$11,670.47 per population and employee x 770 new population and employment growth from 2019 to 2028).

#### **TABLE 2      2019 – 2028 DEVELOPMENT-RELATED CAPITAL PROGRAM AND CALCULATION OF THE “UNADJUSTED” DEVELOPMENT CHARGES**

The cost, quantum and timing of the projects included in the roads capital program have been developed by City staff. The total cost of the roads capital program is \$101.44 million and provides for the undertaking of various road projects throughout the City.

The entire \$101.44 million development-related capital program is not to be fully recovered from future development charges; approximately \$11.25 million in grants and subsidies is anticipated to fund four capital projects. Furthermore, approximately \$52.66 million of the program has been identified as a non-growth or benefit to existing share. Council is made aware that this share will need to be funded using non-development charges revenue sources. Approximately \$1.21 million in the Roads and Related DC reserve fund is applied to fund the program.

A significant portion of the capital program (\$31.46 million) has been identified as the post-period share as the benefit of most of these projects are considered to extend beyond 2028. The post-2028 shares are based on discussions with staff. This share will be eligible for funding under future development charge studies and will be reviewed at that time.

The result is a development charge recoverable share of the capital program of \$4.84 million. The development-related cost has been allocated 85 per cent (\$4.11 million) to new residential development and 15 per cent (\$725,375) to new non-residential development. This yields unadjusted development charge rates of \$2,169.38 per capita and \$36.27 per square metre respectively.

**TABLE 3 CASH FLOW ANALYSIS**

The long-term cash flow analysis in Table 3 takes into consideration expenditure timing and revenue projections. The main reason for this small increase in the rates is the expectation that the timing of the development-related expenditures is in advance of the benefitting development. After cash flow consideration, the residential charge increases to \$2,254.79 and the non-residential charge increases to \$37.65 per square metre respectively.

The following is a summary of the Roads and Related calculated unadjusted and cash flow adjusted development charge rates:

10-year Hist. Service Level Per Pop & Emp	ROADS AND RELATED		Unadjusted		Adjusted	
	2019-2028 Growth-Related Capital Program Total	Net DC Recoverable	Development Charge \$/capita	\$/sq.m	Development Charge \$/capita	\$/sq.m
\$11,670.47	\$101,435,634	\$4,835,832	\$2,169.38	\$36.27	<b>\$2,254.79</b>	<b>\$37.65</b>

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TABLE 1

CITY OF NORTH BAY  
INVENTORY OF CAPITAL ASSETS  
ROADS AND RELATED

ROADS Type of Road	# of Kilometres										UNIT COST (\$/km)
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	
Gravel Roads	25.0	25.0	25.0	25.0	25.0	25.0	24.0	26.0	26.0	26.0	\$642,500
Asphalt Roads	758.4	758.4	758.4	758.4	758.4	758.0	755.0	755.0	758.0	764.0	\$1,115,000
<b>Total (km)</b>	<b>783.4</b>	<b>783.4</b>	<b>783.4</b>	<b>783.4</b>	<b>783.4</b>	<b>783.0</b>	<b>779.0</b>	<b>781.0</b>	<b>784.0</b>	<b>790.0</b>	
<b>Total (\$000)</b>	<b>\$861,678.5</b>	<b>\$861,678.5</b>	<b>\$861,678.5</b>	<b>\$861,678.5</b>	<b>\$861,678.5</b>	<b>\$861,232.5</b>	<b>\$857,245.0</b>	<b>\$858,530.0</b>	<b>\$861,875.0</b>	<b>\$868,565.0</b>	

BRIDGES & CULVERTS Description	# of Bridges & Culverts										UNIT COST (\$/unit)
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	
Bridges	13	13	13	13	13	12	12	12	12	12	\$1,421,580
Pedestrian Bridges	15	15	14	12	12	13	11	11	11	11	\$251,270
Culverts	68	68	68	68	68	68	68	68	68	68	\$301,630
<b>Total (#)</b>	<b>96</b>	<b>96</b>	<b>95</b>	<b>93</b>	<b>93</b>	<b>93</b>	<b>91</b>	<b>91</b>	<b>91</b>	<b>91</b>	
<b>Total (\$000)</b>	<b>\$42,760.4</b>	<b>\$42,760.4</b>	<b>\$42,509.2</b>	<b>\$42,006.6</b>	<b>\$42,006.6</b>	<b>\$40,836.3</b>	<b>\$40,333.8</b>	<b>\$40,333.8</b>	<b>\$40,333.8</b>	<b>\$40,333.8</b>	

TRAFFIC SIGNALS Description	# of Traffic Signals										UNIT COST (\$/unit)
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	
Pedestrian Signals	2	4	4	5	5	5	5	5	5	5	\$100,000
Traffic Signals	45	46	46	47	47	47	47	47	47	47	\$250,000
<b>Total (#)</b>	<b>47</b>	<b>50</b>	<b>50</b>	<b>52</b>	<b>52</b>	<b>52</b>	<b>52</b>	<b>52</b>	<b>52</b>	<b>52</b>	
<b>Total (\$000)</b>	<b>\$11,450.0</b>	<b>\$11,900.0</b>	<b>\$11,900.0</b>	<b>\$12,250.0</b>	<b>\$12,250.0</b>	<b>\$12,250.0</b>	<b>\$12,250.0</b>	<b>\$12,250.0</b>	<b>\$12,250.0</b>	<b>\$12,250.0</b>	

SIDEWALKS Description	# of Kilometres										UNIT COST (\$/km)
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	
Asphalt	12.0	12.0	12.0	16.5	16.5	17.4	18.5	18.5	18.5	18.5	\$100,000
Concrete	90.9	90.9	90.9	90.9	90.9	90.9	90.9	90.9	91.6	92.4	\$120,000
Paving Stone	12.7	12.7	12.7	13.2	13.2	13.2	13.2	13.2	13.2	13.2	\$120,000
<b>Total (km)</b>	<b>115.6</b>	<b>115.6</b>	<b>115.6</b>	<b>120.6</b>	<b>120.6</b>	<b>121.5</b>	<b>122.6</b>	<b>122.6</b>	<b>123.3</b>	<b>124.1</b>	
<b>Total (\$000)</b>	<b>\$13,632.0</b>	<b>\$13,632.0</b>	<b>\$13,632.0</b>	<b>\$14,144.0</b>	<b>\$14,144.0</b>	<b>\$14,230.0</b>	<b>\$14,342.0</b>	<b>\$14,342.0</b>	<b>\$14,428.4</b>	<b>\$14,522.0</b>	

RAIL GRADE SEPARATIONS Description	# of Grade Separations										UNIT COST (\$/unit)
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	
Bridges over railways	3	3	3	3	3	3	3	3	3	3	\$11,117,000
<b>Total (#)</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>3</b>	
<b>Total (\$000)</b>	<b>\$33,351.0</b>	<b>\$33,351.0</b>	<b>\$33,351.0</b>	<b>\$33,351.0</b>	<b>\$33,351.0</b>	<b>\$33,351.0</b>	<b>\$33,351.0</b>	<b>\$33,351.0</b>	<b>\$33,351.0</b>	<b>\$33,351.0</b>	

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TABLE 1

CITY OF NORTH BAY  
CALCULATION OF SERVICE LEVELS  
ROADS AND RELATED

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Historical Population	53,780	53,718	53,655	53,227	52,803	52,382	51,964	51,550	51,614	51,679
Historical Employment	<u>30,845</u>	<u>31,220</u>	<u>31,600</u>	<u>30,938</u>	<u>30,290</u>	<u>29,655</u>	<u>29,034</u>	<u>28,425</u>	<u>28,442</u>	<u>28,459</u>
Total Population and Employment	84,625	84,938	85,255	84,165	83,093	82,037	80,998	79,975	80,056	80,138

INVENTORY SUMMARY (\$000)

- Roads	\$861,679	\$861,679	\$861,679	\$861,679	\$861,679	\$861,233	\$857,245	\$858,530	\$861,875	\$868,565
- Bridges and Culverts	\$42,760	\$42,760	\$42,509	\$42,007	\$42,007	\$40,836	\$40,334	\$40,334	\$40,334	\$40,334
- Traffic Signals	\$11,450	\$11,900	\$11,900	\$12,250	\$12,250	\$12,250	\$12,250	\$12,250	\$12,250	\$12,250
- Sidewalks	\$13,632	\$13,632	\$13,632	\$14,144	\$14,144	\$14,230	\$14,342	\$14,342	\$14,428	\$14,522
- Rail Grade Separations	\$33,351	\$33,351	\$33,351	\$33,351	\$33,351	\$33,351	\$33,351	\$33,351	\$33,351	\$33,351
<b>Total (\$000)</b>	<b>\$962,872</b>	<b>\$963,322</b>	<b>\$963,071</b>	<b>\$963,430</b>	<b>\$963,430</b>	<b>\$961,900</b>	<b>\$957,522</b>	<b>\$958,807</b>	<b>\$962,238</b>	<b>\$969,022</b>

SERVICE LEVEL (\$/pop & emp)

											Average Service Level
- Roads	\$10,182.32	\$10,144.79	\$10,107.07	\$10,237.97	\$10,370.05	\$10,498.10	\$10,583.53	\$10,734.98	\$10,765.90	\$10,838.37	\$10,446.31
- Bridges and Culverts	\$505.29	\$503.43	\$498.61	\$499.10	\$505.54	\$497.78	\$497.96	\$504.33	\$503.82	\$503.30	\$501.92
- Traffic Signals	\$135.30	\$140.10	\$139.58	\$145.55	\$147.43	\$149.32	\$151.24	\$153.17	\$153.02	\$152.86	\$146.76
- Sidewalks	\$161.09	\$160.49	\$159.90	\$168.05	\$170.22	\$173.46	\$177.07	\$179.33	\$180.23	\$181.21	\$171.11
- Rail Grade Separations	\$394.10	\$392.65	\$391.19	\$396.26	\$401.37	\$406.54	\$411.75	\$417.02	\$416.60	\$416.17	\$404.37
<b>Total (\$/pop &amp; emp)</b>	<b>\$11,378.10</b>	<b>\$11,341.46</b>	<b>\$11,296.35</b>	<b>\$11,446.93</b>	<b>\$11,594.61</b>	<b>\$11,725.20</b>	<b>\$11,821.55</b>	<b>\$11,988.83</b>	<b>\$12,019.57</b>	<b>\$12,091.91</b>	<b>\$11,670.47</b>

CALCULATION OF MAXIMUM ALLOWABLE  
ROADS AND RELATED

<b>10-Year Funding Envelope Calculation</b>	
10 Year Average Service Level 2009 - 2018	\$11,670.47
Net Population and Employment Growth 2019 - 2028	770
<b>Maximum Allowable Funding Envelope</b>	<b>\$8,986,262</b>

