



# 2016-2020

## Draft Five-Year Financial Plan



**Buttertub Marsh in the autumn**

**Many of the photographs found throughout this 2016-2020 Financial Plan were taken by Roy Ostling, Greg Howard, Landon Sveinson and Rachel Kirk.**

# Distinguished Budget Presentation Award



## **Awarded DISTINGUISHED BUDGET PRESENTATION AWARD by Government Finance Officers Association**

The City of Nanaimo has received the Distinguished Budget Presentation Award for the 2015-2019 Financial Plan by the Canada/US Government Finance Officers Association. This is the highest form of recognition in governmental budgeting and represents “best practices” in the field. This is the second consecutive year that the City of Nanaimo has received this award.

To receive this award, applicants must be rated “proficient” in four categories which measure how well the budget serves as: a policy document; a financial plan; an operations guide; and a communications device. There are fourteen mandatory criteria within those categories.

# Table of Contents

## Distinguished Budget Presentation Award .....i

### Chapter 1 - Overview

Executive Summary ..... 2-3

Report from the Director of Finance..... 4-5

### Chapter 2 - Nanaimo - The Harbour City

City Profile ..... 7-10

City Governance Overview ..... 11-12

City of Nanaimo Organization ..... 13

### Chapter 3 - Planning Framework

Planning Framework ..... 15-21

Financial Policies and Fund Structure..... 22-24

### Chapter 4 - Financial Plan Overview

Financial Plan Overview..... 26-30

Revenues ..... 31-34

2016 Key Budget Drivers.....35

New Revenues, Service Level Changes and Savings .. 36-37

2016-2020 Financial Plan - Revenues and Expenditures... 38-40

Major Funds - 2015 Financial Summary.....41

### Chapter 5 - Operating Plan Overview

Operating Plan Overview ..... 42-48

City Manager's Office ..... 49-50

Corporate Services Division ..... 51-54

-Community Development ..... 55-58

-Finance and Purchasing..... 59-61

-Human Resources..... 62-63

-Information Technology/Legislative Services.... 64-66

Community Services Division ..... 67-68

-Social and Protective Services ..... 69-70

• Administration and Social Planning..... 71

• Police Services..... 72-73

• Fire Services ..... 74-75

• Emergency Management ..... 76

• 911 Services ..... 77

• Bylaw, Regulation and Security ..... 78

-Parks, Recreation and Environment..... 79-81

• Administration and Environment ..... 82

• Facilities Planning and Operations ..... 83

• Recreation Operations ..... 84

• Arena Operations..... 85

• Aquatic Operations ..... 86

• Parks Operations ..... 87-88

• PR&E Community Development ..... 89

-Culture and Heritage ..... 90-91

-Engineering and Public Works ..... 92-95

• Administration and Support Services ..... 96

• Engineering Services ..... 97-98

• Transportation (Operations)..... 99

• Sanitation and Recycling..... 100

• Fleet Services ..... 101

• Drainage Utility ..... 102

• Sanitary Sewer Utility ..... 103-104

• Waterworks Utility ..... 105-106

### Chapter 6 - 2016-2020 Capital Program

Introduction..... 108

Capital Expenditure Policy ..... 109

Project Funding Sources..... 109

-Debt & Debt Limits ..... 110-111

-Grants and Private Contributions..... 112

-Reserve Funding..... 112

Statutory Reserve Projections ..... 113-115

Operating Reserve Projections. .... 116-119

Capital Program Overview ..... 120-121

Capital Plan Operating/Capital Funds (category/funding) .... 122

Capital Plan Operating/Capital Funds (category/type) ..... 123

Capital Projects Plan ..... 124-151

### Appendices

Appendix A: Reserve Funds

Appendix B: Governing Policy and Regulatory Requirements

Appendix C: City of Nanaimo Statistics

Appendix D: Glossary

# CHAPTER 1 - OVERVIEW



Pipers Lagoon Park

# CHAPTER 1 - Overview

## Executive Summary



The City of Nanaimo's Draft 2016 - 2020 Financial Plan provides detailed information on the City's revenues and expenditures. The Financial Plan process is informed by policies and plans endorsed by Council, including the Official Community Plan (OCP) and the Strategic Plan. In compliance with the Community Charter, the Financial Plan is developed through public consultation and Council direction.

The Financial Plan also serves as:

- A Policy Document, that outlines the financial policies and processes that guide the development of the financial plan
- An Operations Guide, that helps both internal and external readers with information on operational activities, financial and staffing resources required to deliver services to the community
- A Communications Device, that gives all readers a comprehensive look at the services

provided by the City and the costs and revenues related to those services

The Five-Year Financial Plan is segregated into two components: operating plans and projects. Annual operating budgets, sometimes referred to as the base budget, include the resources needed for the City to carry out its day to day operations and deliver services to the community. Projects are for expenditures that are one-time or vary year to year. Examples of projects are annual programs related to infrastructure renewal, like the Road Rehabilitation Program, or new infrastructure like the new fire station on Hammond Bay Road. Project expenditures are classified as either capital or operating in compliance with the City's capital asset policy.

The Draft 2016 – 2020 Financial Plan maintains current service levels in 2016. Additional RCMP members, police support staff, IT staff, water utility staff, and additional firefighters for a new fire station are added between 2016 and 2019. The focus of the

## Executive Summary - continued

capital program is infrastructure renewal, upgrades to existing infrastructure required due to growth and new infrastructure. New infrastructure in the plan includes completion of a new fire station in 2016.

The City has approximately \$2 billion in infrastructure that supports delivery of services to the community. The City has made significant progress in integrating asset management best practices to support efficient and effective management of its infrastructure. Starting in 2013, Council approved annual property tax increases of 1% for five years, sewer rate increase of 5% for five years, a 4% increase for an additional five years, and water rate increase of 2.5% for eight years for contributions to asset management reserves. The asset management reserves will support sustainable funding for infrastructure renewal. This Financial Plan incorporates those property tax and rate increases. The Financial Plan uses funding from the asset management reserves to fund asset renewal projects.

The current five year plan incorporates an average property tax increase of 1.7%, water rate increase of 7.5%, sewer rate increase of 5% and solid waste increase of 1% in 2016. For an average residential home, the total increase for 2016 taxes and levies will be approximately \$70.94 (excluding the Vancouver

Island Regional Library, the Regional District of Nanaimo, School District 68, Island Health Authority, Municipal Finance Authority and BC Assessment). The anticipated property tax increase for 2017 is 4.1%, for 2018 3.2%, for 2019 2.1% and for 2020 1.5%.

Previous year's reported property tax increases included the impact of increases for the Vancouver Island Regional Library. Starting with the 2016 – 2020 Financial Plan, the City's property tax increases will exclude the Vancouver Island Regional Library. This practice is consistent with many other municipalities.

This Financial Plan provides an overview of Nanaimo's community profile and history, the City government's organizational structure and governance. The City also has a number of financial policies that provide for fiscal responsibility and protect its long-term financial sustainability.

In each section, the 2016 - 2020 Financial Plan provides comprehensive information on the City's financial and strategic management approach to meet the needs of the community, and to work towards a vision where Nanaimo will proudly feature its harbour and inclusive quality lifestyle; excelling as both the business centre and transportation/service hub for Vancouver Island.



Maffeo Sutton Park "Spirit Square"

## Report from the Director of Finance



The City of Nanaimo will invest \$161 million in services and capital projects in 2016 which includes \$124 million for operations and \$37 million for capital needs. In order to meet funding requirements

for these investments, a 1.7% increase in property taxes for 2016 will be required. The 1.7% increase in property taxes includes \$985 thousand increased contribution to the General Asset Management Reserve.

Water User Fees will increase by 7.5% in 2016 including a 2.5% designated for Water Fund asset management. Sewer User Fees will increase by 5% in 2016 to fund sewer asset management reserve. Garbage User Fees are slated to increase by 1% in 2016.

A typical household will experience a \$71 increase in municipal services costs, which include sewer, water and garbage collection, representing a 2.7% increase over 2015. These costs only include City of Nanaimo financial needs and therefore do not include requisitions from organizations such as the Vancouver Island Regional Library, Regional District of Nanaimo and others.

Property taxes are projected to increase by 4.1% in 2017, 3.2% in 2018, 2.1% in 2019 and 1.5% in 2020. If these increases hold, the City of Nanaimo will

increase average 2.5% in property taxes per year to meet funding requirements for the Financial Plan 2016-2020.

Above average property tax increases in 2017 and 2018 are primarily driven by:

- Continued staffing increase for RCMP members and support staff.
- Staffing and operating costs for the new Fire Hall #6 at Hammond Bay.

The \$37 million to be invested in capital projects in 2016 include the following significant expenditures:

- \$2.4 million for Fire Station # 6 in Hammond Bay to be funded through debt or borrowing.
- \$5.1 million for Port Theater Expansion to be funded by a combination of grants and private contributions.
- \$1.6 million for the Boxwood Connector to be funded by Development Cost Charges.
- \$3 million for Jingle Pot to East Wellington sewer project to be funded through a combination of Development Cost Charges and Sewer Reserves.
- \$2.1 million for RES to College Pk Dup Supply water main to be funded through a combination of Development Cost Charges and Water Reserves.

## Report from the Director of Finance - continued

79% of capital budget funding will come from a combination of current revenue and reserves, 6% from grants, 8% from debt and 8% from private contributions. Impact on the 2016 property tax increase is nil

I would like to recognize the excellent work done by the Financial Planning team and collaboration

and cooperation from departments across the organization. I submit that we have a well reasoned budget proposal for 2016.

*Victor Mema,*

Director of Finance



Oliver Woods Community Centre

## CHAPTER 2 - NANAIMO - THE HARBOUR CITY



# CHAPTER 2 - Nanaimo - The Harbour City

City Profile | City Governance Overview | 2016 City Organization

## City Profile



The City of Nanaimo is a vibrant and growing regional centre on the east coast of Vancouver Island with a population of approximately 87,000 residents. Forming one of two major gateways to Vancouver Island, the City is an important service centre for a regional population of 360,000 people throughout Central and Northern Vancouver Island.

The City's early development patterns were centred on the harbour and Downtown, with the current City Boundaries being established only in 1975 through amalgamation with a number of surrounding improvement districts. Through the 1980s and 90s, Nanaimo rapidly expanded northward, resulting in development of lower density neighbourhoods, commercial, retail and employment centres stretching along the Island Highway corridor.

Recent growth patterns have re-focused development within the City's existing urban growth boundary, resulting in higher levels of infill throughout the City. Looking forward over the next thirty years, the City's population is projected to increase by nearly 40,000 residents and 25,000 jobs, for a total of 126,000 residents and 75,000 jobs.

Providing a vision and policy framework to accommodate future growth, the City's Official Community Plan *planNanaimo* supports a more sustainable, compact Nanaimo where people can work, shop, socialize and recreate in close proximity to where they live.

## Nanaimo at a Glance

Flags at Maffeo Sutton Park



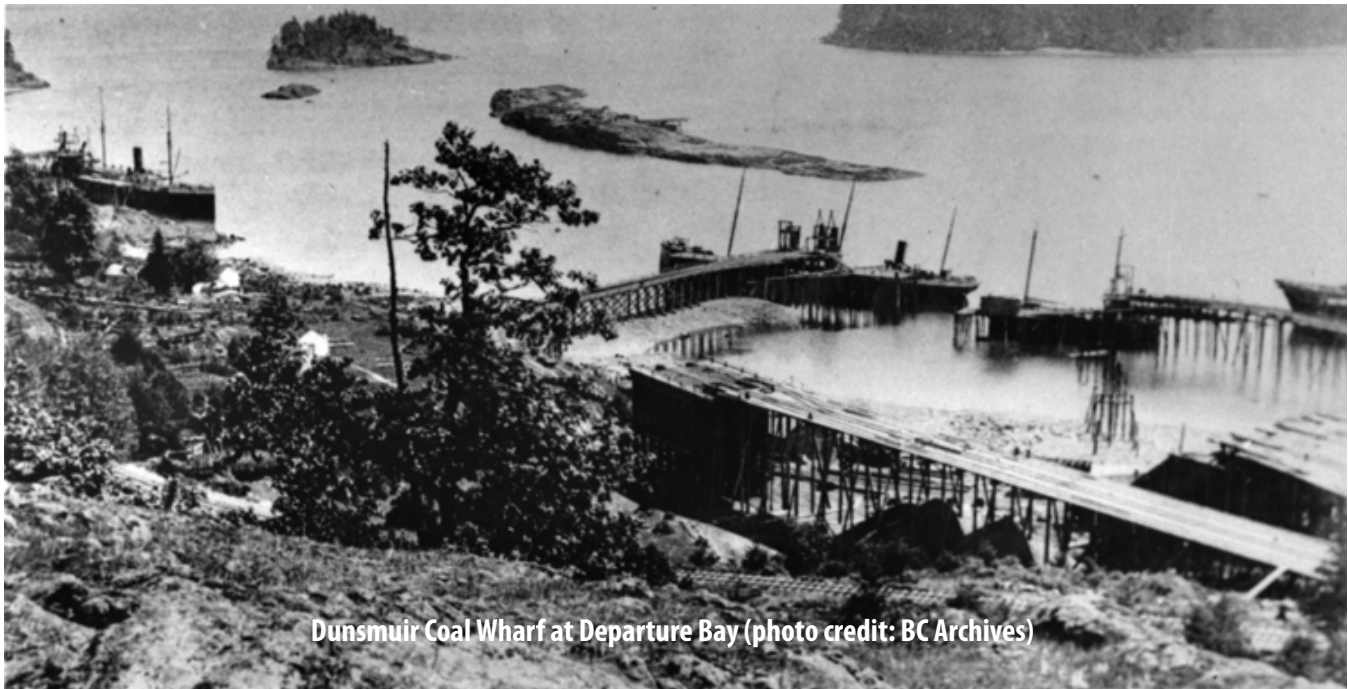
Nanaimo boasts over 100 parks, an extensive trail system, 4 public beaches, 20 picnic areas, Beban Centre which includes Beban Pool facility with 4 pools and Frank Crane and Cliff McNabb Arenas, Nanaimo Aquatic Centre with three pools, Nanaimo Ice Centre with 2 ice rinks and 3 golf courses. Residents can enjoy a leisurely stroll along the waterfront seawall or a vigorous hike up Mount Benson. Newcastle Island, a charming provincial park just off the shores of downtown Nanaimo, is a popular summertime picnic and camping area. Buttertubs Marsh, in the heart of the city, is a wonderful place to view waterfowl and learn about our delicate ecosystems. Neck Point Park is a 14.5 hectare waterfront park known for its views and natural features. The park has a vast trail system of varying lengths and difficulty and offers a number of amenities including picnic areas, viewpoints and lookouts. The Linley Valley is a 59 hectare mainly undeveloped park. The park's trees, bluffs, creeks, wildlife and Cottle Lake contribute to the park's recreational appeal.

Nanaimo is truly a place where you can find what you are looking for. Nanaimo's blend of boutique shops, large indoor shopping malls, plazas, and markets creates what is often referred to as the island's shopping Mecca. Within the downtown core

of Nanaimo, three distinct shopping districts exist. The Arts District, Old City Quarter and Waterfront, are all within walking distance of the harbour and each other. They offer the stunning works of West Coast and native art, specialty goods, fashions, marine supplies, and enough books to keep your imagination busy for a long time. Small, medium and large businesses thrive in Nanaimo thanks to its ideal location and dedicated, well-educated workforce.

Nanaimo's arts and culture community is thriving. There are a wide variety of art galleries, the Nanaimo Museum can be found in the Port of Nanaimo Centre, and the Nanaimo Military Museum is located downtown near the waterfront. You can also take in a Vancouver Island Symphony performance in the Port Theatre, an 800 seat facility on the waterfront where more than 270 shows take place annually. You can even combine the arts with the outdoors and take in the annual Symphony in the Harbour, Concerts in the Park or the Annual Blues Festival. Nanaimo is also a festival city and annual events include the Maple Sugar Festival, the Children's Festival, the Marine Festival, the Dragonboat Festival and everything in between.

## Nanaimo's History



Dunsmuir Coal Wharf at Departure Bay (photo credit: BC Archives)

For centuries, the uneven shoreline, sheltered islands and sandy beaches of the east coast of Vancouver Island have been a place of beauty and plenty. Aboriginal people were the first to make this sheltered stretch of coastline their home. Eventually settling into what are today, Departure Bay and Nanaimo, the Snunéymuxw, a Coast Salish people, found food, fresh water, and winter shelter among the islands and inlets. It was this wealth of natural resources that encouraged the migration of Europeans to this coast many years later. Animals harvested for furs, forests for timber and fish for food were just some of the treasures found here, but it was coal, the black fuel of the 19th century that would mark the heritage of Nanaimo. Today, the houses, commercial buildings, the city plan and the very shape of the land records the progress of a community that grew from a company coal town to a thriving port city.

The east coast of Vancouver Island was first explored by Europeans when Spaniard Juan de Fuca sailed north up the continent in 1592. The English, represented by Captain James Cook, did not arrive

until 1778 when Cook landed on the west coast of the island. The Spanish continued to explore the waters around the island giving the names we still use today to the islands and waterways. Commodore Alejandro Malaspina sailed into the sheltered bays around Nanaimo in 1791 and named them Boca de Winthuysen or Winthuysen Inlet, a name that was used until the British settled the area in the next century. In 1794, Captain George Vancouver negotiated the final Nootka Convention that gave the British possession of the island. It was not until 1843, however, that the British established Fort Victoria, their first island settlement. The first settlers arrived in the Nanaimo area in the early 1800s and set up a trading post, which established Nanaimo as an important hub of commerce. A fort was erected by the Hudson's Bay Company in 1853. A portion of the fort remains, the Bastion is now a restored landmark on Nanaimo's waterfront.

It was the discovery of coal that soon attracted the British to the island north of Victoria. In 1849, the Hudson's Bay Company began mining in Fort Rupert on the northern tip of the island. A few years later,

## Nanaimo's History - continued

the existence of coal seams was confirmed in, what is today, downtown Nanaimo. In 1852, the Company brought the Fort Rupert miners to Nanaimo to work the coal seams in the new mine. It is believed that the new company settlement was named Colviletown after Andrew Colvile, the Governor of the Hudson's Bay Company. The small settlement grew in 1854 with the arrival of 24 mining families from England. In 1860, the town was renamed Nanaimo (derived from Snunéymuxw).

From 1852 until 1952, Nanaimo was primarily a coal town. Coal-burning ships refuelled here and coal was exported in large quantities from the numerous mines in the area. By 1941, increased demand for lumber and a declining need for coal brought the

area's thriving forests to the forefront. Today, with the coal mines gone and the forest industry in decline, new industries define life in Nanaimo. Over the past two decades, Nanaimo's economy has diversified from a commodity-based economy that traditionally relied on an abundance of natural resources towards a service-based "knowledge" economy that relies on the skills and innovation of the local workforce. The City is now a regional centre for technology, manufacturing, tourism, retail, healthcare, and government services.

During it all, Nanaimo continued to develop as a centre for the meeting and movement of products and people – a gathering place.



**Nanaimo's Chinatown**



**The Daily Free Press building on Commercial Street**



**Images of Commercial Street**



**26th Council of the City of Nanaimo**

*(left to right)*

*Councillor Jerry Hong, Councillor Bill Yoachim, Councillor Ian Thorpe,  
Mayor Bill McKay, Councillor Jim Kipp, Councillor Gord Fuller, Councillor Bill Bestwick  
Councillor Wendy Pratt, Councillor Diane Brennan*

Nanaimo City Council is comprised of a Mayor and eight Councillors who are democratically elected and hold office for a four year term beginning with the 2014 municipal election. City Council is responsible for local government leadership and decision making in the City of Nanaimo, and is granted its powers by the Provincial Government. The legal framework and foundation for all local governments in British Columbia is set out in the Local Government Act and the Community Charter, which provide City Councils the necessary powers and discretion to address existing and future community needs, the authority to determine the public interest in their community within the established legislative framework and the

ability to draw on financial and other resources that are required to support community needs.

City Council has the authority to enact and enforce bylaws and policies that relate directly to community needs along with the ability to collect taxes and fees to fund those activities and services. City Council is ultimately responsible for establishing the policies of the City of Nanaimo, for carrying out those policies and for the general and overall administration of civic business.

City Council typically meets every Monday with the exception of statutory holidays, conferences and three weeks in the summer.

## Committees, Commission and Boards



The *Community Charter* and *Local Government Act* provide Council the authority to establish 'Select Committees', Commissions, Boards and Panels.

Advisory Committees are created by Council to provide information, well-considered advice, and recommendations for consideration by Council and staff on specific issues of civic concern. Advisory Committees are made up of citizen representatives and one or two Council members appointed by Council. Council adopts Terms of Reference for each Advisory Committee which outlines the Committee's mandate, term, composition and procedures.

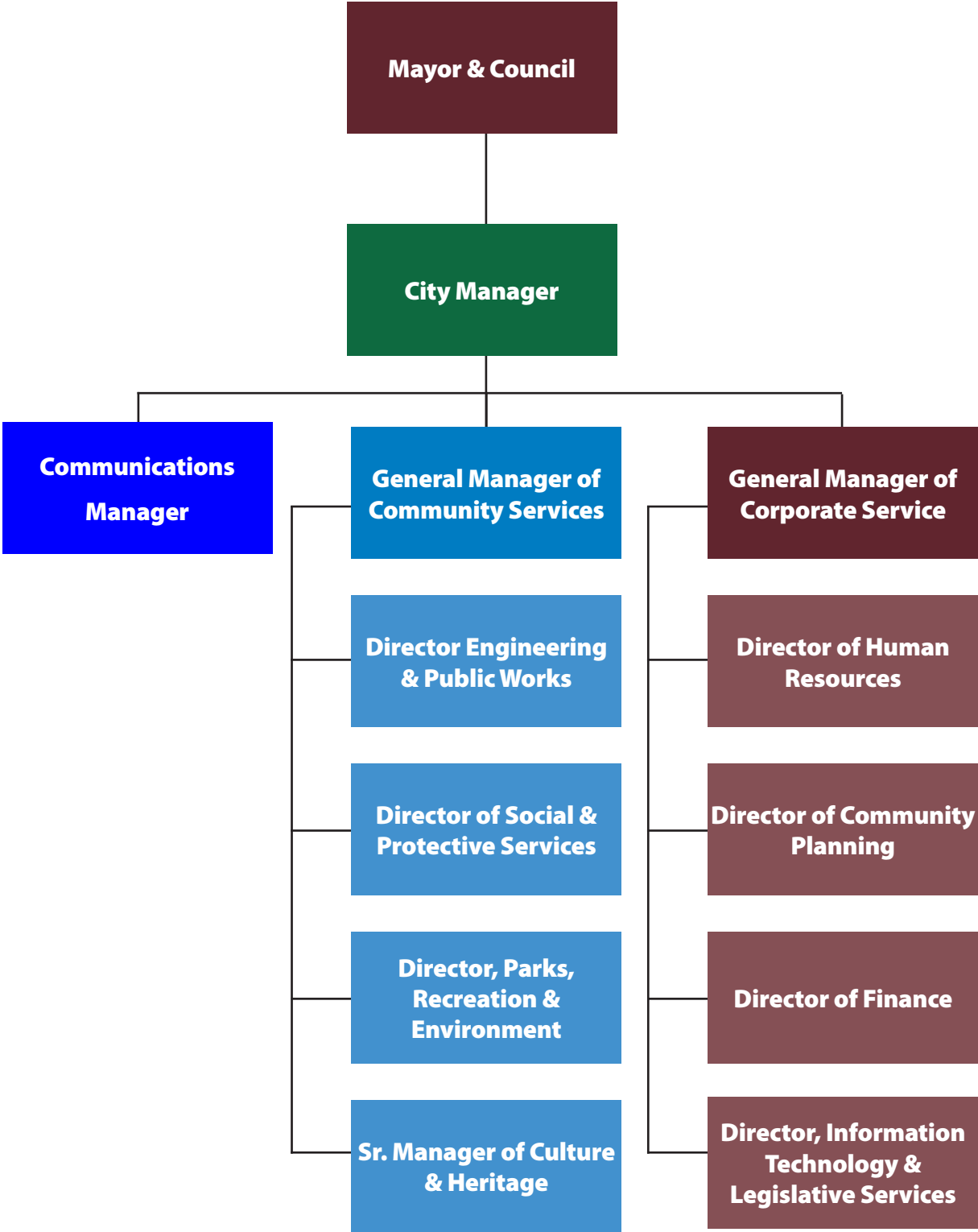
At its regular meeting held March 2, 2015, Council established the following Advisory Committees and Commissions:

- Advisory Committee on Environmental Sustainability
- Core Services Review Committee
- Design Advisory Panel
- Grants Advisory Committee
- Youth Advisory Council

- Nanaimo Culture and Heritage Commission (NCHC)
- Nanaimo Economic Development Corporation Nominating Committee
- Parks and Recreation Commission
- Safer Nanaimo Advisory Committee (SAFER)
- Social Planning Advisory Committee (SPAC)
- South Downtown Waterfront Committee
- Planning and Transportation Advisory Committee
- Terminal/Nicol Corridor Streetscape Project Committee
- Water Supply Advisory Committee

Boards and Panels are established pursuant to specific enabling statute and have a unique function within the municipal framework. Membership is determined by Council and enabling legislation. Council has established the following Board and Panel:

- Board of Variance
- Parcel Tax Roll Review Panel



## CHAPTER 3 - PLANNING FRAMEWORK



**2016 - 2020 Financial Plan**

# CHAPTER 3 - Planning Framework

## Strategic Plan 2012 to 2015

The City's Strategic Plan continues to guide planning activities. The Strategic Plan is based on Nanaimo's four pillars of sustainability: Economic Health, Environment Responsibility, Social Equity and Cultural Vitality.

Six key strategic priorities were then identified: Asset Management, Community Building Partnerships, Taking Responsibility, Transportation and Mobility, Water and Waterfront Enhancement.

The Draft 2016 – 2020 Financial Plan includes many initiatives linked to the Strategic Plan including:

infrastructure renewal projects, annual social, cultural and sports grant programs, new cycling, pedestrian, transit and vehicle amenities and water conservations programs. Significant progress has been made on strategies and initiatives to carry out the City's Strategic Plan. The current status of these strategies and initiatives can be found on the City's website: <http://www.nanaimo.ca/EN/main/departments/Human-Resources/strategic-plan.html>.

### ASSET MANAGEMENT

Outcomes desired include optimized infrastructure and facility life, capital financial plans and reserves in place to adequately fund lifecycle and replacement costs, minimize disruption to service, and risks to public health and property.

2016 – 2020 Financial Plan includes:

- Road, drainage, sanitary sewer and water infrastructure renewal projects
- Facility renewal projects
- Property tax and user fee increases for contributions to asset management reserves
- Development of 10 year planning models for renewal of facility components, fleet and infrastructure

### COMMUNITY BUILDING PARTNERSHIPS

Outcomes desired include a socially diverse and sustainable city that nurtures a caring, inclusive, safe environment, a healthy community that addresses negative determinants and barriers to health and encourages healthy, active lifestyles, that Nanaimo will be recognized as one of BC's most Successful Cities by 2025, and a strong, vital non-profit 'community benefit' sector will flourish.

2016 – 2020 Financial Plan includes:

- Annual social, cultural and sports grant programs
- Annual operating grants to the Nanaimo Museum, Port Theatre and McGirr Sports Fields Society
- Continued collaboration with community stakeholders in the Social and Health Network. Initiatives include the Child Poverty Action Plan and the Vital Signs Report



### TAKING RESPONSIBILITY

Outcomes desired include a good public rating of the City's performance.

2016 – 2020 Financial Plan includes:

- E Town Hall held on November 23, 2015 to gather public input for the financial plan
- Core Services Review

### TRANSPORTATION AND MOBILITY

Outcomes desired include an integrated, coordinated network linking in-city and intercity public transportation, reduced dependency on the car, increased utilization of public transit, increased shift and viability of active transportation options, reduced long term infrastructure costs, effective response to accessibility and mobility needs of those who do not own a car, reduced GHG emissions, economic growth due to enhanced transportation connections to Victoria, Vancouver and the world and a sustainable transportation system.

2016 – 2020 Financial Plan includes:

- Transportation Master Plan - implementing recommendations
  - projects to enhance all transportation modes (pedestrian, cycling, vehicle and transit) as recommended in the Transportation Master Plan
- Completion of OCP update
- Completion of DCC review



### WATER

Outcomes desired include: a 'Water Culture' that includes achieving the 'Blue Community Designation', recognition of the importance and value of water, an environment of sustainable water use, a secure, safe and sustainable water supply, cost effective water delivery and reduction of per capita water consumption by 10% per decade.

2016 – 2020 Financial Plan includes:

- Water user fees review
- Water Conservation Strategy - implementing recommendations
  - Toilet Rebate Program
  - Appliance Rebate Program
  - Leak detection study
- Continued collaboration with other stakeholders, including senior governments, the RDN and SFN in the management of the watershed

### WATERFRONT ENHANCEMENT

Outcomes desired include enhanced public access and use, a continuous, uninterrupted and accessible waterfront trail from Departure Bay Beach to Nanaimo River Estuary, a working waterfront that supports business, marine industries, transportation connectivity, entertainment and tourism, protected view corridors to the waterfront and protected and enhanced marine habitat.

2016 – 2020 Financial Plan includes:

- The development of a detailed Master Plan is underway and will continue in 2016

### Performance Measurement - The Balanced Scorecard

In 2013, the City developed a set of performance measurements, known as the Balanced Scorecard, to draw attention to performance results by examining quantifiable measures that extend beyond traditional methods of evaluating performance by emphasising mainly financial results. The Balanced Scorecard initiative was a deliverable of the Strategic Plan, specifically the strategic priority – Taking Responsibility.

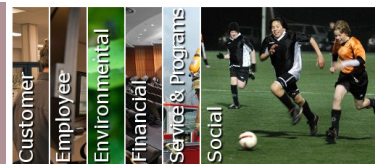
Examples of significant improvement trends include: 13% decrease in water consumption since 2007, curbside collection volume of garbage has decreased

by over half in the last five years, and facility energy consumption has decreased every year for the last six years.

Nanaimo on average has lower residential property taxes and user rates in comparison to other municipalities of similar population. Commercial tax rates for Nanaimo are higher than average in comparison to these same municipalities. The effectiveness of policing programs has resulted in a decreasing trend in the past years for the number of criminal code offenses per 1,000 residents.

Current Balanced Scorecard measures can be viewed on the City's website.

<http://www.nanaimo.ca/PerformanceMeasurement/BalancedScorecard>



## Performance Measurement - The Balanced Scorecard



### 2013 Citizen Satisfaction Survey

Last performed in 2013, the Ipsos Reid 2013 Citizen Satisfaction Syndicated Survey conducted 300 telephone interviews for the City of Nanaimo. The results of the survey indicated:

- Overall Quality of Life - 93% responded very good/good (2012 95%)
- Overall Satisfaction with City Services – 91% responded very/somewhat satisfied (2012 87%)
- Value for Taxes – 74% responded good value (2012 71%)
- Balancing Taxation and Service Delivery Levels – 45% responded to increase taxes (2012 43%), 37% responded to cut services (2012 41%)

The next Ipsos Reid survey is currently planned to take place in 2016.

## 2016-2020 Financial Planning Process

### Timeline:

#### June 2015

- Financial Plan Information and Instructions communicated to departments

#### July/August/September 2015

- Departmental operating and project budgets prepared and submitted
- Plans reviewed by Financial Planning

#### October 2015

- Draft 2015 - 2019 Financial Plan completed and reports prepared for Council's review
- Special Open Council Meeting on October 22, 2015
- Budget Presentation and Budget in Brief report

#### November/December 2015

- Draft 2015 – 2019- Financial Plan completed and reports prepared for Council's review
- Municipal election held on November 15, 2014, with the inaugural meeting of a new Council on December 1, 2014

#### December 2015

- Budget workshop on November 17, 2015
- E Town Hall on November 23, 2015
- Additional meetings/workshops may be scheduled as needed and at Council's discretion



## Budget Monitoring

The City monitors its financial performance as it relates to budget on an ongoing basis and through monthly management reporting and a detailed quarterly variance analysis. This regular monitoring provides management the information required to determine if any changes might be necessary to ensure the year's actual revenues and expenditures are within budget.

The City provides Council with regular project status reports which includes the current status of all projects and related expenditures to date.



Views of Departure Bay & Newcastle Island from Sugar Loaf Mountain

# Financial Policies and Fund Structure

## Governing Policy and Regulatory Requirements

In accordance with the laws of British Columbia through the *Community Charter*, municipalities must prepare a five-year financial plan each year. These plans must be adopted by municipal Councils before May 15th, and they are required to identify the proposed expenditures, funding sources and transfers to or between funds.

The *Community Charter* also directs City Council to engage the public in a consultation process prior to adoption of the proposed financial plan.

The City of Nanaimo develops its Five-Year Financial Plan in a manner that follows generally accepted accounting principles (GAAP). The City uses the accrual method of accounting in which revenues

and expenses are recognized at the time they are incurred. The budget is prepared on the same basis. The budget is organized by type of operation (i.e. general fund, capital funds, utility funds, etc.) with each operation considered a separate budgeting and accounting entity. Funds are budgeted and reported along departmental lines, with authority for budgetary approval resting with Council. Council delegates the authority for actual disbursement and implementation of the Financial Plan to the City Manager. All financial operational policies relating to accounting practices are adhered to in the development of the Five-Year Financial Plan.

## Revenue Policy

The *Community Charter* requires municipalities to develop specific statements of policy on specific revenues and taxes. The annual Five-Year Financial Plan must set out explicit objectives and policies of the municipality in relation to:

- The proportion of total revenue that is proposed to come from each of the following revenue sources:
  - Property values taxes (taxes based on assessment)
  - Parcel taxes
  - Fees & charges
  - Proceeds from borrowing
  - Other sources

- The distribution of property taxes among the property classes (i.e. residential, industrial, commercial, etc.); and
- The use of permissive tax exemptions.

In addition, before adopting the annual Property Tax Rate Bylaw, all municipalities must consider the proposed tax rates for each property class in conjunction with the objectives and policies set out in the financial plan.

The revenue policy statement adopted by Council in 2015 can be found in Appendix B of this document.

## Balanced Budget

In compliance with the *Community Charter*, the City's Five Year Financial Plan must be balanced. The total of proposed expenditures and transfers to other funds for a year must not exceed the total of the proposed funding sources and transfers from other funds for the year.

## Fund Structure

The resources and operations of the City are segregated into General, Sanitary Sewer Utility, Waterworks Utility and Reserves Funds for budgeting purposes. Each fund is treated as a separate entity. The General and Utility Funds also have corresponding Capital Funds.

**The fund structure consists of:**

### General Fund

The General Revenue Fund is the primary operating fund used to manage a majority of the City's financial resources and obligations. Some of the services that are provided from this fund include policing, fire services, recreation programs and facilities, roads and drainage maintenance and solid waste collection.

- Revenue Fund
- Capital Fund

### Sanitary Sewer Utility Fund

The Sanitary Sewer Utility provides sanitary sewer services to almost 25,000 properties and is funded from user fees.

- Revenue Fund
- Capital Fund

### Waterworks Utility Funds

The Water Utility provides water services to over 25,000 properties and is funded from user fees.

- Revenue Fund
- Capital Fund

### Reserve Funds

- |  |  |
|--|--|
| • Development Cost Charge Reserve Fund | • Old City Neighbourhood Parking Fund        |
| • Cemetery Care Reserve Fund           | • Knowles Estate Reserve Fund                |
| • Parkland Dedication Reserve Fund     | • General Fund Asset Management Reserve Fund |
| • Property Sales Reserve Fund          | • Regional Emission Reduction Reserve Fund   |
| • Equipment Depreciation Reserve Fund  | • Sewer Fund Asset Management Reserve Fund   |
| • Facility Development Reserve Fund    | • Water Fund Asset Management Reserve Fund   |
| • Community Works Fund                 |  |

## Debt and Debt Limits

In the past it has generally been the City policy to minimize external debt borrowings by using existing reserves to fund capital expenditures. Major projects that will benefit future residents have and will continue to be financed with debt. This is based on the assumption that since future residents will benefit from the projects they should share in the costs by paying the debt servicing costs through future property taxes.

The maximum amount of debt which may be held by a municipality is restricted by its Liability

Servicing Limit. This represents the cost of servicing debt throughout the year (including both interest and principal). The Liability Servicing Limit is set by the Community Charter and is defined as 25% of a municipality's controllable and sustainable revenues for the year.

For the City of Nanaimo, the Liability Servicing Limit for 2014 is \$34.7 million. The budgeted cost of debt interest and principal payments for 2015 is \$5.7 million.



# CHAPTER 4 - FINANCIAL PLAN OVERVIEW



**2016 - 2020 Financial Plan**

# CHAPTER 4 - Financial Plan Overview

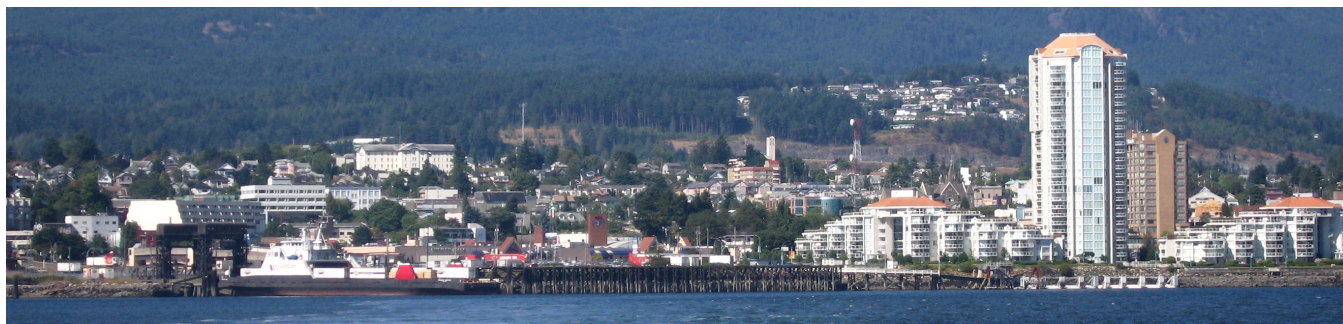
## Economic Background

The City's financial planning decisions must be made with an awareness of how external influences can affect Nanaimo's economy. We saw this impact during and after the economic downturn in 2008, where global economies either contracted or entered periods of no or very low growth.

## Global, National and Provincial Background

Uncertainty about the U.S. and global economies continue to make the headlines. While monetary tightening is on hold for now, interest rate volatility and the recent downturn in the oil and gas sector will put pressure on heavily indebted Canadian households and governments. Expected continuing improvement in the U.S. economy will positively impact Canada's trade and economic performance.

The recent Federal election and the new Liberal government's commitment to investment in infrastructure may provide needed funding for local governments.



## Nanaimo's Economy

Nanaimo's economy continues to recover from the 2008 downturn and remains relatively stable. The opening of a medical marijuana facility in Nanaimo, operated by Tilray, now employs over 100 people and expansion plans have been announced.

Nanaimo's unemployment rate for 2013 was 5.5%, 1.1% below the provincial average. Median income in 2010 was \$44,412 compared to \$49,143 for B.C. The top four most common occupations for those working full-year full-time were middle management occupations in retail and wholesale trade and customer services; industrial, electrical and construction trades; sales representatives

and salespersons and administrative and financial supervisors and administrative occupations.

The number of business licenses issued by the City has grown by 4.4% in the last five years and 24.6% in the last decade. The number of business in Arts and Culture has increased while those in finance, insurance and wholesale trade have declined. Businesses classified as professional, scientific and technical, administrative and support/waste management and remediation and construction also experienced high rates of growth.

## The City of Nanaimo - Issues Affecting Financial Planning

The City of Nanaimo's principal activities include the provision of local government services to residents. Services provided include police and fire protection, solid waste collection, management of roads, drainage, sanitary sewer, waterworks and parks infrastructure, along with the delivery of leisure and cultural services. The City also acts as a regulatory body with respect to business licensing, building permits and inspection, land use, development planning and subdivision approval services. Services such as library, and sewer treatment are provided through other boards and partnerships with other governments.

The City of Nanaimo faces numerous challenges which include:

- Requirements to provide infrastructure that complies with new regulations and/or senior government policies
- Decline in interest rate sensitive revenues
- Costs outside of Council's direct control, such as police and library services, that increase well above inflation
- Rising labour costs

Property taxes and user fees are the principal funding sources for increased service delivery costs and maintenance of an expanding infrastructure base. Nanaimo currently operates with residential tax levels that are comparable to similar communities

around British Columbia. As a result of Council's policy implemented in 2009 to reduce the major industry tax rate to be equal to the commercial rate, the 2016 tax increases for all types of properties will now be the same each year.

Over the years, the City of Nanaimo has invested in new capital infrastructure including buildings, roads and underground utilities. The City has also increased service levels, largely in police and fire protection. The long term sustainability of operating, maintaining and replacing infrastructure and of increased service levels will require continuing examination and prioritization by Council as they also consider:

- Public expectations of receiving the same or even enhanced service levels
- Increasing demands for infrastructure to support a growing community
- Financial management policies that contribute to future asset replacement and improved financial sustainability of the City

In order to continue providing adequate services under these conditions, Council will continue to examine and prioritize City services in order to provide services acceptable to the public while continuing to achieve the longer-term vision of making Nanaimo a City where people choose to live, learn, work and play.

## Annual Operating and Project Planning

The City financial planning is organized into operating plans that identify the resources required to carry out the City's day to day functions and services, and into project plans that identify the resources required to complete asset renewal projects, construct new

infrastructure projects and other types of one time expenditures such as studies. Operating budgets are sometimes referred to as 'base' budgets. Projects are classified as either operating or capital per the City's Capital Expenditure Policy (Appendix B).

## Budget Best Practices

The Government Finance Officers Association of the United States and Canada (GFOA) has established the Distinguished Budget Presentation Award to encourage governments to prepare budget documents of the highest quality to meet the needs of decision-makers and residents. Each budget document submitted is evaluated using a comprehensive evaluation checklist and those which are judged proficient receive the award ([www.gfoa.org](http://www.gfoa.org)).

The City received, for the second consecutive year, the Distinguished Budget Presentation Award for the 2015 - 2019 Financial Plan.

The City believes our current budget process continues to conform to program requirements, and it is being submitted to GFOA to determine its eligibility for another award.



Larry McNabb Sports Zone found along Third Street

## Key Budget Assumptions

### Allowable Inflationary Increases

British Columbia's consumer price index (CPI) climbed 1.9% higher in June 2014, relative to the same month in 2013. The price increase marks the fourth consecutive month of year-over-year inflation for the province. The Canadian inflation rate reached 2.4% in June, as prices rose in every province and territory. (Source: [www.bcstats.gov.bc.ca](http://www.bcstats.gov.bc.ca), [www.statcan.bc.ca](http://www.statcan.bc.ca))

Local government operating costs, however, do not always reflect the items measured by the Consumer Price Index. Municipal expenditures are related to employment contracts and infrastructure

construction and maintenance which are very different from increases in the cost of personal food, clothing and transportation used for calculating changes in the CPI.

In the future years in the Draft 2016 – 2020 Financial Plan, 2% increases were used for expenditures in year's two to five except where more specific information was identified. Revenue from fees and charges and sales of service were estimated to increase at a rate of 1% per year, again for year's two to five, while other revenues were expected to remain unchanged.

### Union Negotiations

The majority of City staff members are employed under two main Union bodies, the Canadian Union of Public Employees (CUPE Local 401), and the International Association of Fire Fighters (IAFF).

In January 2015, the City and CUPE Local 401 ratified a new three contract for the period January 1, 2014 to December 31, 2016. The contract included a retroactive 2% increase in 2014, a 2% increase in 2015, a 1% increase on January 1, 2016 and a further 1% increase on July 1, 2016.

The majority of the staff in the Fire Department are members of IAFF and their contract will expire December 31, 2015. Staffing costs for IAFF members are budgeted at 2015 rates and an allowance for an estimated negotiated increase was budgeted separately.