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TABLE 2

CITY OF NORTH BAY  
DEVELOPMENT-RELATED CAPITAL PROGRAM  
ROADS AND RELATED

Project Description	Reference #	Reference # (2)	Timing	Total Gross Project Cost*	Grants/ Subsidies/Other Recoveries	Net Municipal Cost	Ineligible Costs	Total DC Eligible Costs	DC Eligible Costs			
							Replacement & BTE Shares		Available DC Reserves	2019-2028	Post 2028	
<b>2.0 ROADS AND RELATED</b>												
<b>2.1 Road Works (1)</b>												
2.1.1 Francis St Sewer Upsizing	3212RD	3212ST	2020	\$ 140,000	\$ -	\$ 140,000	\$ 70,000	\$ 70,000	\$ 21,000	\$ -	\$ 49,000	
2.1.2 Francis St Sewer Upsizing	3212RD	3212ST	2024	\$ 2,800,000	\$ -	\$ 2,800,000	\$ 1,400,000	\$ 1,400,000	\$ -	\$ 420,000	\$ 980,000	
2.1.3 Lakeshore Dr	3500RD	3500ST	2019	\$ 760,000	\$ -	\$ 760,000	\$ 608,000	\$ 152,000	\$ 30,400	\$ -	\$ 121,600	
2.1.4 Lakeshore Dr	3500RD	3500ST	2025	\$ 5,900,000	\$ -	\$ 5,900,000	\$ 4,720,000	\$ 1,180,000	\$ -	\$ 236,000	\$ 944,000	
2.1.5 O'Brien St. Reconstruction - Cassells to Ski Club	3606RD	3606ST	2019	\$ 320,000	\$ -	\$ 320,000	\$ 211,200	\$ 108,800	\$ 32,640	\$ -	\$ 76,160	
2.1.6 O'Brien St. Reconstruction - Cassells to Ski Club	3606RD	3606ST	2020	\$ 3,050,000	\$ -	\$ 3,050,000	\$ 2,013,000	\$ 1,037,000	\$ -	\$ 311,100	\$ 725,900	
2.1.7 O'Brien St. Reconstruction - Cassells to Ski Club	3606RD	3606ST	2021	\$ 3,050,000	\$ -	\$ 3,050,000	\$ 2,013,000	\$ 1,037,000	\$ -	\$ 311,100	\$ 725,900	
2.1.8 Lamorie Street Bridge EA	3915RD	.	2020	\$ 200,000	\$ -	\$ 200,000	\$ 160,000	\$ 40,000	\$ -	\$ 12,000	\$ 28,000	
2.1.9 Four Mile Lake Road Extension to Hwy 11 (F) Design	3911RD	.	2022	\$ 390,000	\$ -	\$ 390,000	\$ -	\$ 390,000	\$ -	\$ -	\$ 390,000	
2.1.10 Four Mile Lake Road Extension to Hwy 11 (F) Construction	3911RD	.	2027	\$ 7,400,000	\$ 4,766,500	\$ 2,633,500	\$ -	\$ 2,633,500	\$ -	\$ -	\$ 2,633,500	
2.1.11 Intersection of Hwy 11/17 & Seymour (F)	3423RD	.	2019	\$ 9,196,485	\$ 4,500,000	\$ 4,696,485	\$ 2,348,243	\$ 2,348,243	\$ 533,763	\$ 170,710	\$ 1,643,770	
2.1.12 Cedar Heights - Phase II - Standpipe, Water & Sewer	3607RD	.	2019	\$ 773,791	\$ 488,076	\$ 285,715	\$ 214,286	\$ 71,429	\$ -	\$ 21,429	\$ 50,000	
2.1.13 Seymour - Station to Wallace - Widening & Signals	3700RD	.	2024	\$ 180,000	\$ -	\$ 180,000	\$ 135,000	\$ 45,000	\$ -	\$ -	\$ 45,000	
2.1.14 Seymour - Station to Wallace - Widening & Signals	3700RD	.	2026	\$ 3,500,000	\$ -	\$ 3,500,000	\$ 2,625,000	\$ 875,000	\$ -	\$ -	\$ 875,000	
2.1.15 Norman/Chapais Connection Watermain	3701RD	3701ST	2026	\$ 100,000	\$ -	\$ 100,000	\$ 50,000	\$ 50,000	\$ -	\$ -	\$ 50,000	
2.1.16 Norman/Chapais Connection Watermain	3701RD	3701ST	2028	\$ 1,800,000	\$ -	\$ 1,800,000	\$ 900,000	\$ 900,000	\$ -	\$ -	\$ 900,000	
2.1.17 Pinewood Park & Lakeshore Drive Intersection Reconstruction	3715RD	.	2019	\$ 100,000	\$ -	\$ 100,000	\$ 50,000	\$ 50,000	\$ 25,000	\$ -	\$ 25,000	
2.1.18 Pinewood Park & Lakeshore Drive Intersection Reconstruction	3715RD	.	2020	\$ 3,000,000	\$ 1,500,000	\$ 1,500,000	\$ 750,000	\$ 750,000	\$ -	\$ 375,000	\$ 375,000	
2.1.19 Cassells - King St. To Hwy 11/17 - Phase 1 & 2	3619RD	3619ST	2019	\$ 8,225,000	\$ -	\$ 8,225,000	\$ 6,168,750	\$ 2,056,250	\$ 431,683	\$ 185,187	\$ 1,439,380	
2.1.20 Cassells - King St. To Hwy 11/17 - Phase 1 & 2	3619RD	3619ST	2020	\$ 1,925,000	\$ -	\$ 1,925,000	\$ 1,443,750	\$ 481,250	\$ -	\$ 144,370	\$ 336,880	

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TABLE 2

CITY OF NORTH BAY  
DEVELOPMENT-RELATED CAPITAL PROGRAM  
ROADS AND RELATED

Project Description	Reference #	Reference # (2)	Timing	Total Gross Project Cost*	Grants/ Subsidies/Other Recoveries	Net Municipal Cost	Ineligible Costs	Total DC Eligible Costs	DC Eligible Costs		
							Replacement & BTE Shares		Available DC Reserves	2019-2028	Post 2028
<b>2.0 ROADS AND RELATED CONTINUED</b>											
2.1.21 McKeown Ave. - Gormanville Rd to Cartier	3801RD	3801ST	2022	\$ 290,000	\$ -	\$ 290,000	\$ 217,500	\$ 72,500	\$ -	\$ 21,750	\$ 50,750
2.1.22 McKeown Ave. - Gormanville Rd to Cartier	3801RD	3801ST	2024	\$ 5,500,000	\$ -	\$ 5,500,000	\$ 4,125,000	\$ 1,375,000	\$ -	\$ -	\$ 1,375,000
2.1.23 Lakeshore Dr. - Phase 2 - Gertrude to Marshall	3802RD	3802ST	2025	\$ 430,000	\$ -	\$ 430,000	\$ 344,000	\$ 86,000	\$ -	\$ -	\$ 86,000
2.1.24 Lakeshore Dr. - Phase 2 - Gertrude to Marshall	3802RD	3802ST	2027	\$ 5,700,000	\$ -	\$ 5,700,000	\$ 4,560,000	\$ 1,140,000	\$ -	\$ -	\$ 1,140,000
2.1.25 Main St - Gormanville to Memorial	3810RD	3810ST	2022	\$ 160,000	\$ -	\$ 160,000	\$ 120,000	\$ 40,000	\$ -	\$ 12,000	\$ 28,000
2.1.26 Main St - Gormanville to Memorial	3810RD	3810ST	2024	\$ 3,100,000	\$ -	\$ 3,100,000	\$ 2,325,000	\$ 775,000	\$ -	\$ 232,500	\$ 542,500
2.1.27 Lees Road Reconstruction	3814RD	.	2020	\$ 200,000	\$ -	\$ 200,000	\$ 180,000	\$ 20,000	\$ -	\$ 6,000	\$ 14,000
2.1.28 Lees Road Reconstruction	3814RD	.	2022	\$ 2,300,000	\$ -	\$ 2,300,000	\$ 2,070,000	\$ 230,000	\$ -	\$ 69,000	\$ 161,000
2.1.29 Lees Road Reconstruction	3814RD	.	2023	\$ 1,500,000	\$ -	\$ 1,500,000	\$ 1,350,000	\$ 150,000	\$ -	\$ 45,000	\$ 105,000
2.1.30 Cedar Heights Rd - Hwy 11 to Larocque Urban Upgrade & Watermain	3900RD	3900ST	2026	\$ 250,000	\$ -	\$ 250,000	\$ -	\$ 250,000	\$ -	\$ -	\$ 250,000
2.1.31 Cedar Heights Rd - Hwy 11 to Larocque Urban Upgrade & Watermain	3900RD	3900ST	2028	\$ 4,500,000	\$ -	\$ 4,500,000	\$ -	\$ 4,500,000	\$ -	\$ -	\$ 4,500,000
2.1.32 Chippewa Creek and Airport Heights Stormwater Retention	3910ST	.	2022	\$ 50,000	\$ -	\$ 50,000	\$ 37,500	\$ 12,500	\$ -	\$ 9,370	\$ 3,130
2.1.33 Chippewa Creek and Airport Heights Stormwater Retention	3910ST	.	2023	\$ 2,500,000	\$ -	\$ 2,500,000	\$ 1,875,000	\$ 625,000	\$ -	\$ 468,750	\$ 156,250
2.1.34 Ellendale Second Feed & Second Reservoir	3931RD	.	2019	\$ 30,000	\$ -	\$ 30,000	\$ 24,000	\$ 6,000	\$ -	\$ 600	\$ 5,400
2.1.35 Ellendale Second Feed & Second Reservoir	3931RD	.	2021	\$ 250,000	\$ -	\$ 250,000	\$ 200,000	\$ 50,000	\$ -	\$ 5,000	\$ 45,000
2.1.36 Sage Rd. Reconstruction to Collector Standard	4401RD	4401ST	2025	\$ 240,000	\$ -	\$ 240,000	\$ 216,000	\$ 24,000	\$ -	\$ -	\$ 24,000
2.1.37 Sage Rd. Reconstruction to Collector Standard	4401RD	4401ST	2027	\$ 4,800,000	\$ -	\$ 4,800,000	\$ 4,320,000	\$ 480,000	\$ -	\$ -	\$ 480,000
2.1.38 North Hwy 11 Servicing and Airport Industrial Park	4300RD	.	2026	\$ 290,000	\$ -	\$ 290,000	\$ -	\$ 290,000	\$ -	\$ -	\$ 290,000
2.1.39 North Hwy 11 Servicing and Airport Industrial Park	4300RD	.	2028	\$ 5,800,000	\$ -	\$ 5,800,000	\$ -	\$ 5,800,000	\$ -	\$ -	\$ 5,800,000
2.1.40 Franklin & John Trunk Watermain	4500RD	4500ST	2026	\$ 280,000	\$ -	\$ 280,000	\$ 184,800	\$ 95,200	\$ -	\$ -	\$ 95,200
2.1.41 Franklin & John Trunk Watermain	4500RD	4500ST	2028	\$ 5,600,000	\$ -	\$ 5,600,000	\$ 3,696,000	\$ 1,904,000	\$ -	\$ -	\$ 1,904,000
2.1.42 City Share of New Development Costs 2019 On-Going	6424RD	.	Various	\$ 3,431,358	\$ -	\$ 3,431,358	\$ -	\$ 3,431,358	\$ 140,061	\$ 1,575,617	\$ 1,715,680
Subtotal Road Works (1)				\$ 100,011,634	\$ 11,254,576	\$ 88,757,058	\$ 51,725,029	\$ 37,032,029	\$ 1,214,547	\$ 4,632,482	\$ 31,185,000