## Key Budget Assumptions - Continued

### Budget Bylaw Amendment

As outlined in the *Community Charter*, the Five-Year Financial Plan is to be adopted by May 15th of the first year of the Plan. At any time, subsequent to the original adoption, an amended financial planning bylaw can be adopted by Council for that year.

A budget bylaw amendment was required for the 2015 – 2019 Financial Plan to include the Colliery Dam Spillway project and other projects with funding from grants or reserves, and where budget transfers required the projects to be reclassified between capital and operating funds.

### City Financial Health and Future Outlook

The City will continue to face challenges, one of the most significant is to provide sufficient funding to maintain and replace the City's infrastructure. The current replacement cost of City infrastructure is estimated to be over \$2 billion. While most of the City's infrastructure is less than half way through its useful life, their eventual replacement will burden the City's financial capacity and as assets age annual maintenance costs may increase.

In 2013, Council approved annual tax and user fee increases to create three new reserves for long term asset renewal plans. This proactive and prudent approach will build reserves to fund long term asset renewal plans and sustainable delivery of services to the community. Staff will review and update long term asset renewal plans.

The City continues to grow, adding new residents and businesses to the community.



Gardens at City Hall

## Revenues

The City receives revenue from several sources with the main contribution from property taxes and user fees. Examples of revenues from other sources includes: grants, casino revenue, interest income and the Regional Parks Agreement.

The *Community Charter* regulates property taxes. City policies guide how fees and charges are determined and City bylaws set user rates.

### 5 Year Financial Plan - Impact on Tax and User Fees

The table below shows the property tax and utility user fee increases.

In 2013, Council approved a 1% increase in property taxes for five years as well as annual increases to sanitary sewer and water user fees for contributions to asset management reserve funds. The property tax increases indicated below include a 1% increase in 2015, 2016 and 2017 for contributions to the

General Fund Asset Management Reserve Fund. The sanitary sewer use fee increases indicated below are solely related to increased contributions to the Sanitary Sewer Asset Management Reserve Fund and the water user fee increases noted below include 2.5% for increased contributions to the Water Asset Management Reserve Fund.

	2016	2017	2018	2019	2020
Property Tax Increase	1.7%	4.1%	3.2%	2.1%	1.5%
Sanitary Sewer User Fee Increase	5.0%	5.0%	5.0%	4.0%	4.0%
Water User Fee Increase	7.5%	7.5%	7.5%	7.5%	7.5%

Previous year's reported property tax increases included the impact of increases for the Vancouver Island Regional Library. Starting with the 2016 – 2020

Financial Plan, the City's property tax increases will exclude the Vancouver Island Regional Library. This practice is consistent with many other municipalities.

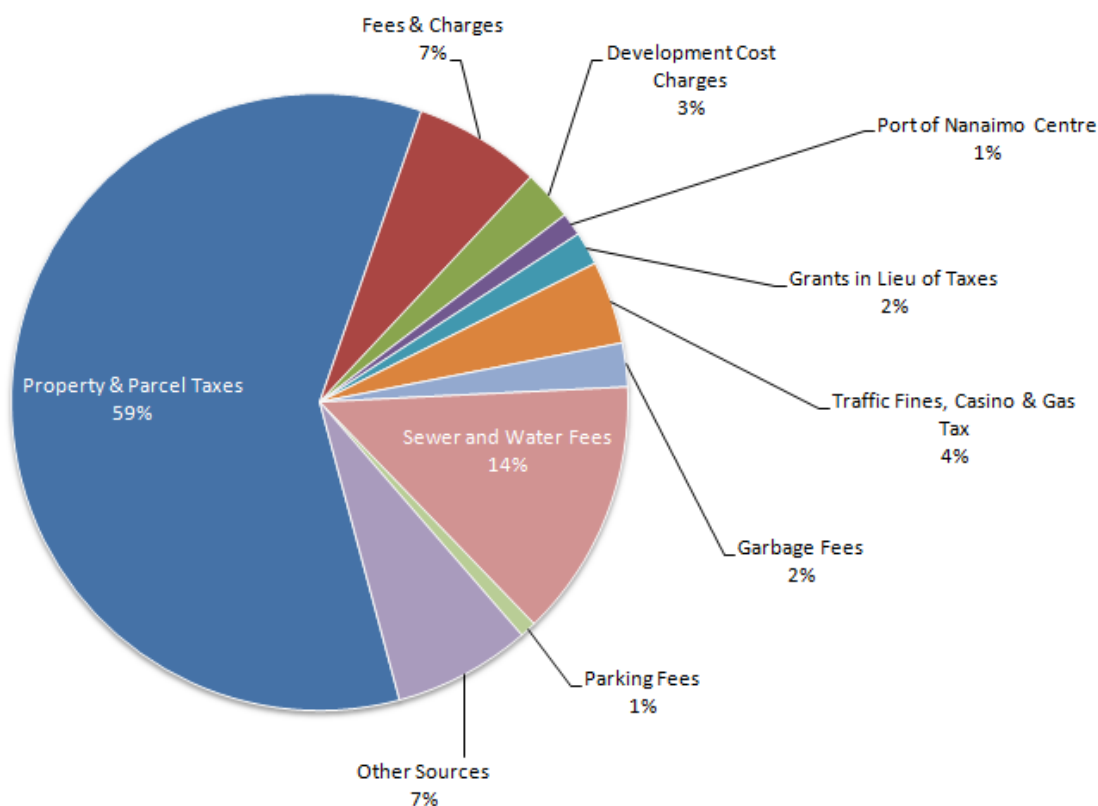
### 2016 Budget Impact on a Typical Home (BC Stats - 2015 average of \$331,136)

The impact of the budget increase for 2016 in the draft 2016 – 2020 Financial Plan for a typical home in Nanaimo is estimated to be \$70.94. This increase does not include impact of increased requisitions or levies from the Vancouver Island Regional Library, the Regional District of Nanaimo, School District 68, Island Health Authority, Municipal Finance Authority and BC Assessment.

Taxation	\$ 33.33
Water Fees	\$ 31.00
Sewer Fees	\$ 5.61
Garbage Fees	\$ 1.00
	<b>\$ 70.94</b>

## 2016 Revenue Breakdown

The table below indicates the revenues collected and used to fund 2016 expenditures.



The primary funding source for city services in the 2016 Financial Plan is property taxes at \$98.5 million. This includes a property tax levy increase of \$2.9 million of which an estimated \$1.2 million comes from new assessment growth. New assessments are created through additional residential units and business in the City.

### Taxation

Property taxes represent 59% of the City's 2016 revenues and finance a majority of the services provided by the City. Every property owner in the province must pay property taxes based on the value of their property unless the property is specifically exempted by provincial statute. Statutory exemptions are listed in the *Community Charter* and include, but are not limited to:

- Schools and universities
- Hospitals

- Places of public worship
- Property owned by BC or Canada

The valuation of property within the City is determined by BC Assessment. BC Assessment is a provincial Crown Corporation that classifies and assesses the value of all real property in British Columbia.

In British Columbia, there are nine property classes:

- Residential
- Utilities

## Taxation - continued

- Supportive Housing
- Major Industry
- Light Industry
- Business / Other
- Managed Forest Land

- Recreational / Non profit
- Farm

Under the *Community Charter* the City may grant permissive tax exemptions which exempt certain properties from taxation for a specified period of time.

## User Fees

In accordance with the *Community Charter*, municipal governments set fees and charges by bylaw to cover reasonable costs of providing services to the public. The fees charged must be for the services delivered with no intention of generating a surplus.

The City has adopted bylaws authorizing user fees for parks and recreation programs, water, sewer and garbage utilities and animal control.

## Reserve Funds and Surplus

The City has Reserve Funds (Statutory Reserves) that are authorized by the Community Charter and/or City bylaw. The purpose of setting aside reserves is to provide funding for various anticipated future expenditures to ensure sufficient funds are available when required and where possible avoid the need to incur debt. Statutory Reserves may only be used as authorized by the *Community Charter* and the related Council Bylaw.

Surplus funds are the result of past budget surpluses (i.e. where actual revenues have been in excess of actual expenditures) and may be used for any municipal capital or operating purpose as authorized by Council. Currently, the City allocates its surplus

to specific reserves and uses these to fund one-time capital and operating items.

The City's Reserve Accounts will be used to fund ongoing projects and potential liabilities such as tax appeals and insurance claims. Statutory Reserve Funds including development cost charges, asset management, facility development and equipment replacement reserves will be used to fund projects in future years related to development and infrastructure renewal. Despite the size of these reserves, there are needs that have been identified in the capital planning process for which no funding sources currently exists.

## Other Revenues

### Grants

In addition to grants for specific capital projects, the City receives annual grants including a Provincial Traffic Fine revenue grant. The City also receives grants in lieu of taxes from properties owned by the

Federal or Provincial Governments or their Agencies and from private utilities operating within the City of Nanaimo.

### Casino Revenue

In November 1999, the City of Nanaimo began to receive revenue from a casino operation. The City receives 10% of the net earnings from casino operations. Casino revenues are variable and have

declined during the past years, from \$3.0M received in 2008 to \$2.3M received in 2012, then a modest recovery in 2013 to \$2.5M. Revenues for 2014 were \$2.4M.

### Interest Income

The City pools its available cash from various funds and invests in financial instruments in accordance with the City's investment policy (Appendix B).

Interest income continues to remain below historical levels due to low market rates.

## 2016 Key Budget Drivers

The 2016 property tax increase of 1.7% includes a 1% increased contribution to the General Asset Management Reserve.

Increases to the City's budget can be classified as:

- **New Services** – where a new program or service is provided
- **Enhanced Services** – where current programs or services are enhanced through changes in service delivery method or in response to growth
- **Sustaining Services** – where costs pressures due to inflation, contractual obligations or increasing maintenance needs increase annual expenditure budgets

The draft 2016 expenditure budget increased \$3.6 million which was partially offset by \$1.9 million increased revenues.

2016 expenditure budget increases:

- Enhanced Services
  - \$177,678 for additional staffing for Police Support Services and IT
  - \$580,000 for four additional RCMP members

- Sustaining Services
  - \$985,000 for increased contribution to the General Asset Management Reserve
  - \$974,106 for wages and benefits in compliance with labour contracts
  - \$301,232 for RCMP contract increase
  - \$537,000 for other expenditure increases such as utilities and contracted services

2016 revenue budget increases:

- Estimated \$525,000 from new operating agreement with Fortis
- Estimated \$194,000 increase in other revenues such as grants in lieu, building permits and Parks, Recreation and Environment fees
- Estimated \$1.2 million from increased property tax revenues due to growth

**The draft 2016 -2020 Financial Plan does not include any new services.**



## New Revenues, Service Level Changes and Savings

The Draft 2016 – 2020 Financial Plan process focused on the need to maintain a reasonable tax rate, identify efficiencies without compromising service levels and continue to renew asset infrastructure in an optimal manner.

On February 2, 2015, Council approved proceeding with a Core Services Review. A Core Services Review

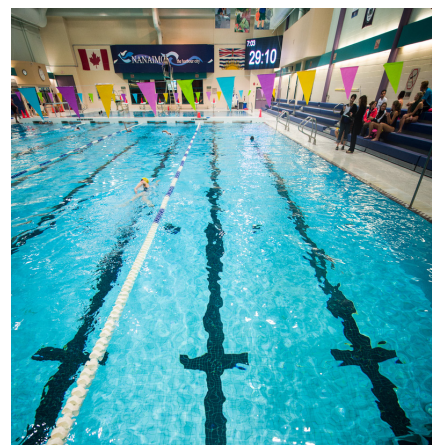
Steering Committee was established and will first develop a mandate to guide the development of terms of reference of the core review. It is expected that the review will be completed during 2016. During the Core Review process, Council has directed that current service levels and staffing levels will not be adjusted.

### New Revenues

The Draft 2016 – 2020 Financial Plan includes new revenues starting in 2016 due to a new operating agreement with Fortis BC. New annual revenues are estimated to be \$525,000.

Additional residential units and businesses generate additional property tax revenues each year for the

City. Property tax revenues in 2016 are estimated to increase by \$1.2M due to growth.



## 2016-2020 Financial Plan Enhanced Services

The draft 2016-2020 Financial Plan also includes the following enhanced services:

- Police Services
  - 16 additional RCMP members
    - 4 members in 2016
    - 3 members in 2017
    - 5 members in 2018
    - 4 members in 2019
  - 3 additional support staff for Police Services
    - 1 FTE in 2016
    - 1 FTE in 2017
    - 1 FTE in 2018
- Fire Services
  - 20 additional firefighters
    - 10 firefighters in 2017
    - 10 firefighters in 2018
- Water
  - 2 new positions in 2016
- Information Services
  - 1 FTE in 2016

## Annual Operating Savings

Insurance costs are expected to decrease \$147,000 in 2016.

A new business model adopted in late 2015 for 911 services resulted in the reduction of 6.2 FTEs offset by the cost of a new contract and loss of Call Answer Levy revenues. The result was nil change to net operating expenditures for 911 services.

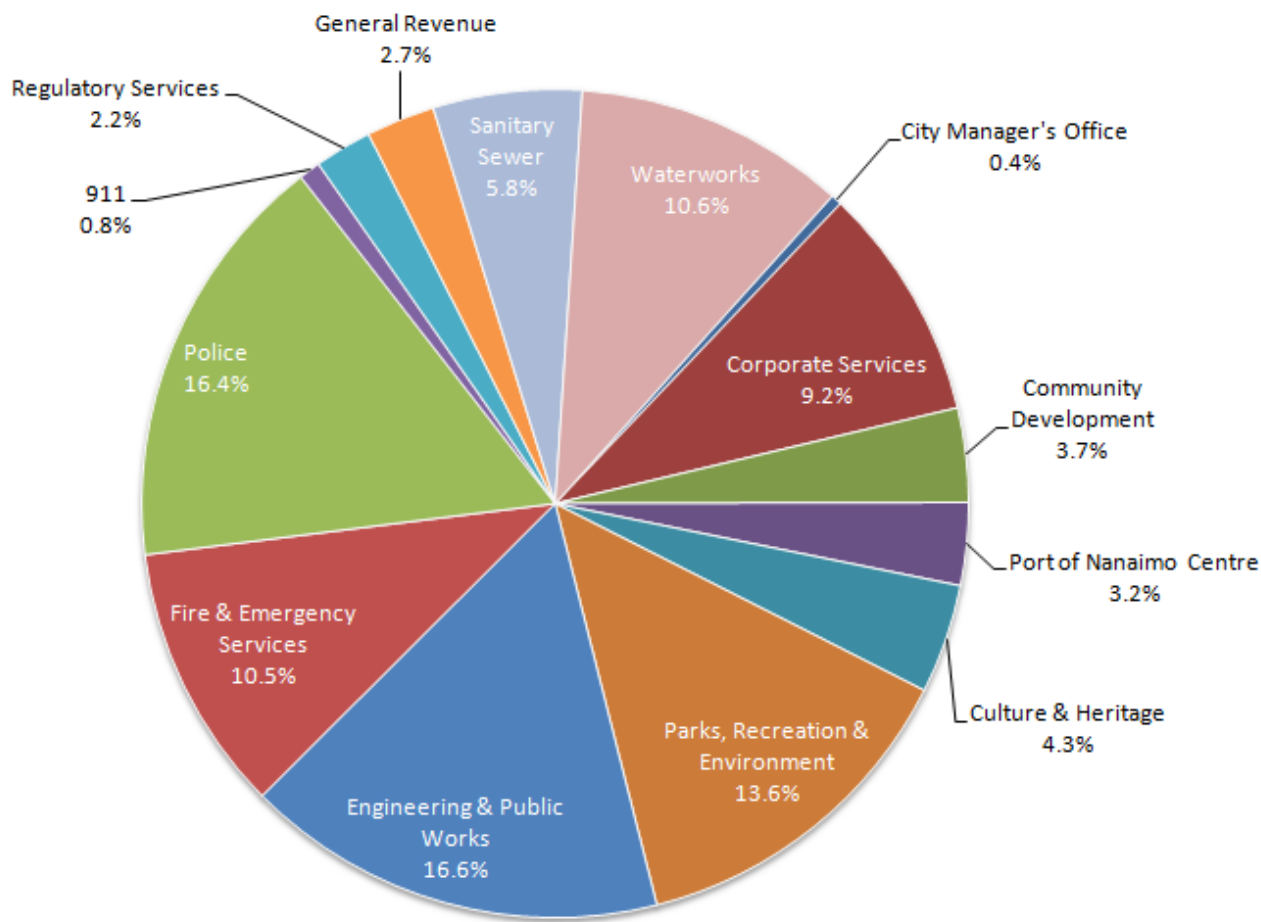
## 2016-2020 Financial Plan - Revenues and Expenditures

The Draft 2016 – 2020 Financial Plan is summarized below. This presentation identifies all expenditures and funding sources, including capital and operating projects by department. Significant increases or decreases in department's expenditures budgets are primarily due to the timing of projects except where service level enhancements occur.

### 2016 Total Expenditures by Department (Includes Project Expenditures)

	2014 Actual	2015 Budget	2016 Budget	2017 Budget	2018 Budget	2019 Budget	2020 Budget
<b>FUNDING REVENUES (\$)</b>							
Property Taxes	92,997,762	95,387,670	98,315,583	103,511,278	108,037,621	111,522,962	114,502,603
Parcel Taxes	247,568	236,574	231,923	234,242	236,584	--	--
Fees & Charges	38,397,549	36,694,292	38,290,552	40,025,693	41,813,860	43,722,729	45,693,787
Other	32,599,263	27,659,865	28,747,908	31,865,710	24,192,186	24,519,130	24,952,455
Borrowing	9,217,271	134,646	2,400,000	600,000	12,000,000	--	--
<b>Annual Total Revenues</b>	<b>173,459,413</b>	<b>160,113,047</b>	<b>167,985,966</b>	<b>176,236,923</b>	<b>186,280,251</b>	<b>179,764,821</b>	<b>185,148,845</b>
<b>EXPENDITURES (\$)</b>							
City Manager's Office	699,230	730,600	737,101	750,094	765,695	781,680	798,047
Corporate Services	14,037,163	17,569,548	15,881,717	15,453,858	16,126,599	15,978,670	16,445,341
Community Development	8,141,530	7,485,469	6,379,032	6,331,230	6,448,651	6,641,899	6,765,304
Port of Nanaimo Center	5,483,634	5,557,208	5,588,883	5,759,266	6,064,973	5,930,110	6,080,798
Culture & Heritage	2,160,617	3,105,581	7,401,949	9,257,661	2,571,861	2,305,961	2,424,029
Parks, Recreation & Environment	32,754,222	27,213,516	23,508,126	25,650,793	27,455,060	24,949,266	24,148,757
Engineering & Public Works	26,824,988	35,695,552	28,496,548	31,205,525	38,896,760	29,198,246	28,956,794
Fire & Emergency Services	15,083,845	15,655,340	18,170,240	17,525,964	18,207,884	19,664,050	20,168,528
Police	24,095,676	27,279,161	28,462,569	30,807,087	37,955,756	33,719,038	34,362,575
911	1,676,087	1,882,240	1,461,013	1,433,877	1,466,833	1,564,127	1,526,664
Regulatory Services	3,510,708	4,428,469	3,878,069	3,961,919	3,397,152	4,202,710	4,287,254
General Revenue	3,933,996	4,147,468	4,649,368	4,795,619	4,946,931	4,864,530	5,024,110
Sanitary Sewer	7,720,468	12,702,288	10,037,814	7,169,531	10,992,379	7,045,815	8,610,643
Waterworks	31,557,286	33,325,087	18,380,609	25,478,160	17,627,147	17,946,762	17,397,287
<b>Annual Total Expenditures</b>	<b>177,679,450</b>	<b>196,777,527</b>	<b>173,033,038</b>	<b>185,580,584</b>	<b>193,497,681</b>	<b>174,792,864</b>	<b>176,996,131</b>
Internal Cost Allocations	(5,557,521)	(5,801,361)	(5,443,090)	(5,552,360)	(5,664,304)	(5,778,119)	(5,894,219)
Internal Charges to Asset Renewal Reserves	(1,939,408)	(1,487,356)	(2,018,758)	(2,089,350)	(2,164,819)	(2,247,292)	(2,335,379)
<b>Net Expenditures After Allocations and Charges</b>	<b>170,182,521</b>	<b>189,488,810</b>	<b>165,571,190</b>	<b>177,938,874</b>	<b>185,668,558</b>	<b>166,767,453</b>	<b>168,766,533</b>
<b>Net Revenue (Expenditures)</b>	<b>3,276,892</b>	<b>(29,375,763)</b>	<b>2,414,776</b>	<b>(1,701,951)</b>	<b>611,693</b>	<b>12,997,368</b>	<b>16,382,312</b>
Transfers to/from Accumulated	(3,276,892)	29,375,763	(2,414,776)	1,701,951	(611,693)	(12,997,368)	(16,382,312)
<b>Financial Plan Balance</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>
Staffing (FTEs) - Municipal	605.3	607.1	605.9	619.9	626.9	627.9	627.9
Staffing (FTEs) - RCMP	140.0	140.0	144.0	147.0	152.0	156.0	156.0
Cost Per Capita	\$1,914.98	\$2,104.05	\$1,814.18	\$1,923.91	\$1,980.97	\$1,755.80	\$1,753.36

2016 Total Expenditures by Department (Includes Project Expenditures)





Water Treatment Plant set to open in early 2016



Vancouver Island Regional Library - Hammond Bay Branch

## Major Funds - 2016 Financial Summary

Operating expenditures are net of transfers between funds. An allocation of General Government and Engineering and Public Works expenditures is made to both the Sewer and Water Utility Funds.

	General Fund	Sewer Utility Fund	Water Utility fund	Total
<b>OPERATING REVENUES</b>				
Taxation	\$98,547,506	\$--	\$--	\$98,547,506
Fees & Charges	12,050,823	6,318,650	15,977,764	34,347,237
Grants	1,169,892	--	--	1,169,892
Casino Revenue	2,400,000	--	--	2,400,000
Traffic Fine Sharing Revenue	1,000,000	--	--	1,000,000
Climate Action Revenue Incentive	125,000	--	--	125,000
Investment Income	1,810,000	--	--	1,810,000
Other Revenues	12,470,370	--	137,704	12,608,074
<b>Revenues Total</b>	<b>\$129,573,591</b>	<b>\$6,318,650</b>	<b>\$16,115,468</b>	<b>\$152,007,709</b>
<b>OPERATING EXPENDITURES</b>				
General Government	\$18,511,836	\$--	\$--	\$18,511,836
Police Protection	28,237,569	--	--	28,237,569
Fire Protection	14,343,530	--	--	14,343,530
Other Protection	1,593,466	--	--	1,593,466
Regulatory Services & Parking	2,796,942	--	--	2,796,942
Community Services Administration	1,042,525	--	--	1,042,525
Culture & Heritage	2,085,880	--	--	2,085,880
Parks, Recreation & Environment	21,280,485	--	--	21,280,485
Engineering & Public Works	15,401,908	3,356,114	9,354,209	28,112,231
Port of Nanaimo Centre	5,588,883	--	--	5,588,883
General Revenue	4,649,368	--	--	4,649,368
<b>Annual Operating Expenditures</b>	<b>\$115,532,392</b>	<b>\$3,356,114</b>	<b>\$9,354,209</b>	<b>\$128,242,715</b>
<b>Surplus Before Projects and Transfers to Reserves</b>	<b>\$14,041,199</b>	<b>\$2,962,536</b>	<b>\$6,761,259</b>	<b>\$23,764,994</b>
<b>Funding for Projects</b>	<b>\$7,028,034</b>	<b>--</b>	<b>\$130,000</b>	<b>\$7,158,034</b>
<b>Transfer to Reserves (funding for future year projects)</b>	<b>\$7,013,165</b>	<b>\$2,962,536</b>	<b>\$6,631,259</b>	<b>\$16,606,960</b>
<b>Net</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>



# **CHAPTER 5 - FIVE YEAR OPERATING PLAN OVERVIEW**



Beban Park

## **2016 - 2020 Financial Plan**

# CHAPTER 5 - 2015 Five Year Operating Plan Overview

## Introduction

### Business Units - City Divisions, Departments and Sections:

In addition to the City Manager's Office, the City is organized into two main divisions: Corporate Services and Community Services. Each Division is led by a General Manager. The Corporate Services Division includes the following departments: Human Resources, Community Development, Finance and Purchasing, and Information Technology and Legislative Services. The Community Services Division

includes the following departments: Engineering and Public Works, Social and Protective Services, Parks, Recreation and Environment and Culture and Heritage. The Engineering and Public Works department is also responsible for the Sanitary Sewer and Waterworks utilities. Departments are then organized into sections focused on specific service delivery functions.

### 2016 Operating Budget

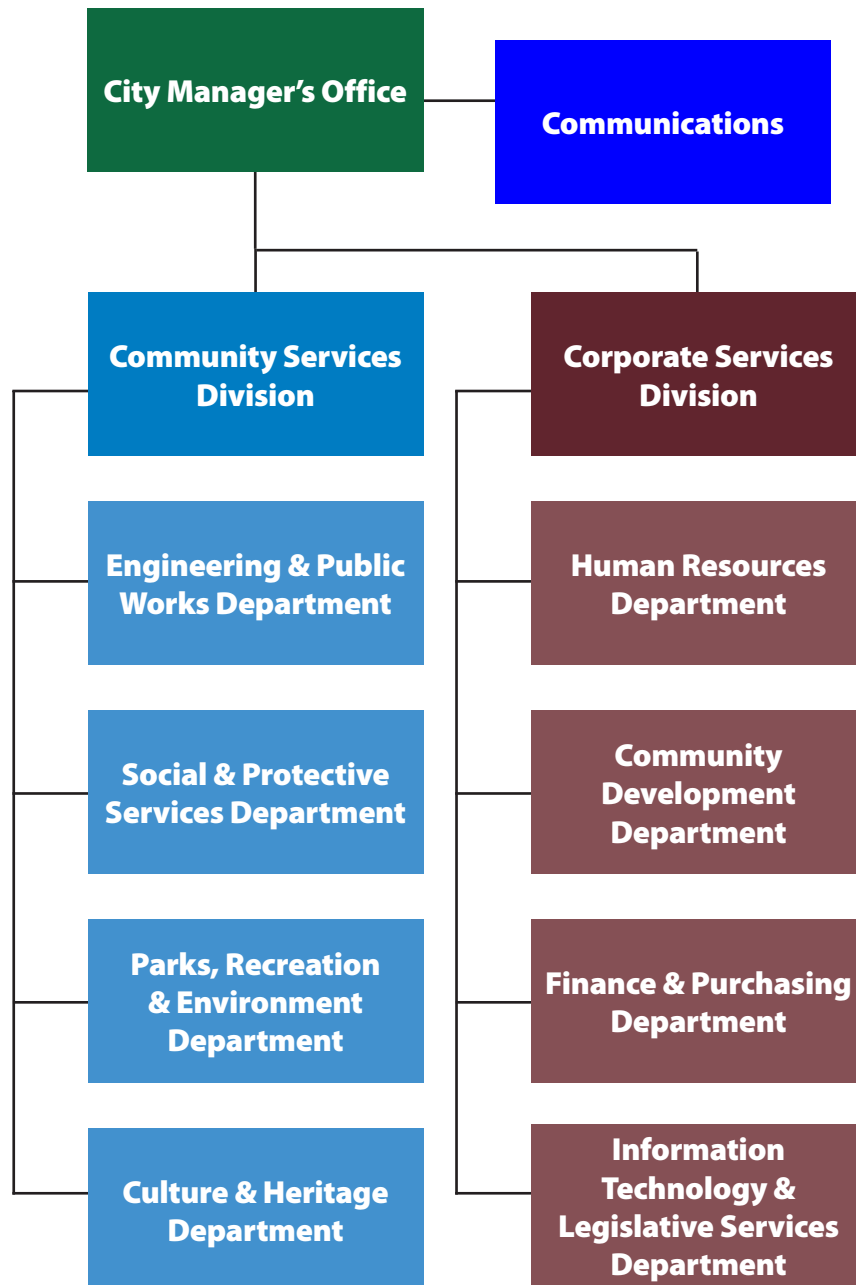
The following sections will provide more detailed information on the City Manager's Office, the Corporate Services Division and Departments, and the Community Services Division, Departments and Sections. The information includes:

- Overview
- Annual Operating Expenditure and Revenues Budgets
- 2016 Goals and Objectives



Parkway Trail at Northfield Park

# City of Nanaimo Organization Structure



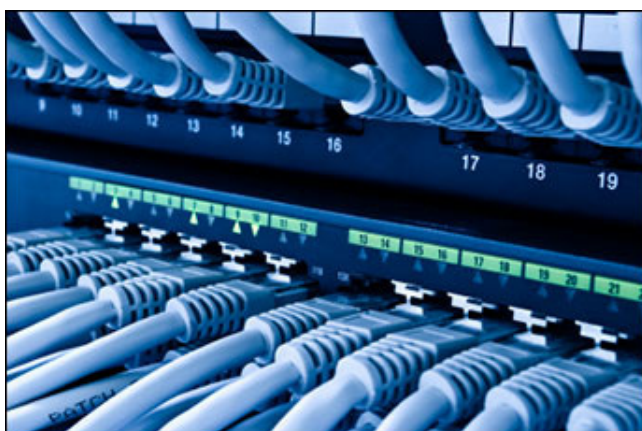
## Employee Base - Full Time Equivalent (FTE) Analysis

The City of Nanaimo budgets for full staff complement in all departments. The only exception is for RCMP members, where 96% of the projected contract cost is budgeted due to the history of vacancies and to minimize surplus.

The City underwent a significant reorganization at the end of 2013. Departments were re-organized to bring about a change in corporate culture to better align with The Strategic Plan, reduce costs and improved communications. A new Culture and Heritage department was created and resources reallocated from other departments. A new Social and Protective Services department was created to bring together Social Planning, Police, Fire, Bylaw and Emergency Planning resources and functions. Information Technology and Legislative Services were combined into one department. Environmental Services merged with Parks and Recreation.

The final construction and commissioning phase of the new Water Treatment Plant is nearly completed. The new facility will go into services in 2016.

In June 2015, the Central Island 911 Partnership, which includes the City of Nanaimo, the Regional District of Nanaimo and the Cowichan Valley Regional District, changed the service delivery model for 911 Public Safety Answering Point (PSAP) services. The services had been provided by a combination of RCMP and municipal staff located in the Police Operations Building. The Central Island 911 Partnership entered into a contract with Emergency Communications for British Columbia (EComm 911) located in Vancouver to provide PSAP services effective November 2015. Dispatch and communications for Central Vancouver Island fire departments continues to be provided by 911FireComm located in Fire Station #1.



## City of Nanaimo Full Time Equivalents (FTEs) by Department

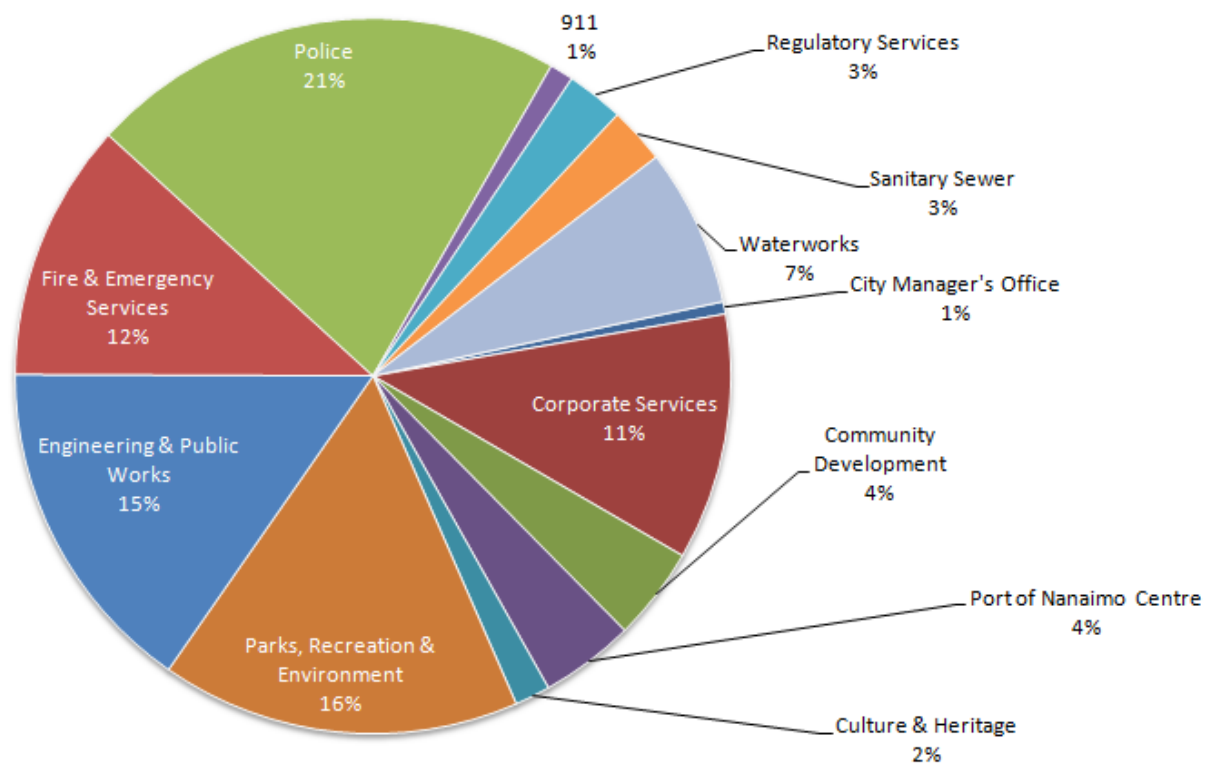
Engineering and Public Works Department includes Sanitary Sewer and Waterworks Utilities.

	2012	2013	2014	2015	2016
<b>City Administration</b>	2.0	2.0	5.0	5.0	5.0
<b>Corporate Services Division</b>					
Corporate Services	79.7	79.6	77.7	77.7	78.7
Strategic Relationship	1.0	1.0			
Development Services	67.0	71.5			
Community Development			50.0	50.0	50.0
<b>Community Services Division</b>					
Administration			3.0	3.0	3.0
Culture & Heritage			4.0	4.0	4.0
Parks, Recreation & Environment	136.5	135.5	129.9	129.8	130.6
<b>Social &amp; Protective Services</b>					
Administration			2.0	2.0	2.0
Regulatory Services			14.0	13.0	13.0
911 Services	14.8	15.0	16.0	16.0	10.0
Fire Services	96.8	96.8	96.8	95.8	95.8
Emergency Services	1.0	1.0	1.0	1.0	1.0
<b>Police Services</b>					
Municipal	61.9	62.9	64.0	63.9	64.9
RCMP Members	140.0	140.0	140.0	140.0	144.0
Engineering & Public Works	143.0	143.0	142.0	146.0	148.0
	<b>743.7</b>	<b>748.3</b>	<b>745.4</b>	<b>747.2</b>	<b>750.0</b>

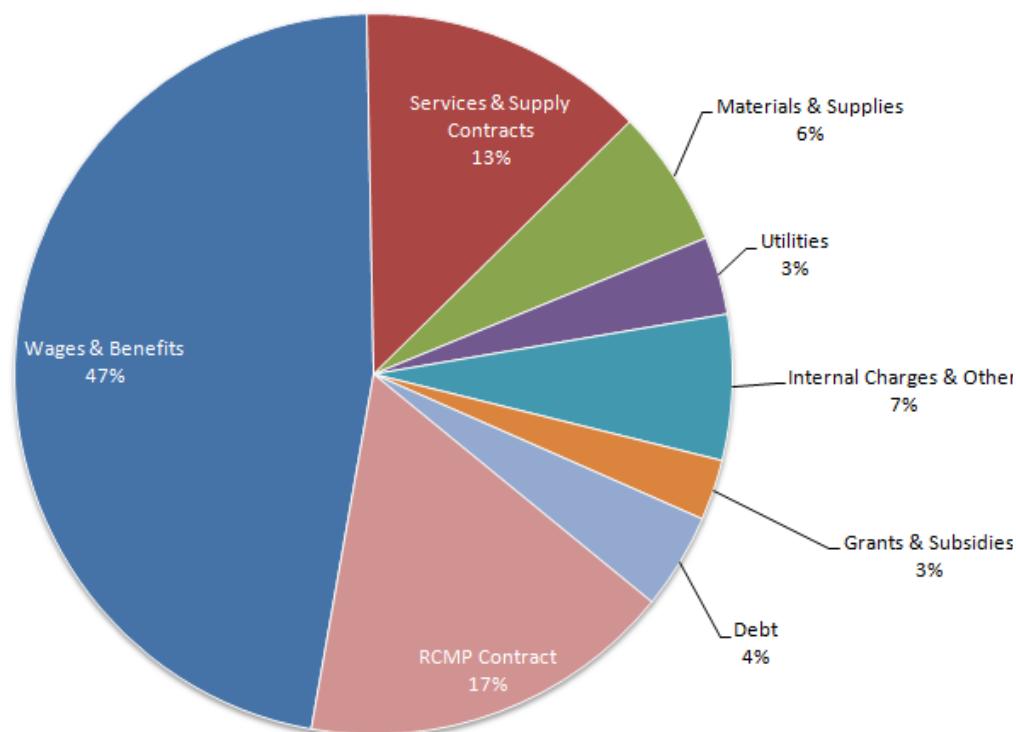
**Operating Expenditures Summary by Department** (excludes Project Expenditures, General Revenue Expenditures and Library Expenditures)

	2014 Actual	2015 Budget	2016 Budget	2017 Budget	2018 Budget	2019 Budget	2020 Budget
<b>EXPENDITURES (\$)</b>							
City Manager's Office	699,230	730,600	737,101	750,094	765,695	781,680	798,047
Corporate Services	13,132,563	15,405,584	14,611,717	14,951,858	15,400,099	15,507,670	15,787,941
Community Development	5,185,419	5,389,001	5,516,532	5,628,730	5,746,151	5,866,899	5,990,304
Port of Nanaimo Centre	5,483,634	5,557,208	5,588,883	5,699,266	5,812,973	5,930,110	6,050,798
Culture & Heritage	1,839,234	2,035,059	2,085,880	2,143,416	2,183,861	2,225,461	2,263,829
Parks, Recreation & Environment	20,681,264	20,759,913	21,280,485	21,713,642	22,161,367	22,620,064	23,041,453
Engineering & Public Works	19,414,390	20,303,641	20,163,438	21,052,425	21,477,685	21,912,196	22,356,179
Fire & Emergency Services	14,742,697	13,970,234	15,320,185	16,164,027	17,195,384	18,008,650	18,544,199
Police	24,071,493	27,089,161	28,237,569	29,855,587	31,851,256	33,354,038	34,313,395
911	1,676,087	1,775,240	1,405,513	1,433,877	1,462,833	1,492,397	1,522,584
Regulatory Services	3,007,369	3,493,535	3,397,569	3,320,419	3,382,102	3,445,210	3,509,754
Sanitary Sewer	3,168,111	3,296,696	3,356,114	3,372,931	3,449,129	3,527,315	3,607,541
Waterworks	7,431,551	8,671,540	9,354,209	9,464,610	9,687,841	9,919,322	10,159,487
<b>Total Annual Expenditures</b>	<b>120,533,042</b>	<b>128,477,412</b>	<b>131,055,195</b>	<b>135,550,882</b>	<b>140,576,376</b>	<b>144,591,012</b>	<b>147,945,511</b>
Internal Cost Allocations	(5,557,521)	(5,801,361)	(5,443,090)	(5,552,360)	(5,664,304)	(5,778,119)	(5,894,219)
Internal Charges to Asset Renewal Reserves	(1,939,408)	(1,487,356)	(2,018,758)	(2,089,350)	(2,164,819)	(2,247,292)	(2,335,379)
<b>Net Expenditures After Allocations and Charges</b>	<b>113,036,113</b>	<b>121,188,695</b>	<b>123,593,347</b>	<b>127,909,172</b>	<b>132,747,253</b>	<b>136,565,601</b>	<b>139,715,913</b>
Staffing (FTEs) - Municipal	605.3	607.1	605.9	616.9	626.9	627.9	627.9
Staffing (FTEs) - RCMP	140.0	140.0	144.0	147.0	152.0	156.0	156.0
Cost Per Capita	\$1,271.94	\$1,345.66	\$1,354.23	\$1,382.98	\$1,416.33	\$1,437.82	\$1,451.55

## 2016 Operating Expenditures by Department



## 2016 Operating Services Expenditures by Cost Type



# City Manager's Office

## Description and Level of Service

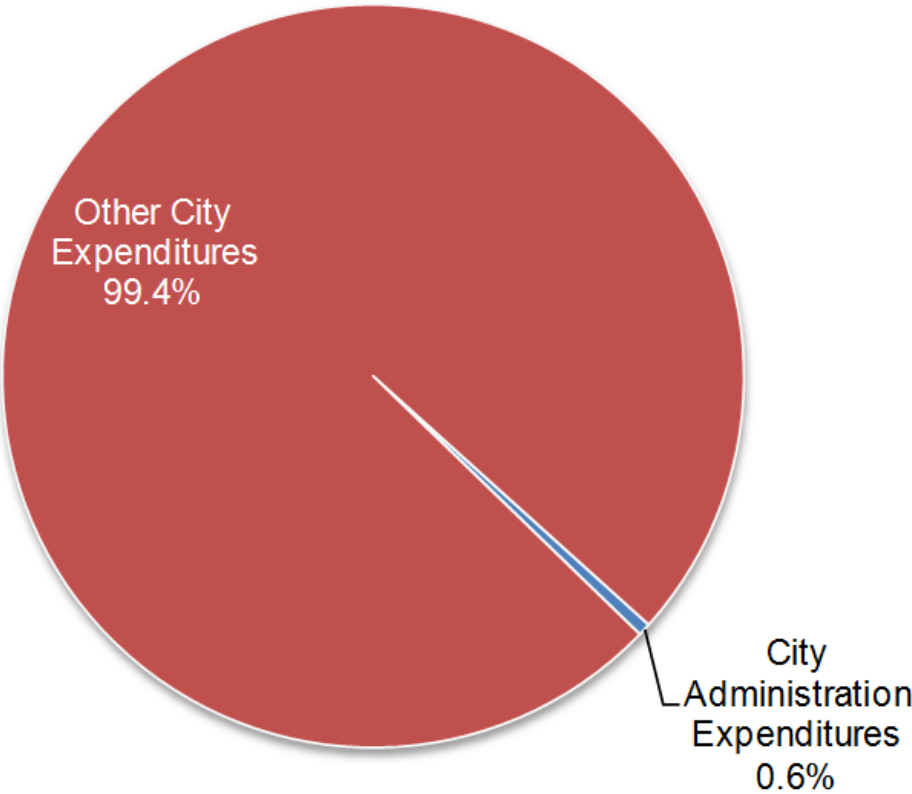
The City Manager's Office serves Council directly and acts as the primary connection between staff and City Council. This office provides direction for staff recommendations that reflect relevant facts, options and professional opinion pertaining to issues considered by Council.

The City Manager's Office takes the lead role in managing the implementation of the policy direction which has been established by Council. As Chief Administrative Officer, the City Manager is the senior staff leader and accordingly, provides

managerial leadership, control and direction to all City departments and operations.

Effective 2014, the City Manager's Office also includes the communications function which supports both internal and external City communications. This area is responsible for informing the public of City news via the media and the City website, and provides support in issues management, media relations, marketing and communications to many parts of the City organization.