CITY OF NORTH BAY  
DEVELOPMENT-RELATED CAPITAL PROGRAM  
ROADS AND RELATED

Project Description	Reference #	Reference # (2)	Timing	Total Gross Project Cost*	Grants/ Subsidies/Other Recoveries	Net Municipal Cost	Ineligible Costs Replacement & BTE Shares	Total DC Eligible Costs	DC Eligible Costs		
									Available DC Reserves	2019-2028	Post 2028
<b>2.0 ROADS AND RELATED CONTINUED</b>											
<b>2.2 Active Transportation</b>											
2.2.1 Pedestrian safety (additional sidewalks) - in existing area	6428RD	.	Various	\$ 1,424,000	\$ -	\$ 1,424,000	\$ 939,840	\$ 484,160	\$ -	\$ 203,350	\$ 280,810
Subtotal Active Transportation				\$ 1,424,000	\$ -	\$ 1,424,000	\$ 939,840	\$ 484,160	\$ -	\$ 203,350	\$ 280,810
<b>TOTAL ROADS AND RELATED</b>				<b>\$ 101,435,634</b>	<b>\$ 11,254,576</b>	<b>\$ 90,181,058</b>	<b>\$ 52,664,869</b>	<b>\$ 37,516,189</b>	<b>\$ 1,214,547</b>	<b>\$ 4,835,832</b>	<b>\$ 31,465,810</b>

(1) Note: Road works include related stormwater infrastructure requirements  
Note: No 10% reduction required by legislation.

<b>Residential Development Charge Calculation</b>			
Residential Share of 2019 - 2028 DC Eligible Costs	85%	\$4,110,457	
10-Year Growth in Population in New Units		1,895	
Unadjusted Development Charge Per Dwelling Unit		<b>\$2,169.38</b>	
<b>Non-Residential Development Charge Calculation</b>			
Non-Residential Share of 2019 - 2028 DC Eligible Costs	15%	\$725,375	
10-Year Growth in Square Metres		20,000	
Unadjusted Development Charge Per Square Metre		<b>\$36.27</b>	

2019 - 2028 Net Funding Envelope	\$8,986,262
Uncommitted Reserve Fund Balance Balance as at December 31, 2018	1,214,547



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 TABLE 3

CITY OF NORTH BAY  
 CASHFLOW AND DETERMINATION OF DEVELOPMENT CHARGE  
 ROADS AND RELATED  
 RESIDENTIAL DEVELOPMENT CHARGE  
 (in \$000)

ROADS AND RELATED	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	TOTAL
OPENING CASH BALANCE	\$0.00	(\$50.19)	(\$523.34)	(\$548.20)	(\$387.14)	(\$591.17)	(\$943.87)	(\$913.53)	(\$645.41)	(\$334.54)	
2019 - 2028 RESIDENTIAL FUNDING REQUIREMENTS											
- Roads And Related: Non Inflated	\$472.4	\$872.4	\$419.9	\$246.5	\$587.9	\$705.8	\$351.8	\$151.2	\$151.2	\$151.2	\$4,110.5
- Roads And Related: Inflated	\$472.4	\$889.9	\$436.9	\$261.6	\$636.4	\$779.3	\$396.2	\$173.7	\$177.2	\$180.7	\$4,404.2
NEW RESIDENTIAL DEVELOPMENT											
- Population Growth in New Units	188	188	188	188	188	188	188	188	196	196	1,895
REVENUE											
- DC Receipts: Inflated	\$423.6	\$432.1	\$440.7	\$449.5	\$458.5	\$467.7	\$477.0	\$486.6	\$517.6	\$527.9	\$4,681.2
INTEREST											
- Interest on Opening Balance	\$0.0	(\$2.8)	(\$28.8)	(\$30.2)	(\$21.3)	(\$32.5)	(\$51.9)	(\$50.2)	(\$35.5)	(\$18.4)	(\$271.6)
- Interest on In-year Transactions	(\$1.3)	(\$12.6)	\$0.1	\$3.3	(\$4.9)	(\$8.6)	\$1.4	\$5.5	\$6.0	\$6.1	(\$5.1)
TOTAL REVENUE	\$422.3	\$416.7	\$412.0	\$422.7	\$432.3	\$426.6	\$426.5	\$441.8	\$488.0	\$515.6	\$4,404.6
CLOSING CASH BALANCE	(\$50.2)	(\$523.3)	(\$548.2)	(\$387.1)	(\$591.2)	(\$943.9)	(\$913.5)	(\$645.4)	(\$334.5)	\$0.4	

<b>2019 Adjusted Charge Per Capita</b>	<b>\$2,254.79</b>
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<b>Allocation of Capital Program</b>	
Residential Sector	85.0%
Non-Residential Sector	15.0%
<b>Rates for 2019</b>	
Inflation Rate:	2.0%
Interest Rate on Positive Balances	3.5%
Interest Rate on Negative Balances	5.5%

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TABLE 3

CITY OF NORTH BAY  
CASHFLOW AND DETERMINATION OF DEVELOPMENT CHARGE  
ROADS AND RELATED  
NON-RESIDENTIAL DEVELOPMENT CHARGE  
(in \$000)

ROADS AND RELATED	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	TOTAL
OPENING CASH BALANCE	\$0.00	(\$8.29)	(\$91.18)	(\$94.92)	(\$65.80)	(\$101.06)	(\$162.49)	(\$156.29)	(\$108.06)	(\$56.04)	
2019 - 2028 NON-RESIDENTIAL FUNDING REQUIREMENTS											
- Roads And Related: Non Inflated	\$83.4	\$154.0	\$74.1	\$43.5	\$103.7	\$124.6	\$62.1	\$26.7	\$26.7	\$26.7	\$725.4
- Roads And Related: Inflated	\$83.4	\$157.0	\$77.1	\$46.2	\$112.3	\$137.5	\$69.9	\$30.7	\$31.3	\$31.9	\$777.2
NON-RESIDENTIAL SPACE GROWTH											
- Growth in Square Metres	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	20,000
REVENUE											
- DC Receipts: Inflated	\$75.3	\$76.8	\$78.3	\$79.9	\$81.5	\$83.1	\$84.8	\$86.5	\$88.2	\$90.0	\$824.5
INTEREST											
- Interest on Opening Balance	\$0.0	(\$0.5)	(\$5.0)	(\$5.2)	(\$3.6)	(\$5.6)	(\$8.9)	(\$8.6)	(\$5.9)	(\$3.1)	(\$46.4)
- Interest on In-year Transactions	(\$0.2)	(\$2.2)	\$0.0	\$0.6	(\$0.8)	(\$1.5)	\$0.3	\$1.0	\$1.0	\$1.0	(\$0.9)
TOTAL REVENUE	\$75.1	\$74.1	\$73.4	\$75.3	\$77.0	\$76.1	\$76.1	\$78.9	\$83.3	\$87.9	\$777.2
CLOSING CASH BALANCE	(\$8.3)	(\$91.2)	(\$94.9)	(\$65.8)	(\$101.1)	(\$162.5)	(\$156.3)	(\$108.1)	(\$56.0)	(\$0.0)	

2019 Adjusted Charge Per Square Metre \$37.65

**Allocation of Capital Program**

Residential Sector	85.0%
Non-Residential Sector	15.0%

**Rates for 2019**

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

**APPENDIX E.3**

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***WATER SERVICES***

## APPENDIX E.3

### WATER SERVICES

The following section sets out the 2019 to 2028 development-related capital program and the calculation of the development charge for water serving in the City of North Bay. The cost, quantum and description of the projects included in the program have been provided by City staff and are based on the City's ten-year approved capital budget. For the purposes of this Background Study, Water Services is considered to be a City-wide service.

Table 1 Water Service Development-Related Capital Projects

Table 2 Residential and Non-Residential Cash Flow Analysis

#### **TABLE 1 2019 – 2028 DEVELOPMENT-RELATED CAPITAL PROGRAM AND CALCULATION OF THE “UNADJUSTED” DEVELOPMENT CHARGES**

The cost of providing water services in the City is extensive; the development-related capital program for the water distribution system is \$57.24 million to service new development. The program provides for various watermain, upgrade and expansion projects.

Of the gross cost, \$8.06 million has been identified as grants, subsidies or other recoveries and have been netted off to arrive at the net municipal share. Approximately \$25.14 million of the program has been identified as a non-growth or benefit to existing share. Council is made aware that this share will need to be funded using non-development charges revenue sources. Therefore, the DC eligible costs of the water service program are netted down to \$24.03 million.

An amount of \$542,680 is available in the water service DC reserve fund and this amount is applied to offset the cost of the first projects in the capital program. A significant portion of the program (\$20.68 million) of the capital program has been identified as the post-period share as the benefit of most of the water service projects is considered to extend beyond 2028. The post-2028 shares are based on discussions with staff. This share will be eligible for funding under future development charge studies.

The result is a development charge recoverable share of the capital program of \$2.81 million. The development-related cost has been allocated 85 per cent (\$2.39 million)

to new residential development and 15 per cent (\$421,524) to new non-residential development. This yields unadjusted development charge rates of \$1,260.65 per capita and \$21.08 per square metre respectively.

**TABLE 2 CASH FLOW ANALYSIS**

The long-term cash flow analysis presented in Table 2 takes into consideration expenditure timing and revenue projections. The main reason for the increase in the rates is the expectation that the timing of the development-related expenditures is in advance of the benefitting development. After cash flow consideration, the residential charge increases to \$1,320.64 and the non-residential charge increases to \$22.05 per square metre respectively.