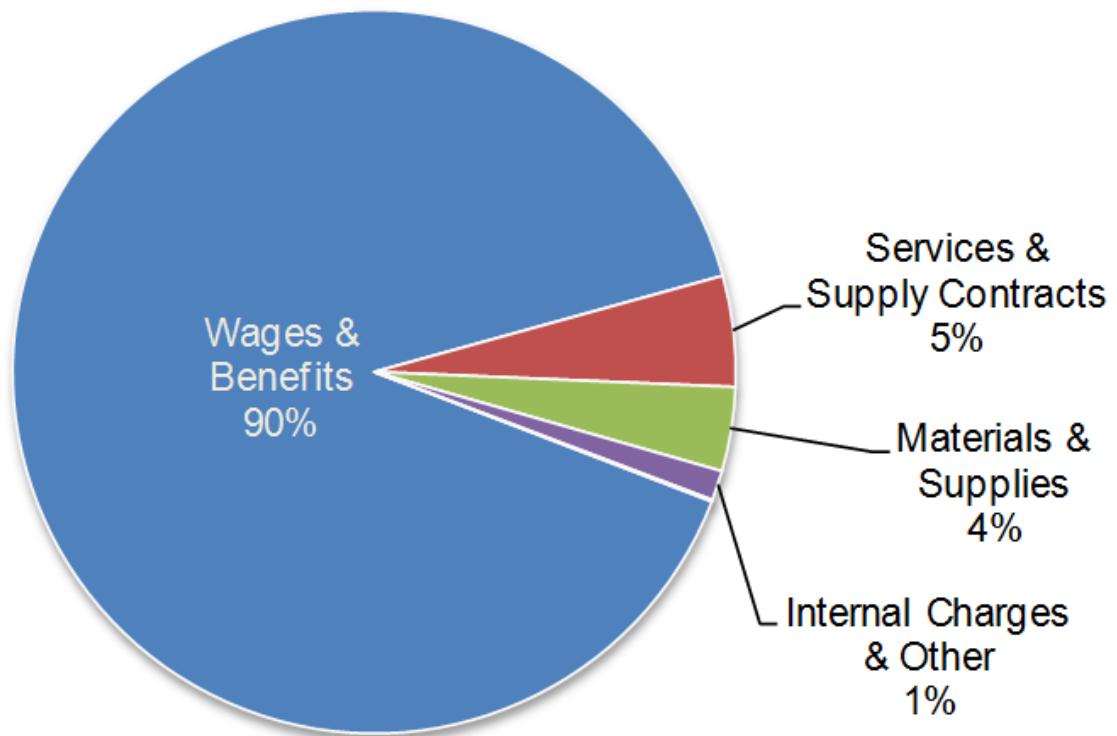
## Total Expenditures



## Annual Operating Expenditures and Revenues

	2014 Actual	2015 Budget	2016 Budget	2017 Budget	2018 Budget	2019 Budget	2020 Budget
<b>EXPENDITURE SUMMARY</b>							
Wages & Benefits	\$672,357	\$654,626	\$662,505	\$675,756	\$689,270	\$703,056	\$717,116
Services & Supply Contracts	9,941	39,840	36,530	37,261	38,006	38,767	39,539
Materials & Supplies	11,631	26,450	27,710	25,969	26,489	27,020	27,558
Internal Charges & Other	4,800	9,184	9,856	10,598	11,410	12,306	13,293
Grants & Subsidies	500	500	500	510	520	531	541
Total Expenditures	699,230	730,600	737,101	750,094	765,695	781,680	798,047
Revenues Generated	-	-	-	-	-	-	-
<b>Net Operating Costs</b>	<b>\$699,230</b>	<b>\$730,600</b>	<b>\$737,101</b>	<b>\$750,094</b>	<b>\$765,695</b>	<b>\$781,680</b>	<b>\$798,047</b>
Staffing (FTEs)	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Cost Per Capita	\$7.87	\$8.11	\$8.08	\$8.11	\$8.17	\$8.23	\$8.29

## Annual Operating Expenditures by Type



# Corporate Services Division

Community Development | Finance and Purchasing |  
Human Resources |  
Information Technology and Legislative Services |

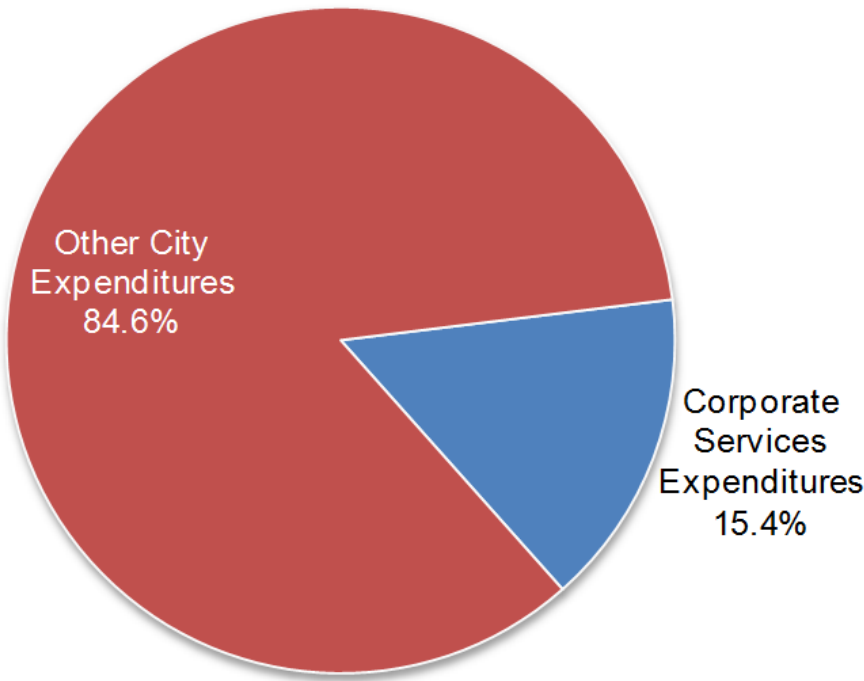
## Overview

The Corporate Services Division supports the City’s vision by providing support and advice in specialized areas including human resources, community development, financial, and technological and administrative services.

The division provides support to other departments, liaises with intergovernmental organizations, complies with senior government policies and legislations and interacts with the public.

## Total Expenditures

Total expenditures include annual operating and all projects expenditures.

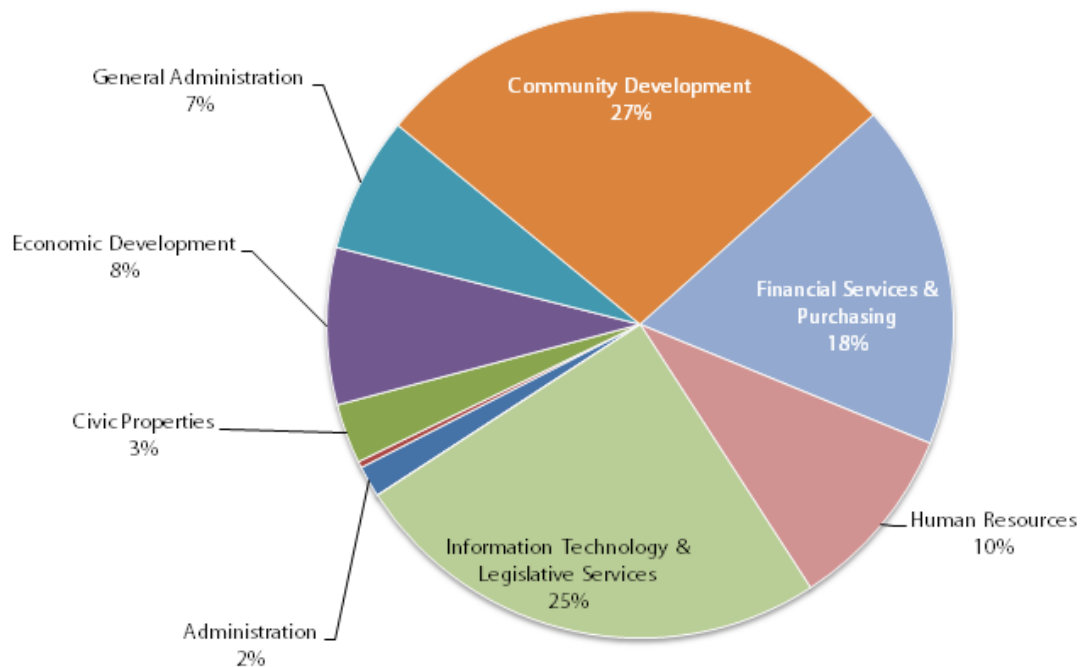


## Division is organized in four departments:

- Community Development
- Human Resources
- Financial Services and Purchasing
- Information Technology and Legislative Services

Also included in this division is responsibility for operations and maintenance of City Hall and the Service and Resource Centre, the contract with Nanaimo Economic Development Corporation (NEDC) and the annual grant to Downtown Nanaimo BIA.

## Annual Expenditures by Department



## Annual Operating Expenditures and Revenues by Department

Administration includes senior leadership resources for the Corporate Services division. Resources include the General Manager, support staff and other office expenses.

Community Development (Grants) includes specific grants such as security checks and permissive tax exemptions.

Economic Development includes the contract between the City and the Nanaimo Economic Development Corporation (NEDC) and the grant to the DNBIA.

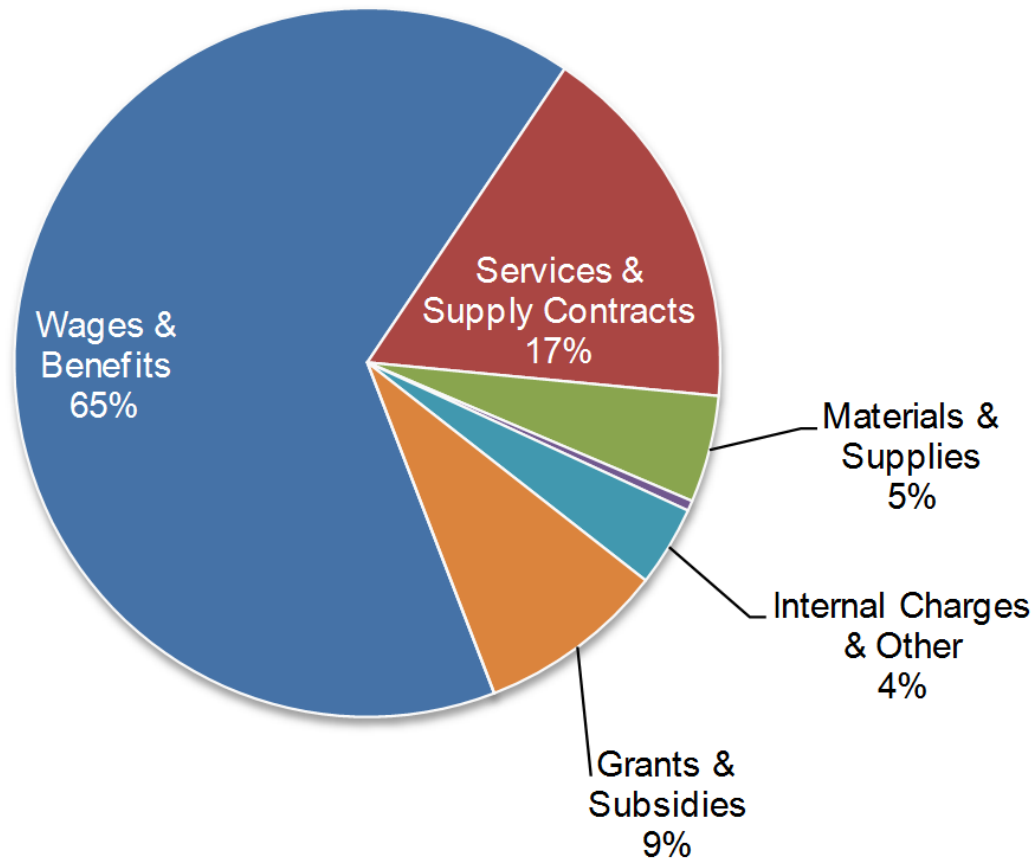
Civic Properties includes costs related to operating and maintenance of City Hall and the Services and Resource Centre buildings.

General Administration includes common costs such as insurance, legal and contingency for contract increases.

Detailed information for the Community Development, Financial Services and Purchasing, Human Resources, Information Technology and Legislative Services departments is provided in next sections of this document.

	2014 Actual	2015 Budget	2016 Budget	2017 Budget	2018 Budget	2019 Budget	2020 Budget
<b>REVENUES GENERATED</b>							
General Administration	\$156,117	\$110,200	\$95,200	\$96,152	\$97,114	\$98,085	\$99,065
Community Development (Grants)	27,525	27,734	27,734	27,734	27,734	27,734	27,734
Community Development	4,090,653	2,888,009	2,847,500	2,873,905	2,900,576	2,927,512	2,954,714
Financial Services & Purchasing	(170,847)	154,220	152,750	154,278	155,820	157,378	158,951
Human Resources	31,229	10,249	12,314	12,437	12,561	12,687	12,815
Information Technology & Legislative Services	43,930	-	-	-	35,704	-	-
<b>Revenues Total</b>	<b>\$4,178,606</b>	<b>\$3,190,412</b>	<b>\$3,135,498</b>	<b>\$3,164,506</b>	<b>\$3,229,509</b>	<b>\$3,223,396</b>	<b>\$3,253,279</b>
<b>EXPENDITURES</b>							
Administration	\$331,530	\$327,431	\$326,993	\$333,703	\$340,563	\$347,577	\$354,755
Community Development (Grants)	81,740	73,573	66,200	66,644	67,095	67,557	68,029
Civic Properties	611,874	630,496	620,253	633,322	646,710	660,453	674,547
Economic Development	1,741,587	1,625,081	1,627,373	1,629,692	1,632,034	1,632,034	1,632,034
General Administration	887,174	2,467,664	1,408,457	1,426,426	1,454,954	1,484,053	1,513,734
Community Development	5,185,419	5,389,001	5,516,532	5,628,730	5,746,151	5,866,899	5,990,304
Financial Services & Purchasing	3,307,973	3,496,655	3,589,940	3,661,895	3,736,673	3,812,142	3,892,823
Human Resources	1,762,698	1,906,832	1,945,260	1,984,020	2,025,810	2,068,685	2,112,665
Information Technology & Legislative Services	4,407,987	4,877,852	5,027,241	5,216,156	5,496,260	5,435,169	5,539,354
Strategic Relationships	-	-	-	-	-	-	-
<b>Annual Operating Expenditures</b>	<b>\$18,317,982</b>	<b>\$20,794,585</b>	<b>\$20,128,249</b>	<b>\$20,580,588</b>	<b>\$21,146,250</b>	<b>\$21,374,569</b>	<b>\$21,778,245</b>
Internal Cost Allocations	(1,736,428)	(1,768,664)	(1,801,306)	(1,837,332)	(1,874,079)	(1,911,560)	(1,949,792)
Internal Charges to Asset Renewal Reserves	(508,133)	(503,002)	(552,208)	(601,454)	(655,718)	(716,263)	(782,062)
<b>Net Operating Expenditures after Allocations and Charges</b>	<b>\$11,894,815</b>	<b>\$15,332,507</b>	<b>\$14,639,237</b>	<b>\$14,977,296</b>	<b>\$15,386,944</b>	<b>\$15,523,350</b>	<b>\$15,793,112</b>
Staffing (FTEs)	127.7	127.7	128.7	128.7	128.7	128.7	128.7
Cost Per Capita	\$133.85	\$170.25	\$160.40	\$161.94	\$164.17	\$163.44	\$164.08

## Annual Operating Expenditures by Type



# Community Development

## Description and Primary Activities

The Community Development department serves Council and its Committees, residents, businesses, property owners, builders, design professionals, other Departments, senior levels of government and community groups.

The department is organized into six sections:

- Administration
- Building Inspections
- Planning and Design
- Support Services and Business Licensing
- Real Estate
- Engineering and Subdivision

## Administration

- Directs and supports the activities of the Department
- Provides advice to Council on all matters related to the Planning and Development of the Community
- Ensures that the Department's goals and objectives are consistent with Council policy, plans and direction
- Monitors and establishes Department policies, procedures and practices with a focus on customer service
- Supports the work of the Planning and Transportation Advisory Committee

## Building Inspections

- Promotes liveability, fire, health and life-safety standards in the community
- Reviews permit applications and conducts inspections within a framework of municipal policies and land use regulations and the BC Building Code



## Planning and Design

- Implementation of policy and programs identified in the City's Official Community Plan '*planNanaimo*'
- Reviews OCP amendments rezonings, development permits, development variance permits, along with business, liquor and waste stream management licence applications
- Supports the work of the Design Advisory Panel and the Board of Variance

## Real Estate

- Develop strategies and policies for land acquisition and dispositions
- Guides decisions related to sale and acquisition of municipally-owned lands
- Represent the City in property negotiations
- Ensure property transactions comply with relevant statutes, regulations and policies

## Engineering and Subdivision

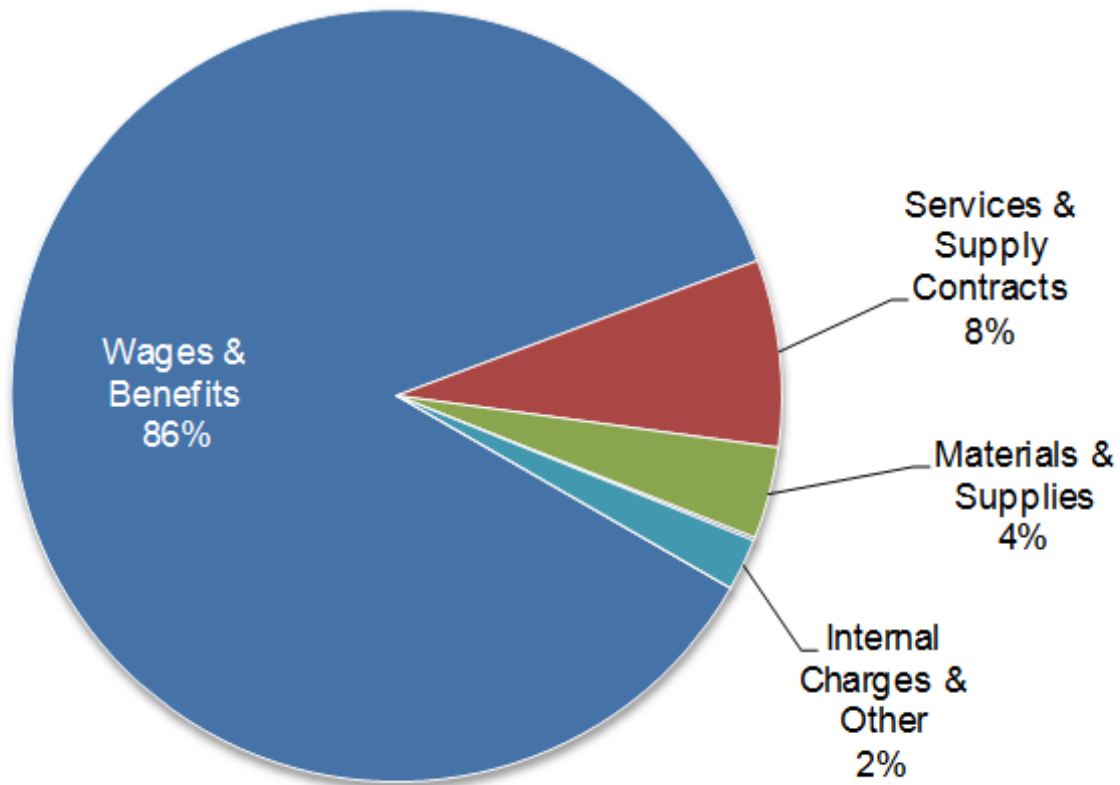
- Review development applications including construction of both private infrastructure and City infrastructure (developer contributed)
- Establish subdivision requirements and review applications
- Administer collection of Development Cost Charges
- Implement the Urban Forest Strategy and regulate tree removal

### 2016 Proposed Initiatives

- South Downtown Waterfront (SDW) Master Plan
- Waterfront Trail Study
- Liquor Control Strategy Update
- Parking Bylaw Review
- Climate Adaption Plan
- Town Centre Structure Plan - Hospital
- Contribute to DCC Review
- Complete Design Guidelines 2016 Review
- Complete Goals and Progress Review of Official Community Plan

## Annual Operating Expenditures and Revenues

	2014 Actual	2015 Budget	2016 Budget	2017 Budget	2018 Budget	2019 Budget	2020 Budget
<b>EXPENDITURE SUMMARY</b>							
Wages & Benefits	\$4,470,805	\$4,645,205	\$4,742,314	\$4,837,158	\$4,933,902	\$5,032,581	\$5,133,230
Services & Supply Contracts	414,736	408,887	433,477	441,797	450,277	458,935	467,761
Materials & Supplies	163,230	211,850	212,922	214,113	217,715	221,404	225,157
Utilities	13,760	7,200	7,200	7,344	7,490	7,640	7,794
Internal Charges & Other	122,888	115,859	120,619	128,318	136,767	146,339	156,362
Grants & Subsidies	-	-	-	-	-	-	-
Total Expenditures	5,185,419	5,389,001	5,516,532	5,628,730	5,746,151	5,866,899	5,990,304
Revenues Generated	4,090,653	2,888,009	2,847,500	2,873,905	2,900,576	2,927,512	2,954,714
<b>Net Operating Costs</b>	<b>\$1,094,766</b>	<b>\$2,500,992</b>	<b>\$2,669,032</b>	<b>\$2,754,825</b>	<b>\$2,845,575</b>	<b>\$2,939,387</b>	<b>\$3,035,590</b>
Staffing (FTEs)	50.0	50.0	50.0	50.0	50.0	50.0	50.0
Cost Per Capita	\$12.32	\$27.77	\$29.24	\$29.79	\$30.36	\$30.95	\$31.54



# Finance and Purchasing

## Description and Primary Activities

The Finance and Purchasing department provide financial support and stewardship that support City departments delivering current and future service levels as directed by Council.

The department is organized into six sections:

- Administration
- Revenue Services
- Accounting Services
- Financial Planning
- Payroll
- Purchasing

## Administration

- Provides leadership and coordination of department activities
- Provides financial support and advice to all City departments and Council
- Ensures implementation of policies, programs and other directions of Council and management team

## Revenue Services

- Billings and collections
- Accounts receivables
- Maintain property information

## Accounting Services

- Reporting and accounting functions including accounts payable
- Cash management
- Annual financial statements

## Financial Planning

- Financial planning and analysis
- Grants administration (application and management of senior government grants)
- Preparation of Five-Year Financial Plan

## Payroll

- Process bi-weekly payroll
- Reporting requirements

## Purchasing

- Facilitate purchasing process
- Maintain appropriate and secure inventory
- Property insurance

### 2016 Proposed Initiatives

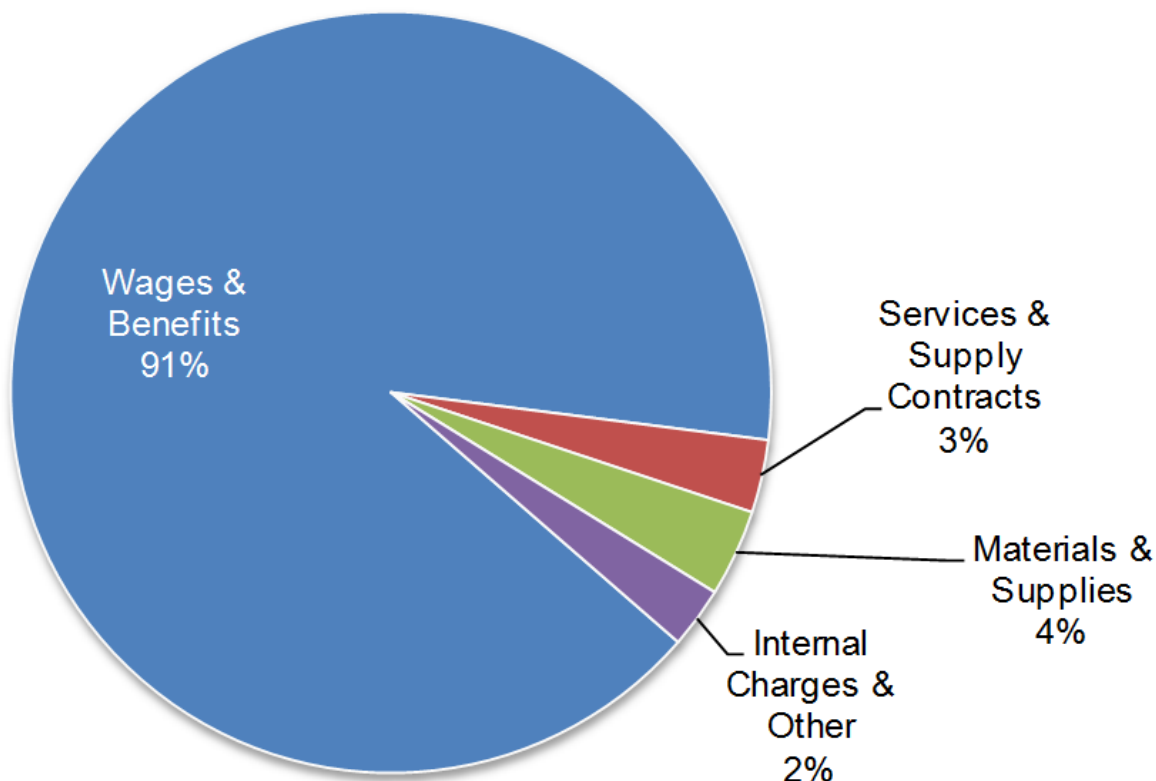
- Contribute to Asset Management Update
- Contribute to DCC Review
- User Rate Review Update
- Review and update financial policies
- Cost allocations analysis



## Annual Operating Expenditures and Revenues

	2014 Actual	2015 Budget	2016 Budget	2017 Budget	2018 Budget	2019 Budget	2020 Budget
<b>EXPENDITURE SUMMARY</b>							
Wages & Benefits	\$3,054,502	\$3,166,542	\$3,252,878	\$3,317,937	\$3,384,293	\$3,451,981	\$3,521,018
Services & Supply Contracts	96,303	108,185	111,365	113,593	111,804	114,040	116,322
Materials & Supplies	91,632	132,555	132,790	132,387	137,110	136,671	139,402
Internal Charges & Other	65,536	89,373	92,907	97,978	103,466	109,450	116,081
Total Expenditures	3,307,973	3,496,655	3,589,940	3,661,895	3,736,673	3,812,142	3,892,823
Revenues Generated	(170,847)	154,220	152,750	154,278	155,820	157,378	158,951
<b>Net Operating Costs</b>	<b>\$3,478,820</b>	<b>\$3,342,435</b>	<b>\$3,437,190</b>	<b>\$3,507,617</b>	<b>\$3,580,853</b>	<b>\$3,654,764</b>	<b>\$3,733,872</b>
Staffing (FTEs)	33.7	33.7	33.7	33.7	33.7	33.7	33.7
Cost Per Capita	\$39.15	\$37.11	\$37.66	\$37.93	\$38.21	\$38.48	\$38.79

## Annual Operating Expenditures by Type

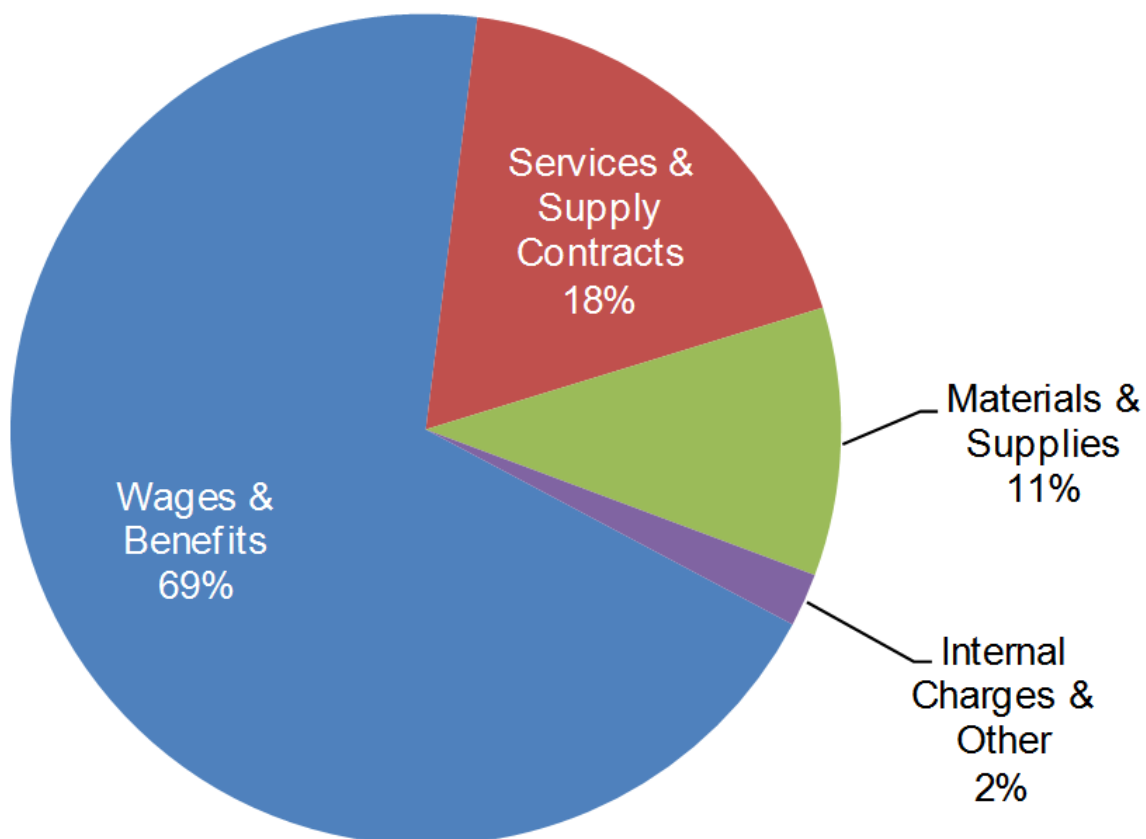




## Annual Operating Expenditures and Revenues

	2014 Actual	2015 Budget	2016 Budget	2017 Budget	2018 Budget	2019 Budget	2020 Budget
<b>EXPENDITURE SUMMARY</b>							
Wages & Benefits	\$1,228,960	\$1,302,367	\$1,346,292	\$1,373,220	\$1,400,685	\$1,428,699	\$1,457,269
Services & Supply Contracts	315,737	368,770	355,518	362,629	369,879	377,278	384,821
Materials & Supplies	179,286	197,379	203,060	204,621	208,556	212,572	216,664
Internal Charges & Other	38,715	38,316	40,390	43,550	46,690	50,136	53,911
Total Expenditures	1,762,698	1,906,832	1,945,260	1,984,020	2,025,810	2,068,685	2,112,665
Revenues Generated	31,229	10,249	12,314	12,437	12,561	12,687	12,815
<b>Net Operating Costs</b>	<b>\$1,731,470</b>	<b>\$1,896,583</b>	<b>\$1,932,946</b>	<b>\$1,971,583</b>	<b>\$2,013,249</b>	<b>\$2,055,998</b>	<b>\$2,099,850</b>
Staffing (FTEs)	12.0	12.0	12.0	12.0	12.0	12.0	12.0
Cost Per Capita	\$19.48	\$21.06	\$21.18	\$21.32	\$21.48	\$21.65	\$21.82

## Annual Operating Expenditures by Type



## Information Technology and Legislative Services

The Information Technology and Legislative Services department manages the City's information systems and processes and compliance with statutory regulations.

### Description and Primary Activities

The department is organized into three sections:

- Administration
- Information Technology
- Legislative Services

### Administration

- Directs the activities of the Department

### Information Technology

- Implement and maintain information management infrastructure including the City's Enterprise Resource Planning (ERP) system
- Facilitate development and implementation of new technology infrastructure
- Responsible for security of systems and information
- Manage asset renewal program for replacement of software, storage, networking and backup infrastructure

### Legislative Services

- Responsible for Corporate Office functions including Freedom of Information, Protection of Privacy and claim functions
- Provides Council, staff and public with agenda and meeting materials
- Maintains records in compliance with statutory requirements
- Administrative support for Mayor and Council
- Facilitates municipal elections, referendums and elector approval processes

### 2016 Proposed Initiatives

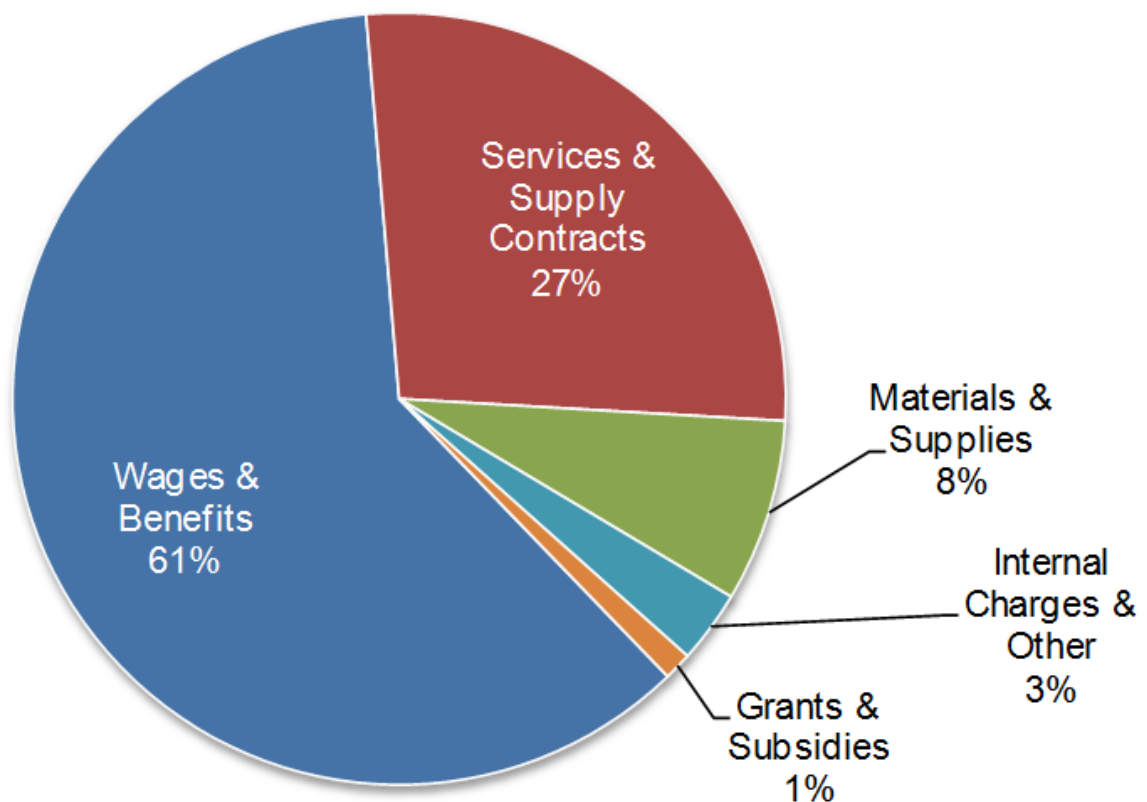
- Network reliability and security upgrades
- Support replacement of Recreation Management Software
- Complete implementation of new City website
- Microsoft Office 2016 implementation
- Review of current privacy practices and development of Freedom of Information Protection of Privacy Manual
- Administrative support for the Core Services Steering Committee
- Improvement to the City's Records Management Program



## Annual Operating Expenditures and Revenues

	2014 Actual	2015 Budget	2016 Budget	2017 Budget	2018 Budget	2019 Budget	2020 Budget
<b>EXPENDITURE SUMMARY</b>							
Wages & Benefits	\$2,748,887	\$2,864,428	\$3,059,189	\$3,120,372	\$3,279,500	\$3,246,435	\$3,311,365
Services & Supply Contracts	1,150,568	1,394,325	1,371,712	1,486,867	1,578,503	1,552,984	1,577,870
Materials & Supplies	399,988	404,800	384,885	392,348	416,188	407,723	415,638
Utilities	-	-	-	-	-	-	-
Internal Charges & Other	51,970	155,603	152,759	156,699	161,001	165,738	170,946
Grants & Subsidies	56,574	58,696	58,696	59,870	61,068	62,289	63,535
Total Expenditures	4,407,987	4,877,852	5,027,241	5,216,156	5,496,260	5,435,169	5,539,354
Revenues Generated	43,930	-	-	-	35,704	-	-
<b>Net Operating Costs</b>	<b>\$4,364,057</b>	<b>\$4,877,852</b>	<b>\$5,027,241</b>	<b>\$5,216,156</b>	<b>\$5,460,556</b>	<b>\$5,435,169</b>	<b>\$5,539,354</b>
Staffing (FTEs)	26.0	26.0	27.0	27.0	27.0	27.0	27.0
Cost Per Capita	\$49.11	\$54.16	\$55.08	\$56.40	\$58.26	\$57.22	\$57.55

## Annual Operating Expenditures by Type



# Community Services Division

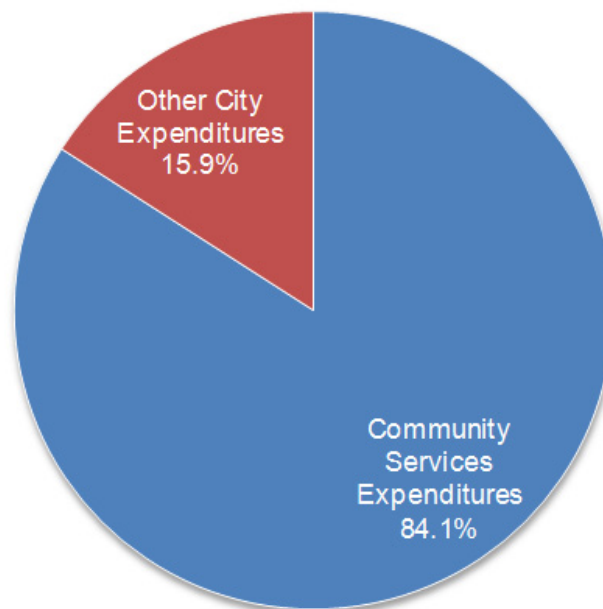
**Social and Protective Services | Parks, Recreation and Environment |  
Culture and Heritage | Engineering and Public Works |  
Sanitary Sewer Utility | Waterworks Utility |**

## Overview

The Community Services Division delivers a wide range of services to the community including fire and police services, transportation, drainage, sanitary sewer and waterworks services, and environmental protection services. The Division is also responsible for providing culture and heritage services, parks and recreation services, and parking and bylaw services.

Delivery of these services requires comprehensive knowledge, planning, operation and maintenance of City infrastructure.

## Total Expenditures including Sanitary Sewer and Water Utilities



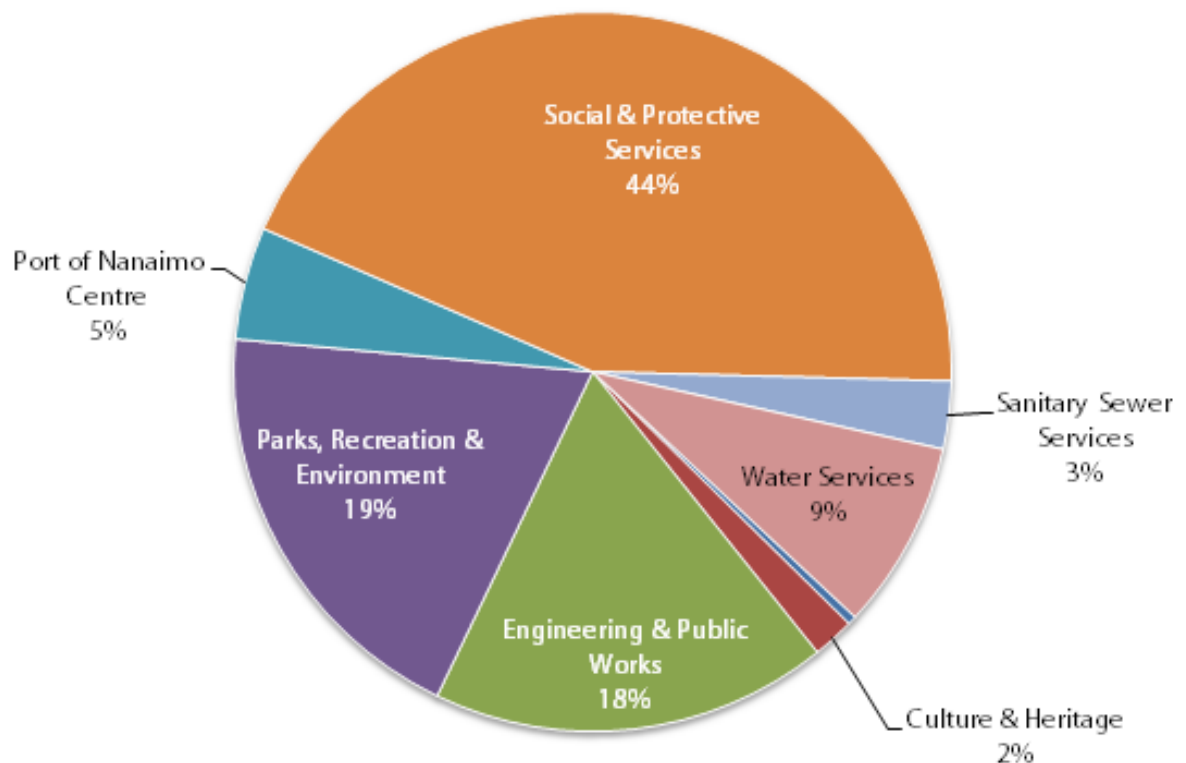
## Division is organized in four departments:

- Social and Protective Services
- Parks, Recreation and Environment
- Culture and Heritage
- Engineering and Public Works

The Engineering and Public Works department is responsible for the Sanitary Sewer and Waterworks utilities.

## Annual Operating Expenditures and Revenues by Department

	2014 Actual	2015 Budget	2016 Budget	2017 Budget	2018 Budget	2019 Budget	2020 Budget
<b>EXPENDITURE SUMMARY</b>							
Wages & Benefits	\$44,832,122	\$46,524,185	\$47,696,012	\$49,064,218	\$50,769,957	\$52,329,822	\$53,566,725
Services & Supply Contracts	31,428,561	34,181,488	35,580,853	37,181,429	38,737,135	40,291,819	41,388,604
Materials & Supplies	6,824,607	6,835,674	7,089,489	7,256,420	7,433,195	7,642,393	7,833,550
Utilities	4,145,446	4,127,844	4,500,852	4,590,766	4,682,472	4,776,016	4,871,439
Internal Charges & Other	7,422,664	7,720,913	7,821,082	7,826,288	7,997,497	8,175,181	8,358,756
Grants & Subsidies	1,594,261	1,872,156	1,853,233	1,758,575	1,783,995	1,810,218	1,832,846
Debt	5,268,168	5,689,968	5,648,324	6,542,504	7,260,180	7,409,314	7,517,299
Total Expenditures	101,515,829	106,952,228	110,189,845	114,220,200	118,664,431	122,434,763	125,369,219
Revenues Generated	39,794,407	40,253,781	41,487,450	43,397,513	45,353,151	47,469,004	49,682,059
<b>Net Operating Costs</b>	<b>\$61,721,422</b>	<b>\$66,698,447</b>	<b>\$68,702,395</b>	<b>\$70,822,687</b>	<b>\$73,311,280</b>	<b>\$74,965,759</b>	<b>\$75,687,160</b>
Internal Cost Allocations	(3,821,093)	(4,032,697)	(3,641,784)	(3,715,028)	(3,790,225)	(3,866,559)	(3,944,427)
Internal Charges to Asset Renewal Reserves	(1,431,275)	(984,354)	(1,466,550)	(1,487,896)	(1,509,101)	(1,531,029)	(1,553,317)
<b>Net Operating Costs after Allocations and Charges</b>	<b>\$56,469,054</b>	<b>\$61,681,396</b>	<b>\$63,594,061</b>	<b>\$65,619,763</b>	<b>\$68,011,954</b>	<b>\$69,568,171</b>	<b>\$70,189,416</b>
Staffing (FTEs) - Municipal	472.6	474.5	472.2	483.2	493.2	494.2	494.2
Staffing (FTEs) - RCMP	140.0	140.0	144.0	147.0	152.0	156.0	156.0
Cost Per Capita	\$635.42	\$684.90	\$696.81	\$709.49	\$725.65	\$732.44	\$729.22



# Social and Protective Services Department

## Overview

The Social and Protective Services department provides services to support a safe and healthy community, through coordination of City resources and external agencies, and through public education. The Social and Protective Services department is organized into the following sections:

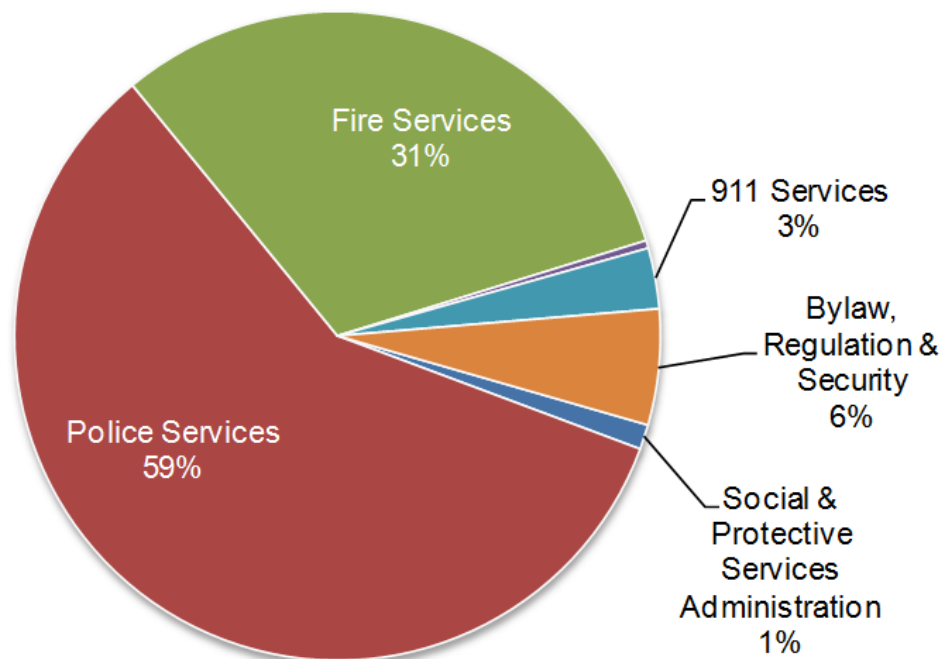
- Administration and Social Planning
- Police Services
- Fire Services
- Emergency Management
- 911 Services
- Bylaw, Regulation and Security

### 2016 Proposed Initiatives

- Fire Service
  - Complete construction of new fire station on Hammond Bay Road
  - Implement targeted prevention and public education initiatives in accordance with risk assessment
  - Continue facilities asset management planning
- Policing Priorities
  - Crime Prevention
    - \*Social Disorder Management
    - \*Prolific Offender Management
    - \*Violence in Relationships
    - \*Drug Enforcement
    - \*Liquor Control Strategy
  - Youth
    - \*Youth Intervention & Diversion
    - \*Community Partnerships for the Empowerment of Youth
    - \*School Liaison Program
  - Traffic
    - \*Detection and Prevention to Reduce Impaired Driving
    - \*Vehicle Operational Safety
  - Waterfront and Marine Safety

## Annual Operating Expenditures and Revenues

	2014 Actual	2015 Budget	2016 Budget	2017 Budget	2018 Budget	2019 Budget	2020 Budget
<b>REVENUES GENERATED</b>							
Social & Protective Services Administration	\$-	\$-	\$-	\$-	\$-	\$-	\$-
Police Services	812,652	1,718,297	1,761,963	1,769,582	1,777,278	1,793,918	1,810,986
Fire Services	434,412	234,031	231,223	252,586	253,241	278,829	280,158
Emergency Services	4,200	-	-	-	-	-	-
911 Services	1,084,026	1,139,969	821,819	838,255	855,021	872,121	889,563
Bylaw, Regulation & Security	1,917,992	1,865,748	1,833,150	1,851,483	1,869,994	1,888,696	1,907,587
<b>Revenues Total</b>	<b>\$4,253,282</b>	<b>\$4,958,045</b>	<b>\$4,648,155</b>	<b>\$4,711,906</b>	<b>\$4,755,534</b>	<b>\$4,833,564</b>	<b>\$4,888,294</b>
<b>EXPENDITURES</b>							
Social & Protective Services Administration	\$398,022	\$585,239	\$600,627	\$470,345	\$477,730	\$485,294	\$493,035
Police Services	24,071,493	27,089,161	28,237,569	29,855,587	31,851,256	33,354,038	34,313,395
Fire Services	14,494,145	13,726,204	15,068,530	15,906,616	16,932,026	17,739,125	18,268,281
Emergency Services	189,431	182,940	187,953	192,435	197,082	201,924	206,965
911 Services	1,735,207	1,836,330	1,469,215	1,498,853	1,529,109	1,559,998	1,591,537
Bylaw, Regulation & Security	2,609,347	2,908,296	2,796,942	2,850,074	2,904,372	2,959,916	3,016,719
<b>Annual Operating Expenditures</b>	<b>\$43,497,645</b>	<b>\$46,328,170</b>	<b>\$48,360,836</b>	<b>\$50,773,910</b>	<b>\$53,891,575</b>	<b>\$56,300,295</b>	<b>\$57,889,932</b>
<b>Net Operating Expenditures</b>	<b>\$39,244,364</b>	<b>\$41,370,125</b>	<b>\$43,712,681</b>	<b>\$46,062,004</b>	<b>\$49,136,041</b>	<b>\$51,466,731</b>	<b>\$53,001,638</b>
Staffing (FTEs) - Municipal	193.7	191.6	186.7	197.7	207.7	208.7	208.7
Staffing (FTEs) - RCMP	140.0	140.0	144.0	147.0	152.0	156.0	156.0
Cost Per Capita	\$441.60	\$459.37	\$478.96	\$498.03	\$524.25	\$541.86	\$550.65



# Administration and Social Planning Section

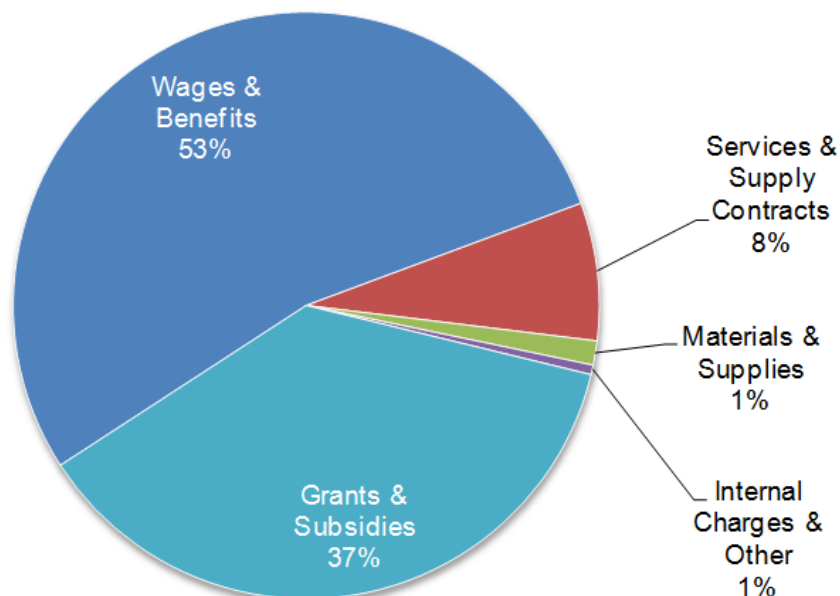
## Description and Level of Services

- Provide leadership and coordination of department activities
- Social planning initiatives that include integration with Police and Fire Services and Emergency Management and implementation of harm reduction and social housing goals for the community

## Annual Operating Expenditures and Revenues

	2014 Actual	2015 Budget	2016 Budget	2017 Budget	2018 Budget	2019 Budget	2020 Budget
<b>EXPENDITURE SUMMARY</b>							
Wages & Benefits	\$302,137	\$305,464	\$321,346	\$327,774	\$334,328	\$341,016	\$347,834
Services & Supply Contracts	16,173	46,855	45,623	45,935	46,254	46,579	46,911
Materials & Supplies	5,836	8,500	7,990	8,150	8,314	8,481	8,649
Internal Charges & Other	1,920	1,920	3,168	3,486	3,834	4,218	4,641
Grants & Subsidies	71,955	222,500	222,500	85,000	85,000	85,000	85,000
Total Expenditures	398,021	585,239	600,627	470,345	477,730	485,294	493,035
Revenues Generated	-	-	-	-	-	-	-
<b>Net Operating Costs</b>	<b>\$398,021</b>	<b>\$585,239</b>	<b>\$600,627</b>	<b>\$470,345</b>	<b>\$477,730</b>	<b>\$485,294</b>	<b>\$493,035</b>
Staffing (FTEs)	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Cost Per Capita	\$4.48	\$6.50	\$6.58	\$5.09	\$5.10	\$5.11	\$5.12

## Annual Operating Expenditures by Type



## Police Services Section

### Description and Level of Service

The City contracts with the RCMP for policing services and the current contract is for 140 members. The City provides the building and support staff for the RCMP. Police Services operates out of the Police Operations Building at 303 Prideaux St.

The RCMP has made “Safe Homes, Safe Communities” its national objective and in conjunction with Council has identified three priorities: Crime Prevention, Youth and Traffic. Each priority has specific strategies/initiatives.

RCMP members are organized into either a proactive unit or reactive unit. Proactive units include Bike Unit, General Investigations Section (GIS), Municipal Traffic

Unit, Youth/School Liaison (SLO) and Community Policing (CPS). Reactive units include General Duty (GD), Serious Crime (SCU), Police Dog Service (PDS) and Forensic Identification Services (FIS).

Municipal support services provide administrative, financial, reception, clerical, custodial and guarding functions.

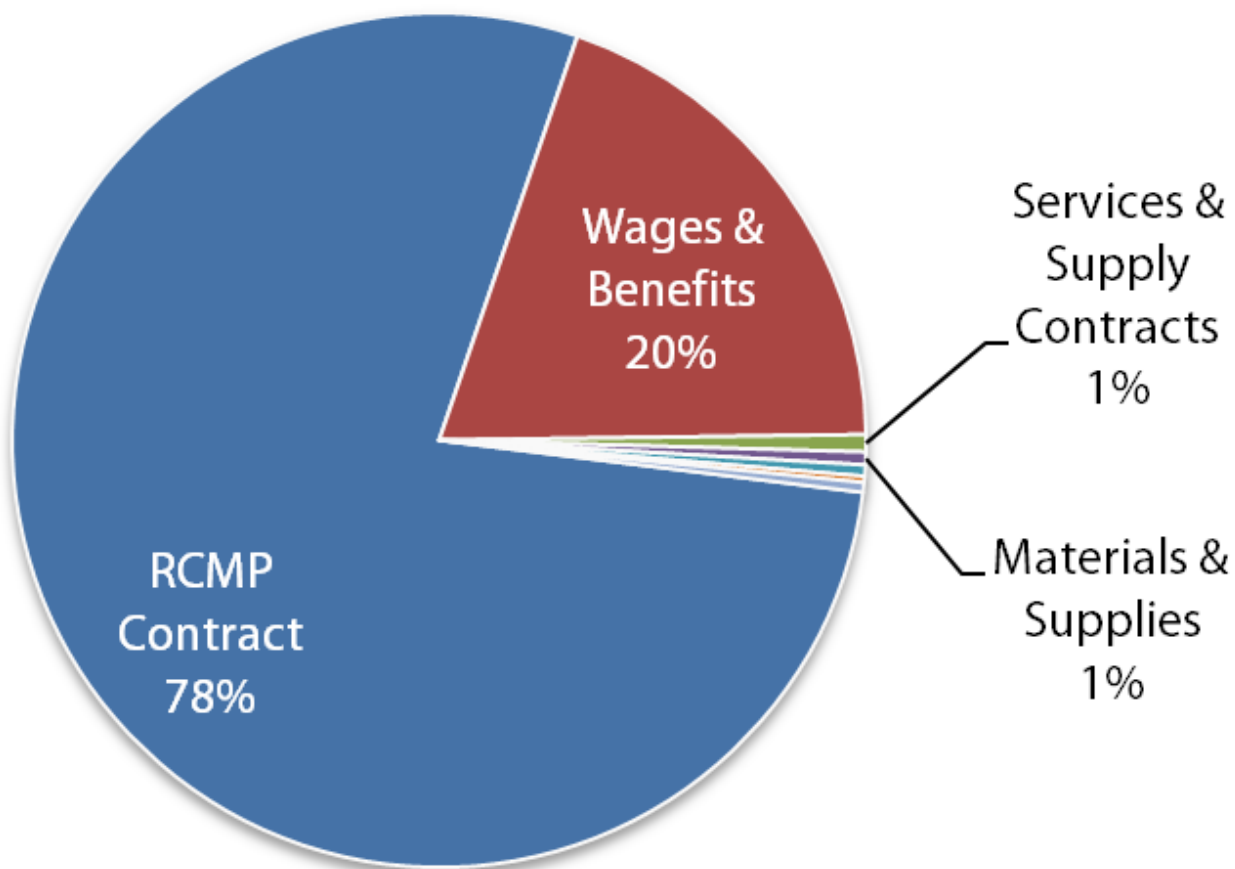
The Financial Plan includes 16 new RCMP members added between 2016 and 2019 and 3 additional municipal support staff added in 2016, 2017 and 2019.



## Annual Expenditures and Revenues

	2014 Actual	2015 Budget	2016 Budget	2017 Budget	2018 Budget	2019 Budget	2020 Budget
<b>EXPENDITURE SUMMARY</b>							
RCMP Contract	\$18,818,176	\$21,230,678	\$22,111,910	\$23,473,501	\$24,759,504	\$26,039,027	\$26,855,142
Wages & Benefits	4,654,897	5,269,623	5,516,350	5,727,305	5,841,850	6,043,586	6,164,457
Services & Supply Contracts	204,682	184,894	184,419	187,972	191,588	195,286	199,058
Materials & Supplies	119,263	126,620	136,820	139,556	142,346	145,189	148,097
Utilities	111,941	114,600	118,720	121,094	123,516	125,987	128,505
Internal Charges & Other	59,305	59,517	66,121	69,297	72,712	76,404	80,404
Grants & Subsidies	103,229	103,229	103,229	103,229	103,229	103,229	103,229
Debt	-	-	-	33,633	616,511	625,330	634,503
Total Expenditures	24,071,493	27,089,161	28,237,569	29,855,587	31,851,256	33,354,038	34,313,395
Revenues Generated	812,652	1,718,297	1,761,963	1,769,582	1,777,278	1,793,918	1,810,986
<b>Net Operating Costs</b>	<b>\$23,258,841</b>	<b>\$25,370,864</b>	<b>\$26,475,606</b>	<b>\$28,086,005</b>	<b>\$30,073,978</b>	<b>\$31,560,120</b>	<b>\$32,502,409</b>
Staffing (FTEs) - Municipal	64.0	63.9	64.9	65.9	65.9	66.9	66.9
Staffing (FTEs) - RCMP	140.0	140.0	144.0	147.0	152.0	156.0	156.0
Cost Per Capita	\$261.72	\$281.71	\$290.10	\$303.67	\$320.87	\$332.28	\$337.68

Revenues include the Provincial Traffic Fine Revenue Sharing Grant and building rental income.



## Fire Services Section

### Description and Level of Service

Nanaimo Fire Rescue provides response to fires, medical and rescue incidents, natural disasters, and provides specialized services such as hazardous materials and technical rescue response. Additionally, community risk reduction is achieved through fire prevention programs and public education.

Four fire stations located throughout the City are operated 24/7 by 81 career firefighters supported by 50 paid on call firefighters. An additional fire station on Protection Island is staffed by on call firefighters.

The department is organized into the following functional areas: Administration, Operations,

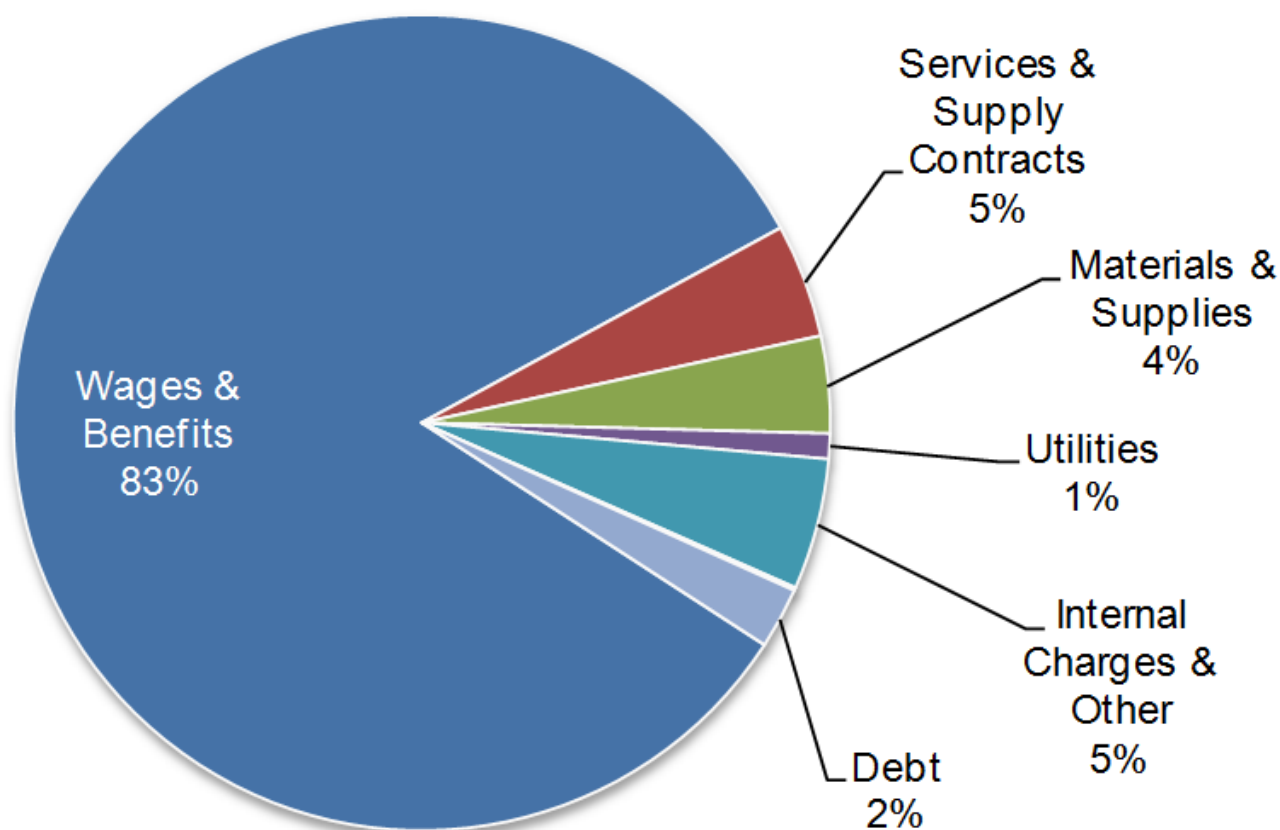
FireComm, Fire and Loss Prevention and Training and Education.

The Financial Plan includes additional staffing, operating and maintenance expenditures for a new fire station starting in 2017. An additional 20 firefighters will staff the new fire station to provide 24/7 coverage and will be phased in during 2017 and 2018.



## Operating Expenditures and Revenues

	2014 Actual	2015 Budget	2016 Budget	2017 Budget	2018 Budget	2019 Budget	2020 Budget
<b>EXPENDITURE SUMMARY</b>							
Wages & Benefits	\$12,294,835	\$11,480,914	\$12,492,321	\$13,103,595	\$14,090,704	\$14,832,653	\$15,320,202
Services & Supply Contracts	629,245	596,667	679,298	669,164	682,284	695,671	709,324
Materials & Supplies	517,617	562,135	579,735	582,250	580,871	604,688	603,250
Utilities	134,709	153,000	150,500	153,510	156,580	159,712	162,906
Internal Charges & Other	560,776	570,178	784,533	796,782	809,566	823,253	837,887
Grants & Subsidies	17,500	17,500	17,500	17,850	18,207	18,571	18,943
Debt	339,463	345,810	364,643	583,465	593,814	604,577	615,769
Total Expenditures	14,494,145	13,726,204	15,068,530	15,906,616	16,932,026	17,739,125	18,268,281
Revenues Generated	434,412	234,031	231,223	252,586	253,241	278,829	280,158
<b>Net Operating Costs</b>	<b>\$14,059,733</b>	<b>\$13,492,173</b>	<b>\$14,837,307</b>	<b>\$15,654,030</b>	<b>\$16,678,785</b>	<b>\$17,460,296</b>	<b>\$17,988,123</b>
Staffing (FTEs)	96.8	95.8	95.8	105.8	115.8	115.8	115.8
Cost Per Capita	\$158.21	\$149.81	\$162.57	\$169.25	\$177.95	\$183.83	\$186.88



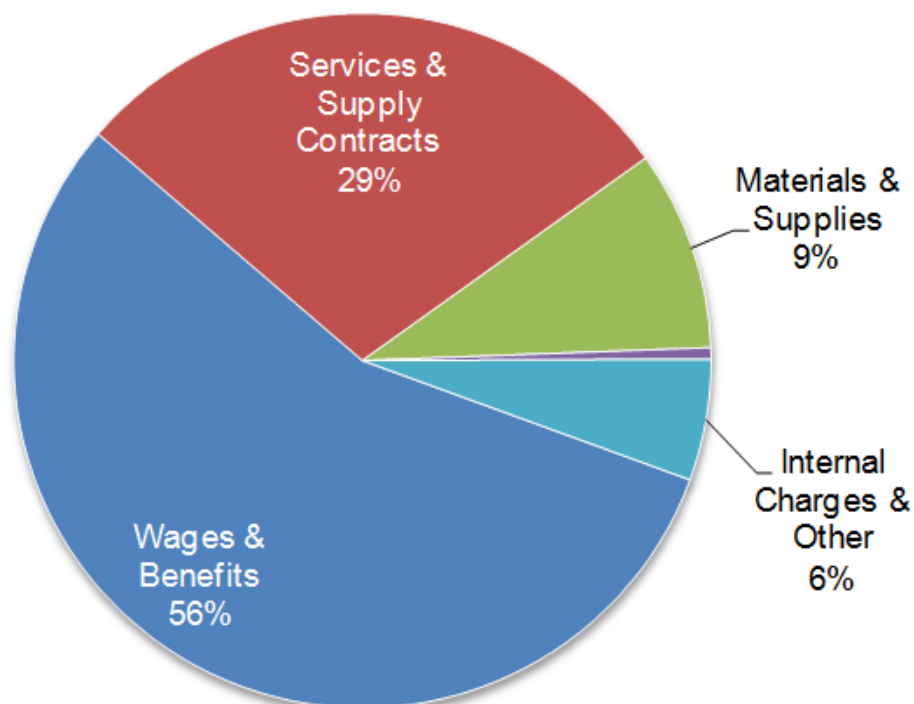
# Emergency Management Section

## Description and Level of Service

Emergency Management develops and supports the City's ability to respond to major emergency and disaster events. The section also provides public education, manages a volunteer program and supports interagency and interdepartmental initiatives.

## Operating Expenditures and Revenues

	2014 Actual	2015 Budget	2016 Budget	2017 Budget	2018 Budget	2019 Budget	2020 Budget
<b>EXPENDITURE SUMMARY</b>							
Wages & Benefits	\$105,660	\$103,270	\$104,743	\$106,838	\$108,974	\$111,154	\$113,377
Services & Supply Contracts	59,137	52,920	54,200	55,284	56,388	57,518	58,667
Materials & Supplies	14,210	16,150	17,450	17,673	17,900	18,131	18,369
Utilities	824	1,000	1,000	1,020	1,040	1,061	1,082
Internal Charges & Other	9,600	9,600	10,560	11,620	12,780	14,060	15,470
Total Expenditures	189,431	182,940	187,953	192,435	197,082	201,924	206,965
Revenues Generated	4,200	-	-	-	-	-	-
<b>Net Operating Costs</b>	<b>\$185,231</b>	<b>\$182,940</b>	<b>\$187,953</b>	<b>\$192,435</b>	<b>\$197,082</b>	<b>\$201,924</b>	<b>\$206,965</b>
Staffing (FTEs)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Cost Per Capita	\$2.08	\$2.03	\$2.06	\$2.08	\$2.10	\$2.13	\$2.15



## 911 Services Section

### Description and Level of Service

911 services are provided through two functions: 911 Public Safety Answering Point (PSAP) and 911 FireComm. The Central Island 911 Partnership manages 911 services for the City of Nanaimo, the Regional District of Nanaimo and the Cowichan Valley Regional District.

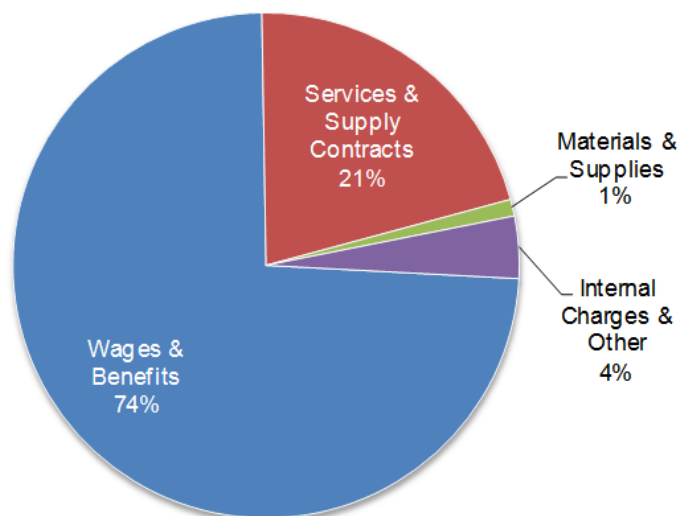
In November 2015, the partnership entered into an agreement with Emergency Communications

of British Columbia Incorporated (EComm 911) to provide PSAP services. This new business model resulted in the reduction of 6.2 FTEs.

Funding for 911 services is a cost share between the City (45%), the Regional District of Nanaimo (10%) and the Cowichan Valley Regional District (45%).

### Operating Expenditures and Revenues

	2014 Actual	2015 Budget	2016 Budget	2017 Budget	2018 Budget	2019 Budget	2020 Budget
<b>EXPENDITURE SUMMARY</b>							
Wages & Benefits	\$1,449,829	\$1,533,750	\$1,085,733	\$1,107,447	\$1,129,597	\$1,152,188	\$1,175,232
Services & Supply Contracts	207,027	220,100	309,420	315,608	321,920	328,358	334,926
Materials & Supplies	16,350	18,510	15,680	15,994	16,313	16,640	16,973
Internal Charges & Other	62,001	63,970	58,382	59,804	61,279	62,812	64,406
<b>Total Expenditures</b>	<b>1,735,207</b>	<b>1,836,330</b>	<b>1,469,215</b>	<b>1,498,853</b>	<b>1,529,109</b>	<b>1,559,998</b>	<b>1,591,537</b>
Revenues Generated	1,084,026	1,139,969	821,819	838,255	855,021	872,121	889,563
<b>Net Operating Costs</b>	<b>\$651,181</b>	<b>\$696,361</b>	<b>\$647,396</b>	<b>\$660,598</b>	<b>\$674,088</b>	<b>\$687,877</b>	<b>\$701,974</b>
Staffing (FTEs)	16.0	16.0	10.0	10.0	10.0	10.0	10.0
Cost Per Capita	\$7.33	\$7.73	\$7.09	\$7.14	\$7.19	\$7.24	\$7.29



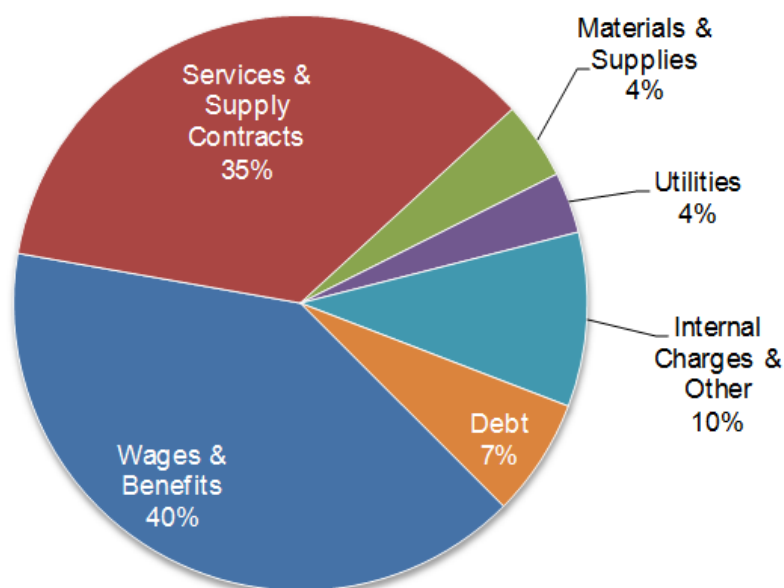
## Bylaw, Regulation and Security Section

### Description and Level of Service

- Bylaw enforcement that includes; property maintenance, noise, traffic and highways, signs
- Liaise with RCMP
- Animal control
- Maintain parking facilities, parking enforcement
- Monitor downtown and parkade security, assist other city departments on security issues

### Operating Expenditures and Revenues

	2014 Actual	2015 Budget	2016 Budget	2017 Budget	2018 Budget	2019 Budget	2020 Budget
<b>EXPENDITURE SUMMARY</b>							
Wages & Benefits	\$998,561	\$1,106,837	\$1,126,513	\$1,149,044	\$1,172,023	\$1,195,465	\$1,219,372
Services & Supply Contracts	965,891	1,099,448	990,722	1,010,539	1,030,747	1,051,360	1,072,389
Materials & Supplies	113,117	134,290	122,450	124,569	126,728	128,935	131,181
Utilities	87,182	84,177	96,230	98,155	100,116	102,121	104,162
Internal Charges & Other	258,837	297,786	275,269	282,009	289,000	296,277	303,857
Debt	185,758	185,758	185,758	185,758	185,758	185,758	185,758
<b>Total Expenditures</b>	<b>2,609,346</b>	<b>2,908,296</b>	<b>2,796,942</b>	<b>2,850,074</b>	<b>2,904,372</b>	<b>2,959,916</b>	<b>3,016,719</b>
Revenues Generated	1,917,992	1,865,748	1,833,150	1,851,483	1,869,994	1,888,696	1,907,587
<b>Net Operating Costs</b>	<b>\$691,354</b>	<b>\$1,042,548</b>	<b>\$963,792</b>	<b>\$998,591</b>	<b>\$1,034,378</b>	<b>\$1,071,220</b>	<b>\$1,109,132</b>
Staffing (FTEs)	14.0	13.0	13.0	13.0	13.0	13.0	13.0
Cost Per Capita	\$7.78	\$11.58	\$10.56	\$10.80	\$11.04	\$11.28	\$11.52



# Parks, Recreation and Environment Department

## Overview

The Parks, Recreation and Environment department delivers a wide range of services to the community. The department operates and maintains many facilities, parks and amenities used by residents and local organizations for recreation, wellness and community events.

The department delivers services at three community centres: Beban Centre, Bowen Centre and Oliver Woods Community Centre. Beban Centre also includes Beban Pool with four pools, Frank Crane Arena and Cliff McNabb Arena. The department also manages the Nanaimo Aquatic Centre located on Third Avenue that has three pools, the Nanaimo Ice Centre, also located on Third Avenue with two ice rinks and many parks and sports fields.

The department is organized into the following sections:

- Administration and Environment
- Recreation Operations
- Arena Operations
- Aquatic Operations
- Parks Operations
- Facility Planning and Operations
- Community Development
- PR&E Civic Properties

## Proposed Initiatives for 2016

- Fees and charges review
- Initiate Linley Valley Park planning process
- Replacement of the registration and point of sale system
- Caledonia Park/Curling Club parking lot renewal
- Parkway Trail - Doumont Connector (Jenkins Rd with Parkway Trail) and trail surface rehab
- Jingle Pot West Marsh Management Plan

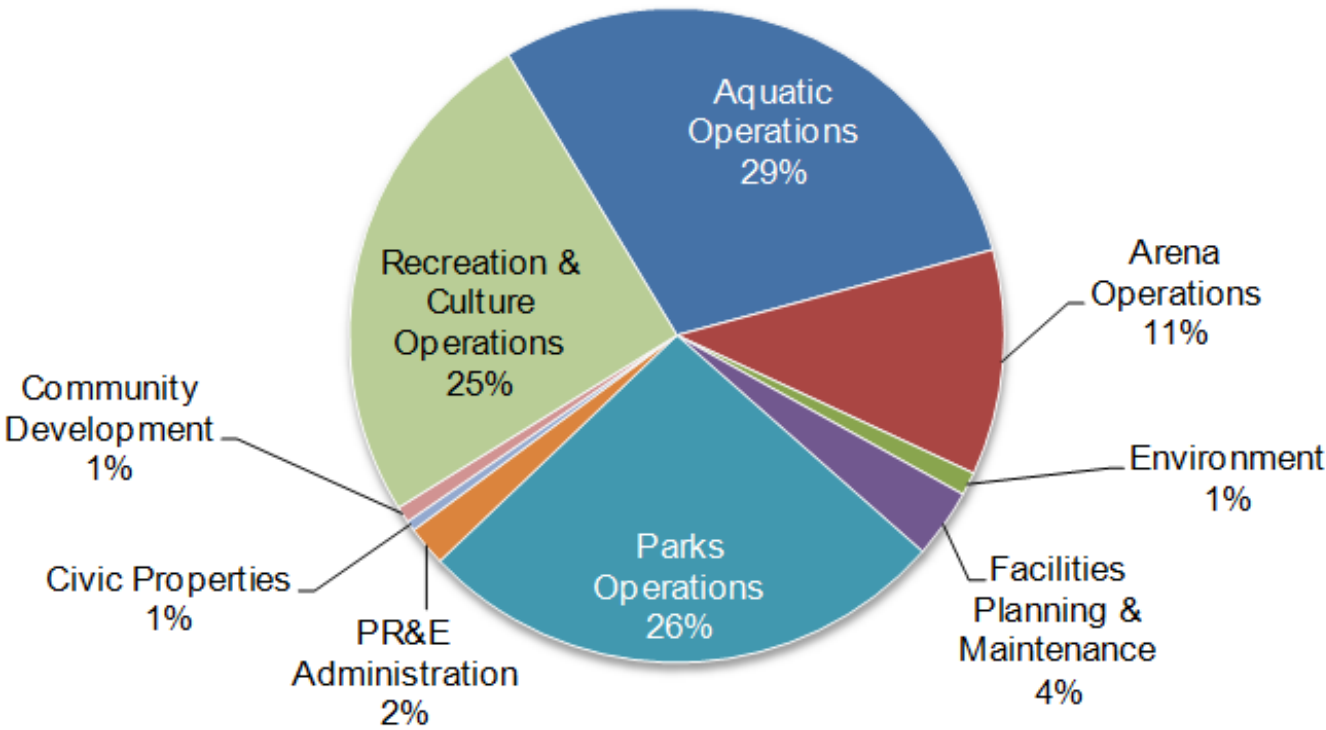


## Operating Expenditures and Revenues by Section

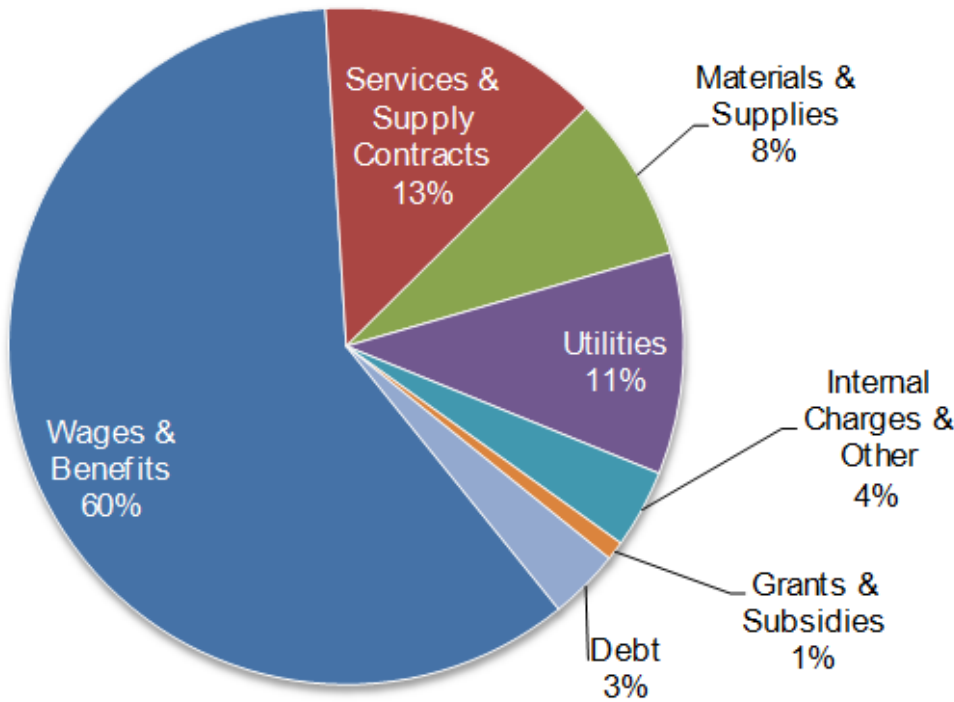
	2014 Actual	2015 Budget	2016 Budget	2017 Budget	2018 Budget	2019 Budget	2020 Budget
<b>REVENUES GENERATED</b>							
Aquatic Operations	\$2,644,721	\$2,655,687	\$2,696,283	\$2,744,973	\$2,795,001	\$2,846,414	\$2,899,269
Arena Operations	1,442,102	1,391,100	1,415,764	1,429,922	1,444,222	1,458,664	1,473,249
Environment	3,961	-	-	-	-	-	-
Facilities Planning & Maintenance	130,780	67,700	82,920	83,749	84,587	85,433	86,286
Parks Operations	1,402,577	238,905	198,650	200,637	202,642	204,668	206,716
PR&E Administration	47,842	46,000	45,000	45,450	45,905	46,364	46,827
Civic Properties	127,579	120,427	127,878	128,917	129,966	131,026	132,096
Community Development	1,035,396	1,039,101	1,039,101	1,039,101	1,039,101	1,039,101	1,039,101
Recreation & Culture Operations	2,305,593	2,250,583	2,353,978	2,377,520	2,401,289	2,425,307	2,449,559
<b>Revenues Total</b>	<b>\$9,140,551</b>	<b>\$7,809,503</b>	<b>\$7,959,574</b>	<b>\$8,050,269</b>	<b>\$8,142,713</b>	<b>\$8,236,977</b>	<b>\$8,333,103</b>
<b>EXPENDITURES</b>							
Aquatic Operations	\$5,947,564	\$6,128,717	\$6,256,323	\$6,386,666	\$6,524,811	\$6,666,350	\$6,764,136
Arena Operations	2,166,901	2,199,929	2,371,170	2,418,538	2,466,843	2,516,123	2,566,384
Environment	213,963	230,649	243,699	248,813	254,047	259,423	264,936
Facilities Planning & Maintenance	546,623	673,840	726,547	740,912	755,596	770,617	785,974
Parks Operations	5,675,665	5,463,737	5,615,529	5,728,914	5,844,669	5,962,903	6,083,657
PR&E Administration	433,334	423,235	421,826	430,261	438,863	447,645	456,596
Civic Properties	100,670	105,412	106,774	108,795	110,854	112,955	115,099
Community Development	220,610	168,300	172,500	172,812	173,130	173,455	173,786
Recreation & Culture Operations	5,375,935	5,366,095	5,366,117	5,477,931	5,592,554	5,710,593	5,830,885
<b>Annual Operating Expenditures</b>	<b>\$20,681,265</b>	<b>\$20,759,914</b>	<b>\$21,280,485</b>	<b>\$21,713,642</b>	<b>\$22,161,367</b>	<b>\$22,620,064</b>	<b>\$23,041,453</b>
<b>Net Operating Expenditures</b>	<b>\$11,540,714</b>	<b>\$12,950,411</b>	<b>\$13,320,911</b>	<b>\$13,663,373</b>	<b>\$14,018,654</b>	<b>\$14,383,087</b>	<b>\$14,708,350</b>
Staffing (FTEs)	129.9	129.8	130.5	130.5	130.5	130.5	130.5
Cost Per Capita	\$129.86	\$143.80	\$145.96	\$147.73	\$149.57	\$151.43	\$152.81

Operating expenditures exclude transfers to the Facility Development Reserve (Appendix A). Annual transfers to the Facility Development Reserve are approximately \$1 million.