The following is a summary of the calculated Water Service unadjusted and cash flow adjusted development charge rates:

2019-2028		<b>WATER SERVICES</b>			
Growth-Related Capital Program	Net DC Recoverable	Unadjusted Development Charge		Adjusted Development Charge	
Total		\$/capita	\$/sq.m	\$/capita	\$/sq.m
\$57,235,806	\$2,810,159	\$1,260.65	\$21.08	<b>\$1,320.64</b>	<b>\$22.05</b>

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CITY OF NORTH BAY  
DEVELOPMENT-RELATED CAPITAL PROGRAM  
WATER SERVICES

Project Description	Reference #	Timing	Total Gross Project Cost*	Grants/ Subsidies/Other Recoveries	Net Municipal Cost	Ineligible Costs		Total DC Eligible Costs	DC Eligible Costs		
						Replacement & BTE Shares	0% Reduction		Available DC Reserves	2019-2028	Post 2028
<b>3.0 WATER SERVICES</b>											
<b>3.1 City-Wide Water Projects</b>											
3.1.1 Francis St Sewer Upsizing	3500WS	2020	\$ 50,000	\$ -	\$ 50,000	\$ 25,000	\$ -	\$ 25,000	\$ -	\$ 7,500	\$ 17,500
3.1.2 Francis St Sewer Upsizing	3500WS	2024	\$ 1,000,000	\$ -	\$ 1,000,000	\$ 500,000	\$ -	\$ 500,000	\$ -	\$ 150,000	\$ 350,000
3.1.3 Lakeshore Dr - Judge to Gertrude - Watermain & Road	3500WS	2019	\$ 320,000	\$ -	\$ 320,000	\$ 256,000	\$ -	\$ 64,000	\$ 12,800	\$ -	\$ 51,200
3.1.4 Lakeshore Dr - Judge to Gertrude - Watermain & Road	3500WS	2025	\$ 2,500,000	\$ -	\$ 2,500,000	\$ 2,000,000	\$ -	\$ 500,000	\$ 100,000	\$ -	\$ 400,000
3.1.5 O'Brien St. Reconstruction - Cassells to Ski Club	3606WS	2019	\$ 90,000	\$ -	\$ 90,000	\$ 59,400	\$ -	\$ 30,600	\$ 9,180	\$ -	\$ 21,420
3.1.6 O'Brien St. Reconstruction - Cassells to Ski Club	3606WS	2020	\$ 850,000	\$ -	\$ 850,000	\$ 561,000	\$ -	\$ 289,000	\$ -	\$ 86,700	\$ 202,300
3.1.7 O'Brien St. Reconstruction - Cassells to Ski Club	3606WS	2021	\$ 850,000	\$ -	\$ 850,000	\$ 561,000	\$ -	\$ 289,000	\$ -	\$ 86,700	\$ 202,300
3.1.8 CFB Reservoir Replacement	3620WS	2019	\$ 200,000	\$ -	\$ 200,000	\$ 132,000	\$ -	\$ 68,000	\$ 20,400	\$ -	\$ 47,600
3.1.9 CFB Reservoir Replacement	3620WS	2020	\$ 4,000,000	\$ -	\$ 4,000,000	\$ 2,640,000	\$ -	\$ 1,360,000	\$ 91,000	\$ 317,000	\$ 952,000
3.1.10 Ellendale Second Feed & Second Reservoir	3931WS	2019	\$ 50,000	\$ -	\$ 50,000	\$ 40,000	\$ -	\$ 10,000	\$ 1,000	\$ -	\$ 9,000
3.1.11 Ellendale Second Feed & Second Reservoir	3931WS	2021	\$ 450,000	\$ -	\$ 450,000	\$ 360,000	\$ -	\$ 90,000	\$ -	\$ 9,000	\$ 81,000
3.1.12 Ellendale Second Feed & Second Reservoir	3931WS	2024	\$ 750,000	\$ -	\$ 750,000	\$ 600,000	\$ -	\$ 150,000	\$ -	\$ -	\$ 150,000
3.1.13 Ellendale Second Feed & Second Reservoir	3931WS	2026	\$ 10,000,000	\$ 6,441,200	\$ 3,558,800	\$ 2,847,040	\$ -	\$ 711,760	\$ -	\$ -	\$ 711,760
3.1.14 Cedar Heights - Phase II - Larocque BPS, Standpipe, Water & Sewer	3905WS	2024	\$ 50,000	\$ -	\$ 50,000	\$ -	\$ -	\$ 50,000	\$ -	\$ -	\$ 50,000
3.1.15 Cedar Heights - Phase II - Larocque BPS, Standpipe, Water & Sewer	3905WS	2027	\$ 4,000,000	\$ -	\$ 4,000,000	\$ -	\$ -	\$ 4,000,000	\$ -	\$ -	\$ 4,000,000
3.1.16 Seymour - Station to Wallace - Widening & Signals	3700WS	2024	\$ 170,000	\$ -	\$ 170,000	\$ 127,500	\$ -	\$ 42,500	\$ -	\$ -	\$ 42,500
3.1.17 Seymour - Station to Wallace - Widening & Signals	3700WS	2026	\$ 3,200,000	\$ -	\$ 3,200,000	\$ 2,400,000	\$ -	\$ 800,000	\$ -	\$ -	\$ 800,000
3.1.18 Norman / Chapais Connection Watermain	3701WS	2026	\$ 40,000	\$ -	\$ 40,000	\$ 20,000	\$ -	\$ 20,000	\$ -	\$ -	\$ 20,000
3.1.19 Norman / Chapais Connection Watermain	3701WS	2028	\$ 800,000	\$ -	\$ 800,000	\$ 400,000	\$ -	\$ 400,000	\$ -	\$ -	\$ 400,000
3.1.20 Lakeshore Dr - Gertrude to Marshall - Watermain & 1 Lane	3802WS	2025	\$ 190,000	\$ -	\$ 190,000	\$ 152,000	\$ -	\$ 38,000	\$ -	\$ -	\$ 38,000
3.1.21 Lakeshore Dr - Gertrude to Marshall - Watermain & 1 Lane	3802WS	2027	\$ 2,500,000	\$ -	\$ 2,500,000	\$ 2,000,000	\$ -	\$ 500,000	\$ -	\$ -	\$ 500,000
3.1.22 Cedar Heights Rd Hwy 11 to Larocque Urban Upgrade & Watermain	3900WS	2026	\$ 160,000	\$ -	\$ 160,000	\$ -	\$ -	\$ 160,000	\$ -	\$ -	\$ 160,000
3.1.23 Cedar Heights Rd Hwy 11 to Larocque Urban Upgrade & Watermain	3900WS	2028	\$ 3,000,000	\$ -	\$ 3,000,000	\$ -	\$ -	\$ 3,000,000	\$ -	\$ -	\$ 3,000,000
3.1.24 Lakeshore Drive - Marshall to Sunset - Watermain & 1 Lane	3927WS	2019	\$ 400,000	\$ -	\$ 400,000	\$ 200,000	\$ -	\$ 200,000	\$ 60,000	\$ -	\$ 140,000

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CITY OF NORTH BAY  
DEVELOPMENT-RELATED CAPITAL PROGRAM  
WATER SERVICES

Project Description	Reference #	Timing	Total Gross Project Cost*	Grants/ Subsidies/Other Recoveries	Net Municipal Cost	Ineligible Costs		Total DC Eligible Costs	DC Eligible Costs		
						Replacement & BTE Shares	0% Reduction		Available DC Reserves	2019-2028	Post 2028
<b>3.0 WATER SERVICES CONTINUED</b>											
3.1.25 North Hwy 11 Servicing & Airport Industrial Park Expansion	4300WS	2026	\$ 170,000	\$ -	\$ 170,000	\$ -	\$ -	\$ 170,000	\$ -	\$ -	\$ 170,000
3.1.26 North Hwy 11 Servicing & Airport Industrial Park Expansion	4300WS	2028	\$ 3,400,000	\$ -	\$ 3,400,000	\$ -	\$ -	\$ 3,400,000	\$ -	\$ -	\$ 3,400,000
3.1.27 North Hwy 11 Servicing and Airport Industrial Park	6424WS	Various	\$ 3,364,837	\$ -	\$ 3,364,837	\$ -	\$ -	\$ 3,364,837	\$ -	\$ 1,682,417	\$ 1,682,420
3.1.28 Ellendale Pumping Station Second Feed to Airport	4102WS	2024	\$ 200,000	\$ -	\$ 200,000	\$ 132,000	\$ -	\$ 68,000	\$ -	\$ -	\$ 68,000
3.1.29 Ellendale Pumping Station Second Feed to Airport	4102WS	2027	\$ 1,500,000	\$ -	\$ 1,500,000	\$ 990,000	\$ -	\$ 510,000	\$ -	\$ -	\$ 510,000
3.1.30 Ellendale Pumping Station Second Feed to Airport	4102WS	2028	\$ 1,000,000	\$ -	\$ 1,000,000	\$ 660,000	\$ -	\$ 340,000	\$ -	\$ -	\$ 340,000
3.1.31 Cedar Heights - Phase II - Standpipe, Water & Sewer	3607WS	2019	\$ 4,325,969	\$ 1,620,762	\$ 2,705,207	\$ 2,028,905	\$ -	\$ 676,302	\$ 202,892	\$ -	\$ 473,410
3.1.32 Cassells - King St. To Hwy 11/17 - Phase 1 & 2	3619WS	2019	\$ 1,950,000	\$ -	\$ 1,950,000	\$ 1,462,500	\$ -	\$ 487,500	\$ 45,408	\$ 100,842	\$ 341,250
3.1.33 McKeown Ave. - Gormanville Rd to Cartier	3801WS	2022	\$ 60,000	\$ -	\$ 60,000	\$ 45,000	\$ -	\$ 15,000	\$ -	\$ 4,500	\$ 10,500
3.1.34 McKeown Ave. - Gormanville Rd to Cartier	3801WS	2024	\$ 1,000,000	\$ -	\$ 1,000,000	\$ 750,000	\$ -	\$ 250,000	\$ -	\$ -	\$ 250,000
3.1.35 Franklin & John Trunk Watermain	4500WS	2026	\$ 110,000	\$ -	\$ 110,000	\$ 72,600	\$ -	\$ 37,400	\$ -	\$ -	\$ 37,400
3.1.36 Franklin & John Trunk Watermain	4500WS	2028	\$ 2,200,000	\$ -	\$ 2,200,000	\$ 1,452,000	\$ -	\$ 748,000	\$ -	\$ -	\$ 748,000
3.1.37 Main St - Gormanville to Memorial	3810WS	2022	\$ 40,000	\$ -	\$ 40,000	\$ 30,000	\$ -	\$ 10,000	\$ -	\$ 3,000	\$ 7,000
3.1.38 Main St - Gormanville to Memorial	3810WS	2024	\$ 800,000	\$ -	\$ 800,000	\$ 600,000	\$ -	\$ 200,000	\$ -	\$ -	\$ 200,000
3.1.39 Sage Rd. Reconstruction to Collector Standard	4401WS	2025	\$ 45,000	\$ -	\$ 45,000	\$ 40,500	\$ -	\$ 4,500	\$ -	\$ -	\$ 4,500
3.1.40 Sage Rd. Reconstruction to Collector Standard	4401WS	2027	\$ 900,000	\$ -	\$ 900,000	\$ 810,000	\$ -	\$ 90,000	\$ -	\$ -	\$ 90,000
Subtotal City-Wide Water Projects			\$ 56,685,806	\$ 8,061,962	\$ 48,623,844	\$ 24,954,445	\$ -	\$ 23,669,399	\$ 542,680	\$ 2,447,659	\$ 20,679,060
<b>3.2 Equipment and Fleet</b>											
3.2.1 Excavator - Water and Sewer	-	2019	\$ 175,000	\$ -	\$ 175,000	\$ -	\$ -	\$ 175,000	\$ -	\$ 175,000	\$ -
3.2.2 New Generator	3804WS	2019	\$ 125,000	\$ -	\$ 125,000	\$ 62,500	\$ -	\$ 62,500	\$ -	\$ 62,500	\$ -
3.2.3 New Generator	3804WS	2020	\$ 250,000	\$ -	\$ 250,000	\$ 125,000	\$ -	\$ 125,000	\$ -	\$ 125,000	\$ -
Subtotal Equipment and Fleet			\$ 550,000	\$ -	\$ 550,000	\$ 187,500	\$ -	\$ 362,500	\$ -	\$ 362,500	\$ -
<b>TOTAL WATER SERVICES</b>			<b>\$ 57,235,806</b>	<b>\$ 8,061,962</b>	<b>\$ 49,173,844</b>	<b>\$ 25,141,945</b>	<b>\$ -</b>	<b>\$ 24,031,899</b>	<b>\$ 542,680</b>	<b>\$ 2,810,159</b>	<b>\$ 20,679,060</b>