Operating Expenditures by Section



Operating Expenditures by Type



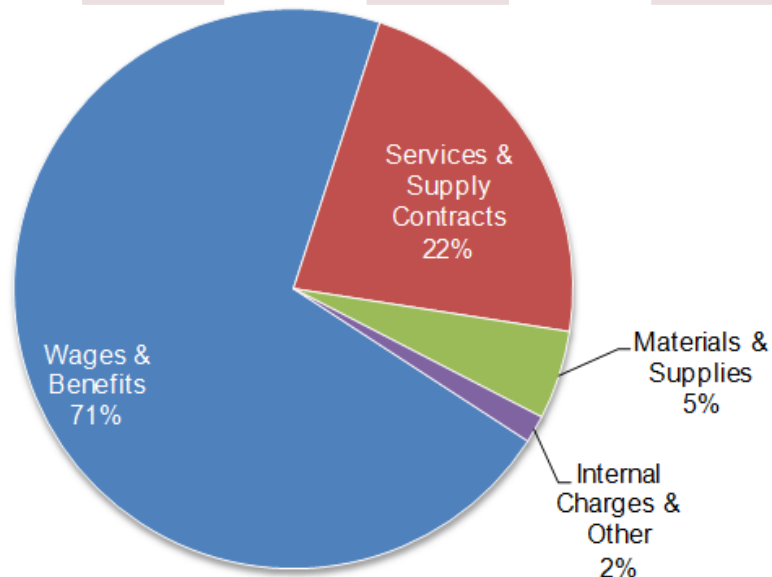
## Administration and Environment Sections

### Description and Level of Service

- Leadership and direction for the department
- Develop policies and programs that support achievement of the vision, goals and objectives identified by the community in the City's Parks, Recreation and Culture Master Plan (2005), Trail Implementation Plan (2007) and through other planning processes
- Marketing and promotion of programs and services
- Environmental protections

### Annual Operating Expenditures and Revenues

	2014 Actual	2015 Budget	2016 Budget	2017 Budget	2018 Budget	2019 Budget	2020 Budget
<b>EXPENDITURE SUMMARY</b>							
Wages & Benefits	\$495,121	\$476,500	\$471,446	\$480,874	\$490,490	\$500,302	\$510,309
Services & Supply Contracts	108,835	135,950	149,406	152,394	155,439	158,550	161,723
Materials & Supplies	40,032	32,530	34,125	34,792	35,469	36,166	36,871
Internal Charges & Other	3,309	8,904	10,548	11,014	11,512	12,050	12,629
Total Expenditures	647,297	653,884	665,525	679,074	692,910	707,068	721,532
Revenues Generated	51,803	46,000	45,000	45,450	45,905	46,364	46,827
<b>Net Operating Costs</b>	<b>\$595,494</b>	<b>\$607,884</b>	<b>\$620,525</b>	<b>\$633,624</b>	<b>\$647,005</b>	<b>\$660,704</b>	<b>\$674,705</b>
Staffing (FTEs)	6.0	4.0	4.0	4.0	4.0	4.0	4.0
Cost Per Capita	\$6.70	\$6.75	\$6.80	\$6.85	\$6.90	\$6.96	\$7.01



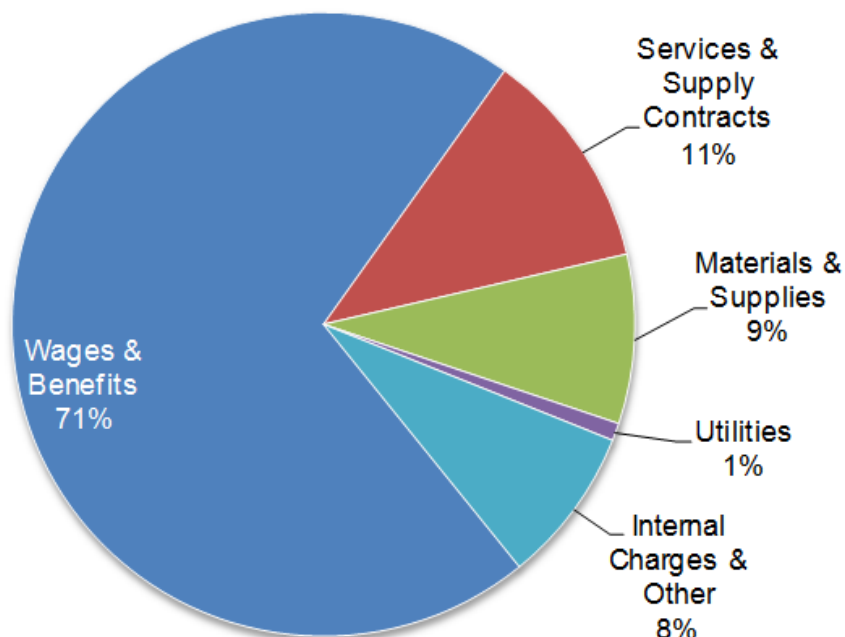
# Facilities Planning and Operations Section

## Description and Level of Service

- Manage life cycle planning, asset management, capital planning and energy conservation initiatives for all city buildings
- Risk management

## Annual Operating Expenditures and Revenues

	2014 Actual	2015 Budget	2016 Budget	2017 Budget	2018 Budget	2019 Budget	2020 Budget
<b>EXPENDITURE SUMMARY</b>							
Wages & Benefits	\$414,817	\$512,817	\$513,828	\$524,103	\$534,586	\$545,278	\$556,186
Services & Supply Contracts	85,753	89,600	83,543	85,214	86,917	88,656	90,429
Materials & Supplies	38,094	59,383	63,715	64,485	65,271	66,074	66,887
Utilities	4,437	5,200	6,585	6,717	6,851	6,988	7,128
Internal Charges & Other	3,522	6,840	58,876	60,393	61,971	63,621	65,344
Total Expenditures	546,623	673,840	726,547	740,912	755,596	770,617	785,974
Revenues Generated	130,780	67,700	82,920	83,749	84,587	85,433	86,286
<b>Net Operating Costs</b>	<b>\$415,843</b>	<b>\$606,140</b>	<b>\$643,627</b>	<b>\$657,163</b>	<b>\$671,009</b>	<b>\$685,184</b>	<b>\$699,688</b>
Staffing (FTEs)	-	4.5	4.5	4.5	4.5	4.5	4.5
Cost Per Capita	\$4.68	\$6.73	\$7.05	\$7.11	\$7.16	\$7.21	\$7.27



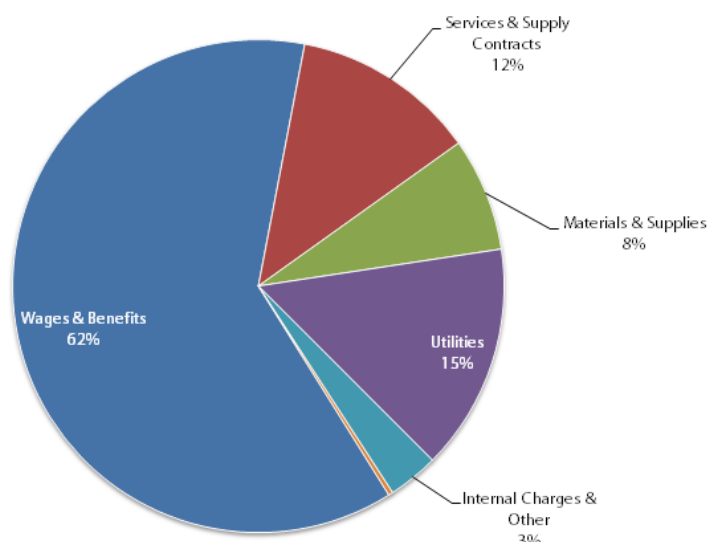
# Recreation Operations Section

## Description and Level of Service

- Services provided at Beban Social Centre, Bowen Centre, Oliver Woods Community Centre and the Centennial Building (Beban Campus)
- Provide program registration
- Provide recreation, wellness, leadership and cultural programs to a wide range of users
- Provide rental space for user groups/organizations
- Provide custodial and maintenance for facilities

## Annual Operating Expenditures and Revenues

	2014 Actual	2015 Budget	2016 Budget	2017 Budget	2018 Budget	2019 Budget	2020 Budget
<b>EXPENDITURE SUMMARY</b>							
Wages & Benefits	\$3,529,287	\$3,447,568	\$3,321,775	\$3,388,211	\$3,455,977	\$3,525,094	\$3,595,592
Services & Supply Contracts	625,610	572,142	650,083	663,089	676,342	689,870	703,663
Materials & Supplies	329,981	436,871	400,593	408,353	416,259	424,336	432,563
Utilities	686,458	700,250	799,750	815,745	832,060	848,700	865,676
Internal Charges & Other	199,979	194,064	178,716	187,029	196,102	206,463	216,939
Grants & Subsidies	4,619	15,200	15,200	15,504	15,814	16,130	16,452
<b>Total Expenditures</b>	<b>5,375,934</b>	<b>5,366,095</b>	<b>5,366,117</b>	<b>5,477,931</b>	<b>5,592,554</b>	<b>5,710,593</b>	<b>5,830,885</b>
Revenues Generated	2,305,593	2,250,583	2,353,978	2,377,520	2,401,289	2,425,307	2,449,559
<b>Net Operating Costs</b>	<b>\$3,070,341</b>	<b>\$3,115,512</b>	<b>\$3,012,139</b>	<b>\$3,100,411</b>	<b>\$3,191,265</b>	<b>\$3,285,286</b>	<b>\$3,381,326</b>
Staffing (FTEs)	31.0	28.8	37.8	37.8	37.8	37.8	37.8
Cost Per Capita	\$34.55	\$34.59	\$33.00	\$33.52	\$34.05	\$34.59	\$35.13



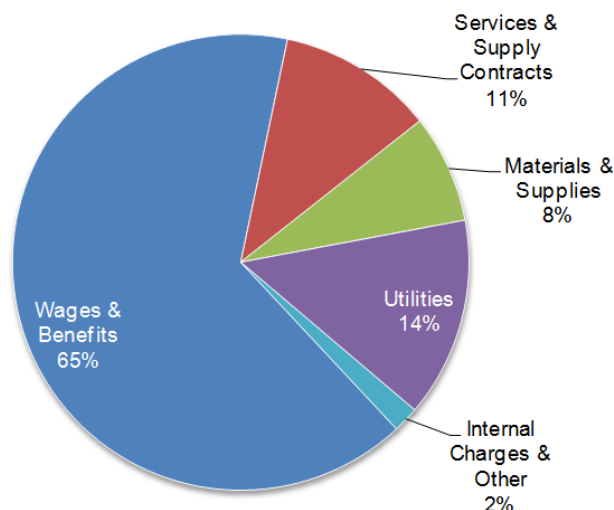
# Arena Operations Section

## Description and Level of Service

- Services provided at Cliff McNabb Arena and Frank Crane Arena (both Beban Campus) and at the Nanaimo Ice Centre
- Provide public skating and skating lesson programs
- Provide ice rentals to user groups/organizations, including hockey teams/clubs
- Provide seasonal dry floor rentals to user groups/organizations including lacrosse teams
- Provide custodial and maintenance for arena facilities

## Annual Operating Expenditures and Revenues

	2014 Actual	2015 Budget	2016 Budget	2017 Budget	2018 Budget	2019 Budget	2020 Budget
<b>EXPENDITURE SUMMARY</b>							
Wages & Benefits	\$1,432,335	\$1,439,511	\$1,546,752	\$1,577,688	\$1,609,239	\$1,641,425	\$1,674,253
Services & Supply Contracts	258,904	205,550	262,430	267,679	273,028	278,489	284,058
Materials & Supplies	121,863	175,050	182,206	185,820	189,504	193,262	197,094
Utilities	321,207	326,000	336,200	342,924	349,783	356,778	363,914
Internal Charges & Other	32,592	53,818	43,582	44,427	45,289	46,169	47,065
<b>Total Expenditures</b>	<b>2,166,901</b>	<b>2,199,929</b>	<b>2,371,170</b>	<b>2,418,538</b>	<b>2,466,843</b>	<b>2,516,123</b>	<b>2,566,384</b>
Revenues Generated	1,442,102	1,391,100	1,415,764	1,429,922	1,444,222	1,458,664	1,473,249
<b>Net Operating Costs</b>	<b>\$724,799</b>	<b>\$808,829</b>	<b>\$955,406</b>	<b>\$988,616</b>	<b>\$1,022,621</b>	<b>\$1,057,459</b>	<b>\$1,093,135</b>
Staffing (FTEs)	13.2	13.2	13.7	13.7	13.7	13.7	13.7
Cost Per Capita	\$8.16	\$8.98	\$10.47	\$10.69	\$10.91	\$11.13	\$11.36



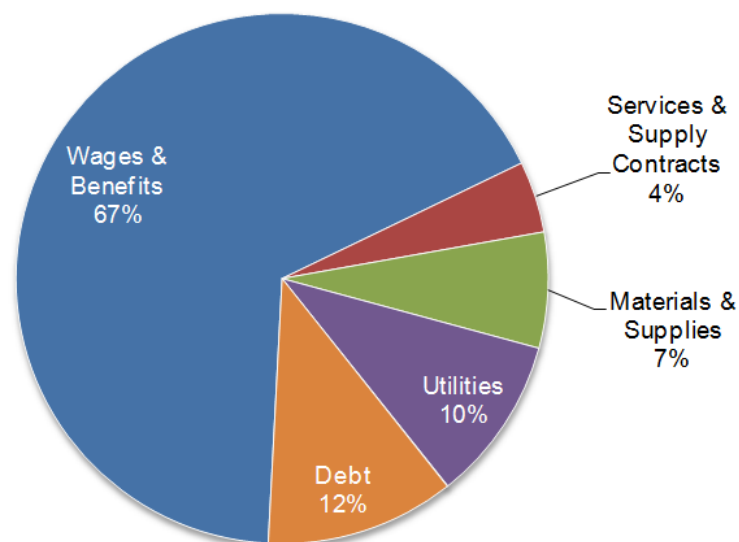
## Aquatic Operations Section

### Description and Level of Service

- Services provided at Beban Pool (Beban Campus), Nanaimo Aquatic Centre and at Westwood Lake (summer only)
- Provide public swimming, swimming lesson and wellness programs
- Provide pool rentals to user groups/organizations, including swim meets
- Provide custodial and maintenance for aquatic facilities and gym facilities

### Annual Operating Expenditures and Revenues

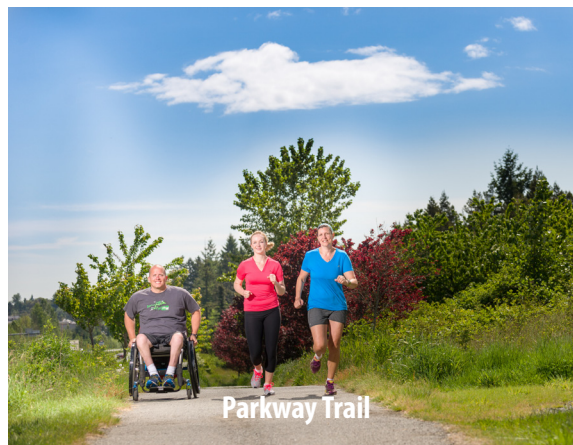
	2014 Actual	2015 Budget	2016 Budget	2017 Budget	2018 Budget	2019 Budget	2020 Budget
<b>EXPENDITURE SUMMARY</b>							
Wages & Benefits	\$3,856,117	\$4,168,174	\$4,190,978	\$4,274,796	\$4,360,295	\$4,447,498	\$4,536,448
Services & Supply Contracts	283,363	247,232	272,616	278,069	283,629	289,299	295,085
Materials & Supplies	410,372	415,598	441,490	445,713	454,608	463,686	472,943
Utilities	653,516	601,800	630,000	642,600	655,452	668,561	681,933
Internal Charges & Other	5,899	2,118	2,150	2,167	2,184	2,201	2,219
Debt	738,298	693,795	719,089	743,321	768,643	795,105	775,508
<b>Total Expenditures</b>	<b>5,947,565</b>	<b>6,128,717</b>	<b>6,256,323</b>	<b>6,386,666</b>	<b>6,524,811</b>	<b>6,666,350</b>	<b>6,764,136</b>
Revenues Generated	2,644,721	2,655,687	2,696,283	2,744,973	2,795,001	2,846,414	2,899,269
<b>Net Operating Costs</b>	<b>\$3,302,844</b>	<b>\$3,473,030</b>	<b>\$3,560,040</b>	<b>\$3,641,693</b>	<b>\$3,729,810</b>	<b>\$3,819,936</b>	<b>\$3,864,867</b>
Staffing (FTEs)	47.0	47.5	37.9	37.9	37.9	37.9	37.9
Cost Per Capita	\$37.17	\$38.56	\$39.01	\$39.37	\$39.79	\$40.22	\$40.15



# Parks Operations Section

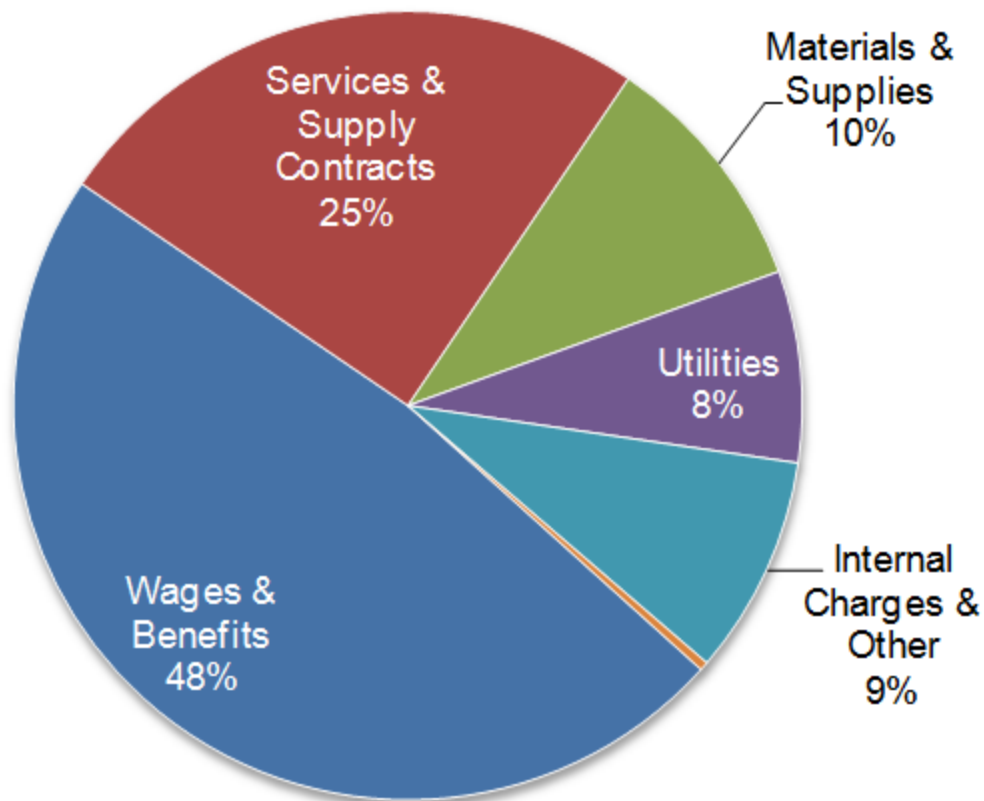
## Description and Level of Service

- Maintain
  - 13 City destination parks and over 90 neighbourhood parks
  - 26 sports fields, including 2 artificial turf fields and 30 baseball diamonds
  - approximately 140 kilometres of trails
  - 631 hectares of parkland
  - 65 playgrounds
  - 2 outdoor amphitheatres
  - 12 dog off-leash parks
- Maintain horticulture areas, including planting beds, planters and trees
- Develop parks and open space plans, including consultation with users
- Provide facility maintenance



## Annual Operating Expenditures and Revenues

	2014 Actual	2015 Budget	2016 Budget	2017 Budget	2018 Budget	2019 Budget	2020 Budget
<b>EXPENDITURE SUMMARY</b>							
Wages & Benefits	\$2,598,057	\$2,635,134	\$2,686,433	\$2,740,193	\$2,795,025	\$2,850,959	\$2,908,009
Services & Supply Contracts	1,631,687	1,448,596	1,400,566	1,428,578	1,457,139	1,486,281	1,516,015
Materials & Supplies	600,315	559,260	563,425	574,506	585,807	597,337	609,092
Utilities	366,646	371,915	440,625	449,438	458,426	467,595	476,948
Internal Charges & Other	474,361	443,232	504,880	516,207	527,880	539,931	552,378
Grants & Subsidies	4,600	5,600	19,600	19,992	20,392	20,800	21,215
Total Expenditures	5,675,666	5,463,737	5,615,529	5,728,914	5,844,669	5,962,903	6,083,657
Revenues Generated	1,402,577	238,905	198,650	200,637	202,642	204,668	206,716
<b>Net Operating Costs</b>	<b>\$4,273,089</b>	<b>\$5,224,832</b>	<b>\$5,416,879</b>	<b>\$5,528,277</b>	<b>\$5,642,027</b>	<b>\$5,758,235</b>	<b>\$5,876,941</b>
Staffing (FTEs)	32.7	31.8	32.7	32.7	32.7	32.7	32.7
Cost Per Capita	\$48.08	\$58.02	\$59.35	\$59.77	\$60.20	\$60.63	\$61.06



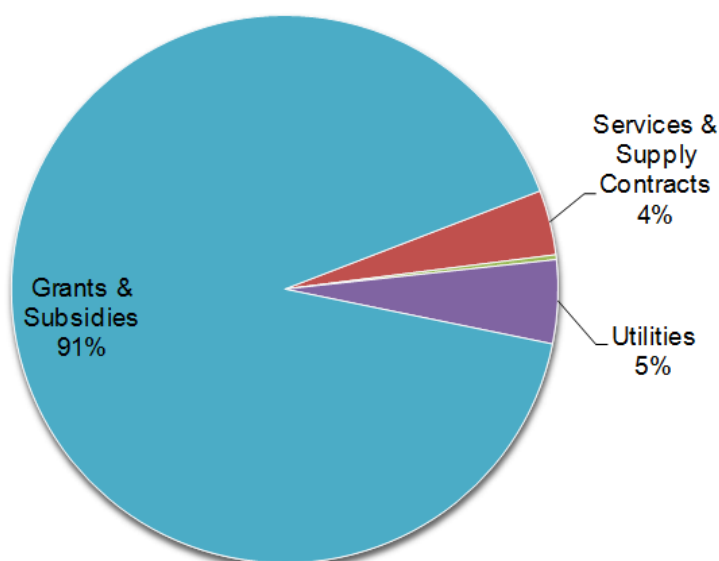
## PR&E - Community Development Section

### Description and Level of Service

- Support community organizations through grant programs, including travel grants, sport tournament grants and an agreement with McGirr Sports Society for the management of McGirr Sports Field
- Operate Live Site screen located in Diana Krall Plaza
- Revenues in this section is annual funding received by the City from the RDN that allows access to sports fields and recreational facilities for users that reside outside the City of Nanaimo but within the boundaries of the Regional District of Nanaimo

### Annual Operating Expenditures and Revenues

	2014 Actual	2015 Budget	2016 Budget	2017 Budget	2018 Budget	2019 Budget	2020 Budget
<b>EXPENDITURE SUMMARY</b>							
Wages	\$2,243	\$-	\$-	\$-	\$-	\$-	\$-
Services & Supply Contracts	10,318	6,600	6,600	6,732	6,867	7,004	7,144
Materials & Supplies	1,194	500	500	510	520	531	541
Utilities	7,355	6,700	8,500	8,670	8,843	9,020	9,201
Grants & Subsidies	199,500	154,500	156,900	156,900	156,900	156,900	156,900
Total Expenditures	220,610	168,300	172,500	172,812	173,130	173,455	173,786
Revenues Generated	1,035,396	1,039,101	1,039,101	1,039,101	1,039,101	1,039,101	1,039,101
<b>Net Operating Revenues</b>	<b>\$814,786</b>	<b>\$870,801</b>	<b>\$866,601</b>	<b>\$866,289</b>	<b>\$865,971</b>	<b>\$865,646</b>	<b>\$865,315</b>
Staffing (FTEs)	-	-	-	-	-	-	-
Net Revenues Per Capita	\$9.17	\$9.67	\$9.50	\$9.37	\$9.24	\$9.11	\$8.99



# Culture and Heritage

## Description and Level of Service

The Culture and Heritage department was created in late 2013 as a result of the City's re-organization and brings together staff and programs that support culture and heritage initiatives.

Guided by the recently released Cultural Plan for a Creative Nanaimo (2014) and by the Heritage

Conservation Program (2002), the department's role is to facilitate initiatives that celebrate and contribute to Nanaimo's culture and heritage.

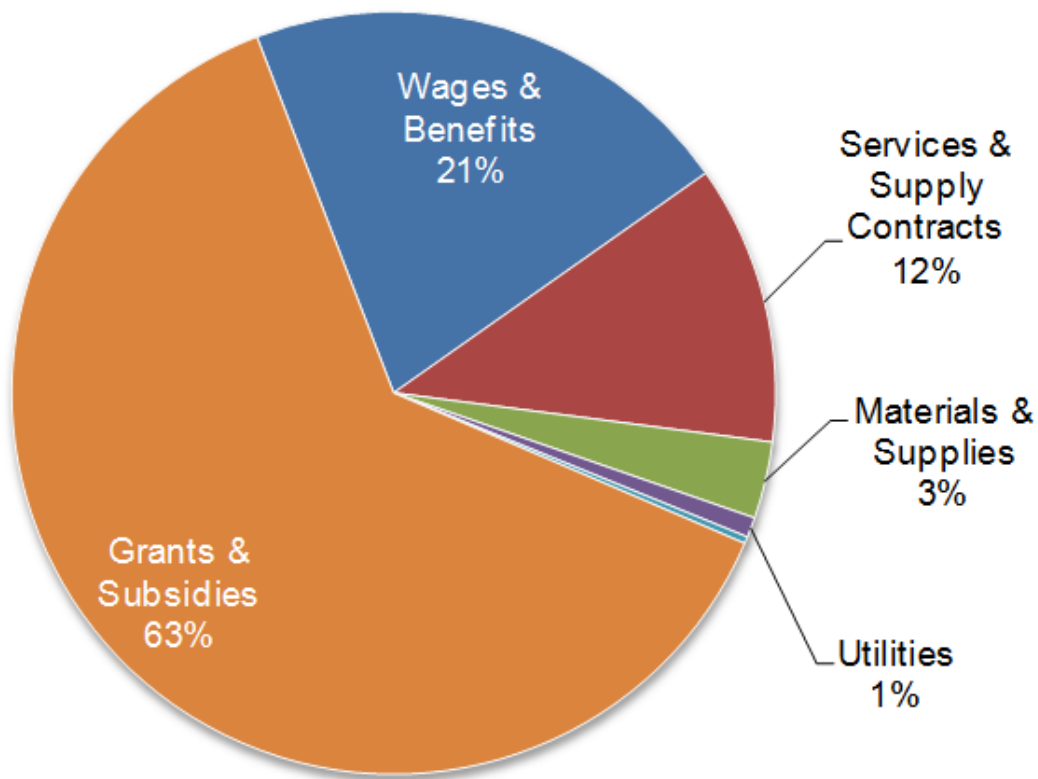
### Proposed Initiatives for 2016

- City wide archeological assessment
- Continue implementing the goals and objectives of the 2014-2020 Cultural Plan for a Creative Environment
- Continue developing and creating new opportunities to foster collaborative working relationships with the community and cultural partners
- Continue to raise awareness of community culture and heritage values and priorities
- Further develop internal engagement awareness and process to ensure ongoing meaningful dialogue with residents
- Continue working with the Port Theatre Society to develop the Community Performing Arts Centre
- Participate in the planning of the Canada 150 Celebrations as part of the Canada 150 Steering Committee
- Completion of updated Heritage Conservation Program
- Development of Engagement Framework and Engagement Tool Kit
- Improved interpretive and way finding methodology through multi-medium applications
- Evaluation and expansion of social media presence for engagement and education opportunities and special events
- Exploration of a collaborative framework for the culture and heritage sector



## Annual Operating Expenditures and Revenues

	2014 Actual	2015 Budget	2016 Budget	2017 Budget	2018 Budget	2019 Budget	2020 Budget
<b>EXPENDITURE SUMMARY</b>							
Wages & Benefits	428,063	434,502	439,223	448,008	456,968	466,108	475,430
Services & Supply Contracts	164,637	163,100	246,950	251,869	256,886	262,002	267,223
Materials & Supplies	47,996	69,330	67,905	69,137	70,392	71,676	72,985
Utilities	15,108	20,200	17,700	18,054	18,415	18,783	19,160
Internal Charges & Other	4,841	5,300	6,048	6,593	7,189	7,845	8,566
Grants & Subsidies	1,178,590	1,342,627	1,308,054	1,349,755	1,374,011	1,399,047	1,420,465
<b>Total Expenditures</b>	<b>1,839,235</b>	<b>2,035,059</b>	<b>2,085,880</b>	<b>2,143,416</b>	<b>2,183,861</b>	<b>2,225,461</b>	<b>2,263,829</b>
Revenues Generated	33,657	46,950	46,500	46,965	47,435	47,909	48,388
<b>Net Operating Costs</b>	<b>\$1,805,578</b>	<b>\$1,988,109</b>	<b>\$2,039,380</b>	<b>\$2,096,451</b>	<b>\$2,136,426</b>	<b>\$2,177,552</b>	<b>\$2,215,441</b>
Staffing (FTEs)	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Cost Per Capita	\$20.32	\$22.08	\$22.35	\$22.67	\$22.79	\$22.93	\$23.02



# Engineering and Public Works Department

## Overview

Engineering and Public Works provides and maintains a number of essential municipal services and infrastructure including roads, drainage, water, sanitary sewer, solid waste collection and management of the City's fleet.

The Sanitary Sewer Utility is an essential service provided to residents and businesses for the collection of liquid wastes. Sanitary Sewer services are self-financing through user fees. Sanitary sewer treatment is provided by the Regional District of Nanaimo.

The Waterworks Utility is an essential service that provides residents and businesses a supply of high quality, potable water, and at flows and pressures suitable for fire protection. Water services are self-financing through user fees.

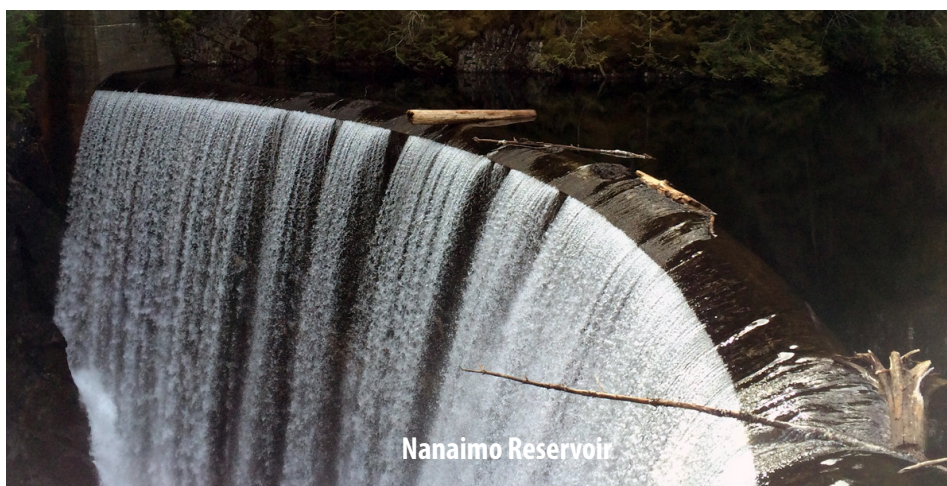
Water infrastructure includes dams, reservoirs, water treatment facilities, supply and distribution mains, and pump and pressure reducing stations.

The new Water Treatment Plant will be fully operational in 2016. The 2016 operating budget includes the first full year operating and maintenance expenses.

The Engineering and Public Works department is organized into the following sections:

The Engineering and Public Works department is organized into the following sections:

- Administration and Support Services
- Engineering Services
- Transportation (operations)
- Drainage
- Sanitation, Recycling and Cemeteries
- Fleet
- Water
- Sanitary Sewer



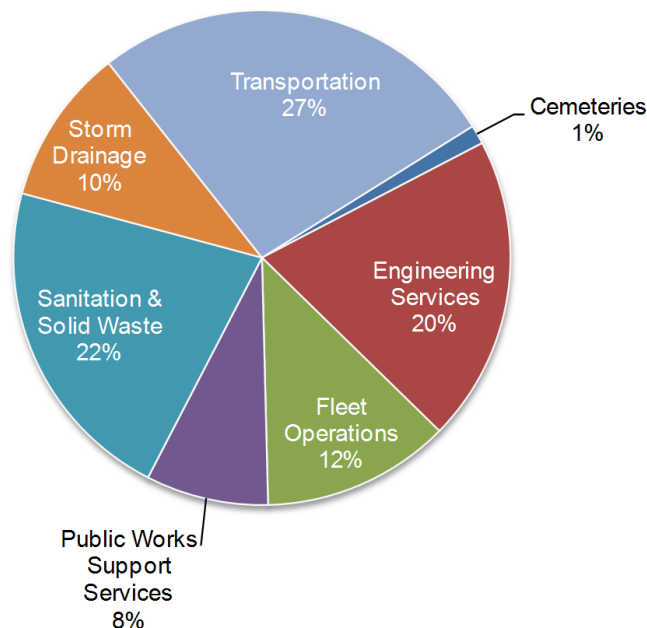
## Proposed Initiatives for 2016

- Complete Asset Management Update
- Road, drainage, sewer and water infrastructure renewal programs
- Cycling amenities on Bruce, Second Street, Townsite/Holly Ave Area
- Pedestrian amenities, including countdown timers, flashers, at several intersections and new sidewalks
- Drainage capacity upgrade, Victoria Rd – Needham to Rainer
- Sanitary sewer capacity upgrade, Millstone Truck – Jingle Pot North
- Duplicate supply main, #1 Reservoir to College Park
- Implementation of a Cross Connection Control Program
- Engineering Standards Update
- Seismic Standards Development and Implementation
- Engineering Assurance Procedure Development
- Asset Management (LAMP) Phase 1 & 2 (Service Levels)

## Operating Expenditures and Revenues by Section (excluding Sanitary Sewer and Water Utilities)

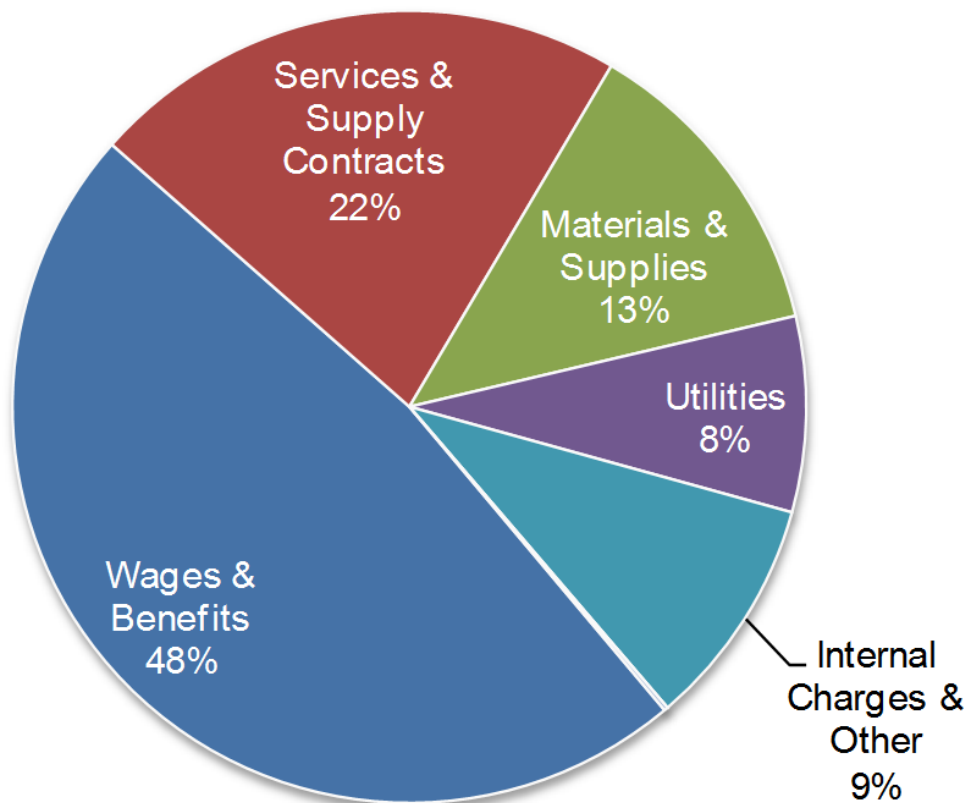
	2014 Actual	2015 Budget	2016 Budget	2017 Budget	2018 Budget	2019 Budget	2020 Budget
<b>REVENUES GENERATED</b>							
Cemeteries	\$86,106	\$61,500	\$69,900	\$70,599	\$71,305	\$72,018	\$72,738
Engineering Services	9,931	19,000	14,600	14,746	14,893	15,042	15,192
Fleet Operations	24,008	-	-	-	-	-	-
Public Works Support Services	785,545	424,200	424,000	432,240	440,642	449,210	457,947
Sanitation & Solid Waste	3,409,237	3,751,023	3,799,213	3,871,120	3,949,931	4,035,659	4,114,742
Storm Drainage	5,098	48,265	48,265	48,760	49,261	49,766	50,277
Transportation	84,027	72,088	48,784	49,272	57,825	66,704	75,924
<b>Revenues Total</b>	<b>\$4,403,952</b>	<b>\$4,376,076</b>	<b>\$4,404,762</b>	<b>\$4,486,737</b>	<b>\$4,583,857</b>	<b>\$4,688,399</b>	<b>\$4,786,820</b>
<b>EXPENDITURES</b>							
Cemeteries	\$220,494	\$244,565	\$245,264	\$250,170	\$255,171	\$260,274	\$265,480
Engineering Services	3,697,266	4,193,116	3,936,813	3,969,022	4,051,957	4,136,985	4,224,171
Fleet Operations	2,313,465	2,410,842	2,423,537	2,472,416	2,522,761	2,573,746	2,625,757
Public Works Support Services	1,964,751	1,557,839	1,577,814	1,609,938	1,642,774	1,676,361	1,710,710
Sanitation & Solid Waste	3,951,380	4,267,726	4,253,998	4,339,795	4,427,535	4,517,272	4,608,733
Storm Drainage	1,952,961	2,003,833	2,012,527	2,053,201	2,094,721	2,137,131	2,180,436
Transportation	4,893,226	5,189,059	5,271,587	5,906,892	6,022,477	6,140,624	6,261,357
<b>Annual Operating Expenditures</b>	<b>\$18,993,543</b>	<b>\$19,866,980</b>	<b>\$19,721,540</b>	<b>\$20,601,434</b>	<b>\$21,017,396</b>	<b>\$21,442,393</b>	<b>\$21,876,644</b>
<b>Net Operating Expenditures</b>	<b>\$14,589,591</b>	<b>\$15,490,904</b>	<b>\$15,316,778</b>	<b>\$16,114,697</b>	<b>\$16,433,539</b>	<b>\$16,753,994</b>	<b>\$17,089,824</b>
Staffing (FTEs)	113.8	112.8	109.8	109.8	109.8	109.8	109.8
Cost Per Capita	\$164.17	\$172.01	\$167.83	\$174.24	\$175.34	\$176.39	\$177.55

## Operating Expenditures by Section (excluding Sanitary Sewer and Water Utilities)



## Operating Expenditures by Type

	2014 Actual	2015 Budget	2016 Budget	2017 Budget	2018 Budget	2019 Budget	2020 Budget
<b>EXPENDITURE SUMMARY</b>							
Wages & Benefits	\$9,004,752	\$9,720,014	\$9,392,437	\$9,533,734	\$9,725,045	\$9,920,195	\$10,119,236
Services & Supply Contracts	3,958,981	4,257,892	4,335,512	4,419,674	4,508,057	4,598,224	4,690,186
Materials & Supplies	2,809,527	2,550,634	2,526,990	2,576,924	2,628,066	2,680,474	2,733,852
Utilities	1,421,906	1,480,402	1,574,760	1,606,255	1,638,380	1,671,147	1,704,573
Internal Charges & Other	1,763,345	1,830,134	1,861,266	1,904,383	1,949,366	1,995,532	2,043,303
Grants & Subsidies	5,750	1,500	-	-	-	-	-
Debt	29,281	26,404	30,575	560,464	568,482	576,821	585,494
Total Expenditures	18,993,542	19,866,980	19,721,540	20,601,434	21,017,396	21,442,393	21,876,644
Revenues Generated	4,403,950	4,376,076	4,404,762	4,486,737	4,583,857	4,688,399	4,786,820
<b>Net Operating Costs</b>	<b>\$14,589,592</b>	<b>\$15,490,904</b>	<b>\$15,316,778</b>	<b>\$16,114,697</b>	<b>\$16,433,539</b>	<b>\$16,753,994</b>	<b>\$17,089,824</b>
Staffing (FTEs)	113.8	112.8	109.8	109.8	109.8	109.8	109.8
Cost Per Capita	\$164.17	\$172.01	\$167.83	\$174.24	\$175.34	\$176.39	\$177.55



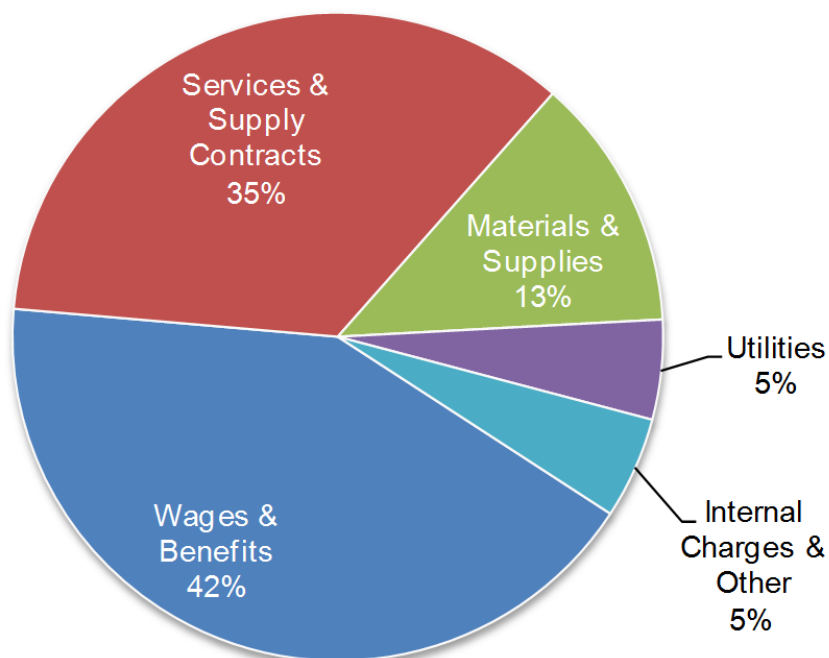
# Administration and Support Services Section

## Description and Level of Service

- Provide leadership and coordination of department's activities
- Liaise with other departments and external stakeholders
- Provide internal and public support and response services including reception, dispatch and records management

## Operating Expenditures and Revenues

	2014 Actual	2015 Budget	2016 Budget	2017 Budget	2018 Budget	2019 Budget	2019 Budget
<b>EXPENDITURE SUMMARY</b>							
Wages & Benefits	\$754,656	\$688,910	\$665,884	\$679,844	\$694,084	\$708,611	\$723,425
Services & Supply Contracts	505,370	548,583	554,670	565,763	577,078	588,619	600,393
Materials & Supplies	557,796	172,100	199,290	202,507	205,786	209,135	212,548
Utilities	72,648	73,200	78,200	79,764	81,359	82,986	84,647
Internal Charges & Other	74,281	75,046	79,770	82,060	84,467	87,010	89,697
Total Expenditures	1,964,751	1,557,839	1,577,814	1,609,938	1,642,774	1,676,361	1,710,710
Revenues Generated	785,545	424,200	424,000	432,240	440,642	449,210	457,947
<b>Net Operating Costs</b>	<b>\$1,179,206</b>	<b>\$1,133,639</b>	<b>\$1,153,814</b>	<b>\$1,177,698</b>	<b>\$1,202,132</b>	<b>\$1,227,151</b>	<b>\$1,252,763</b>
Staffing (FTEs)	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Cost Per Capita	\$13.27	\$12.59	\$12.64	\$12.73	\$12.83	\$12.92	\$13.02



# Engineering Services Section

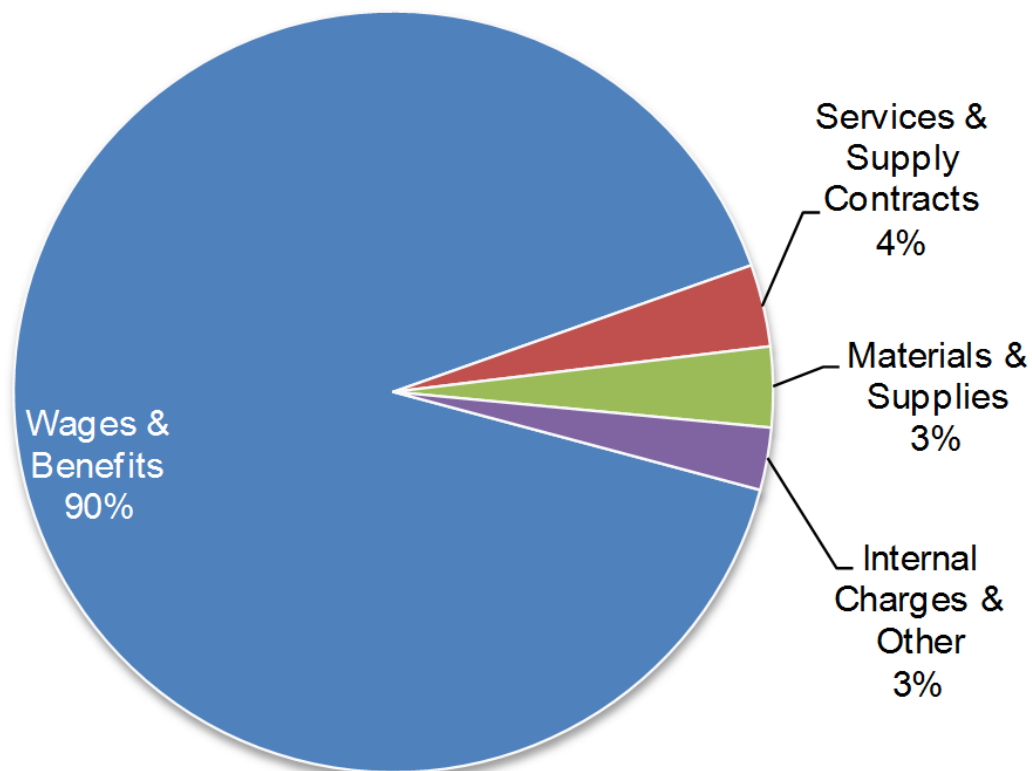
## Description and Level of Service

- Develop and implement the City's Transportation Master Plan
- Prepare and manage the City's long range infrastructure programs and plans
  - Prepare detailed capital and operating project plans for the City's five-year financial plan
  - Prepare and manage the City's long range water supply infrastructure program and plans
- Design for municipal infrastructure
- Administer and manage the delivery of the Engineering and Public Works projects
- Manage the City's GIS system
- Identify and administer studies and/or investigative work on City infrastructure
- Liaise with stakeholders and other City departments
- Monitor water supply and quality

## Operating Expenditures and Revenues

An allocation of Engineering Services expenditures is made to the Sanitary Sewer and Waterworks utilities. Expenditures below are before allocation.