Residential Development Charge Calculation		
Residential Share of 2019 - 2028 DC Eligible Costs	85%	\$2,388,635
10-Year Growth in Population in New Units		1,895
Unadjusted Development Charge Per Capita		<b>\$1,260.65</b>
Non-Residential Development Charge Calculation		
Non-Residential Share of 2019 - 2028 DC Eligible Costs	15%	\$421,524
10-Year Growth in Square Metres		20,000
Unadjusted Development Charge Per Square Metre		<b>\$21.08</b>

Uncommitted Reserve Fund Balance	
Balance as at December 31, 2018	\$542,680

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**CITY OF NORTH BAY  
CASHFLOW AND DETERMINATION OF DEVELOPMENT CHARGE  
WATER  
RESIDENTIAL DEVELOPMENT CHARGE  
(in \$000)**

<b>WATER SERVICES</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>2025</b>	<b>2026</b>	<b>2027</b>	<b>2028</b>	<b>TOTAL</b>
OPENING CASH BALANCE	\$0.00	(\$187.51)	(\$565.35)	(\$571.29)	(\$496.12)	(\$407.65)	(\$455.48)	(\$360.11)	(\$257.07)	(\$133.24)	
2019 - 2028 RESIDENTIAL FUNDING REQUIREMENTS											
- Water Services: Non Inflated	\$430.6	\$598.8	\$224.4	\$149.4	\$143.0	\$270.5	\$143.0	\$143.0	\$143.0	\$143.0	<b>\$2,388.6</b>
- Water Services: Inflated	\$430.6	\$610.8	\$233.4	\$158.5	\$154.8	\$298.7	\$161.0	\$164.3	\$167.6	\$170.9	<b>\$2,550.5</b>
NEW RESIDENTIAL DEVELOPMENT											
- Population Growth in New Units	188	188	188	188	188	188	188	188	196	196	<b>1,895</b>
REVENUE											
- DC Receipts: Inflated	\$248.1	\$253.1	\$258.1	\$263.3	\$268.6	\$273.9	\$279.4	\$285.0	\$303.2	\$309.2	<b>\$2,741.8</b>
INTEREST											
- Interest on Opening Balance	\$0.0	(\$10.3)	(\$31.1)	(\$31.4)	(\$27.3)	(\$22.4)	(\$25.1)	(\$19.8)	(\$14.1)	(\$7.3)	<b>(\$188.9)</b>
- Interest on In-year Transactions	(\$5.0)	(\$9.8)	\$0.4	\$1.8	\$2.0	(\$0.7)	\$2.1	\$2.1	\$2.4	\$2.4	<b>(\$2.3)</b>
TOTAL REVENUE	\$243.1	\$232.9	\$227.5	\$233.7	\$243.3	\$250.8	\$256.4	\$267.3	\$291.4	\$304.3	<b>\$2,550.7</b>
CLOSING CASH BALANCE	(\$187.5)	(\$565.3)	(\$571.3)	(\$496.1)	(\$407.6)	(\$455.5)	(\$360.1)	(\$257.1)	(\$133.2)	\$0.2	

<b>2019 Adjusted Charge Per Capita</b>	<b>\$1,320.64</b>
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<b>Allocation of Capital Program</b>	
Residential Sector	85.0%
Non-Residential Sector	15.0%
<b>Rates for 2019</b>	
Inflation Rate:	2.0%
Interest Rate on Positive Balances	3.5%
Interest Rate on Negative Balances	5.5%



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CITY OF NORTH BAY  
CASHFLOW AND DETERMINATION OF DEVELOPMENT CHARGE  
WATER  
NON-RESIDENTIAL DEVELOPMENT CHARGE  
(in \$000)

WATER SERVICES	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	TOTAL
OPENING CASH BALANCE	\$0.00	(\$32.76)	(\$99.08)	(\$99.75)	(\$86.07)	(\$70.02)	(\$77.99)	(\$60.66)	(\$41.94)	(\$21.75)	
2019 - 2028 NON-RESIDENTIAL FUNDING REQUIREMENTS											
- Water Services: Non Inflated	\$76.0	\$105.7	\$39.6	\$26.4	\$25.2	\$47.7	\$25.2	\$25.2	\$25.2	\$25.2	\$421.5
- Water Services: Inflated	\$76.0	\$107.8	\$41.2	\$28.0	\$27.3	\$52.7	\$28.4	\$29.0	\$29.6	\$30.2	\$450.1
NON-RESIDENTIAL SPACE GROWTH											
- Growth in Square Metres	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	20,000
REVENUE											
- DC Receipts: Inflated	\$44.1	\$45.0	\$45.9	\$46.8	\$47.7	\$48.7	\$49.7	\$50.7	\$51.7	\$52.7	\$483.0
INTEREST											
- Interest on Opening Balance	\$0.0	(\$1.8)	(\$5.4)	(\$5.5)	(\$4.7)	(\$3.9)	(\$4.3)	(\$3.3)	(\$2.3)	(\$1.2)	(\$32.5)
- Interest on In-year Transactions	(\$0.9)	(\$1.7)	\$0.1	\$0.3	\$0.4	(\$0.1)	\$0.4	\$0.4	\$0.4	\$0.4	(\$0.4)
TOTAL REVENUE	\$43.2	\$41.5	\$40.5	\$41.6	\$43.4	\$44.7	\$45.8	\$47.7	\$49.8	\$51.9	\$450.1
CLOSING CASH BALANCE	(\$32.8)	(\$99.1)	(\$99.7)	(\$86.1)	(\$70.0)	(\$78.0)	(\$60.7)	(\$41.9)	(\$21.8)	\$0.0	

2019 Adjusted Charge Per Square Metre	\$22.05
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<b>Allocation of Capital Program</b>	
Residential Sector	85.0%
Non-Residential Sector	15.0%
<b>Rates for 2019</b>	
Inflation Rate	2.0%
Interest Rate on Positive Balances	3.5%
Interest Rate on Negative Balances	5.5%

**APPENDIX E.4**

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***SANITARY SEWER***

## APPENDIX E.4

### SANITARY SEWER

The following tables set out the 2019 - 2028 development-related capital forecast and the calculation of the development charge for North Bay's wastewater treatment systems. The cost, quantum and description of the projects included in the forecast have been provided by City staff and are based on the City's ten-year approved capital budget.

The following tables form the basis of the development charges calculation

Table 1 Sanitary Sewer Development-Related Capital Program

Table 2 Residential and Non-Residential Cash Flow Analysis

**TABLE 1 2019 – 2028 DEVELOPMENT-RELATED CAPITAL PROGRAM AND CALCULATION OF THE “UNADJUSTED” DEVELOPMENT CHARGES**

The City's sanitary sewer development-related capital program totals \$55.74 million to service growth in the City. The program provides for a condition assessment and expansion of the wastewater treatment plant, additions and expansions to the wastewater collection system, as well as various linear infrastructure projects.

Approximately, \$627,617 in upper level grants and subsidies are anticipated to fund various sanitary sewer projects. Approximately \$29.05 million of the program has been identified as a non-growth or benefit to existing share. Of this amount, \$12.11 million is related to the Wastewater Treatment Plant, for which the benefit to existing shares are based on plant capacity. Council is made aware that this share will need to be funded using non-development charges revenue sources. Therefore, the DC eligible costs of the sanitary sewer service program are netted down to \$26.07 million.

The amount of \$608,513 is available in the sanitary service DC reserve fund. The reserve fund balance has been distributed among projects occurring in the first year of the capital program in consultation with staff.

A significant portion of the program (\$21.17 million) of the capital program has been identified as the post-period share as the benefit of most of the sanitary sewer projects is considered to extend beyond 2028. The post-2028 shares are based on discussions with staff. This share will be eligible for funding under future development charge studies.

The result is a development charge recoverable share of the capital program of \$4.29 million. The development-related cost has been allocated 85 per cent (\$3.65 million) to new residential development and 15 per cent (\$643,860) to new non-residential development. This yields unadjusted development charge rates of \$1,925.59 per capita and \$32.19 per square metre respectively.

**TABLE 2 CASH FLOW ANALYSIS**

The long-term cash flow analysis presented in Table 2 takes into consideration expenditure timing and revenue projections. The main reason for this increase in the rates is the expectation that the timing of the development-related expenditures is in advance of the benefitting development. After cash flow consideration, the residential charge increases to \$2,042.49 and the non-residential charge also increases to \$34.11 per square metre respectively.

The following is a summary of the calculated Sanitary Sewer service development charges:

2019-2028		SANITARY SEWER		Adjusted	
Growth-Related Capital Program Total	Net DC Recoverable	Unadjusted Development Charge \$/capita	Unadjusted Development Charge \$/sq.m	Development Charge \$/capita	Development Charge \$/sq.m
\$55,741,726	\$4,292,401	\$1,925.59	\$32.19	<b>\$2,042.49</b>	<b>\$34.11</b>

CITY OF NORTH BAY  
DEVELOPMENT-RELATED CAPITAL PROGRAM  
SANITARY SEWER

Project Description	Reference #	Timing	Total Gross Project Cost*	Grants/ Subsidies/Other Recoveries	Net Municipal Cost	Ineligible Costs		Total DC Eligible Costs	DC Eligible Costs			
						Replacement & BTE Shares	0% Reduction		Available DC Reserves	2019-2028	Post 2028	
<b>4.0 SANITARY SEWER</b>												
<b>4.1 City-Wide Sanitary Sewer Projects</b>												
4.1.1 Cedar Heights Rd Hwy 11 to Larocque Urban Upgrade & Watermain	3900SS	2026	\$ 80,000	\$ -	\$ 80,000	\$ -	\$ -	\$ 80,000	\$ -	\$ -	\$ 80,000	
4.1.2 Cedar Heights Rd Hwy 11 to Larocque Urban Upgrade & Watermain	3900SS	2028	\$ 1,500,000	\$ -	\$ 1,500,000	\$ -	\$ -	\$ 1,500,000	\$ -	\$ -	\$ 1,500,000	
4.1.3 Lakeshore Dr. Area - Trunk Watermain and Sewer - Phase 1 - Judge to Gertrude	3500SS	2019	\$ 320,000	\$ -	\$ 320,000	\$ 256,000	\$ -	\$ 64,000	\$ 12,800	\$ -	\$ 51,200	
4.1.4 Lakeshore Dr. Area - Trunk Watermain and Sewer - Phase 1 - Judge to Gertrude	3500ST	2025	\$ 2,500,000	\$ -	\$ 2,500,000	\$ 2,000,000	\$ -	\$ 500,000	\$ -	\$ 100,000	\$ 400,000	
4.1.5 Main St - Gormanville to Memorial Dr.	3810SS	2022	\$ 180,000	\$ -	\$ 180,000	\$ 135,000	\$ -	\$ 45,000	\$ -	\$ 13,500	\$ 31,500	
4.1.6 Main St - Gormanville to Memorial Dr.	3810SS	2024	\$ 3,500,000	\$ -	\$ 3,500,000	\$ 2,625,000	\$ -	\$ 875,000	\$ -	\$ 262,500	\$ 612,500	
4.1.7 Francis St Sewer Upsizing	3212SS	2020	\$ 60,000	\$ -	\$ 60,000	\$ 30,000	\$ -	\$ 30,000	\$ -	\$ 9,000	\$ 21,000	
4.1.8 Francis St Sewer Upsizing	3212SS	2024	\$ 1,100,000	\$ -	\$ 1,100,000	\$ 550,000	\$ -	\$ 550,000	\$ -	\$ 165,000	\$ 385,000	
4.1.9 O'Brien St. Reconstruction - Cassells to Ski Club	3606SS	2019	\$ 90,000	\$ -	\$ 90,000	\$ 59,400	\$ -	\$ 30,600	\$ 9,180	\$ -	\$ 21,420	
4.1.10 O'Brien St. Reconstruction - Cassells to Ski Club	3606SS	2020	\$ 850,000	\$ -	\$ 850,000	\$ 561,000	\$ -	\$ 289,000	\$ -	\$ 86,700	\$ 202,300	
4.1.11 O'Brien St. Reconstruction - Cassells to Ski Club	3606SS	2021	\$ 850,000	\$ -	\$ 850,000	\$ 561,000	\$ -	\$ 289,000	\$ -	\$ 86,700	\$ 202,300	
4.1.12 WWTP - Electrical Upgrades	6476SS/3308SS	Various	\$ 3,062,000	\$ -	\$ 3,062,000	\$ 2,076,708	\$ -	\$ 985,292	\$ -	\$ 738,972	\$ 246,320	
4.1.13 WWTP - Upgrade Aeration System	3310SS	2019	\$ 551,508	\$ -	\$ 551,508	\$ 374,043	\$ -	\$ 177,465	\$ -	\$ 133,095	\$ 44,370	
4.1.14 WWTP - Major Valve Replacement Program	3313SS	2019	\$ 170,000	\$ -	\$ 170,000	\$ 115,297	\$ -	\$ 54,703	\$ 41,023	\$ -	\$ 13,680	
4.1.15 WWTP - Backup Generation	3317SS	2019	\$ 2,827,031	\$ -	\$ 2,827,031	\$ 1,917,348	\$ -	\$ 909,683	\$ 81,000	\$ 601,263	\$ 227,420	
4.1.16 WWTP - Raw Sewage Pumping Station	3309SS	2019	\$ 1,250,000	\$ -	\$ 1,250,000	\$ 847,774	\$ -	\$ 402,226	\$ 301,666	\$ -	\$ 100,560	
4.1.17 WWTP - Raw Sewage Pumping Station	3309SS	2021	\$ 1,100,000	\$ -	\$ 1,100,000	\$ 746,041	\$ -	\$ 353,959	\$ -	\$ 265,469	\$ 88,490	
4.1.18 WWTP - Intake Chamber Replacement	3825SS	2022	\$ 150,000	\$ -	\$ 150,000	\$ 101,733	\$ -	\$ 48,267	\$ -	\$ 36,197	\$ 12,070	
4.1.19 WWTP - Intake Chamber Replacement	3825SS	2023	\$ 2,800,000	\$ -	\$ 2,800,000	\$ 1,899,015	\$ -	\$ 900,985	\$ -	\$ 675,735	\$ 225,250	
4.1.20 WWTP - Structural Repair	3829SS	2019	\$ 200,000	\$ -	\$ 200,000	\$ 135,644	\$ -	\$ 64,356	\$ 48,266	\$ -	\$ 16,090	
4.1.21 WWTP - Structural Repair	3829SS	2020	\$ 400,000	\$ -	\$ 400,000	\$ 271,288	\$ -	\$ 128,712	\$ -	\$ 96,532	\$ 32,180	
4.1.22 WWTP - Structural Repair	3829SS	2021	\$ 60,000	\$ -	\$ 60,000	\$ 40,693	\$ -	\$ 19,307	\$ -	\$ 14,477	\$ 4,830	
4.1.23 WWTP - Structural Repair	3829SS	2022	\$ 490,000	\$ -	\$ 490,000	\$ 332,328	\$ -	\$ 157,672	\$ -	\$ 118,252	\$ 39,420	
4.1.24 WWTP - Structural Repair	3829SS	2023	\$ 950,000	\$ -	\$ 950,000	\$ 644,309	\$ -	\$ 305,691	\$ -	\$ 229,271	\$ 76,420	
4.1.25 WWTP - Aeration Diffusers	3923SS	2021	\$ 250,000	\$ -	\$ 250,000	\$ 169,555	\$ -	\$ 80,445	\$ -	\$ 60,335	\$ 20,110	
4.1.26 WWTP - Gas Booster Replacement	3921SS	2019	\$ 200,000	\$ -	\$ 200,000	\$ 135,644	\$ -	\$ 64,356	\$ 48,266	\$ -	\$ 16,090	
4.1.27 WWTP - Roof Rehab	3928SS	2020	\$ 250,000	\$ -	\$ 250,000	\$ 169,555	\$ -	\$ 80,445	\$ -	\$ 60,335	\$ 20,110	
4.1.28 WWTP - Roof Rehab	3928SS	2022	\$ 250,000	\$ -	\$ 250,000	\$ 169,555	\$ -	\$ 80,445	\$ -	\$ 60,335	\$ 20,110	
4.1.29 WWTP - Roof Rehab	3928SS	2024	\$ 250,000	\$ -	\$ 250,000	\$ 169,555	\$ -	\$ 80,445	\$ -	\$ -	\$ 80,445	
4.1.30 WWTP - Roof Rehab	3928SS	2026	\$ 250,000	\$ -	\$ 250,000	\$ 169,555	\$ -	\$ 80,445	\$ -	\$ -	\$ 80,445	
4.1.31 WWTP - Roof Rehab	3928SS	2028	\$ 250,000	\$ -	\$ 250,000	\$ 169,555	\$ -	\$ 80,445	\$ -	\$ -	\$ 80,445	
4.1.32 Infiltration Reduction/Flow Monitoring Program - Phase 3	4202SS	2021	\$ 200,000	\$ -	\$ 200,000	\$ 135,644	\$ -	\$ 64,356	\$ -	\$ 48,266	\$ 16,090	

APPENDIX E.4  
TABLE 1

CITY OF NORTH BAY  
DEVELOPMENT-RELATED CAPITAL PROGRAM  
SANITARY SEWER

Project Description	Reference #	Timing	Total Gross Project Cost*	Grants/ Subsidies/Other Recoveries	Net Municipal Cost	Ineligible Costs		Total DC Eligible Costs	DC Eligible Costs		
						Replacement & BTE Shares	0% Reduction		Available DC Reserves	2019-2028	Post 2028
4.1.33 WWTP Expansion	4103SS	2023	\$ 250,000	\$ -	\$ 250,000	\$ -	\$ -	\$ 250,000	\$ -	\$ 130,000	\$ 120,000
4.1.34 WWTP Expansion	4103SS	2024	\$ 2,250,000	\$ -	\$ 2,250,000	\$ -	\$ -	\$ 2,250,000	\$ -	\$ -	\$ 2,250,000
4.1.35 WWTP Expansion	4103SS	2025	\$ 7,100,000	\$ -	\$ 7,100,000	\$ -	\$ -	\$ 7,100,000	\$ -	\$ -	\$ 7,100,000
4.1.36 WWTP - Chain and Flygt	3922SS	2020	\$ 200,000	\$ -	\$ 200,000	\$ 135,644	\$ -	\$ 64,356	\$ -	\$ 48,266	\$ 16,090
4.1.37 North Hwy 11 Servicing & Airport Industrial Park Expansion	4300SS	2026	\$ 155,000	\$ -	\$ 155,000	\$ -	\$ -	\$ 155,000	\$ -	\$ -	\$ 155,000
4.1.38 North Hwy 11 Servicing & Airport Industrial Park Expansion	4300SS	2028	\$ 3,100,000	\$ -	\$ 3,100,000	\$ -	\$ -	\$ 3,100,000	\$ -	\$ -	\$ 3,100,000
4.1.39 Pumping Station Replacement	3826SS	2022	\$ 3,500,000	\$ -	\$ 3,500,000	\$ 2,625,000	\$ -	\$ 875,000	\$ -	\$ -	\$ 875,000
4.1.40 Pumping Station Replacement	3826SS	2023	\$ 5,000,000	\$ -	\$ 5,000,000	\$ 3,750,000	\$ -	\$ 1,250,000	\$ -	\$ -	\$ 1,250,000
4.1.41 Cedar Heights - Phase II - Standpipe, Water & Sewer	3607SS	2019	\$ 756,187	\$ 627,617	\$ 128,570	\$ 96,428	\$ -	\$ 32,143	\$ 9,643	\$ -	\$ 22,500
4.1.42 Cassells - King St. To Hwy 11/17 - Phase 1 & 2	3619SS	2019	\$ 1,725,000	\$ -	\$ 1,725,000	\$ 1,293,750	\$ -	\$ 431,250	\$ 56,670	\$ 72,700	\$ 301,880
4.1.43 McKeown Ave. - Gormanville Rd to Cartier	3801SS	2022	\$ 60,000	\$ -	\$ 60,000	\$ 45,000	\$ -	\$ 15,000	\$ -	\$ 4,500	\$ 10,500
4.1.44 McKeown Ave. - Gormanville Rd to Cartier	3801SS	2024	\$ 1,000,000	\$ -	\$ 1,000,000	\$ 750,000	\$ -	\$ 250,000	\$ -	\$ -	\$ 250,000
4.1.45 Seymour - Station to Wallace - Widening & Signals	3700SS	2024	\$ 40,000	\$ -	\$ 40,000	\$ 30,000	\$ -	\$ 10,000	\$ -	\$ -	\$ 10,000
4.1.46 Seymour - Station to Wallace - Widening & Signals	3700SS	2026	\$ 800,000	\$ -	\$ 800,000	\$ 600,000	\$ -	\$ 200,000	\$ -	\$ -	\$ 200,000
4.1.47 Lakeshore Dr - Gertrude to Marshall - Watermain & 1 Lane	3802SS	2025	\$ 190,000	\$ -	\$ 190,000	\$ 152,000	\$ -	\$ 38,000	\$ -	\$ -	\$ 38,000
4.1.48 Lakeshore Dr - Gertrude to Marshall - Watermain & 1 Lane	3802SS	2027	\$ 2,500,000	\$ -	\$ 2,500,000	\$ 2,000,000	\$ -	\$ 500,000	\$ -	\$ -	\$ 500,000
Subtotal City-Wide Sanitary Sewer Projects			\$ 55,566,726	\$ 627,617	\$ 54,939,109	\$ 29,046,060	\$ -	\$ 25,893,049	\$ 608,513	\$ 4,117,401	\$ 21,167,135
<b>4.2 Equipment and Fleet</b>											
4.2.1 Excavator - Water and Sewer	-	2019	\$ 175,000	\$ -	\$ 175,000	\$ -	\$ -	\$ 175,000	\$ -	\$ 175,000	\$ -
<b>TOTAL SANITARY SEWER</b>			\$ 55,741,726	\$ 627,617	\$ 55,114,109	\$ 29,046,060	\$ -	\$ 26,068,049	\$ 608,513	\$ 4,292,401	\$ 21,167,135