	2014 Actual	2015 Budget	2016 Budget	2017 Budget	2018 Budget	2019 Budget	2020 Budget
<b>EXPENDITURE SUMMARY</b>							
Wages & Benefits	\$3,305,809	\$3,791,031	\$3,559,380	\$3,583,374	\$3,655,039	\$3,728,141	\$3,802,704
Services & Supply Contracts	129,471	130,963	137,921	138,129	140,893	143,709	146,584
Materials & Supplies	146,890	153,730	134,904	137,133	139,400	141,719	144,082
Internal Charges & Other	114,346	115,892	104,608	110,386	116,625	123,416	130,801
Grants & Subsidies	750	1,500	-	-	-	-	-
Total Expenditures	3,697,266	4,193,116	3,936,813	3,969,022	4,051,957	4,136,985	4,224,171
Revenues Generated	9,931	19,000	14,600	14,746	14,893	15,042	15,192
<b>Net Operating Costs</b>	<b>\$3,687,335</b>	<b>\$4,174,116</b>	<b>\$3,922,213</b>	<b>\$3,954,276</b>	<b>\$4,037,064</b>	<b>\$4,121,943</b>	<b>\$4,208,979</b>
Staffing (FTEs)	47.0	46.0	43.0	43.0	43.0	43.0	43.0
Cost Per Capita	\$41.49	\$46.35	\$42.98	\$42.75	\$43.07	\$43.40	\$43.73



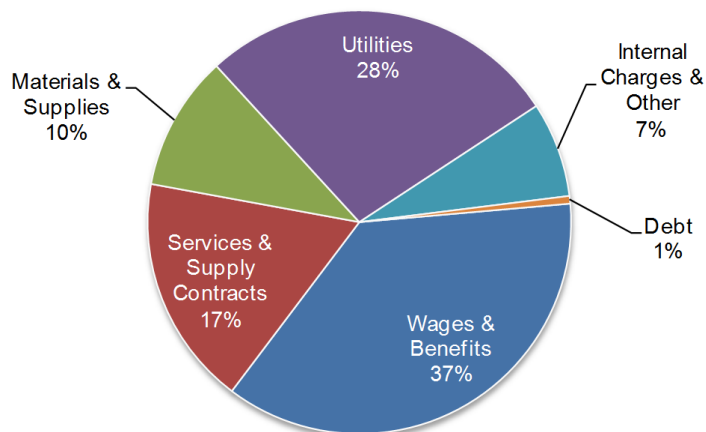
# Transportation Section (operations)

## Description and Level of Service

- Provide maintenance and repair services for the City's transportation network including roads, bridges, traffic signals and street lighting
- Manage maintenance program for City boulevards
- Manufacture and install street signage, road markings, banners and seasonal lighting program
- Provide repairs to City sidewalks, curbs and cycling paths
- Provide emergency operational services for snow clearing and ice control
- Graffiti removal program

## Operating Expenditures and Revenues

	2014 Actual	2015 Budget	2016 Budget	2017 Budget	2018 Budget	2019 Budget	2020 Budget
<b>EXPENDITURE SUMMARY</b>							
Wages & Benefits	\$1,782,369	\$1,936,927	\$1,935,093	\$1,973,795	\$2,013,268	\$2,053,537	\$2,094,606
Services & Supply Contracts	965,483	906,045	925,546	944,059	962,936	982,196	1,001,842
Materials & Supplies	446,719	577,900	542,810	553,666	564,738	576,036	587,551
Utilities	1,315,113	1,372,552	1,455,610	1,484,722	1,514,416	1,544,705	1,575,600
Internal Charges & Other	354,261	369,231	381,953	390,186	398,637	407,329	416,264
Debt	29,281	26,404	30,575	560,464	568,482	576,821	585,494
<b>Total Expenditures</b>	<b>4,893,226</b>	<b>5,189,059</b>	<b>5,271,587</b>	<b>5,906,892</b>	<b>6,022,477</b>	<b>6,140,624</b>	<b>6,261,357</b>
Revenues Generated	84,027	72,088	48,784	49,272	57,825	66,704	75,924
<b>Net Operating Costs</b>	<b>\$4,809,199</b>	<b>\$5,116,971</b>	<b>\$5,222,803</b>	<b>\$5,857,620</b>	<b>\$5,964,652</b>	<b>\$6,073,920</b>	<b>\$6,185,433</b>
Staffing (FTEs)	22.0	22.0	22.0	22.0	22.0	22.0	22.0
Cost Per Capita	\$54.12	\$56.82	\$57.23	\$63.33	\$63.64	\$63.95	\$64.26



# Sanitation and Recycling Section

## Description and Level of Service

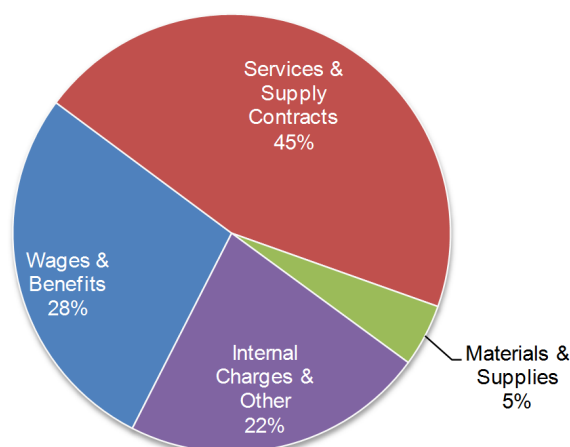
- Provide residential solid waste collection including weekly collection of food waste, bi-weekly collection of residential garbage and recyclables
- Provide public education and promotion for the 3 Rs – Reduce, Reuse, Recycle
- Provide downtown street and sidewalk sweeping program

Beginning May 19, 2014, the City entered into an agreement with Multi Material British Columbia (MMBC) where MMBC collects recyclable materials from households and the City received a fee per household for the materials. Garbage user fees in 2014 were reduced.

On October 26, 2015, Council approved the implementation of two automated routes in 2016. Changes to operating expenditures are not included below. These changes will be incorporated, with any other changes directed by Council during the budget review process, in the final 2016 – 2020 Financial Plan.

## Operating Expenditures and Revenues

	2014 Actual	2015 Budget	2016 Budget	2017 Budget	2018 Budget	2019 Budget	2020 Budget
<b>EXPENDITURE SUMMARY</b>							
Wages & Benefits	\$1,142,326	\$1,227,108	\$1,176,863	\$1,200,400	\$1,224,407	\$1,248,895	\$1,273,872
Services & Supply Contracts	1,723,600	1,897,589	1,925,583	1,964,095	2,003,375	2,043,444	2,084,309
Materials & Supplies	198,323	210,599	196,806	201,374	206,257	211,462	216,702
Internal Charges & Other	887,131	932,430	954,746	973,926	993,496	1,013,471	1,033,850
<b>Total Expenditures</b>	<b>3,951,380</b>	<b>4,267,726</b>	<b>4,253,998</b>	<b>4,339,795</b>	<b>4,427,535</b>	<b>4,517,272</b>	<b>4,608,733</b>
Revenues Generated	3,409,237	3,751,023	3,799,213	3,871,120	3,949,931	4,035,659	4,114,742
<b>Net Operating Costs</b>	<b>\$542,143</b>	<b>\$516,703</b>	<b>\$454,785</b>	<b>\$468,675</b>	<b>\$477,604</b>	<b>\$481,613</b>	<b>\$493,991</b>
Staffing (FTEs)	14.0	14.0	14.0	14.0	14.0	14.0	14.0
Cost Per Capita	\$6.10	\$5.74	\$4.98	\$5.07	\$5.10	\$5.07	\$5.13



# Fleet Services Section

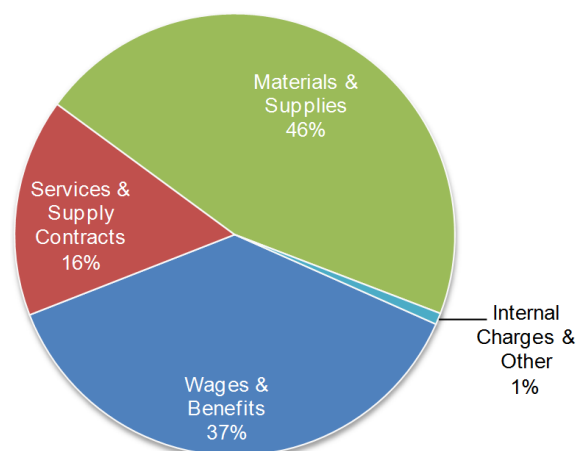
## Description and Level of Service

- Maintenance and repair of City's fleet and equipment
- Prepare and manage life-cycle fleet replacement plan, including identifying strategies to maximize efficiency and effectiveness of the City's fleet
- Provide training and education to users on efficient operation of city vehicles

## Operating Expenditures

Fleet costs are recovered from departments through monthly or hourly fleet charges (internal charges). Fleet charge calculations for each unit include replacement cost, annual operating and maintenance costs and insurance. Fleet charges in excess of annual operating, maintenance and insurance costs are transferred to the Equipment Replacement Reserve. The Equipment Replacement Reserve fully funds the fleet replacement program.

	2014 Actual	2015 Budget	2016 Budget	2017 Budget	2018 Budget	2019 Budget	2020 Budget
<b>EXPENDITURE SUMMARY</b>							
Wages & Benefits	\$872,656	\$900,087	\$906,288	\$924,414	\$942,902	\$961,760	\$980,995
Services & Supply Contracts	274,789	385,980	388,310	396,076	403,996	412,078	420,317
Materials & Supplies	1,146,036	1,106,150	1,108,580	1,130,752	1,153,366	1,176,434	1,199,963
Utilities	-	-	-	-	-	-	-
Internal Charges & Other	19,985	18,625	20,359	21,174	22,497	23,474	24,482
Total Expenditures	2,313,466	2,410,842	2,423,537	2,472,416	2,522,761	2,573,746	2,625,757
Revenues Generated	24,008	-	-	-	-	-	-
<b>Net Operating Costs</b>	<b>\$2,289,458</b>	<b>\$2,410,842</b>	<b>\$2,423,537</b>	<b>\$2,472,416</b>	<b>\$2,522,761</b>	<b>\$2,573,746</b>	<b>\$2,625,757</b>
Staffing (FTEs)	13.0	13.0	13.0	13.0	13.0	13.0	13.0
Cost Per Capita	\$25.76	\$26.77	\$26.55	\$26.73	\$26.92	\$27.10	\$27.28



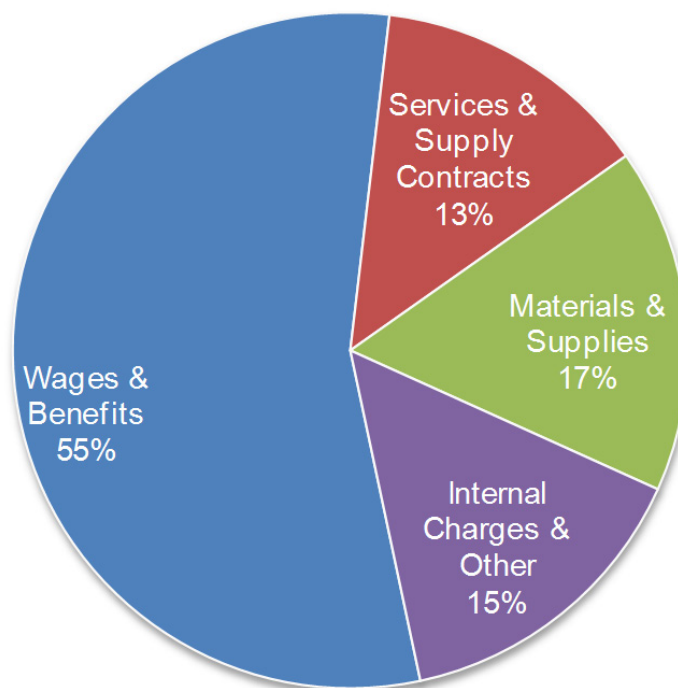
## Drainage Utility Section

### Description and Level of Service

- Develop and provide maintenance programs including: main flushing, catchbasin and inlet/outlet structures cleaning, and brushcutting to support the effectiveness of the City's drainage infrastructure
- Repair services for the City's drainage infrastructure
- Investigate and resolve flooding issues

### Operating Expenditures and Revenues

	2014 Actual	2015 Budget	2016 Budget	2017 Budget	2018 Budget	2019 Budget	2020 Budget
<b>EXPENDITURE SUMMARY</b>							
Wages & Benefits	\$1,111,781	\$1,135,273	\$1,110,747	\$1,132,961	\$1,155,620	\$1,178,732	\$1,202,306
Services & Supply Contracts	245,159	256,275	269,100	274,482	279,969	285,572	291,282
Materials & Supplies	306,564	316,675	332,350	338,997	345,775	352,689	359,745
Internal Charges & Other	289,457	295,610	300,330	306,761	313,357	320,138	327,103
Total Expenditures	1,952,961	2,003,833	2,012,527	2,053,201	2,094,721	2,137,131	2,180,436
Revenues Generated	5,098	48,265	48,265	48,760	49,261	49,766	50,277
<b>Net Operating Costs</b>	<b>\$1,947,863</b>	<b>\$1,955,568</b>	<b>\$1,964,262</b>	<b>\$2,004,441</b>	<b>\$2,045,460</b>	<b>\$2,087,365</b>	<b>\$2,130,159</b>
Staffing (FTEs)	12.8	12.8	12.8	12.8	12.8	12.8	12.8
Cost Per Capita	\$21.92	\$21.71	\$21.52	\$21.67	\$21.82	\$21.98	\$22.13



# Sanitary Sewer Utility

## Description and Level of Service

- Operate and maintain sanitary sewer infrastructure including: video inspection, main flushing, and manholes/structures cleaning
- Repair mains and connections identified through inspections/flushing programs
- Operate and maintain lift stations including mechanical and electrical controls and telemetry communications systems
- Install new services for residential, institutional and commercial customers

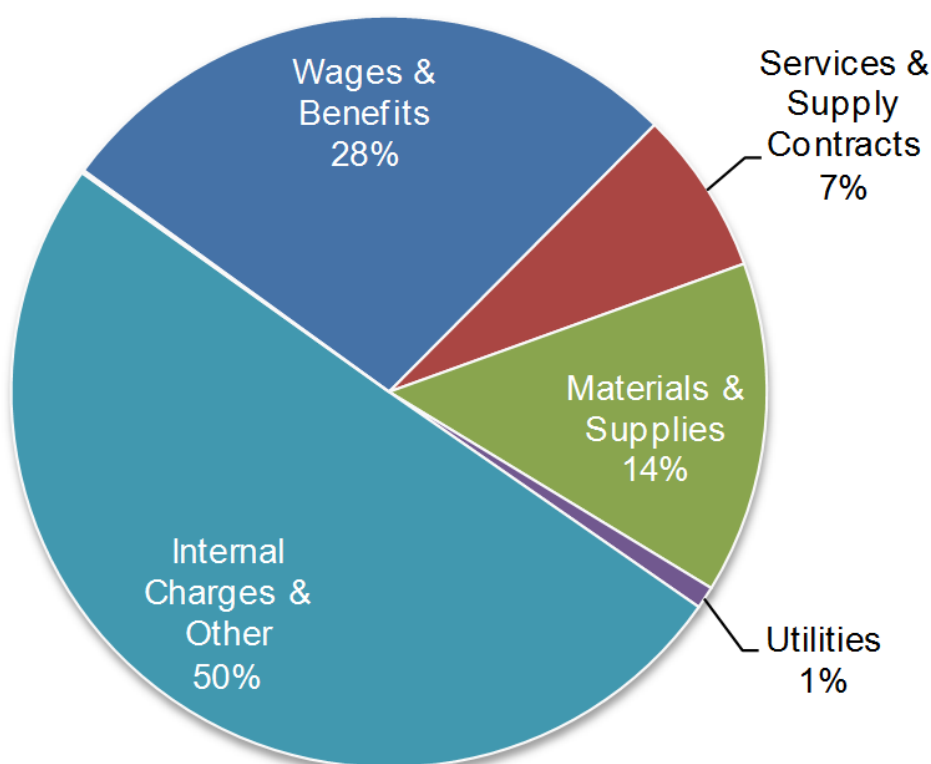


## Operating Expenditures and Revenues

Net revenues are transferred to sanitary sewer utility reserves. Sanitary sewer infrastructure renewal is funded from reserves.

Internal charges include an allocation of Corporate Services and Engineering Services expenditures that benefit delivery of sanitary sewer services.

	2014 Actual	2015 Budget	2016 Budget	2017 Budget	2018 Budget	2019 Budget	2020 Budget
<b>EXPENDITURE SUMMARY</b>							
Wages & Benefits	\$882,228	\$895,441	\$920,903	\$939,321.00	\$958,107	\$977,269	\$996,815
Services & Supply Contracts	249,156	243,389	236,164	240,888	245,704	250,618	255,630
Materials & Supplies	433,039	479,820	478,129	498,330	516,763	535,993	556,057
Utilities	26,781	32,050	32,120	32,763	33,418	34,086	34,768
Internal Charges & Other	1,573,472	1,641,996	1,684,798	1,657,549	1,690,975	1,725,104	1,759,941
Grants & Subsidies	3,435	4,000	4,000	4,080	4,162	4,245	4,330
<b>Total Expenditures</b>	<b>3,168,112</b>	<b>3,296,696</b>	<b>3,356,114</b>	<b>3,372,931</b>	<b>3,449,129</b>	<b>3,527,315</b>	<b>3,607,541</b>
Revenues Generated	5,526,027	5,981,888	6,318,650	6,697,646	7,032,555	7,384,317	7,753,780
<b>Net Operating Revenues</b>	<b>\$2,357,915</b>	<b>\$2,685,192</b>	<b>\$2,962,536</b>	<b>\$3,324,715</b>	<b>\$3,583,426</b>	<b>\$3,857,002</b>	<b>\$4,146,239</b>
Staffing (FTEs)	8.8	8.8	8.8	8.8	8.8	8.8	8.8
Net Revenues Per Capita	\$26.53	\$29.82	\$32.46	\$35.95	\$38.23	\$40.61	\$43.08



# Waterworks Utility

## Description and Level of Service

- Operate and maintain water storage and distribution infrastructure including: main flushing, water testing and inspection
- In compliance with British Columbia Dam Safety Regulations and Canadian Dam Association guidelines, perform dam inspections and reporting
- Operate telemetry monitoring system to monitor systems
- Operate water treatment facilities
- Install new services for residential, institutional and commercial users

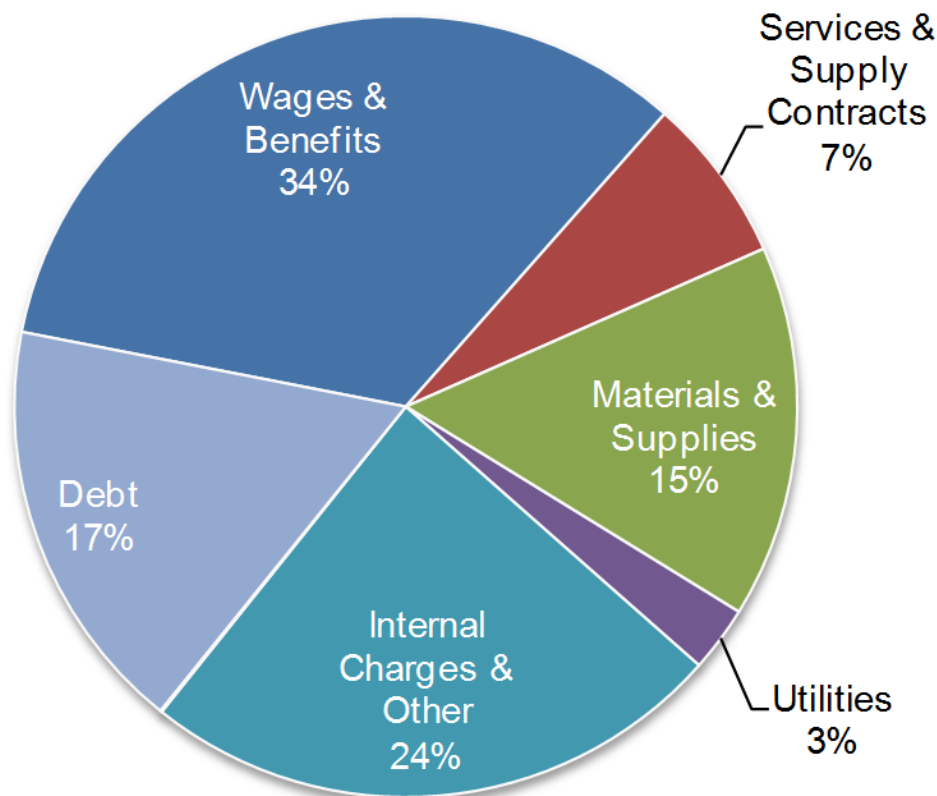


## Operating Expenditures and Revenues

Net revenues are transferred to water utility reserves. Water infrastructure renewal is funded from reserves.

Internal charges include an allocation of Corporate Services and Engineering Services expenditures that benefit delivery of water services.

	2014 Actual	2015 Budget	2016 Budget	2017 Budget	2018 Budget	2019 Budget	2020 Budget
<b>EXPENDITURE SUMMARY</b>							
Wages & Benefits	\$1,969,550	\$2,567,233	\$3,131,139	\$3,192,513	\$3,255,119	\$3,318,969	\$3,384,098
Services & Supply Contracts	491,575	438,264	642,153	654,027	666,136	678,485	691,090
Materials & Supplies	1,144,596	1,178,543	1,439,086	1,498,234	1,566,411	1,638,908	1,716,024
Utilities	96,919	198,100	254,150	259,233	264,419	269,706	275,100
Internal Charges & Other	2,378,936	2,527,696	2,268,749	2,209,774	2,251,756	2,294,755	2,338,798
Grants & Subsidies	5,083	5,500	6,250	6,265	6,280	6,296	6,312
Debt	1,344,892	1,756,204	1,612,682	1,644,564	1,677,720	1,712,203	1,748,065
<b>Total Expenditures</b>	<b>7,431,551</b>	<b>8,671,540</b>	<b>9,354,209</b>	<b>9,464,610</b>	<b>9,687,841</b>	<b>9,919,322</b>	<b>10,159,487</b>
Revenues Generated	14,515,466	15,053,539	16,115,468	17,337,440	18,649,889	20,059,551	21,573,671
<b>Net Operating Revenues</b>	<b>\$7,083,915</b>	<b>\$6,381,999</b>	<b>\$6,761,259</b>	<b>\$7,872,830</b>	<b>\$8,962,048</b>	<b>\$10,140,229</b>	<b>\$11,414,184</b>
Staffing (FTEs)	19.5	24.5	29.5	29.5	29.5	29.5	29.5
Net Revenues Per Capita	\$79.71	\$70.86	\$74.08	\$85.12	\$95.62	\$106.76	\$118.59



# CHAPTER 6 - 2016-2020 CAPITAL PROGRAM



**2016 - 2020 Financial Plan**

# CHAPTER 6 - 2016-2020 Capital Program

## 2016-2020 Capital Plan - Includes Capital and Operating Projects

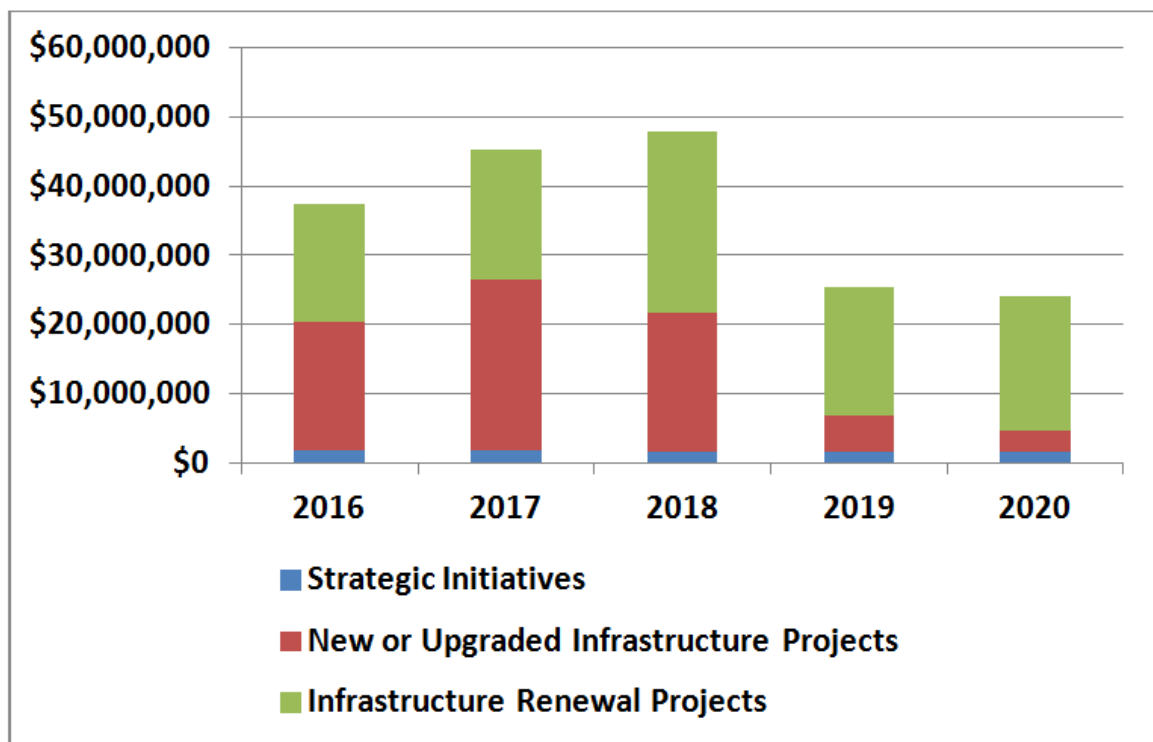
Projects are either classified for accounting purposes as capital or operating. Projects that satisfy specific requirements as outlined in the City's Capital Asset Policy are classified as capital expenditures and are accounted for in the City's capital funds. Projects that

are smaller in scope and below specific capitalization thresholds are classified as operating projects and accounted for in the City's operating funds. The 2016 – 2020 Capital Program section includes all projects.

## Overview – Infrastructure Renewal and Demand for Growth Challenges

The City owns infrastructure with a current replacement cost in excess of \$2 billion. Over time, this infrastructure will need to be replaced and additional infrastructure will be required to support a growing community

Projects included in the 2016 – 2020 Financial Plan focus on specific strategic initiatives, infrastructure renewal and new/upgrades to infrastructure that will address capacity issues and regulatory changes.



Detailed project information is provided within a framework. The majority of projects in the five year plan focus on renewal of existing infrastructure to support effective and efficient delivery of current levels of service.

Significant projects in the 2016 – 2020 Financial Plan include: Boxwood Connector and Utility Project,

Hammond Bay Corridor and Utility Project, Victoria Rd and Utility Project, Terminal South Complete Street and Utility Project, replacement of Wellcox trestle, a new fire station on Hammond Bay Road, expansion of the Police Operations Building, and expansion of the Port Theatre.

## Capital Expenditure Policy

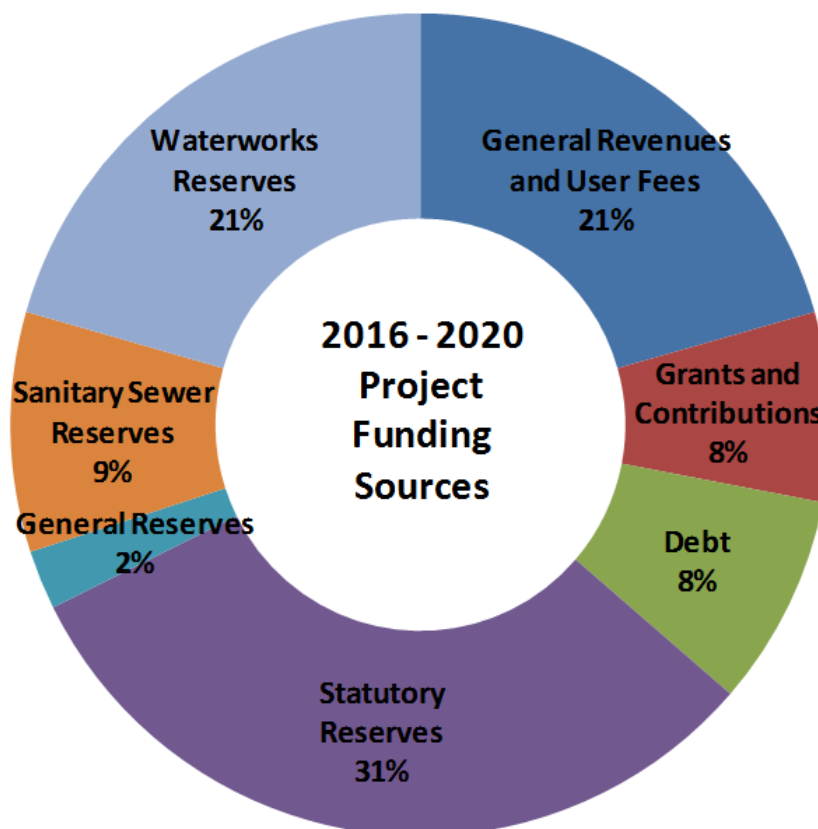
The City of Nanaimo, like all other local governments, was required to meet new financial reporting standards with respect to its tangible capital assets. Items that meet the criteria of capital will be capitalized and then amortized over the useful life of the asset.

Capital is defined as tangible property owned by the City that:

- Are held for use in the production or supply of goods or services, for rental to others, for administrative purposes or for the development, construction, maintenance or repair of other tangible capital assets;
- Have useful economic lives extending beyond 1 year;
- Are to be used on a continuing basis; and
- Are not for sale in the ordinary course of operations

## Project Funding Sources

Funding for projects comes from a number of sources including general taxation, reserves, statutory funds, grants, contributions from developers and borrowing. Projects in the 2015 – 2019 Financial Plan are funded from the following sources:



## Debt and Debt Limits

The 2016 – 2020 Financial Plan includes new debt borrowing in the amount of \$15 million. This includes \$2.4 million for a new Fire Station on Hammond Bay Road, \$6 million to replace the Welcox Trestle and \$6.6 million for expansion of the Police Operations Building. Borrowing is repaid in twenty years.

The City's outstanding debt represents a number of projects including local road improvements where costs are shared between the City and the property

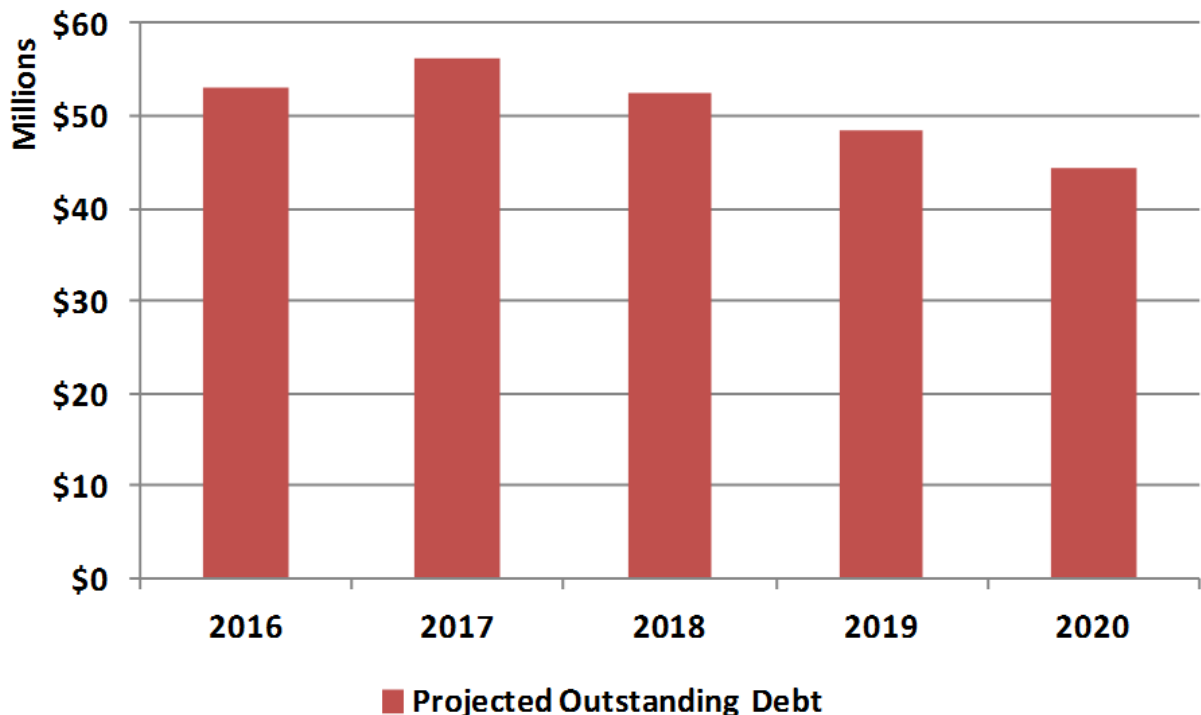
owners, the Nanaimo Aquatic Centre, Vancouver Island Conference Centre, Fire Station #4, the Harbourfront Parkade and the Water Treatment Plant.

Outstanding debt at December 31, 2014 is \$50,860,003. This balance includes all borrowing for the Water Treatment Plant. The total borrowing for the Water Treatment Plant was \$22.5M.

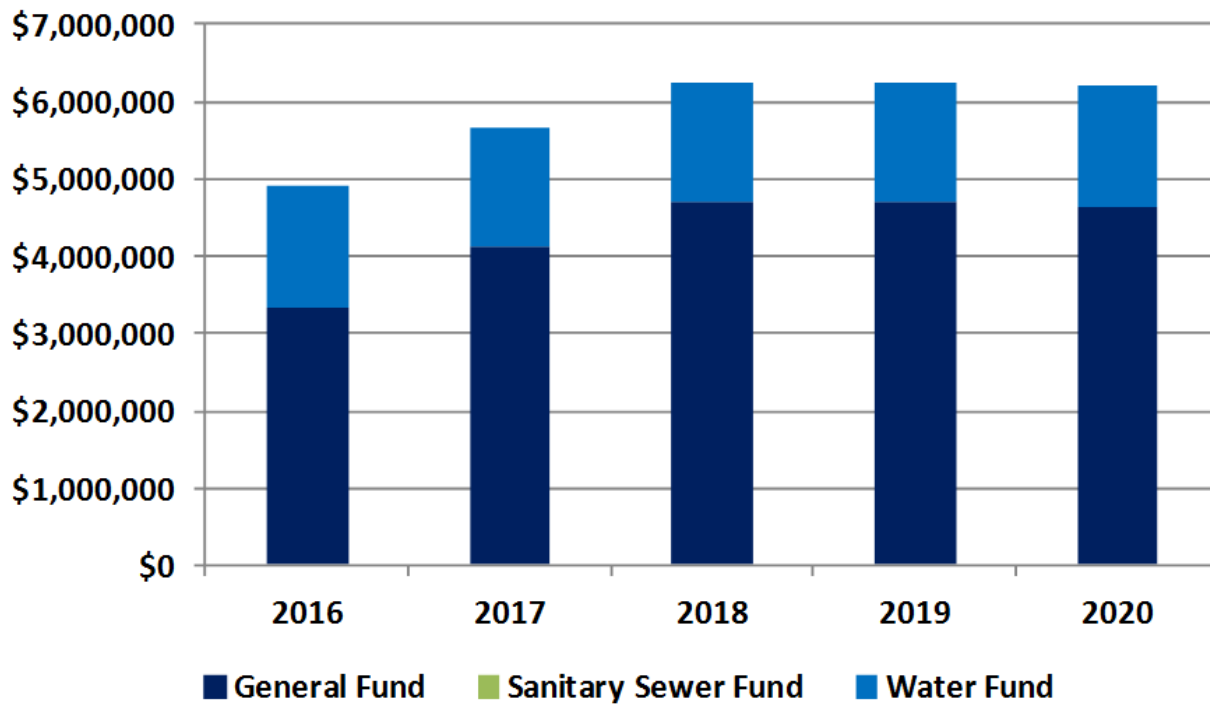
## New Borrowing

Project	Year	Amount	Annual Payment
Fire Station #6	2016	2,400,000	224,000
Wellcox Trestle Replacement	2016	6,000,000	561,000
Police Operations Building Expansion	2018	6,600,000	617,000
<b>TOTAL</b>		<b>\$15,000,000</b>	<b>\$1,402,000</b>

## Projected Outstanding Debt (\$ million)

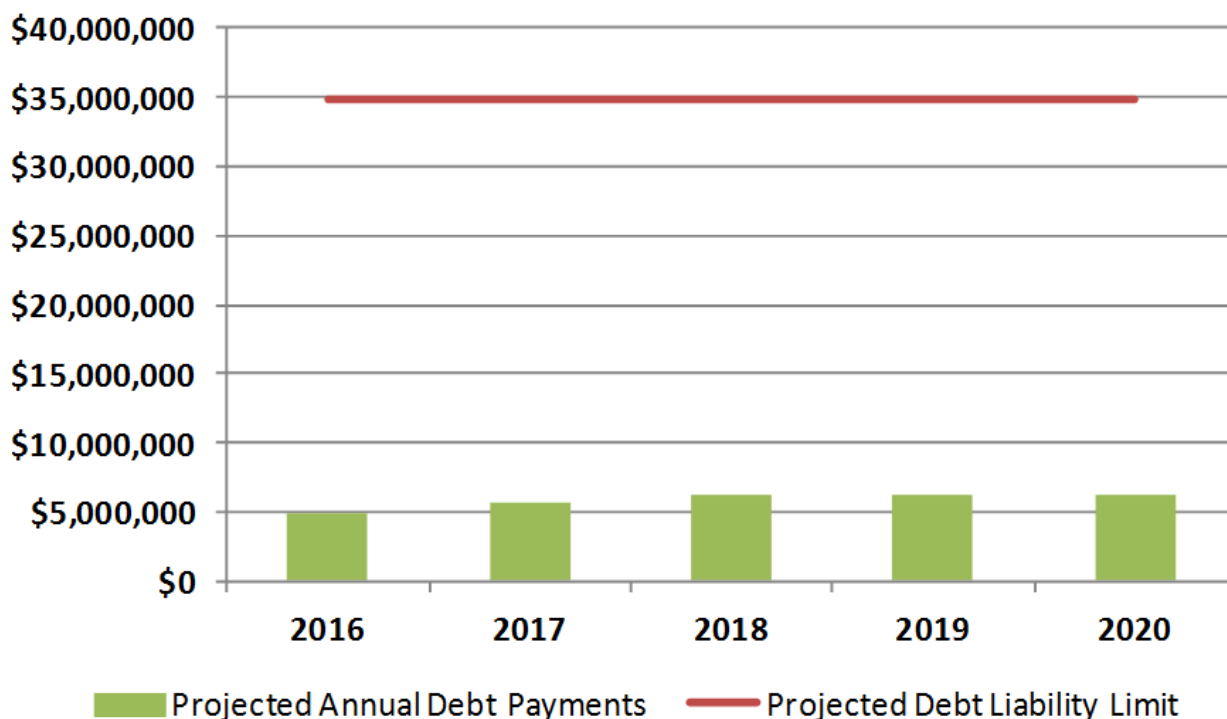


## Projected Debt Principle and Interest Payments



## Projected Debt Limits

The City's debt servicing limit is \$34 million, as defined by the Community Charter. The limit far exceeds the new debt borrowing included in the 2016 – 2020 Financial Plan.



## Grants and Private Contributions

The 2016 – 2020 Financial Plan includes annual monies received from the Nanaimo Port Authority, grants from senior governments and the RDN, and private contributions.

The Port Theatre Expansion project, included in the 2016 – 2020 Financial Plan, is funded entirely from grants and private contributions. The grants and private contribution funding for this project are still to be confirmed.

## Reserve Funding

### Statutory Reserves

The City has Statutory Reserve Funds that are authorized by the Community Charter and/or City Bylaws. The purpose of setting aside reserves is to provide funding for anticipated future expenditures, to ensure sufficient funds are available when required, and to limit the need to incur debt or require large increases in taxation or user fees.

Statutory Reserves can only be used as authorized by the Community Charter and the related Council Bylaw. Statutory Reserves include Asset Management Reserves, Development Cost Charges Reserves,

the Facility Development Reserve, the Equipment Replacement Reserve and other special purpose reserves.

### Operating Reserves

The City maintains reserve funds with the objective of setting funds aside to contribute to future capital and special operating expenditures. City reserves include IT Replacement Reserve, Housing Legacy Reserve, Parking Reserve and General Capital Reserve.

# Capital Planning Overview

## City of Nanaimo 2016-2020 Financial Plan

### Statutory Reserve Projections (Funds Available for Use)

	2016	2017	2018	2019	2020
<b>General Fund - Statutory Reserves</b>					
<b>Cemetery Care Reserve</b>	540,858	548,358	555,858	563,358	570,858
Additions	7,500	7,500	7,500	7,500	7,500
Withdrawals	-	-	-	-	-
Balance @ December 31	548,358	555,858	563,358	570,858	578,358
<b>Local Improvement Reserve</b>	1,616,904	1,641,158	1,665,775	1,690,762	1,716,123
Additions	24,254	24,617	24,987	25,361	25,742
Withdrawals	-	-	-	-	-
Balance @ December 31	1,641,158	1,665,775	1,690,762	1,716,123	1,741,865
<b>Parkland Dedication Reserve</b>	144,936	242,660	341,576	441,692	543,013
Additions	97,724	98,916	100,116	101,321	102,536
Withdrawals	-	-	-	-	-
Balance @ December 31	242,660	341,576	441,692	543,013	645,549
<b>Property Sales Reserve</b>	645,844	655,532	665,365	675,345	685,475
Additions	9,688	9,833	9,980	10,130	10,282
Withdrawals	-	-	-	-	-
Balance @ December 31	655,532	665,365	675,345	685,475	695,757
<b>Equipment Depreciation Reserve</b>	3,337,623	4,087,747	3,492,093	3,095,961	2,294,517
Additions	1,458,124	1,479,346	1,491,868	1,503,556	1,508,940
Withdrawals	708,000	2,075,000	1,888,000	2,305,000	2,796,720
Balance @ December 31	4,087,747	3,492,093	3,095,961	2,294,517	1,006,737
<b>General Fund Asset Management</b>	2,100,902	3,273,237	4,442,125	6,221,209	8,502,267
Additions	3,699,335	4,680,888	4,702,834	4,733,058	4,781,351
Withdrawals	2,527,000	3,512,000	2,923,750	2,452,000	575,000
Balance @ December 31	3,273,237	4,442,125	6,221,209	8,502,267	12,708,618
<b>Facility Development Reserve</b>	1,053,493	1,863,116	2,805,486	3,613,743	3,989,116
Additions	1,141,923	1,177,370	1,213,257	1,245,373	1,281,483
Withdrawals	332,300	235,000	405,000	870,000	-
Balance @ December 31	1,863,116	2,805,486	3,613,743	3,989,116	5,270,599
<b>Community Works Reserve</b>	3,979,045	7,653,635	10,678,093	13,315,051	17,301,313
Additions	3,674,590	3,724,458	3,936,958	3,986,262	4,046,056
Withdrawals	-	700,000	1,300,000	-	-
Balance @ December 31	7,653,635	10,678,093	13,315,051	17,301,313	21,347,369
<b>Old City Parking Reserve</b>	85,780	87,067	88,373	89,699	91,044
Additions	1,287	1,306	1,326	1,345	1,366
Withdrawals	-	-	-	-	-
Balance @ December 31	87,067	88,373	89,699	91,044	92,410
<b>Knowles Estate Reserve Fund</b>	446,404	453,100	459,897	466,795	473,797
Additions	6,696	6,797	6,898	7,002	7,107
Withdrawals	-	-	-	-	-
Balance @ December 31	453,100	459,897	466,795	473,797	480,904

# City of Nanaimo 2016-2020 Financial Plan

## Statutory Reserve Projections (Funds Available for Use)

	2016	2017	2018	2019	2020
<b>Regional Emission Reduction</b>	302,944	387,106	472,530	559,236	647,242
Additions	84,162	85,424	86,706	88,006	89,326
Withdrawals	-	-	-	-	-
Balance @ December 31	387,106	472,530	559,236	647,242	736,568
<b>DCC - City Wide Roads</b>	5,929,334	5,618,272	5,012,384	927,377	2,203,661
Additions	1,338,938	1,332,112	1,297,193	1,276,284	1,242,055
Withdrawals	1,650,000	1,938,000	5,382,200	-	-
Balance @ December 31	5,618,272	5,012,384	927,377	2,203,661	3,445,716
<b>DCC - City Wide Drainage</b>	10,060,635	10,398,032	10,740,490	11,088,085	11,440,894
Additions	337,397	342,458	347,595	352,809	358,101
Withdrawals	-	-	-	-	-
Balance @ December 31	10,398,032	10,740,490	11,088,085	11,440,894	11,798,995
<b>DCC - North Slope Drainage</b>	982,963	997,707	1,012,673	1,027,863	1,043,281
Additions	14,744	14,966	15,190	15,418	15,649
Withdrawals	-	-	-	-	-
Balance @ December 31	997,707	1,012,673	1,027,863	1,043,281	1,058,930
<b>DCC - Millstone Drainage</b>	2,543,737	2,581,893	2,620,621	2,659,930	2,699,829
Additions	38,156	38,728	39,309	39,899	40,497
Withdrawals	-	-	-	-	-
Balance @ December 31	2,581,893	2,620,621	2,659,930	2,699,829	2,740,326
<b>DCC - City Wide Parks</b>	620,130	733,660	748,143	762,843	777,764
Additions	363,530	364,483	364,700	364,921	365,894
Withdrawals	250,000	350,000	350,000	350,000	250,000
Balance @ December 31	733,660	748,143	762,843	777,764	893,658
<b>Total - General Fund Statutory Reserves</b>	34,391,532	41,222,280	45,801,482	47,198,949	54,980,194
Additions	12,298,048	13,389,202	13,646,417	13,758,245	13,883,885
Withdrawals	5,467,300	8,810,000	12,248,950	5,977,000	3,621,720
Balance @ December 31	41,222,280	45,801,482	47,198,949	54,980,194	65,242,359
<b>Sewer Fund - Statutory Reserves</b>					
<b>Sewer Fund Asset Management</b>	513,234	798,662	896,149	1,032,441	2,504,324
Additions	1,092,428	1,414,887	1,686,292	1,971,883	2,291,800
Withdrawals	807,000	1,317,400	1,550,000	500,000	2,400,000
Balance @ December 31	798,662	896,149	1,032,441	2,504,324	2,396,124
<b>DCC - City Wide Sewer</b>	2,230,712	460,286	738,304	1,020,492	851,913
Additions	304,574	278,018	282,188	286,421	283,892
Withdrawals	2,075,000	-	-	455,000	430,000
Balance @ December 31	460,286	738,304	1,020,492	851,913	705,805
<b>DCC - Northshore Sewer</b>	383,052	388,798	394,630	400,549	406,557
Additions	5,746	5,832	5,919	6,008	6,098
Withdrawals	-	-	-	-	-
Balance @ December 31	388,798	394,630	400,549	406,557	412,655
<b>Total - Sewer Fund Statutory Reserves</b>	3,126,998	1,647,746	2,029,083	2,453,482	3,762,794
Additions	1,402,748	1,698,737	1,974,399	2,264,312	2,581,790
Withdrawals	2,882,000	1,317,400	1,550,000	955,000	2,830,000
Balance @ December 31	1,647,746	2,029,083	2,453,482	3,762,794	3,514,584

## City of Nanaimo 2016-2020 Financial Plan

### Statutory Reserve Projections (Funds Available for Use)

	2016	2017	2018	2019	2020
<b>Water Fund - Statutory Reserves</b>					
<b>Water Fund Asset Management</b>	866,101	626,447	2,253,476	4,271,721	5,090,925
Additions	1,344,346	1,751,029	2,204,245	2,683,404	3,205,756
Withdrawals	1,584,000	124,000	186,000	1,864,200	-
Balance @ December 31	626,447	2,253,476	4,271,721	5,090,925	8,296,681
<b>DCC - City Water - Old Bylaw</b>	5,235,821	4,832,773	4,811,114	4,771,146	4,842,713
Additions	74,952	71,791	71,332	71,567	72,641
Withdrawals	478,000	93,450	111,300	-	-
Balance @ December 31	4,832,773	4,811,114	4,771,146	4,842,713	4,915,354
<b>DCC - City Wide Water (Distribution)</b>	611,258	717,523	825,382	934,859	1,045,978
Additions	106,265	107,859	109,477	111,119	112,785
Withdrawals	-	-	-	-	-
Balance @ December 31	717,523	825,382	934,859	1,045,978	1,158,763
<b>DCC - Water Supply</b>	3,101,702	3,303,201	636,348	2,395,236	4,180,507
Additions	1,783,999	1,765,647	1,758,888	1,785,271	1,810,925
Withdrawals	1,582,500	4,432,500	-	-	150,000
Balance @ December 31	3,303,201	636,348	2,395,236	4,180,507	5,841,432
<b>Total - Water Fund Statutory Reserves</b>	9,814,882	9,479,944	8,526,320	12,372,962	15,160,123
Additions	3,309,562	3,696,326	4,143,942	4,651,361	5,202,107
Withdrawals	3,644,500	4,649,950	297,300	1,864,200	150,000
Balance @ December 31	9,479,944	8,526,320	12,372,962	15,160,123	20,212,230
<b>Total Statutory Reserves</b>	<b>52,349,970</b>	<b>56,356,885</b>	<b>62,025,393</b>	<b>73,903,111</b>	<b>88,969,173</b>

# City of Nanaimo 2016-2020 Financial Plan

## Operating Reserve Projections (Funds Available for Use)

	2016	2017	2018	2019	2020
<b>General Fund</b>					
RCMP Contract Adjustment	2,507,115	2,507,115	2,507,115	2,507,115	2,507,115
Additions	-	-	-	-	-
Withdrawals	-	-	-	-	-
Balance @ December 31	2,507,115	2,507,115	2,507,115	2,507,115	2,507,115
<b>IT Infrastructure Reserve</b>	735,746	104,618	261,462	302,398	563,970
Additions	487,872	536,844	590,436	649,572	714,714
Withdrawals	1,119,000	380,000	549,500	388,000	572,000
Balance @ December 31	104,618	261,462	302,398	563,970	706,684
<b>Uninsured Claims Reserve</b>	2,568,624	2,568,624	2,568,624	2,568,624	2,568,624
Additions	-	-	-	-	-
Withdrawals	-	-	-	-	-
Balance @ December 31	2,568,624	2,568,624	2,568,624	2,568,624	2,568,624
<b>Uncollected Taxes Reserve</b>	2,803,848	2,803,848	2,803,848	2,803,848	2,803,848
Additions	-	-	-	-	-
Withdrawals	-	-	-	-	-
Balance @ December 31	2,803,848	2,803,848	2,803,848	2,803,848	2,803,848
<b>Property Acquisition Reserve</b>	354,982	354,982	354,982	354,982	354,982
Additions	-	-	-	-	-
Withdrawals	-	-	-	-	-
Balance @ December 31	354,982	354,982	354,982	354,982	354,982
<b>PR&amp;E Projects Reserve</b>	358,782	358,782	358,782	358,782	358,782
Additions	-	-	-	-	-
Withdrawals	-	-	-	-	-
Balance @ December 31	358,782	358,782	358,782	358,782	358,782
<b>Class E Licences Reserve</b>	31,851	31,851	31,851	31,851	31,851
Additions	-	-	-	-	-
Withdrawals	-	-	-	-	-
Balance @ December 31	31,851	31,851	31,851	31,851	31,851
<b>Beban Area Property Reserve</b>	34,755	34,755	34,755	34,755	34,755
Additions	-	-	-	-	-
Withdrawals	-	-	-	-	-
Balance @ December 31	34,755	34,755	34,755	34,755	34,755
<b>Brechin Boat Ramp</b>	109,492	116,242	143,135	170,168	197,334
Additions	26,750	26,893	27,033	27,166	27,296
Withdrawals	20,000	-	-	-	-
Balance @ December 31	116,242	143,135	170,168	197,334	224,630
<b>Engineering Services Projects Reserve</b>	164,675	164,675	164,675	164,675	164,675
Additions	-	-	-	-	-
Withdrawals	-	-	-	-	-
Balance @ December 31	164,675	164,675	164,675	164,675	164,675

## City of Nanaimo 2016-2020 Financial Plan

### Operating Reserve Projections (Funds Available for Use)

	2016	2017	2018	2019	2020
<b>Transportation Projects Reserve</b>	119,371	119,371	119,371	119,371	119,371
Additions	-	-	-	-	-
Withdrawals	-	-	-	-	-
Balance @ December 31	119,371	119,371	119,371	119,371	119,371
<b>Firehall Projects Reserve</b>	261,034	261,034	261,034	261,034	261,034
Additions	-	-	-	-	-
Withdrawals	-	-	-	-	-
Balance @ December 31	261,034	261,034	261,034	261,034	261,034
<b>Community Development Dept Projects Reserves</b>	101,937	101,937	101,937	101,937	101,937
Additions	-	-	-	-	-
Withdrawals	-	-	-	-	-
Balance @ December 31	101,937	101,937	101,937	101,937	101,937
<b>Uncollected Parking Revenue Reserve</b>	9,396	9,396	9,396	9,396	9,396
Additions	-	-	-	-	-
Withdrawals	-	-	-	-	-
Balance @ December 31	9,396	9,396	9,396	9,396	9,396
<b>General Parking Reserve</b>	163,565	90,021	40,217	-	-
Additions	166,214	154,954	143,277	131,151	118,571
Withdrawals	239,758	204,758	183,494	131,151	118,571
Balance @ December 31	90,021	40,217	-	-	-
<b>Fitzwilliam St Parking Reserve</b>	142,868	142,868	142,868	142,868	142,868
Additions	-	-	-	-	-
Withdrawals	-	-	-	-	-
Balance @ December 31	142,868	142,868	142,868	142,868	142,868
<b>Casino</b>	170,728	170,728	170,728	170,728	170,728
Additions	-	-	-	-	-
Withdrawals	-	-	-	-	-
Balance @ December 31	170,728	170,728	170,728	170,728	170,728
<b>Snow Removal Reserve</b>	400,000	400,000	400,000	400,000	400,000
Additions	-	-	-	-	-
Withdrawals	-	-	-	-	-
Balance @ December 31	400,000	400,000	400,000	400,000	400,000
<b>VICC Projects Reserve</b>	600,682	600,682	600,682	348,682	348,682
Additions	-	-	-	-	-
Withdrawals	-	-	252,000	-	-
Balance @ December 31	600,682	600,682	348,682	348,682	348,682
<b>Allowance for Bad Debts Reserve</b>	40,000	30,000	30,000	30,000	30,000
Additions	-	-	-	-	-
Withdrawals	10,000	-	-	-	-
Balance @ December 31	30,000	30,000	30,000	30,000	30,000
<b>E911 Reserve</b>	556,224	525,724	550,724	571,724	524,994
Additions	25,000	25,000	25,000	25,000	25,000
Withdrawals	55,500	-	4,000	71,730	4,080
Balance @ December 31	525,724	550,724	571,724	524,994	545,914

## City of Nanaimo 2016-2020 Financial Plan

### Operating Reserve Projections (Funds Available for Use)

	2016	2017	2018	2019	2020
<b>General Capital Reserve</b>	4,886,455	4,886,455	4,886,455	4,886,455	4,886,455
Additions	-	-	-	-	-
Withdrawals	-	-	-	-	-
Balance @ December 31	4,886,455	4,886,455	4,886,455	4,886,455	4,886,455
<b>Housing Legacy Reserve</b>	2,640,241	2,640,241	2,640,241	2,640,241	2,640,241
Additions	-	-	-	-	-
Withdrawals	-	-	-	-	-
Balance @ December 31	2,640,241	2,640,241	2,640,241	2,640,241	2,640,241
<b>Fire Training Centre Reserve</b>	173,188	173,188	23,188	23,188	23,188
Additions	-	-	-	-	-
Withdrawals	-	150,000	-	-	-
Balance @ December 31	173,188	23,188	23,188	23,188	23,188
<b>Sustainability Initiatives Reserve</b>	477,890	483,890	530,790	634,790	753,790
Additions	125,000	125,000	125,000	125,000	125,000
Withdrawals	119,000	78,100	21,000	6,000	6,000
Balance @ December 31	483,890	530,790	634,790	753,790	872,790
<b>Photocopier Reserve</b>	263,838	262,174	264,784	213,066	256,757
Additions	64,336	64,610	65,282	66,691	67,348
Withdrawals	66,000	62,000	117,000	23,000	17,000
Balance @ December 31	262,174	264,784	213,066	256,757	307,105
<b>PR&amp;E Snow Removal Reserve</b>	100,000	100,000	100,000	100,000	100,000
Additions	-	-	-	-	-
Withdrawals	-	-	-	-	-
Balance @ December 31	100,000	100,000	100,000	100,000	100,000
<b>VI Fire Academy Reserve</b>	108,524	108,524	108,524	108,524	108,524
Additions	-	-	-	-	-
Withdrawals	-	-	-	-	-
Balance @ December 31	108,524	108,524	108,524	108,524	108,524
<b>Colliery Dam Reserve</b>	140,000	140,000	140,000	140,000	140,000
Additions	-	-	-	-	-
Withdrawals	-	-	-	-	-
Balance @ December 31	140,000	140,000	140,000	140,000	140,000
<b>Total - General Fund</b>	21,025,811	20,291,725	20,350,168	20,199,202	20,603,901
Additions	895,172	933,301	976,028	1,024,580	1,077,929
Withdrawals	1,629,258	874,858	1,126,994	619,881	717,651
Balance @ December 31	20,291,725	20,350,168	20,199,202	20,603,901	20,964,179

# City of Nanaimo 2016-2020 Financial Plan

## Operating Reserve Projections (Funds Available for Use)

	2016	2017	2018	2019	2020
<b>Sewer Fund</b>					
<b>Sewer Reserve</b>	8,700,659	6,786,840	6,239,891	2,169,670	1,521,339
Additions	1,885,881	1,932,251	1,923,029	1,915,169	1,908,785
Withdrawals	3,799,700	2,479,200	5,993,250	2,563,500	2,173,102
Balance @ December 31	6,786,840	6,239,891	2,169,670	1,521,339	1,257,022
<b>SFN Sewer Connection</b>	916	916	916	916	916
Additions	-	-	-	-	-
Withdrawals	-	-	-	-	-
Balance @ December 31	916	916	916	916	916
<b>DCC - Sewer</b>	850,000	850,000	850,000	850,000	850,000
Additions	-	-	-	-	-
Withdrawals	-	-	-	-	-
Balance @ December 31	850,000	850,000	850,000	850,000	850,000
<b>Total - Sewer Fund</b>	9,551,575	7,637,756	7,090,807	3,020,586	2,372,255
Additions	1,885,881	1,932,251	1,923,029	1,915,169	1,908,785
Withdrawals	3,799,700	2,479,200	5,993,250	2,563,500	2,173,102
Balance @ December 31	7,637,756	7,090,807	3,020,586	2,372,255	2,107,938
<b>Water Fund</b>					
<b>Water Reserve</b>	3,289,164	3,071,282	1,324,112	223,890	1,528,042
Additions	3,973,518	4,509,930	5,007,284	5,547,392	6,133,566
Withdrawals	4,191,400	6,257,100	6,107,506	4,243,240	6,213,800
Balance @ December 31	3,071,282	1,324,112	223,890	1,528,042	1,447,808
<b>Water Local Improvements Reserve</b>	99,661	99,661	99,661	99,661	99,661
Additions	-	-	-	-	-
Withdrawals	-	-	-	-	-
Balance @ December 31	99,661	99,661	99,661	99,661	99,661
<b>DCC - Water</b>	400,000	400,000	400,000	400,000	400,000
Additions	-	-	-	-	-
Withdrawals	-	-	-	-	-
Balance @ December 31	400,000	400,000	400,000	400,000	400,000
<b>Levelling Reserve</b>	1,500,000	1,500,000	1,500,000	1,500,000	1,500,000
Additions	-	-	-	-	-
Withdrawals	-	-	-	-	-
Balance @ December 31	1,500,000	1,500,000	1,500,000	1,500,000	1,500,000
<b>Water Supply Reserve</b>	9,584,112	9,848,118	6,374,928	6,639,523	6,698,654
Additions	1,324,506	1,503,310	1,669,095	1,849,131	2,044,522
Withdrawals	1,060,500	4,976,500	1,404,500	1,790,000	744,000
Balance @ December 31	9,848,118	6,374,928	6,639,523	6,698,654	7,999,176
<b>Total - Water Fund</b>	14,872,937	14,919,061	9,698,701	8,863,074	10,226,357
Additions	5,298,024	6,013,240	6,676,379	7,396,523	8,178,088
Withdrawals	5,251,900	11,233,600	7,512,006	6,033,240	6,957,800
Balance @ December 31	14,919,061	9,698,701	8,863,074	10,226,357	11,446,645
<b>Total Operating Reserves</b>	42,848,542	37,139,676	32,082,862	33,202,513	34,518,762

# Capital Program Overview

## 2016-2020 Capital Program

The City plans for project expenditures on a five-year cycle with annual reviews and updates. The 2016 -2020 Financial Plan includes projects that are consistent with the corporate objective of Asset Management as identified in the Strategic Plan, planNanaimo (OCP) and approved master plans such as the Transportation Master Plan and the Cultural Plan for a Creative Nanaimo.

### Asset Management

Asset Management is an integrated approach involving planning, finance, engineering and operational departments to effectively manage the City's existing and new assets. The intent is to maximize benefits, reduce risks and provide satisfactory levels of service to the community in a sustainable manner.

The required changes in financial reporting for municipalities in 2008 brought needed attention to aging infrastructure and the challenges local governments face in funding operating, maintenance, renewal and growth of their infrastructure. The City has made significant progress in adopting asset management principles and best practices. Council made important commitments by identifying asset management as a strategic priority and approving annual increases to property taxes and sewer and

water user fees for contributions to asset management reserves. These reserves will contribute to sustainable funding for infrastructure renewal. Work continues in the organization to further improve and develop asset management knowledge, processes and information for decision makers. The City's last Asset Management Update can be found at <https://www.nanaimo.ca/assets/Departments/Engineering~Public~Works/2012AssetManagementUpdate.pdf>. The next update is planned for 2016 to identify progress to date.

Project information is provided by:

- Summary by major category or program and funding
- Summary by major category or program and type (new/upgrade or renewal)
- Detail reports for each major category or program and type

Annual Operating Impacts of the Capital Program

When constructing new infrastructure or facilities, there is typically an annual operating and maintenance budget needed.

Below is a listing of the operating budget impacts (excluding staffing budgets) for new facilities as a result of the 2016 – 2020 Financial Plan.

Staffing for Fire Station #6 will be phased in during 2017 and 2018 and the projected annual cost for full staffing will be in excess of \$1.6 million.

Additional operating costs related to expansion of the Police Operations Building have not been calculated pending further development of the project.

Reference		2016	2017	2018	2019	2020
P-F1	Fire Station #6: Hammond Bay	59,000	60,180	61,384	62,611	63,863
		\$59,000	\$60,180	\$61,384	\$62,611	\$63,863

# 2016-2020 Capital Plan - Operating and Capital Funds

(Summary by Major Category and Funding)

	2016	2017	2018	2019	2020	Total
<b>PROJECTS</b>						
Strategic	1,813,855	1,791,789	1,603,041	1,508,502	1,498,972	8,216,159
Concurrent Infrastructure Projects	9,999,960	10,787,950	12,716,450	2,010,000	3,500,600	39,014,960
Equipment & Vehicle Program	1,663,800	3,117,350	2,787,600	2,899,022	3,295,549	13,763,321
Facilities Infrastructure & Amenities Program	8,761,250	9,053,282	9,573,975	2,717,300	817,230	30,923,037
Information Technology Infrastructure Progra	1,596,455	543,900	768,400	496,698	672,825	4,078,278
Parking Infrastructure Program	83,000	10,000	391,550	585,000	605,000	1,674,550
Parks Infrastructure Program	907,855	2,627,712	1,921,352	625,000	549,432	6,631,351
Sanitary Sewer Infrastructure Program	4,109,000	1,838,200	4,415,000	2,652,000	3,978,602	16,992,802
Drainage Infrastructure Program	332,000	530,000	650,000	1,452,000	1,044,000	4,008,000
Transportation Infrastructure Program	1,796,300	2,439,900	7,823,900	3,212,400	2,902,200	18,174,700
Water Infrastructure Program	6,265,000	12,494,000	5,323,106	7,179,400	5,162,100	36,423,606
<b>Total Projects</b>	<b>37,328,475</b>	<b>45,234,083</b>	<b>47,974,374</b>	<b>25,337,322</b>	<b>24,026,510</b>	<b>179,900,764</b>
<b>FUNDING SOURCES</b>						
Parks DCCs	250,000	350,000	350,000	350,000	250,000	1,550,000
Roads DCCs	1,650,000	1,938,000	5,382,200	-	-	8,970,200
Sewer DCCs	2,075,000	-	-	455,000	430,000	2,960,000
Water DCCs	2,060,500	4,525,950	111,300	-	150,000	6,847,750
Development Cost Charges (DCC) Reserves	6,035,500	6,813,950	5,843,500	805,000	830,000	20,327,950
Community Works Reserve	-	700,000	1,300,000	-	-	2,000,000
Equipment Depreciation Reserve	708,000	2,075,000	1,888,000	2,305,000	2,796,720	9,772,720
Facility Development Reserve	332,300	235,000	405,000	870,000	-	1,842,300
General Fund Asset Mgmt Reserve	2,527,000	3,512,000	2,923,750	2,452,000	575,000	11,989,750
Sewer Fund Asset Mgmt Reserve	807,000	1,317,400	1,550,000	500,000	2,400,000	6,574,400
Water Fund Asset Mgmt Reserve	1,584,000	124,000	186,000	1,864,200	-	3,758,200
General Reserves	1,433,500	689,100	943,500	498,730	629,080	4,193,910
Sewer Reserves	3,799,700	2,479,200	5,993,250	2,563,500	2,173,102	17,008,752
Water Reserves	5,251,900	11,233,600	7,512,006	6,033,240	6,957,800	36,988,546
Operating and Statutory Reserves	16,443,400	22,365,300	22,701,506	17,086,670	15,531,702	94,128,578
Government Grants	2,300,000	2,300,000	-	-	-	4,600,000
Private Contributions	2,891,541	5,179,000	-	-	-	8,070,541
Grants/Private Contributions	5,191,541	7,479,000	-	-	-	12,670,541
General Revenue and User Fees	7,158,034	7,304,833	7,429,368	7,445,652	7,664,808	37,002,695
PILT's	100,000	671,000	-	-	-	771,000
Borrowing	2,400,000	600,000	12,000,000	-	-	15,000,000
<b>Total Funding</b>	<b>37,328,475</b>	<b>45,234,083</b>	<b>47,974,374</b>	<b>25,337,322</b>	<b>24,026,510</b>	<b>179,900,764</b>

# 2016-2020 Capital Plan - Operating and Capital Funds

(Summary by Major Category and Type)

REF #	STRATEGIC	2016	2017	2018	2019	2020	Total
P-S1	Strategic	483,855	497,589	418,041	413,502	413,972	2,226,959
P-S2	Land Acquisition	600,000	600,000	600,000	600,000	600,000	3,000,000
P-S3	Planning	630,000	694,200	585,000	495,000	485,000	2,889,200
P-S4	Waterfront Development	100,000	-	-	-	-	100,000
	Strategic	1,813,855	1,791,789	1,603,041	1,508,502	1,498,972	8,216,159
<b>CONCURRENT INFRASTRUCTURE PROJECTS</b>							
P-C1	New/Upgrade	3,162,000	3,849,000	7,061,000	1,408,000	996,500	16,476,500
P-C2	Renewal	6,837,960	6,938,950	5,655,450	602,000	2,504,100	22,538,460
	Concurrent Infrastructure Projects	9,999,960	10,787,950	12,716,450	2,010,000	3,500,600	39,014,960
<b>EQUIPMENT &amp; VEHICLE PROGRAM</b>							
P-E1	New/Upgrade	426,400	1,242,000	15,000	-	15,000	1,698,400
P-E2	Renewal	1,237,400	1,875,350	2,772,600	2,899,022	3,280,549	12,064,921
	Equipment & Vehicle Program	1,663,800	3,117,350	2,787,600	2,899,022	3,295,549	13,763,321
<b>FACILITIES INFRASTRUCTURE &amp; AMENITIES PROGRAM</b>							
P-F1	New/Upgrade	7,540,000	7,684,167	6,000,000	-	-	21,224,167
P-F2	Renewal	1,221,250	1,369,115	3,573,975	2,717,300	817,230	9,698,870
	Facilities Infrastructure & Amenities Program	8,761,250	9,053,282	9,573,975	2,717,300	817,230	30,923,037
<b>INFORMATION TECHNOLOGY INFRASTRUCTURE PROGRAM</b>							
P-IT1	New/Upgrade	814,500	27,500	377,500	-	-	1,219,500
P-IT2	Renewal	781,955	516,400	390,900	496,698	672,825	2,858,778
	Information Technology Infrastructure Program	1,596,455	543,900	768,400	496,698	672,825	4,078,278
<b>PARKING INFRASTRUCTURE PROGRAM</b>							
P-P1	Renewal	83,000	10,000	391,550	585,000	605,000	1,674,550
	Parking Infrastructure Program	83,000	10,000	391,550	585,000	605,000	1,674,550
<b>PARKS INFRASTRUCTURE PROGRAM</b>							
P-PI1	New/Upgrade	480,310	2,250,000	1,800,000	500,000	400,000	5,430,310
P-PI2	Renewal	427,545	377,712	121,352	125,000	149,432	1,201,041
	Parks Facilities Program	907,855	2,627,712	1,921,352	625,000	549,432	6,631,351
<b>SANITARY SEWER INFRASTRUCTURE PROGRAM</b>							
P-SS1	New/Upgrade	3,099,000	60,000	3,225,000	600,000	430,000	7,414,000
P-SS2	Renewal	1,010,000	1,778,200	1,190,000	2,052,000	3,548,602	9,578,802
	Sanitary Sewer Infrastructure Program	4,109,000	1,838,200	4,415,000	2,652,000	3,978,602	16,992,802
<b>DRAINAGE INFRASTRUCTURE PROGRAM</b>							
P-SD1	Renewal	332,000	530,000	650,000	1,452,000	1,044,000	4,008,000
	DRAINAGE INFRASTRUCTURE PROGRAM	332,000	530,000	650,000	1,452,000	1,044,000	4,008,000
<b>TRANSPORTATION INFRASTRUCTURE PROGRAM</b>							
P-T1	New/Upgrade	387,200	756,900	471,100	1,227,400	1,170,200	4,012,800
P-T2	Renewal	1,409,100	1,683,000	7,352,800	1,985,000	1,732,000	14,161,900
	Transportation Infrastructure Program	1,796,300	2,439,900	7,823,900	3,212,400	2,902,200	18,174,700
<b>WATER INFRASTRUCTURE PROGRAM</b>							
P-W1	New/Upgrade	2,643,000	8,926,000	1,215,606	1,600,000	200,000	14,584,606
P-W2	Renewal	3,622,000	3,568,000	4,107,500	5,579,400	4,962,100	21,839,000
	Water Infrastructure Program	6,265,000	12,494,000	5,323,106	7,179,400	5,162,100	36,423,606
	<b>Total Projects</b>	<b>37,328,475</b>	<b>45,234,083</b>	<b>47,974,374</b>	<b>25,337,322</b>	<b>24,026,510</b>	<b>179,900,764</b>

# 2016-2020 Capital Projects Plan (PS-1)

## Operating and Capital Funds

Reference #

P-S1

Project:

Strategic

	2016	2017	2018	2019	2020	Total
<b>Project Costs:</b>						
Archaeological Site Assessment	50,000	-	-	-	-	50,000
Canada Day 150 Celebrations	5,000	30,000	-	-	-	35,000
Coal Town Trail Signage/Mapping	15,000	-	-	-	-	15,000
Downtown Heritage Bldg Design Guidelines Update	-	50,000	-	-	-	50,000
Grants	200,000	150,000	150,000	150,000	150,000	800,000
Housing Legacy Reserve	-	165,000	165,000	165,000	165,000	660,000
Immigrant Welcome Reception	4,500	4,500	4,500	4,500	4,500	22,500
Invasive Plant Management Program	25,000	25,000	25,000	20,000	20,000	115,000
Mayor's Youth Advisory Council	3,000	3,000	3,000	3,000	3,000	15,000
Public Art	30,000	30,000	30,000	30,000	30,000	150,000
Public Education of Water System	65,000	-	-	-	-	65,000
Recreation Partnership Programs	68,855	22,589	23,041	23,502	23,972	161,959
Transportation Initiatives	17,500	17,500	17,500	17,500	17,500	87,500
<b>Total</b>	<b>483,855</b>	<b>497,589</b>	<b>418,041</b>	<b>413,502</b>	<b>413,972</b>	<b>2,226,959</b>
<b>Funding Sources:</b>						
Water Reserves	65,000	-	-	-	-	65,000
Private Contributions	45,141	-	-	-	-	45,141
General Revenue and User Fees	373,714	497,589	418,041	413,502	413,972	2,116,818
<b>Total</b>	<b>483,855</b>	<b>497,589</b>	<b>418,041</b>	<b>413,502</b>	<b>413,972</b>	<b>2,226,959</b>

# 2016-2020 Capital Projects Plan (PS-1)

**Overview:** To address specific initiatives, issues or goals.

## Project Descriptions and Benefits:

**Archaeological Site Assessment:** An archaeological field survey to verify and complete high potential archaeological site mapping within City limits. The Provincial Archaeological Sites register will be updated based on results and the project will be completed in consultation with Snuneymuwx First Nation.

**Canada Day 150 Celebrations:** The City of Nanaimo is on the executive for the 2017 Canada Day 150 Community Committee. Planning is underway for the ten day event that will kick off on National Aboriginal day and end with the finale on Canada Day.

**Coal Town Trail:** The creation of a Coal Town Trail celebrating Nanaimo's coal heritage by linking walking and biking paths throughout the City using interpretive signage, way-finding and mapping.

### Grants

- **Downtown Facade Grant Program:** Started in 2003, \$20,000 annual program to provide incentives for heritage building renewal as part of the City's Downtown Revitalization Strategy.
- **SPCA Capital Grant:** In 2014 Council approved a \$50,000 grant per year for 2014, 2015 and 2016 to be used for a new facility.
- **Water Conservation:** Incentive programs for City residents to reduce water consumption including
  - Toilet Rebate Program - \$100,000 per year
  - Appliance Rebate Program - \$30,000 per year

**Housing Legacy Reserve:** Provides for annual contribution to the Housing Legacy Reserve. The reserve is used to fund municipal support for affordable housing initiatives in Nanaimo.

### Community Engagement

- **Immigrant Welcome Reception:** Held annually to welcome new residents from other countries to the community.
- **Mayor's Youth Advisory Council:** Implemented in 2014, and comprised of youth between the ages of 15 and 24, to provide comments to Council on a range of subject matters.

**Invasive Plant Management Program:** Provide staff training on priority invasive plants including identification, handling, transportation and disposal to minimize spread. Provide training and supervision to volunteers during invasive plant management projects within City parks. Raise public awareness about priority invasive plants that can have a negative impact on environmental and public health, as well as damage homes and infrastructure.

**Public Art:** Support temporary public art program.

**Public Education of Water System:** Development of education material including a video and display boards to enhance the public's understanding of the City's water system.

**Recreation Partnership Programs:** The PR&E department partners with other stakeholders (eg. Island Health) to provide programs such as Swim to Survive Program, Healthy Weights Program and Mend Program. Contributions from partners help fund these programs.

### Transportation Initiatives

- **Alternate Transportation Education & Marketing:** Includes promotion of Bike to Work week.
- **Safer School Travel Program:** Program improves safe student access to/from schools for pedestrians and cyclists. Typically is used to support larger projects that improve student access/safety or fund smaller projects raised by schools.

## 2016-2020 Capital Projects Plan (PS-2)

### Operating and Capital Funds

<b>Reference #</b>	P-S2				
<b>Project:</b>	Strategic - Land Acquisition				
	2016	2017	2018	2019	2020
<b>Project Costs:</b>	600,000	600,000	600,000	600,000	600,000
<b>Funding Sources:</b>					
General Revenue	600,000	600,000	600,000	600,000	600,000

### Project Descriptions and Benefits:

Annual budget allocation for acquisition of land for park or other City purposes.

Unspent budget is transferred to the Property Acquisition Reserve at the end of the year.

# 2016-2020 Capital Projects Plan (PS-3)

## Operating and Capital Funds

Reference # P-S3  
Project: Strategic - Planning

	2016	2017	2018	2019	2020	Total
<b>Project Costs:</b>						
Drainage	21,450	21,450	25,000	25,000	25,000	117,900
Environment	73,550	2,750	-	-	-	76,300
Financial	85,000	60,000	60,000	60,000	60,000	325,000
Fire Services	5,000	5,000	5,000	5,000	5,000	25,000
Parks, Recreation and Environment	-	75,000	75,000	-	-	150,000
Community Planning	150,000	100,000	225,000	200,000	200,000	875,000
Sanitary Sewer	140,000	100,000	50,000	50,000	50,000	390,000
Transportation	65,000	125,000	65,000	65,000	65,000	385,000
Water Distribution	50,000	50,000	50,000	50,000	50,000	250,000
Water Supply	40,000	155,000	30,000	40,000	30,000	295,000
Total	630,000	694,200	585,000	495,000	485,000	2,889,200
<b>Funding Sources:</b>						
Sewer Reserves	140,000	100,000	50,000	50,000	50,000	390,000
Water Reserves	90,000	205,000	80,000	90,000	80,000	545,000
Private Contributions	26,400	-	-	-	-	26,400
General Revenue	373,600	389,200	455,000	355,000	355,000	1,927,800
Total	630,000	694,200	585,000	495,000	485,000	2,889,200

## 2016-2020 Capital Projects Plan (PS-3)

**Overview:** City planning processes include public consultation, and information collection and analysis that support decisions for upgrading/expansion of City infrastructure.

### Project Descriptions and Benefits:

**Drainage:** Annual studies to identify existing and future capacity issues in storm drainage system.

**Environment:** 2016 projects include development of an environmental framework for the City, stream sign upgrading including adding Snuneymuwx First Nation name for each watercourse, development and implementation of Jingle Pot Marsh Restoration plan, and Community Watershed Monitoring Program.

**Financial:** 2016 projects include Financial/Performance Audits and Property Valuation Program.

**Fire Services:** Provide for recruitment expenses to address succession planning and staffing requirement for new fire station on Hammond Bay Road.

**Parks, Recreation and Environment:** Update the Parks, Recreation and Environment Master Plan. The current Parks, Recreation and Culture Master Plan was adopted in 2005 and prior to the change to the structure of the department.

#### Community Planning:

- Official Community Plan (OCP) Update - the current OCP was adopted in 2008 and an update is planned in 2019.
- Community Planning Studies - include Land Capacity Analysis, Town Structure Plan (linked to Transportation Master Plan), and Bylaw Reviews.
- City Orthophotos – ongoing annual maintenance of data sets with a full update including new photos planned in 2018.

**Sanitary Sewer:** Annual studies to identify existing and future capacity issues such as infrastructure failures, surcharging and backflow. Planned studies include Townsite and Brechin Master Plan, Downtown North and South Master Plan, and Fillinger Crescent Routing Study.

**Transportation:** Annual studies to identify existing and future capacity issues with the transportation network. Planned studies include a population projection study and model recalibration (2018) to assist with long-term infrastructure planning, and the traffic counters program.

**Water Distribution and Water Supply:** Annual studies to identify existing and future capacity issues to maintain operating pressures and required fire flows in the water system. Specific planned studies include Water Audit Update, Watershed Forecasting Model, and Water Conservation Strategy.

## 2016-2020 Capital Projects Plan (PS-4)

### Operating and Capital Funds

Reference #

P-S4

Project:

Strategic - Waterfront Development

	2016	2017	2018	2019	2020	Total
<b>Project Costs:</b>	100,000	-	-	-	-	100,000
<b>Funding Sources:</b>						
PILT's	100,000	-	-	-	-	100,000
<b>Total</b>	100,000	-	-	-	-	100,000

#### Overview:

In 2013, the City acquired 26.7 acres of land at 1 Port Drive. In 2014, the South Downtown Waterfront Initiative prepared a framework and guiding principles for the redevelopment of this area. In 2015, site remediation (demolition of dock) and environmental assessment were undertaken. The development of a detailed Master Plan is underway and will continue into 2016.

# 2016-2020 Capital Projects Plan (P-C1)

## Operating and Capital Funds

Reference #

P-C1

Project:

Concurrent Infrastructure Projects - New/Upgrades

	2016	2017	2018	2019	2020	Total
<b>Project Costs:</b>						
Boxwood Connector & Utility Project	1,675,000	-	7,016,000	-	-	8,691,000
Dufferin @ Dufferin St Upgrade	-	-	-	130,000	-	130,000
Dufferin Cres SW & Utility Upgrade	-	-	45,000	-	996,500	1,041,500
Estevan Rd Complete St Corridor Project	-	160,000	-	-	-	160,000
Hammond Bay Corridor & Utility Project	-	3,667,000	-	-	-	3,667,000
Jingle Pot Utility Project	-	22,000	-	675,000	-	697,000
Metral Corridor & Utility Upgrade	-	-	-	603,000	-	603,000
Victoria Rd SW & Utility Project	1,487,000	-	-	-	-	1,487,000
<b>Total</b>	<b>3,162,000</b>	<b>3,849,000</b>	<b>7,061,000</b>	<b>1,408,000</b>	<b>996,500</b>	<b>16,476,500</b>
<b>Funding Sources:</b>						
Roads DCCs	1,550,000	1,938,000	5,382,200	-	-	8,870,200
Sewer DCCs	-	-	-	455,000	-	455,000
Water DCCs	-	93,450	-	-	-	93,450
General Fund Asset Mgmt Reserve	-	1,462,000	-	-	-	1,462,000
Sewer Fund Asset Mgmt Reserve	687,000	-	-	-	-	687,000
Sewer Reserves	45,000	-	685,000	-	314,500	1,044,500
Water Reserves	50,000	195,550	566,000	348,000	441,000	1,600,550
General Revenue	830,000	160,000	427,800	605,000	241,000	2,263,800
<b>Total</b>	<b>3,162,000</b>	<b>3,849,000</b>	<b>7,061,000</b>	<b>1,408,000</b>	<b>996,500</b>	<b>16,476,500</b>

## 2016-2020 Capital Projects Plan (P-C1)

**Overview:** Concurrent infrastructure projects can include roads, sidewalks, lighting, signals, drainage, sanitary sewer and water infrastructure. Significant benefits are achieved including improved cost efficiencies, optimizing staff resources and reduction in service disruptions to the community when planning and completing multi infrastructure projects in an area at the same time.

Concurrent projects for new/upgraded infrastructure will address safety, growth, capacity or regulatory needs.

The City's Transportation Master Plan (2014) identified recommendations to improve pedestrian, cycling, transit and vehicle mobility within the City. Where cost effective, those recommendations are integrated with concurrent projects. Examples of these amenities include sidewalks, cycling lanes and improved transit stops.

### **Funding**

Where projects are required due to development, funding from DCC reserves are utilized.

Where projects are for upgrades to existing infrastructure, funding from asset management reserves has been utilized in addition to general taxation revenues and operating reserves.

### **Project Descriptions and Benefits:**

#### **Major Projects**

**Boxwood Connector & Utility Project:** Road network improvement project to address congestion and safety issues at Bowen/Northfield intersection. Project scope includes new drainage infrastructure (mains and pond) and new sanitary sewer and water infrastructure to support development in the area.

**Dufferin @ Dufferin St Upgrade:** Improvements to vehicle and pedestrian alignment through the intersection of Dufferin @ Dufferin, and construction of a new sidewalk on the south side of Dufferin Cres. to improve pedestrian safety and comfort.

**Dufferin Crescent Sidewalk (SW) & Utility Upgrade:** New drainage and sidewalk infrastructure, upsize sanitary sewer infrastructure to address capacity issues and replacement of watermain at end of useful life.

**Estevan Rd Complete St Corridor Project:** Pedestrian and cycling upgrades consistent with Newcastle and Brechin neighbourhood plan.

**Hammond Bay Corridor & Utility Project:** Address cracking pavement and apparent subsidence adjacent to retaining wall, widening of road shoulders to improve pedestrian and cycling flow and safety, and watermain upsizing to address deficient fire flows.

**Jingle Pot Utility Project:** Upsize sanitary sewer infrastructure to address capacity issues and renewal of watermain at end of useful life.

**Metral Corridor & Utility Project:** Cycling, sidewalk, crosswalk, bus stop and drainage infrastructure upgrades from Mostar to Turner and replacement of watermain at end of useful life.

**Victoria Rd SW & Utility Project:** Comprehensive street upgrade project including sidewalk, bike lane, on-street parking, drainage and sanitary sewer infrastructure to address deteriorating infrastructure in area with potential geotechnical issues.

# 2016-2020 Capital Projects Plan (P-C2)

## Operating and Capital Funds

Reference #  
Project:

P-C2  
Concurrent Infrastructure Projects - Renewals

	2016	2017	2018	2019	2020	Total
<b>Project Costs:</b>						
Bartlett & Venlaw Area Utility Upgrade	-	-	75,000	-	880,100	955,100
Beban Plaza Utilities Project	789,000	-	-	-	-	789,000
Big Bear Ridge Area Utility Upgrade	-	-	-	62,000	-	62,000
Bradley/Wall Drainage & Sanitary Project	-	341,000	-	-	-	341,000
Caspers Way RHB & Utility Project	-	-	-	-	597,000	597,000
Cinnabar Dr RHB & Utility Upgrade	-	970,950	-	-	-	970,950
Cliff St Area Corridor & Utility Project	1,783,360	-	-	-	-	1,783,360
College Dr Area WM Twinning	40,000	65,000	1,144,250	-	-	1,249,250
Duke & Sixth Utility Upgrade	76,000	-	773,000	-	-	849,000
Fillinger Cres Utility Upgrade	-	-	1,694,000	-	-	1,694,000
Garner Cres Area Utility Upgrade	1,220,200	-	-	-	-	1,220,200
Glenayr/Wingrove Area Utility Upgrade	12,000	535,000	-	-	-	547,000
Howard Ave Utility Upgrade	-	45,000	-	395,000	-	440,000
Lambert Ave Utility Upgrade	90,000	-	872,000	-	-	962,000
Nanaimo Lakes DR & RHB Project	970,000	-	-	-	-	970,000
Poplar St Utility Upgrade	-	574,000	-	-	-	574,000
Roberta Rd Area Utility Upgrade	-	757,600	-	-	-	757,600
Robins St Utility Upgrade	115,000	-	-	-	-	115,000
Seventh St Utility Upgrade	30,000	455,000	-	-	-	485,000
Sherwood Dr Utility Upgrade	546,000	-	-	-	-	546,000
Terminal South Complete Street & Utility Project	279,400	3,195,400	1,032,200	-	-	4,507,000
Terminal Trench & Utility Project	-	-	65,000	-	1,027,000	1,092,000
Thunderbird Area Utility Upgrade	-	-	-	145,000	-	145,000
Tom's Turnabout Area Utility Upgrade	540,000	-	-	-	-	540,000
Townsite/Holly Corridor & Utility Project	347,000	-	-	-	-	347,000
<b>Total</b>	<b>6,837,960</b>	<b>6,938,950</b>	<b>5,655,450</b>	<b>602,000</b>	<b>2,504,100</b>	<b>22,538,460</b>
<b>Funding Sources:</b>						
Water DCCs	-	-	111,300	-	-	111,300
General Fund Asset Mgmt Reserve	1,917,000	1,416,000	432,200	-	-	3,765,200
Sewer Fund Asset Mgmt Reserve	120,000	1,317,400	1,450,000	-	-	2,887,400
Water Fund Asset Mgmt Reserve	944,000	-	-	105,000	-	1,049,000
Sewer Reserves	1,560,700	525,000	929,250	340,000	638,500	3,993,450
Water Reserves	1,421,000	2,885,550	1,717,700	157,000	1,396,600	7,577,850
General Revenue	875,260	795,000	1,015,000	-	469,000	3,154,260
<b>Total</b>	<b>6,837,960</b>	<b>6,938,950</b>	<b>5,655,450</b>	<b>602,000</b>	<b>2,504,100</b>	<b>22,538,460</b>

## 2016-2020 Capital Projects Plan (P-C2)

**Overview:** Concurrent infrastructure projects can include roads, sidewalks, lighting, signals, drainage, sanitary sewer and water infrastructure. Significant benefits are achieved including improved cost efficiencies, optimizing staff resources and reduction in service disruptions to the community when planning and completing multi infrastructure projects in an area at the same time.