Note: Gross project costs for some projects include costs incurred pre 2019 for which development charges were not applied

Residential Development Charge Calculation		
Residential Share of 2019 - 2028 DC Eligible Costs	85%	\$3,648,541
10-Year Growth in Population in New Units		1,895
Unadjusted Development Charge Per Dwelling Unit		<b>\$1,925.59</b>
Non-Residential Development Charge Calculation		
Non-Residential Share of 2019 - 2028 DC Eligible Costs	15%	\$643,860
10-Year Growth in Square Metres		20,000
Unadjusted Development Charge Per Square Metre		<b>\$32.19</b>

Uncommitted Reserve Fund Balance	
Balance as at December 31, 2018	608,513

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 APPENDIX E.4  
 TABLE 2

CITY OF NORTH BAY  
 CASHFLOW AND DETERMINATION OF DEVELOPMENT CHARGE  
 SANITARY SEWER  
 RESIDENTIAL DEVELOPMENT CHARGE  
 (in \$000)

SANITARY SEWER	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	TOTAL
OPENING CASH BALANCE	\$0.00	(\$527.98)	(\$489.36)	(\$605.06)	(\$505.49)	(\$1,154.85)	(\$1,266.56)	(\$1,065.90)	(\$749.47)	(\$388.51)	
2019 - 2028 RESIDENTIAL FUNDING REQUIREMENTS											
- Sanitary Sewer: Non Inflated	\$897.6	\$318.5	\$466.8	\$260.7	\$942.6	\$426.2	\$147.8	\$62.8	\$62.8	\$62.8	<b>\$3,648.5</b>
- Sanitary Sewer: Inflated	\$897.6	\$324.9	\$485.6	\$276.6	\$1,020.3	\$470.5	\$166.5	\$72.2	\$73.6	\$75.1	<b>\$3,862.8</b>
NEW RESIDENTIAL DEVELOPMENT											
- Population Growth in New Units	188	188	188	188	188	188	188	188	196	196	<b>1,895</b>
REVENUE											
- DC Receipts: Inflated	\$383.7	\$391.4	\$399.2	\$407.2	\$415.3	\$423.7	\$432.1	\$440.8	\$468.8	\$478.2	<b>\$4,240.5</b>
INTEREST											
- Interest on Opening Balance	\$0.0	(\$29.0)	(\$26.9)	(\$33.3)	(\$27.8)	(\$63.5)	(\$69.7)	(\$58.6)	(\$41.2)	(\$21.4)	<b>(\$371.4)</b>
- Interest on In-year Transactions	(\$14.1)	\$1.2	(\$2.4)	\$2.3	(\$16.6)	(\$1.3)	\$4.6	\$6.5	\$6.9	\$7.1	<b>(\$5.9)</b>
TOTAL REVENUE	\$369.6	\$363.5	\$369.9	\$376.2	\$370.9	\$358.8	\$367.1	\$388.6	\$434.5	\$463.9	<b>\$3,863.1</b>
CLOSING CASH BALANCE	(\$528.0)	(\$489.4)	(\$605.1)	(\$505.5)	(\$1,154.9)	(\$1,266.6)	(\$1,065.9)	(\$749.5)	(\$388.5)	\$0.3	

<b>2019 Adjusted Charge Per Capita</b>	<b>\$2,042.49</b>
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<b>Allocation of Capital Program</b>	
Residential Sector	85.0%
Non-Residential Sector	15.0%
<b>Rates for 2019</b>	
Inflation Rate:	2.0%
Interest Rate on Positive Balances	3.5%
Interest Rate on Negative Balances	5.5%

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APPENDIX E.4  
TABLE 2

**CITY OF NORTH BAY  
CASHFLOW AND DETERMINATION OF DEVELOPMENT CHARGE  
SANITARY SEWER  
NON-RESIDENTIAL DEVELOPMENT CHARGE  
(in \$000)**

<b>SANITARY SEWER</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>2025</b>	<b>2026</b>	<b>2027</b>	<b>2028</b>	<b>TOTAL</b>
OPENING CASH BALANCE	\$0.00	(\$92.66)	(\$85.30)	(\$105.13)	(\$86.93)	(\$200.84)	(\$219.82)	(\$183.64)	(\$126.97)	(\$65.85)	
<b>2019 - 2028 NON-RESIDENTIAL FUNDING REQUIREMENTS</b>											
- Sanitary Sewer: Non Inflated	\$158.4	\$56.2	\$82.4	\$46.0	\$166.3	\$75.2	\$26.1	\$11.1	\$11.1	\$11.1	<b>\$643.9</b>
- Sanitary Sewer: Inflated	\$158.4	\$57.3	\$85.7	\$48.8	\$180.0	\$83.0	\$29.4	\$12.7	\$13.0	\$13.2	<b>\$681.7</b>
<b>NON-RESIDENTIAL SPACE GROWTH</b>											
- Growth in Square Metres	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	<b>20,000</b>
<b>REVENUE</b>											
- DC Receipts: Inflated	\$68.2	\$69.6	\$71.0	\$72.4	\$73.8	\$75.3	\$76.8	\$78.4	\$79.9	\$81.5	<b>\$746.9</b>
<b>INTEREST</b>											
- Interest on Opening Balance	\$0.0	(\$5.1)	(\$4.7)	(\$5.8)	(\$4.8)	(\$11.0)	(\$12.1)	(\$10.1)	(\$7.0)	(\$3.6)	<b>(\$64.2)</b>
- Interest on In-year Transactions	(\$2.5)	\$0.2	(\$0.4)	\$0.4	(\$2.9)	(\$0.2)	\$0.8	\$1.1	\$1.2	\$1.2	<b>(\$1.0)</b>
<b>TOTAL REVENUE</b>	<b>\$65.7</b>	<b>\$64.7</b>	<b>\$65.9</b>	<b>\$67.0</b>	<b>\$66.1</b>	<b>\$64.1</b>	<b>\$65.6</b>	<b>\$69.4</b>	<b>\$74.1</b>	<b>\$79.1</b>	<b>\$681.7</b>
CLOSING CASH BALANCE	(\$92.7)	(\$85.3)	(\$105.1)	(\$86.9)	(\$200.8)	(\$219.8)	(\$183.6)	(\$127.0)	(\$65.8)	(\$0.0)	

<b>2019 Adjusted Charge Per Square Metre</b>	<b>\$34.11</b>
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<b>Allocation of Capital Program</b>	
Residential Sector	85.0%
Non-Residential Sector	15.0%
<b>Rates for 2019</b>	
Inflation Rate	2.0%
Interest Rate on Positive Balances	3.5%
Interest Rate on Negative Balances	5.5%



## APPENDIX F

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### *RESERVE FUNDS*

## APPENDIX F

### DEVELOPMENT CHARGES RESERVE FUNDS

The *Development Charges Act* requires that a reserve fund be established for each service for which development charges are collected. Table 1 presents the uncommitted reserve fund balances, as at December 31, 2018, that are available to help fund the development-related net capital costs identified in this study.

As shown in Table 1, the December 31, 2018 total reserve fund balance was \$3,675,523. These funds are assigned to projects in the initial years of the capital program for each service. This has the effect of reducing and deferring capital costs brought forward to the development charge calculation and the cash flow analysis.

The Public Library reserve will continue to be used for the purposes to which the fees have been collected, although at this time, no capital program or related charge has been identified in this DC Study for this service.

The Sanitary Sewer reserve fund balance has been adjusted by \$81,000 from the 2018 Treasurer's Statement for the purposes of this Background Study.

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TABLE 1

CITY OF NORTH BAY  
DEVELOPMENT CHARGES RESERVE FUND BALANCES

<b>Service</b>	<b>Closing Balance December 31, 2018</b>
General Government	\$218,418
Public Library	\$170,586
Protection - Fire & Police	\$420,158
Parks & Recreation	\$434,737
Transit Services	\$5,269
Services Related to a Highway	
Public Works	\$60,614
Roads And Related	\$1,214,547
Water	\$542,680
Sanitary Sewer	\$608,513
<b>Total</b>	<b>\$3,675,523</b>

## APPENDIX G

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### *LONG-TERM CAPITAL AND OPERATING IMPACTS*

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APPENDIX G  
TABLE 1

**CITY OF NORTH BAY  
SUMMARY OF DEVELOPMENT-RELATED CAPITAL PROGRAM  
FOR GENERAL AND ENGINEERED SERVICES  
(in \$000)**

General Services (2019-2028)	Development-Related Capital Program (2019-2028)					
	Net Municipal Cost (\$000)	Replacement & Benefit to Existing (\$000)	Legislated Service Discount (\$000)	Available DC Reserves (\$000)	Post-2028 Benefit (\$000)	Total DC Eligible Costs for Recovery (\$000)
1.0 General Government	\$760.0	\$330.0	\$43.0	\$218.4	\$168.6	\$0.0
2.0 Parks & Recreation	\$36,955.0	\$16,773.0	\$2,018.2	\$434.7	\$16,597.0	\$1,132.1
3.0 Protection - Fire & Police	\$980.0	\$190.0	\$0.0	\$420.2	\$0.0	\$369.8
4.0 Transit	\$188.0	\$66.0	\$0.0	\$5.3	\$0.0	\$116.7
<b>TOTAL - GENERAL SERVICES (2019-2028)</b>	<b>\$38,883.0</b>	<b>\$17,359.0</b>	<b>\$2,061.2</b>	<b>\$1,078.6</b>	<b>\$16,765.6</b>	<b>\$1,618.7</b>

Engineered Services (2019-2028)	Development-Related Capital Program (2019-2028)					
	Net Municipal Cost (\$000)	Replacement & Benefit to Existing (\$000)	Legislated Service Discount (\$000)	Available DC Reserves (\$000)	Post-2028 Benefit (\$000)	Total DC Eligible Costs for Recovery (\$000)
1.0 Public Works	\$825.0	\$187.5	\$0.0	\$60.6	\$123.2	\$453.7
2.0 Roads & Related	\$90,181.1	\$52,664.9	\$0.0	\$1,214.5	\$31,465.8	\$4,835.8
3.0 Water Services	\$49,173.8	\$25,141.9	\$0.0	\$542.7	\$20,679.1	\$2,810.2
4.0 Sanitary Services	\$55,114.1	\$29,046.1	\$0.0	\$608.5	\$21,167.1	\$4,292.4
<b>TOTAL - ENGINEERED SERVICES (2019-2028)</b>	<b>\$195,294.0</b>	<b>\$107,040.4</b>	<b>\$0.0</b>	<b>\$2,426.4</b>	<b>\$73,435.2</b>	<b>\$12,392.1</b>

<b>TOTAL - ENGINEERED SERVICES (2019-2028)</b>	<b>\$234,177.0</b>	<b>\$124,399.4</b>	<b>\$2,061.2</b>	<b>\$3,504.9</b>	<b>\$90,200.7</b>	<b>\$14,010.8</b>
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\*Due to rounding, numbers may not add up precisely to the totals indicated and percentages may not precisely reflect the absolute figures for the same reason.

## APPENDIX G

## TABLE 2

**CITY OF NORTH BAY**  
**ESTIMATED NET OPERATING COST OF THE PROPOSED**  
**GROWTH-RELATED CAPITAL PROGRAM**  
(in constant 2018 dollars)

	Net Cost (in 2018 \$)	Estimated Operating Costs (\$000) 2028
<b>GENERAL GOVERNMENT</b>		
No additional operating impacts	-	\$0.0
<b>PARKS &amp; RECREATION</b>		
New Arena (Twin Pad)	\$10.00 per sq.ft	\$380,000.0
<b>PROTECTION - FIRE &amp; POLICE</b>		
New Training Centre and Equipment	\$0.10 per \$1.00 of new infrastructure	\$90,500.0
<b>TRANSIT SERVICES</b>		
New Bus Shelters (Various Locations)	\$0.05 per \$1.00 of new infrastructure	\$9,400.0
<b>PUBLIC WORKS</b>		
Public Works Storage Structure	\$0.10 per \$1.00 of new infrastructure	\$25,000.0
Additional Vehicles	\$0.10 per \$1.00 of new infrastructure	\$57,500.0
<b>ROADS AND RELATED</b>		
New Roads Construction	\$200 per new household	\$141,200.0
<b>WATER</b>		
No new net tax levy expenditure impacts	-	\$0.0
<b>SANITARY SEWER</b>		
No new net tax levy expenditure impacts	-	\$0.0
<b>TOTAL ESTIMATED GROWTH-RELATED OPERATING COSTS (\$000)</b>		<b>\$703,600.0</b>

*Note: Only tax supported operating cost impacts are shown in this table. Additional operating costs for rate supported services (water, sanitary sewer) are assumed to be recovered through future rate increases.*

## **APPENDIX H**

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### ***ASSET MANAGEMENT PLAN***

## APPENDIX H

### ASSET MANAGEMENT PLAN

The *Development Charges Act* 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.

#### Asset Types

A summary of the future municipal-owned assets and estimated useful life assumptions for eligible DC services considered as part of the study are outlined in Table 1. These assumptions are sourced from the City's Asset Management Plan - Infrastructure (2014), Tangible Capital Asset Database and discussions with staff. Although all capital assets considered in the study have been identified, not all assets necessitate future replacement or ongoing maintenance activities. For instance, some projects do not relate to the replacement of a tangible capital asset; examples include the acquisition of land or the undertaking of development-related studies. These projects/costs do not necessarily require future replacement or ongoing maintenance. Such projects have been excluded from the asset management provision calculations.

It should be noted that the capital cost estimates prepared for each of the projects identified in this section include grouped costs of various individual elements, which, as a stand-alone item, may have its own useful life (ex. New buildings include: HVAC, structural elements, roof, etc.). Accordingly, the average useful life assumptions noted below are applicable to all project components.



<b>Table 1 Summary of Municipal Assets Considered City-wide Services</b>	
<b>Service and Amenities</b>	<b>Estimated Useful Life</b>
<b>General Government</b> <ul style="list-style-type: none"> <li>• Studies</li> </ul>	<ul style="list-style-type: none"> <li>• Studies do not have a useful life assumption</li> </ul>
<b>Parks &amp; Recreation</b> <ul style="list-style-type: none"> <li>• Buildings</li> <li>• Parks</li> <li>• Playground equipment</li> <li>• Trails</li> </ul>	<ul style="list-style-type: none"> <li>• 25-50 years</li> <li>• 7-50 years</li> <li>• 20 years</li> <li>• 40 years</li> </ul>
<b>Transit</b> <ul style="list-style-type: none"> <li>• Bus Shelters</li> <li>• Equipment</li> </ul>	<ul style="list-style-type: none"> <li>• 20-100 years</li> <li>• 7-20 years</li> </ul>
<b>Protection Services - Fire &amp; Police</b> <ul style="list-style-type: none"> <li>• Buildings</li> <li>• Equipment</li> </ul>	<ul style="list-style-type: none"> <li>• 20-100 years</li> <li>• 8-50 years</li> </ul>
<b>Public Works</b> <ul style="list-style-type: none"> <li>• Facilities</li> <li>• Fleet and Equipment</li> </ul>	<ul style="list-style-type: none"> <li>• 20-100 years</li> <li>• 7-30 years</li> </ul>
<b>Roads and Related</b> <ul style="list-style-type: none"> <li>• Linear Infrastructure</li> <li>• Stormwater Infrastructure</li> </ul>	<ul style="list-style-type: none"> <li>• 7-75 years</li> <li>• 40-100 years</li> </ul>
<b>Water</b> <ul style="list-style-type: none"> <li>• Water Infrastructure</li> <li>• Equipment</li> </ul>	<ul style="list-style-type: none"> <li>• 25-80 years</li> <li>• 7-40 years</li> </ul>
<b>Sanitary Sewer</b> <ul style="list-style-type: none"> <li>• Linear infrastructure</li> <li>• Wastewater Treatment Plant Equipment</li> <li>• Wastewater Treatment Plant Building</li> <li>• Equipment</li> </ul>	<ul style="list-style-type: none"> <li>• 75 years</li> <li>• 7-50 years</li> <li>• 35-100 years</li> <li>• 7-50 years</li> </ul>

No annual provisions have been identified for General Government as the plan updates and studies included in the General Government development charge category are not infrastructure and therefore have no long-term financial requirements.

### **Annual Provision**

When assets require rehabilitation or are due for replacement, the source of funds is limited to reserves or contributions from operating. Capital expenditures to carry out the rehabilitation and replacement of aging infrastructure are not development-related

and are therefore not eligible for funding through development charge revenues or other developer contributions.

Based on the information obtained from City staff and the existing Asset Management Plan regarding useful life assumptions and the capital cost of acquiring and/or replacing each asset, a provision for infrastructure replacement has been calculated for all services. Provisions for infrastructure replacement are initially calculated for each asset based on their useful life and the anticipated cost of replacement. The aggregate of all individual provisions form the required annual capital provision. In calculating the annual provisions, a number of assumptions are made to account for inflation (2.0 per cent) and interest (3.5 per cent).

Consistent with the requirements of the *Development Charges Act*, assets that are proposed to be funded under the development charges by-law have been included in the analysis. As a result, the total calculated annual provision for development charge related infrastructure has been netted down to consider the replacement of existing infrastructure or benefit-to-existing development. However, for reference, the annual replacement provisions associated with the non-development charge funded costs; including costs related to the ten per cent statutory discount, benefit-to-existing and post-period benefit have also been calculated.

Table 2 provides the calculated annual asset management contribution by 2029 as it relates to the non-DC funded and the DC recoverable portions for all services. The year 2029 has been included to calculate the annual contribution for the 2019-2028 period as the expenditures in 2028 will not trigger asset management contributions until 2029. As shown in Table 2, by 2029, the City will need to fund an additional \$391,000 per year in order to properly fund the full life cycle costs of the new assets related to the services under the development charges by-law.

<b>Service</b>	<b>2019 - 2028 Capital Program</b>		<b>Calculated AMP Annual Provision by 2029</b>	
	<b>DC Recoverable</b>	<b>Non-DC Funded</b>	<b>DC Related</b>	<b>Non-DC Related</b>
General Government	\$ 235,900	\$ 524,100	\$ -	\$ -
Parks & Recreation	\$ 1,736,000	\$ 42,996,000	\$ 53,000	\$ 1,352,000
Protection - Fire & Police	\$ 790,000	\$ 215,000	\$ 24,000	\$ 3,000
Transit Services	\$ 122,000	\$ 66,000	\$ 4,000	\$ 5,000
Public Works	\$ 514,000	\$ 311,000	\$ 19,000	\$ 17,000
Roads & Related	\$ 6,050,000	\$ 95,385,000	\$ 113,000	\$ 1,923,000
Water Services	\$ 3,353,000	\$ 53,883,000	\$ 72,000	\$ 1,136,000
Sanitary Services	\$ 4,901,000	\$ 50,841,000	\$ 106,000	\$ 816,000
<b>Total</b>			<b>\$ 391,000</b>	<b>\$ 5,252,000</b>

## **Financial Sustainability of the Program**

### ***Future Revenue Growth***

The calculated annual funding provision should be considered within the context of the City's projected growth, which will have the effect of increasing the overall assessment base. This leads to additional user fee and charge revenues to offset the capital asset provisions required to replace the infrastructure proposed to be funded under the development charges by-law. The collection of these funds is intended to be allocated to the City's reserves for future replacement of these assets.

### ***Asset Management Plan***

In order to maintain, protect and manage the City's infrastructure and assets, staff monitor current levels of service and life cycle trends. These assessments are used to schedule appropriate activities, such as road reconstruction, bridge replacement, and equipment and vehicle replacement. Ongoing maintenance and repairs to community facilities will ensure that they continue to meet the needs of a growing population into the future.

Overall, the City will continue to invest, renew, and manage infrastructure and assets through its Asset Management Plan. These plans are crucial for forecasting capital budgetary needs both in the short and long terms. The AMP process helps to improve financial sustainability to maximize benefits, reduce risk and provide satisfactory levels of service to the community in an environmentally and financially responsible manner.

### ***Transit Asset Management in the City***

At year-end 2019, the City of North Bay operated eight transit routes serviced by conventional, paratransit vehicles and shelters. The City aims to maintain the transit fleet in state of good repair through regular maintenance and inspections to achieve public transit safety and reliability standards.

The City will be adding new transit shelters and bicycle racks and storage over the course of the next ten years. The service increase is reflected in the Transit capital program. The full cost of the growth related capital program for Transit is \$116,731 (see Appendix D).

The additional bus shelter and equipment is expected to have a yearly net operating impact of \$9,400 per year by 2028 (see Appendix G). In addition, by 2029 the City will be required to contribute an additional \$9,000 in both DC and non DC related funds for future replacement of the growth-related capital in this study (see Table 2).

The City dedicates Gas Tax funding to transit on a yearly basis. The City also ensures that the transit system is financially sustainable through yearly capital and operating budget reviews.

***The Program is Deemed Financially Sustainable***

The calculated annual provisions identified in Table 2 are considered to be financially sustainable as it is expected that the increased capital asset management requirements can be absorbed by the tax and user base over the long-term. The City's annual operating budget review will allow staff to continue to monitor and implement mitigating measures should the program become less sustainable.

**APPENDIX I**

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***2019 DRAFT DEVELOPMENT CHARGES BY-LAW***

***(PROVIDED UNDER SEPARATE COVER)***