The renewal of City infrastructure at end of useful life/deteriorating condition is in compliance with new regulatory standards. Delaying renewal projects can result in higher operating and maintenance expenses, increased safety and service disruption risks and property damage.

The City's Transportation Master Plan (2014) identified recommendations to improve pedestrian, cycling, transit and vehicle mobility within the City. Where cost effective, those recommendations are integrated with concurrent renewal projects – eg. new sidewalks, cycling lanes, improved transit stops.

### **Funding**

Where projects are for renewal of existing infrastructure, funding from asset management reserves has been utilized in addition to general taxation revenues and operating reserves.

### **Project Descriptions and Benefits:**

#### **Major Projects**

**Bartlett & Venlaw Area Utility Upgrade:** Replacement of sanitary sewer and watermain infrastructure that is at end of useful life.

**Cinnabar Dr Road Rehab (RHB) & Utility Upgrade:** Road surface rehabilitation, drainage, watermain and pressure reducing station infrastructure renewal.

**Cliff St Area Corridor & Utility Project:** Comprehensive street upgrade project with road surface rehabilitation, sidewalk, crosswalk, street lights, drainage, sanitary sewer and watermain infrastructure renewal.

**College Dr Area Watermain (WM) Twinning:** Replace water supply main on College Dr., complete twinning of College Drive water supply main to address redundancy needs, replace water distribution (Camosun and Langara) and sanitary sewer infrastructure.

**Fillinger Cres Utility Upgrade:** Replacement of sanitary sewer and water infrastructure.

**Garner Cres Area Utility Upgrade:** Replacement of sanitary sewer and watermain infrastructure.

**Lambert Ave Utility Upgrade:** Drainage and sanitary sewer infrastructure renewal.

**Nanaimo Lakes Drainage (DR) & Road Rehab (RHB) Project:** Road surface rehabilitation and drainage infrastructure renewal.

**Terminal South Complete Street & Utility Projects:** Road surface rehabilitation of Terminal Ave from Stewart Ave to St. George, and renewal of drainage, sanitary sewer and watermain infrastructure.

**Terminal Trench & Utility Project:** Replacement of sanitary sewer and water infrastructure.

# 2016-2020 Capital Projects Plan (P-E1)

## Operating and Capital Funds

### Project:

Equipment & Vehicle Program - New/Upgrade

	2016	2017	2018	2019	2020	Total
<b>Project Costs:</b>						
Fleet - City	22,000	-	-	-	-	22,000
Fleet - Fire	-	792,000	-	-	-	792,000
Maintenance Equipment	79,400	-	-	-	-	79,400
Parking Equipment	325,000	450,000	-	-	-	775,000
SNIC Equipment	-	-	15,000	-	15,000	30,000
<b>Total</b>	<b>426,400</b>	<b>1,242,000</b>	<b>15,000</b>	<b>-</b>	<b>15,000</b>	<b>1,698,400</b>
<b>Funding Sources:</b>						
Equipment Depreciation Reserve	-	792,000	-	-	-	792,000
Water Reserves	36,400	-	-	-	-	36,400
General Revenue	390,000	450,000	15,000	-	15,000	870,000
<b>Total</b>	<b>426,400</b>	<b>1,242,000</b>	<b>15,000</b>	<b>-</b>	<b>15,000</b>	<b>1,698,400</b>

### Project Descriptions and Benefits:

**Fleet – City:** Purchase of a used vehicle for the new water cross connection control program.

**Fleet – Fire:** Purchase of a new Type 1 Engine for the new Fire Station #6 on Hammond Bay Road.

**Maintenance Equipment:** Purchase of a new mower for Parks Operations, 12 hydrant backflow preventers for water cross connection program, and a new portable FloDar to measure storm flows for drainage studies.

**Parking Equipment:** Installation of new single space and multi-space meters in the Downtown and Old City Quarter areas.

**Snow and Ice Control (SNIC) Equipment:** Purchase of two new anti-icing tanks.

# 2016-2020 Capital Projects Plan (P-E2)

## Operating and Capital Funds

Reference #

P-E2

Project:

Equipment & Vehicle Program - Renewal

	2016	2017	2018	2019	2020	Total
<b>Project Costs:</b>						
Fleet - City	523,000	910,000	955,000	830,000	1,360,000	4,578,000
Fleet - Fire	115,000	158,000	892,000	1,440,000	1,332,000	3,937,000
Furniture & Equipment Replacement	227,800	220,500	117,500	215,500	100,980	882,280
Gym Fitness Equipment	-	50,000	-	50,000	-	100,000
Kitchen Equipment - Vancouver Island Conference Centre	-	-	252,000	-	-	252,000
Maintenance Equipment	158,200	133,650	256,800	169,190	111,945	829,785
Misc - Fire Equipment	55,200	78,000	68,600	58,132	64,404	324,336
Misc - Fleet Shop Equipment	5,000	10,000	16,000	10,000	79,720	120,720
Misc - Survey Equipment	10,000	10,000	10,000	10,000	10,000	50,000
Parking Equipment	9,000	9,000	-	-	-	18,000
Parks Amenities	16,200	116,200	116,200	116,200	118,000	482,800
SNIC Equipment	78,000	-	88,500	-	103,500	270,000
Zambonis	40,000	180,000	-	-	-	220,000
<b>Total</b>	<b>1,237,400</b>	<b>1,875,350</b>	<b>2,772,600</b>	<b>2,899,022</b>	<b>3,280,549</b>	<b>12,064,921</b>
<b>Funding Sources:</b>						
Equipment Depreciation Reserve	708,000	1,283,000	1,888,000	2,305,000	2,796,720	8,980,720
Facility Development Reserve	146,300	-	-	-	-	146,300
General Reserves	13,000	9,000	256,000	60,000	4,080	342,080
Sewer Reserves	20,000	16,000	14,000	21,500	21,500	93,000
Water Reserves	25,000	10,000	11,200	18,040	16,100	80,340
General Revenue	325,100	557,350	603,400	494,482	442,149	2,422,481
<b>Total</b>	<b>1,237,400</b>	<b>1,875,350</b>	<b>2,772,600</b>	<b>2,899,022</b>	<b>3,280,549</b>	<b>12,064,921</b>

## 2016-2020 Capital Projects Plan (P-E2)

**Overview:** The City utilizes a wide range of vehicles and equipment to deliver services. Renewal programs provide for replacement of vehicles and equipment at the end of their useful life. Delaying replacement can result in higher maintenance costs as well as increased safety and service disruption risks.

Examples of estimated useful life (years) for fleet vehicles and equipment are:

Vehicle/Pickups	10 years
Heavy Equipment/Garbage Trucks	15 years
Fire Apparatus	25 years
Ice Resurfacers (Zambonis)	20 years

### Funding

Funding for vehicle replacement is from the Equipment Replacement Reserve.

Funding for equipment replacement is from general taxation revenue or operating reserves.

Internal charges to user departments are used to fund the Equipment Replacement Reserve. Internal charges are unit specific and include recovery of annual operating, insurance and maintenance costs and contribution to the reserve for each unit's replacement.

### Project Descriptions and Benefits:

**Fleet – City Renewal Program:** Replacement of vehicles, pickups, heavy equipment and garbage trucks. Major 2016 purchases include:

- Full Size Single Axle Dump Truck (in-service year 2001) \$185,000
- Small 4x4 Dump Truck (in-service year 2001) \$155,000

**Furniture and Equipment Replacement:** Replacement of furniture and equipment (excluding copiers) used by City staff.

**Gym Fitness Equipment:** Cardio, elliptical, strength and treadmill equipment replacement.

**Kitchen Equipment – VICC:** Replacement of equipment including ice machine, waste processor, ovens, steam cooker, commercial mixers and slicer.

**Maintenance Equipment:** Replacement of small tools and equipment used by Parks, Construction, Drainage, Sewer, Transportation and Water Operations.

**Fleet Shop Equipment:** Includes replacement of hoists, welders, lathes, bead machine, pressure washers, and drill press.

**Survey Equipment:** Replacement of integrated survey control monuments.

**Park Amenities:** Replacement of play equipment and portable bleachers.

**Parking Equipment:** Parking meter replacement program.

**Snow and Ice Control (SNIC) Equipment Replacement:** Replacement of plow and sanders attachments, and anti-icing tanks.

**Fleet – Fire:** Replacement of fire apparatus and support vehicles.

**Fire Equipment Replacement:** Replacement of hoses/nozzles, self contained breathing apparatus (SCBA), auto extraction tools, portable radios and intersection controllers.

# 2016-2020 Capital Projects Plan (P-F1)

## Operating and Capital Funds

Reference #

P-F1

Project:

Facilities Infrastructure & Amenities Program - New/Upgrade

	2016	2017	2018	2019	2020	Total
<b>Project Costs:</b>						
Fire Station #6: Hammond Bay	2,400,000	-	-	-	-	2,400,000
Fire Training Centre	-	184,167	-	-	-	184,167
Police Operations Building : Expansion	40,000	600,000	6,000,000	-	-	6,640,000
Port Theatre Expansion	5,100,000	6,900,000	-	-	-	12,000,000
<b>Total</b>	<b>7,540,000</b>	<b>7,684,167</b>	<b>6,000,000</b>	<b>-</b>	<b>-</b>	<b>21,224,167</b>
<b>Funding Sources:</b>						
General Reserves	-	150,000	-	-	-	150,000
Government Grants	2,300,000	2,300,000	-	-	-	4,600,000
Private Contributions	2,800,000	4,600,000	-	-	-	7,400,000
General Revenue	40,000	34,167	-	-	-	74,167
Borrowing	2,400,000	600,000	6,000,000	-	-	9,000,000
<b>Total</b>	<b>7,540,000</b>	<b>7,684,167</b>	<b>6,000,000</b>	<b>-</b>	<b>-</b>	<b>21,224,167</b>

**Overview:** New and upgraded facilities support new or enhanced levels of service.

New or expanded facilities will increase annual operating and maintenance budgets.

### Project Descriptions and Benefits:

**Fire Station #6 Hammond Bay Road:** The Fire Rescue Standard of Response Coverage Implementation Plan (2005) includes construction and operation of a fire station on Hammond Bay Road. Land has been purchased and construction is planned in 2016.

This facility will operate with 20 additional firefighters and a Type 1 Engine. Additional annual operating and maintenance costs for this facility will be \$2M.

**Fire Training Centre:** Addition of a steel training tower with stairs to the Fire Training Centre located on Labieux Road.

**Police Operations Building Expansion:** Expansion of the Police Operations building located on Prideaux Street includes a space needs study in 2016, detailed design in 2017 and construction in 2018. Once the space needs study and detailed design work is completed the cost of construction will be confirmed.

**Port Theatre Expansion:** The Port Theatre building expansion is contingent on successful grant applications, community sponsorship and other funding options. The planned expansion is for a Community Performing Arts Centre which will include a performance space with seating capacity for 220 persons, rehearsal space and lobby.

# 2016-2020 Capital Projects Plan (P-F2)

## Operating and Capital Funds

Reference #

P-F2

Project:

Facilities Infrastructure & Amenities Program - Renewal

	2016	2017	2018	2019	2020	Total
<b>Project Costs:</b>						
Animal Shelter	6,000	-	25,000	-	-	31,000
Aquatics Facilities	272,500	429,400	182,000	1,125,000	70,000	2,078,900
Arena Facilities	100,000	80,000	410,000	35,000	10,000	635,000
Civic Properties	200,465	-	-	-	-	200,465
Condition Assessments	25,000	35,000	35,000	35,000	35,000	165,000
Culture & Heritage Facilities	96,069	84,245	338,000	30,500	110,200	659,014
Nanaimo Fire Rescue Facilities	44,900	97,870	-	105,800	175,000	423,570
Parks Facilities	30,816	-	-	-	7,000	37,816
Police Services Facilities	100,000	331,500	84,500	295,000	29,180	840,180
Port of Nanaimo Centre	-	60,000	-	-	30,000	90,000
Public Works Yard	89,000	131,100	77,475	865,600	103,250	1,266,425
Recreation Facilities	256,500	120,000	2,422,000	225,400	235,600	3,259,500
Water Facilities	-	-	-	-	12,000	12,000
<b>Total</b>	<b>1,221,250</b>	<b>1,369,115</b>	<b>3,573,975</b>	<b>2,717,300</b>	<b>817,230</b>	<b>9,698,870</b>
<b>Funding Sources:</b>						
Facility Development Reserve	186,000	235,000	405,000	870,000	-	1,696,000
General Fund Asset Mgmt Reserve	110,000	234,000	2,100,000	800,000	-	3,244,000
General Reserves	75,000	72,100	15,000	-	-	162,100
Water Reserves	-	-	-	-	12,000	12,000
General Revenue	850,250	828,015	1,053,975	1,047,300	805,230	4,584,770
<b>Total</b>	<b>1,221,250</b>	<b>1,369,115</b>	<b>3,573,975</b>	<b>2,717,300</b>	<b>817,230</b>	<b>9,698,870</b>

# 2016-2020 Capital Projects Plan (P-F2)

## Overview:

The City currently owns and operates over 100 facilities which support delivery of a wide range of services. These facilities include civic office buildings, fire and police buildings, public works yards, recreation facilities, cultural facilities, parkades and the Port of Nanaimo Centre. Facility renewal projects include replacement of existing components within each building to maintain current function and service levels.

Maintenance and renewal of these facilities is complex, as they are made up of many components with different useful lives, functions and operating and maintenance requirements. The 2016 - 2020 Financial Plan includes projects for replacement of roofs, HVAC, mechanical, electrical, plumbing and interior finishing components.

## Funding

Reserves that are utilized to fund facility renewal are the Facility Development Reserve (recreation facilities only) and the Asset Management Reserve. Additional funding for facility renewal projects is from general taxation revenues, operating reserves and grants.

A 20% surcharge on recreation fees is transferred to the Facility Development Reserve. This reserve is used to fund recreation facility renewal.

## Project Descriptions and Benefits:

Facility renewal projects are many and lower individual costs. In 2016, there are 47 facility renewal projects ranging in costs from \$3,000 to \$110,000.

## 2016 Major Projects Include:

Caledonia Park/Curling Club, parking lot renewal	\$110,000
Bowen Park, washroom renewal	\$40,000
Fire Station #1, flooring replacement	\$35,000
Frank Crane Arena, wash/dressing room renewal	\$45,000
Kin Pool, cement piping replacement	\$49,000
Port Theatre, windows replacement	\$44,760
Police Operations Building, flooring replacement	\$30,000

# 2016-2020 Capital Projects Plan (P-IT1)

## Operating and Capital Funds

Reference # P-IT1  
Project: Information Technology Infrastructure Program - New/Upgrade

	2016	2017	2018	2019	2020	Total
<b>Project Costs:</b>						
Business Applications	317,500	27,500	377,500	-	-	722,500
Computing Infrastructure	497,000	-	-	-	-	497,000
Total	814,500	27,500	377,500	-	-	1,219,500
<b>Funding Sources:</b>						
General Reserves	560,000	-	350,000	-	-	910,000
General Revenue	254,500	27,500	27,500	-	-	309,500
Total	814,500	27,500	377,500	-	-	1,219,500

**Overview:** The City's technology equipment, managed by the Information Technology department, maintains systems access for network and business applications.

### Funding

Internal charges to user departments based on number of computers help fund upgrades and new network assets.

### Project Descriptions and Benefits:

**Business Applications includes the purchase, expansion or upgrades to a number of software applications such as:**

- **Document Management:** Manage retention and destruction of records in compliance with Records Management Policy.
- **Computerized Maintenance Management System:** To integrate maintenance (work orders), inventory, fleet, and financial control and reporting with corporate utilities asset inventory in GIS.
- **Electronics Records Archiving:** To manage destruction of records (SAP) in compliance with Records Management Policy.
- **Invoice Routing Enhancements:** To further automate workflows required for creating invoices.
- **Building Permits Electronic Records Conversion**
- **Emergency Management Software:** To efficiently manage, track and report during emergency events from the Emergency Coordination Centre.

**Computing Infrastructure:** Includes Local Area Network (LAN) upgrades for resiliency and security improvements, server for emergency management software, police voice recording system and electronic system to regulate and track RCMP equipment.

# 2016-2020 Capital Projects Plan (P-IT2)

## Operating and Capital Funds

Reference #

P-IT2

Project:

Information Technology Infrastructure Program - Renewal

	2016	2017	2018	2019	2020	Total
<b>Project Costs:</b>						
Business Applications	490,000	195,000	90,000	90,000	90,000	955,000
Computing Infrastructure	291,955	321,400	300,900	406,698	582,825	1,903,778
Total	781,955	516,400	390,900	496,698	672,825	2,858,778
<b>Funding Sources:</b>						
General Reserves	676,500	442,000	316,500	422,730	589,000	2,446,730
General Revenue	105,455	74,400	74,400	73,968	83,825	412,048
Total	781,955	516,400	390,900	496,698	672,825	2,858,778

**Overview:** The City's technology equipment, managed by the Information Technology department, maintains systems access for network and business applications.

### Funding

Internal charges to user departments based on number of computers/copiers help fund replacement of network assets.

Funding for most renewal projects is from the Computer Upgrade Reserve.

### Project Descriptions and Benefits:

**Business Applications:** Renewal program includes required upgrades/maintenance or replacement of systems used to deliver City services. Renewals include FireComm software, Microsoft major application replacement and the Recreation Management (CLASS) software.

**Computing Infrastructure:** Renewal program includes core network components, server hardware, storage and backup systems, and photocopiers.

# 2016-2020 Capital Projects Plan (P-P1)

## Operating and Capital Funds

Reference # P-P1  
Project: Parking Infrastructure Program - Renewals

	2016	2017	2018	2019	2020	Total
<b>Project Costs:</b>						
Bastion St Parkade	-	-	391,550	260,000	260,000	911,550
Harbourfront Parkade	48,000	10,000	-	325,000	335,000	718,000
Port of Nanaimo Centre Parkade	35,000	-	-	-	10,000	45,000
Total	83,000	10,000	391,550	585,000	605,000	1,674,550
<b>Funding Sources:</b>						
General Fund Asset Mgmt Reserve	-	-	391,550	575,000	575,000	1,541,550
General Reserves	83,000	10,000	-	10,000	30,000	133,000
Total	83,000	10,000	391,550	585,000	605,000	1,674,550

**Overview:** The City currently owns and operates three multi-level parkades and five parking lots. Delay in renewal projects can result in higher operating and maintenance costs and increased safety and interruption to service levels risk.

### Funding

Net operating revenues from parking operations are transferred to the Parking Reserve. This reserve is used to fund renewal, upgrades and expansion of the City's parking infrastructure.

### Project Descriptions and Benefits:

**Bastion St Parkade:** Replacement of post tension beams/slab strands, membrane renewal, wall/flooring crack repairs and maintenance on exposed concrete wall.

**Harbourfront Parkade:** Membrane renewal, lighting upgrades (sustainability project – LED lighting tubes), replacement of gas detection sensors and wall/flooring crack repairs.

**Port of Nanaimo Centre Parkade:** Replacement of gas detection sensors, water infiltration study and wall/flooring crack repairs.

# 2016-2020 Capital Projects Plan (P-I1)

## Operating and Capital Funds

Reference # P-PI1  
Project: Parks Infrastructure Program - New/Upgrade

	2016	2017	2018	2019	2020	Total
<b>Project Costs:</b>						
Accessibility Projects	50,000	-	-	-	-	50,000
Parks & Playgrounds	200,000	900,000	1,500,000	200,000	200,000	3,000,000
Sports Fields	35,000	-	-	-	-	35,000
Trail Development	195,310	1,350,000	300,000	300,000	200,000	2,345,310
<b>Total</b>	<b>480,310</b>	<b>2,250,000</b>	<b>1,800,000</b>	<b>500,000</b>	<b>400,000</b>	<b>5,430,310</b>
<b>Funding Sources:</b>						
Parks DCCs	250,000	250,000	350,000	350,000	250,000	1,450,000
Community Works Reserve	-	700,000	1,300,000	-	-	2,000,000
Private Contributions	20,000	579,000	-	-	-	599,000
General Revenue	210,310	50,000	150,000	150,000	150,000	710,310
PILT's	-	671,000	-	-	-	671,000
<b>Total</b>	<b>480,310</b>	<b>2,250,000</b>	<b>1,800,000</b>	<b>500,000</b>	<b>400,000</b>	<b>5,430,310</b>

**Overview:** Parks infrastructure includes destination parks, neighborhood parks, spray parks, sports fields, playgrounds, tennis/sport courts and trails

### Project Descriptions and Benefits:

**Accessibility Projects:** Installation of a universally accessible safety surface and wheel chair swing in new playground area of Maffeo Sutton Park. The new playground area facilitates universal access, inclusive play and be low-maintenance.

**Parks and Playgrounds:** Includes Partners in the Park (PIP) program, development of Linley Valley Park and a Harewood Centennial Multi-Use Court.

- The City's Partners in the Parks (PIP) program partners with community volunteers to develop neighbourhood playgrounds and community gardens
- Development of the recently acquired Linley Valley Park will begin with updating the Linley Valley (Cottle Lake) Plan (2006) and mitigation of safety issues and hazards
- The Harewood Centennial Multi-Use Court would be constructed over two years, final costing to be confirmed once design is finalized

**Sports Fields:** As part of the BC Summer Games legacy, installation of a new sports clock for an artificial turf field.

**Trail Development:** Include the Doumont Connector, initial planning and development of the E & N Trail, and the Nanaimo Yacht Club Waterfront Walkway in 2017.

# 2016-2020 Capital Projects Plan (P-PI2)

## Operating and Capital Funds

Reference # P-PI2  
Project: Parks Infrastructure Program - Renewals

	2016	2017	2018	2019	2020	Total
<b>Project Costs:</b>						
Misc Projects	110,445	72,712	76,352	80,000	84,432	423,941
Parks & Playground	71,700	47,675	20,000	20,000	20,000	179,375
Sports Fields	130,000	-	-	-	-	130,000
Tennis Court Improvements	40,000	-	-	-	20,000	60,000
Trail Development	75,400	257,325	25,000	25,000	25,000	407,725
<b>Total</b>	<b>427,545</b>	<b>377,712</b>	<b>121,352</b>	<b>125,000</b>	<b>149,432</b>	<b>1,201,041</b>
<b>Funding Sources:</b>						
Parks DCCs	-	100,000	-	-	-	100,000
General Reserves	20,000	-	-	-	-	20,000
General Revenue	407,545	277,712	121,352	125,000	149,432	1,081,041
<b>Total</b>	<b>427,545</b>	<b>377,712</b>	<b>121,352</b>	<b>125,000</b>	<b>149,432</b>	<b>1,201,041</b>

**Overview:** The City's current park amenities include:

- 13 destination parks including Maffeo Sutton and Westwood Lake parks
- 87 neighborhood parks
- 4 spray parks
- 23 sports fields including 2 artificial turf fields
- 61 playgrounds
- 12 tennis/sport courts
- over 140 kilometers of trails
- 2 highway gateways
- 3 boat ramps
- 7 dams in recreational areas

### Project Descriptions and Benefits:

#### 2016 Major Projects Include:

Robins Park, backstop replacement	\$100,000
Comox Park, safety surfacing	\$51,700
Beban Tennis Courts, court resurfacing	\$40,000
Westwood Lake, boardwalk replacement	\$30,000

# 2016-2020 Capital Projects Plan (P-SS1)

## Operating and Capital Funds

Reference #  
Project:

P-SS1  
Sanitary Sewer Infrastructure Program - New/Upgrades

	2016	2017	2018	2019	2020	Total
<b>Project Costs:</b>						
Mains	3,099,000	60,000	3,225,000	600,000	430,000	7,414,000
<b>Total</b>	<b>3,099,000</b>	<b>60,000</b>	<b>3,225,000</b>	<b>600,000</b>	<b>430,000</b>	<b>7,414,000</b>
<b>Funding Sources:</b>						
Sewer DCCs	2,075,000	-	-	-	430,000	2,505,000
Sewer Reserves	1,024,000	60,000	3,225,000	600,000	-	4,909,000
<b>Total</b>	<b>3,099,000</b>	<b>60,000</b>	<b>3,225,000</b>	<b>600,000</b>	<b>430,000</b>	<b>7,414,000</b>

### Overview:

New/upgraded sanitary sewer infrastructure projects to address current and future capacity issues. Delaying projects may constrain future development, increase risks of service disruption and property damage, increase annual operating and maintenance costs, and may negatively impact public health and safety.

#### Funding

Expansion to the City's sanitary sewer infrastructure is generally funded from the Development Cost Charges reserve.

### Project Descriptions and Benefits:

**Jingle Pot to East Wellington (DCC SS17):** Increase capacity (upsized pipe) identified in 2012 Millstone Trunk Sewer Master Plan.

**Chase River Trunk (DCC SS45):** New pump station and forcemain to address capacity identified in 2014 Chase River Master Plan.

**Park Ave Sanitary Sewer (6<sup>th</sup> Street to 740 Park):** Increase capacity identified in 2014 Chase River Master Plan.

**Hammond Bay Road Sanitary Sewer: McGirr Rd to Kenwill, Turner Rd to Kenning PI (DCC SS44):** Increase capacity (upsized pipe) identified in 1996 Hammond Bay Sanitary Sewer Trunk Study.

# 2016-2020 Capital Projects Plan (P-SS2)

## Operating and Capital Funds

Reference #  
Project:

P-SS2  
Sanitary Sewer Infrastructure Program - Renewals

	2016	2017	2018	2019	2020	Total
<b>Project Costs:</b>						
Condition Assessment Program	475,000	460,000	485,000	460,000	485,000	2,365,000
Design	60,000	60,000	60,000	60,000	60,000	300,000
Mains	475,000	1,258,200	645,000	1,532,000	3,003,602	6,913,802
Total	1,010,000	1,778,200	1,190,000	2,052,000	3,548,602	9,578,802
<b>Funding Sources:</b>						
Sewer Fund Asset Mgmt Reserve	-	-	100,000	500,000	2,400,000	3,000,000
Sewer Reserves	1,010,000	1,778,200	1,090,000	1,552,000	1,148,602	6,578,802
Total	1,010,000	1,778,200	1,190,000	2,052,000	3,548,602	9,578,802

### Overview:

Annual renewal program to replace sanitary sewer infrastructure at the end of its useful life. Replacement is in compliance with new regulatory standards. Delaying renewal projects can result in higher annual operating and maintenance expenses, and increased risks to public health, safety, service disruption and property damage.

Current sanitary sewer infrastructure includes over 548 kilometres of mains and 16 lift stations.

### Funding

Funding for sanitary sewer infrastructure renewal is from sewer reserves including the Sewer Asset Management Reserve.

### Project Descriptions and Benefits:

**Condition Assessment Program:** Annual program to assess critical sanitary sewer mains. Information is used to identify priority projects for five year Financial Plans that minimize infrastructure failure, surcharging and backflow events.

**Mains:** Renewal program to replace sanitary sewer mains at end of useful life.

Design and construction of main replacement program is higher in 2017 due to projects planned for Rosstown Lane, Loudon Park Shoreline and Rock City Easement.

# 2016-2020 Capital Projects Plan (P-SD1)

## Operating and Capital Funds

Reference # P-SD1  
Project: Drainage Infrastructure Program - Renewal

	2016	2017	2018	2019	2020	Total
<b>Project Costs:</b>						
Condition Assessment Program	150,000	200,000	200,000	200,000	200,000	950,000
Design	50,000	50,000	50,000	50,000	50,000	250,000
Mains	132,000	280,000	400,000	1,202,000	794,000	2,808,000
Total	332,000	530,000	650,000	1,452,000	1,044,000	4,008,000
<b>Funding Sources:</b>						
General Fund Asset Mgmt Reserve	-	-	-	602,000	-	602,000
General Revenue	332,000	530,000	650,000	850,000	1,044,000	3,406,000
Total	332,000	530,000	650,000	1,452,000	1,044,000	4,008,000

### Overview:

Annual renewal program to replace drainage infrastructure at the end of its useful life. Replacement is in compliance with new regulatory standards. Delaying renewal projects can result in higher annual operating and maintenance expenses, and increased risks to public health, safety, service disruption and property damage.

Current drainage infrastructure includes over 423 kilometres of mains.

### Funding

Funding for drainage renewal projects is generally from property taxation revenues.

### Project Descriptions and Benefits:

**Condition Assessment Program:** Annual program to assess current condition and determine remaining useful life of drainage infrastructure. Information is used to identify priority projects for five year Financial Plans that minimize risks of infrastructure failure, surcharging and flooding events.

**Mains:** Program to replace and upsize drainage mains with capacity, condition/operating and maintenance issues.

# 2016-2020 Capital Projects Plan (P-T1)

## Operating and Capital Funds

Reference #  
Project:

P-T1  
Transportation Infrastructure Program - New/Upgrade

	2016	2017	2018	2019	2020	Total
<b>Project Costs:</b>						
Cycling Amenities	165,000	641,500	299,500	560,000	450,000	2,116,000
Design	100,000	-	-	-	-	100,000
Pedestrian Amenities	91,200	69,400	37,200	121,400	321,400	640,600
Pedestrian/Cycling Amenities	25,000	40,000	40,000	40,000	40,000	185,000
Street Lights	6,000	6,000	6,000	6,000	6,000	30,000
Traffic Improvements	-	-	88,400	500,000	82,800	671,200
Transit Improvements	-	-	-	-	270,000	270,000
<b>Total</b>	<b>387,200</b>	<b>756,900</b>	<b>471,100</b>	<b>1,227,400</b>	<b>1,170,200</b>	<b>4,012,800</b>
<b>Funding Sources:</b>						
Roads DCCs	100,000	-	-	-	-	100,000
General Reserves	6,000	6,000	6,000	6,000	6,000	30,000
General Revenue	281,200	750,900	465,100	1,221,400	1,164,200	3,882,800
<b>Total</b>	<b>387,200</b>	<b>756,900</b>	<b>471,100</b>	<b>1,227,400</b>	<b>1,170,200</b>	<b>4,012,800</b>

**Overview:** The City's Transportation Master Plan (2014) provides direction on expansion/upgrades to the City's transportation infrastructure.

To support a multi mode transportation network new/upgraded pedestrian, cycling, transit and vehicle amenities will be integrated into concurrent projects as well as identified as individual projects.

### Funding

Funding for new/upgraded transportation infrastructure is generally from property taxation revenues.

## Project Descriptions and Benefits:

**Cycling Amenities:** Development of the City's cycling network, 2016 projects include the Second Street Bikeway (Jingle Pot Rd to Wallace St.) and the design for Bruce Ave (4<sup>th</sup> St. to Bowen Rd) scheduled for construction in 2018.

**Pedestrian Amenities:** Includes countdown timers, audible signals, and flashers at intersections and crosswalks.

**Pedestrian/ Cycling Amenities:** Includes traffic calming amenities.

**Street Lights:** Sustainability initiative to reduce annual operating costs through street lighting reductions.

### Traffic Improvements:

- Hammond Bay Rd @ Rutherford Rd Signal Upgrade 2018
- Jingle Pot Rd @ Westwood Rd - New Signal 2019
- Comox Rd @ Wallace St Signal Upgrade & Countdown Timer 2020

# 2016-2020 Capital Projects Plan (P-T2)

## Operating and Capital Funds

Reference #

P-T2

Project:

Transportation Infrastructure Program - Renewals

	2016	2017	2018	2019	2020	Total
<b>Project Costs:</b>						
Bridges	115,000	590,000	6,000,000	-	-	6,705,000
Condition Assessment Program	100,000	-	-	100,000	-	200,000
Planning & Design	100,000	100,000	100,000	100,000	100,000	500,000
Railway Crossings	25,000	25,000	25,000	25,000	25,000	125,000
Road Rehabilitation	1,019,100	368,000	1,177,800	1,660,000	1,557,000	5,781,900
Sidewalk Maintenance Program	-	50,000	-	50,000	-	100,000
Street Lights	50,000	550,000	50,000	50,000	50,000	750,000
<b>Total</b>	<b>1,409,100</b>	<b>1,683,000</b>	<b>7,352,800</b>	<b>1,985,000</b>	<b>1,732,000</b>	<b>14,161,900</b>
<b>Funding Sources:</b>						
General Fund Asset Mgmt Reserve	500,000	400,000	-	475,000	-	1,375,000
General Revenue	909,100	1,283,000	1,352,800	1,510,000	1,732,000	6,786,900
Borrowing	-	-	6,000,000	-	-	6,000,000
<b>Total</b>	<b>1,409,100</b>	<b>1,683,000</b>	<b>7,352,800</b>	<b>1,985,000</b>	<b>1,732,000</b>	<b>14,161,900</b>

### Overview:

A road condition assessment program is completed every three to five years and information is updated to the City's pavement management system. The system generates optimum road surface replacement schedules. Delaying road surface replacement can result in degradation of the road bed and higher lifecycle costs.

Transportation infrastructure includes over 1,100 kilometres of roadways, 400 kilometres of sidewalks, 15 bridge structures, over 3,500 street lights and 85 traffic signals.

### Funding

Funding for transportation infrastructure renewal is from property taxation revenues.

Planned borrowing in 2018 for the Wellcox Trestle replacement will be repaid from general taxation revenues.

### Project Descriptions and Benefits:

**Bridges:** Includes major maintenance of the Bastion Street Bridge in 2017 and replacement of Wellcox Trestle in 2018.

**Condition Assessment Program:** Road condition survey program. Information provides current condition and remaining useful life for City roads, and is used to prioritize road rehabilitation projects for five year Financial Plans.

### Road Rehab 2016 Projects:

- Oceanview Terrace (Norasea to Bayshore)
- Howden Drive (Ross to End)
- Museum Way (Commercial to back of Port of Nanaimo Centre)
- Terminal Preservation
- Pavement Preservation Program

**Street Lights:** Downtown street lighting renewal is planned in 2017.

# 2016-2020 Capital Projects Plan (P-W1)

## Operating and Capital Funds

Reference #

P-W1

Project:

Water Infrastructure Program - New/Upgrade

	2016	2017	2018	2019	2020	Total
<b>Project Costs:</b>						
Distribution Mains	533,000	16,000	715,606	-	-	1,264,606
Pump Station/PRV Program	-	-	-	-	200,000	200,000
Reservoirs	-	800,000	-	1,600,000	-	2,400,000
Supply Mains	2,110,000	5,110,000	-	-	-	7,220,000
Water Supply Dams	-	3,000,000	500,000	-	-	3,500,000
<b>Total</b>	<b>2,643,000</b>	<b>8,926,000</b>	<b>1,215,606</b>	<b>1,600,000</b>	<b>200,000</b>	<b>14,584,606</b>
<b>Funding Sources:</b>						
Water DCCs	2,060,500	4,432,500	-	-	150,000	6,643,000
Water Reserves	582,500	4,493,500	1,215,606	1,600,000	50,000	7,941,606
<b>Total</b>	<b>2,643,000</b>	<b>8,926,000</b>	<b>1,215,606</b>	<b>1,600,000</b>	<b>200,000</b>	<b>14,584,606</b>

**Overview:** New/upgraded water infrastructure projects increase capacity and provide redundancy within the system. The long-term water supply plan models future demand due to growth, and provides guidance for capital investment needed to maintain an adequate water supply for the City.

### Funding

Expansion to the City's water infrastructure is generally funded from Development Cost Charges reserves and user fees. The recently constructed water treatment plant included significant grant funding from senior governments.

### Project Descriptions and Benefits:

**Distribution Mains:** Includes Departure Bay Rd, Holland & East Wellington Looping, Nanaimo Parkway and King Rd.

**Pump Station/PRV Program:** Upgrade to Labieux booster pump station to meet increasing water demands.

#### Reservoirs:

- Towers Reservoir - new duplicate reservoir to address capacity/fire flows issues.
- Vanderneuk Reservoir - land acquisition, new reservoir required for development in North Nanaimo, construction planned in late 2020s.

#### Supply Mains:

- Duplicate Supply Main from #1 Reservoir to College Park - to address capacity issues in North Nanaimo and support development.
- Emergency Water Supply Pump Station – once complete the project will allow water to be pumped from the Harmac system to city network, water supply main was installed 2010.

#### Dams:

- Jump Creek II Dam - planning and land acquisition.
- South Fork Dam – seismic upgrades.

# 2016-2020 Capital Projects Plan (P-W2)

## Operating and Capital Funds

Reference # P-W2  
Project: Water Infrastructure Program - Renewal

	2016	2017	2018	2019	2020	Total
<b>Project Costs:</b>						
Condition Assessment Program	130,000	155,000	100,000	125,000	100,000	610,000
Design	60,000	60,000	60,000	60,000	60,000	300,000
Distribution Mains	2,554,000	2,494,000	3,193,000	4,764,400	3,670,100	16,675,500
Misc Projects	460,000	360,000	360,000	360,000	360,000	1,900,000
Pump Station/PRV Program	175,000	380,000	200,000	150,000	650,000	1,555,000
Reservoirs	75,000	-	75,000	-	-	150,000
Supply Mains	50,000	-	-	-	-	50,000
Water Supply Dams	118,000	119,000	119,500	120,000	122,000	598,500
Total	3,622,000	3,568,000	4,107,500	5,579,400	4,962,100	21,839,000
<b>Funding Sources:</b>						
Water Fund Asset Mgmt Reserve	640,000	124,000	186,000	1,759,200	-	2,709,200
Water Reserves	2,982,000	3,444,000	3,921,500	3,820,200	4,962,100	19,129,800
Total	3,622,000	3,568,000	4,107,500	5,579,400	4,962,100	21,839,000

**Overview:** Annual renewal program to replace water infrastructure at the end of its useful life. Replacement is in compliance with new regulatory standards. Delaying renewal projects can result in higher operating and maintenance expenses, increased risks to public health, safety, and service disruption and property damage.

Water infrastructure includes dams, reservoirs, water treatment facility and over 600 kilometres of water supply and distribution mains.

### Funding

Renewal projects are funded from water reserves including the Water Asset Management Reserve

### Project Descriptions and Benefits:

**Condition Assessment Program:** An annual program to assess the current condition and remaining useful live of water infrastructure. Information is used to prioritize projects for five year Financial Plans.

**Mains:** Program to replace and upsize watermains with capacity, condition/operating and maintenance issues. 2016 projects include:

- Fourth St (Wakesiah to Harewood)
- Marban/Alberta
- Eberts St (Millstone to Townsite)
- Wall St (Pythian Lane to Curling Club)
- Lundgren Esmt (Labieux to End)

**Misc Projects:** Water meter replacement program as identified in the 2012 Water Audit, decommissioning of Water Process Centre, and telemetry improvements.

**Pump Station/PRV Program:** Includes renewal of Towers Pump Station and PRV replacement program. 2016 PRV project:

- Bay and Neyland

**Dams:** Includes formal annual dam inspections, and dam safety upgrades to incorporate recommendations from last Dam Safety Review (2013).



# APPENDICES



Swy-A-Lana Lagoon

## 2016 - 2020 Financial Plan

# APPENDICES

## Appendix A

### RESERVE FUNDS

#### **Asset Management Fund**

Revenues are from property taxation, sanitary sewer user fees and waterworks user fees. The funds can be used for infrastructure renewal projects.

#### **Cemetery Reserve Fund**

In accordance with the *Cemetery Care Act* a portion of the cemetery revenue from plot sales and marker installations must be set aside to fund ongoing care of the cemetery. Although the contributions must be set aside in perpetuity, the investment income can be used to fund maintenance of the cemeteries.

#### **Community Works Fund**

Funding for this reserve comes from the Federal Government via UBCM for the Gas Tax Agreement. Additional revenues is earned from investing unspent funds. The funding can only be used for projects that meet the desired outcomes of greenhouse gas emission reduction, cleaner air and cleaner water.

#### **Development Cost Charge Reserve Fund**

Revenue comes from development cost charge fees levied and investment income. The funds can only be used for projects identified in the Development Cost Charge bylaws.

#### **Equipment Depreciation Reserve Fund**

The net “revenue” from the operations of the City fleet is placed in this reserve. The revenue is from charging user departments for fleet use. Additional revenue is earned from investing unspent funds. The funds are used for fleet replacements.

#### **Facility Development Reserve Fund**

A 20% surcharge on recreation fees is transferred to this fund. Additional revenue is earned from investing unspent funds. The funds are used for new Parks, Recreation and Culture facilities or improvements to existing facilities.

#### **Knowles Estate Reserve Fund**

The funding for this reserve came from the estate of the late Arthur Knowles. The accumulated interest each year can only be used for park and youth sport facility improvements in the south end of Nanaimo.

# APPENDICES

## Appendix A - continued

### RESERVE FUNDS

#### Local Improvement Reserve Funds

Revenue is from investment income. The funds may be used to fund small local improvement projects although there are none budgeted in the current Five-Year Financial Plan.

#### Old City Neighbourhood Parking Fund

Developers of commercial properties in the Old City Neighbourhood have the ability to opt out of the requirement to provide on-site parking at a cost of \$3,000 per space. Any proceeds received are placed in this reserve fund. Additional revenue is earned from investing unspent funds. The funds may be used to provide off-street parking in the Old City Neighbourhood.

#### Parkland Dedication Reserve Fund

Revenue is from cash-in-lieu contributions received in lieu of parkland dedication and investment earnings. The funds can only be used for parkland acquisition.

#### Property Sales Reserve Fund

Proceeds from the sale of civic properties are placed in this reserve fund. Additional revenue is earned through investments. The funds can be used for any capital project.

#### Regional Emission Reduction Reserve Fund

Revenues are contributed through adopted Financial Plans. Revenues are a calculation of the corporate net GHG emissions. The funds can be used for regional emission reduction initiatives that contribute to corporate carbon neutral operations.

# APPENDICES

## Appendix B

### GOVERNING POLICY AND REGULATORY REQUIREMENTS

#### Governing Policy and Regulatory Requirements

The *Community Charter* requires that a Five-Year Financial Plan for both the operating and capital expenditures be adopted by May 15th of the first year of the plan. In addition, the *Community Charter* directs that the public must be consulted prior to adoption of the Financial Plan.

#### Balanced Budget

In compliance with Section 165 of the *Community Charter*, the City's Five Year Financial Plan must be balanced. The total of proposed expenditures and transfers to other funds for a year must not exceed the total of proposed funding sources and transfers from other funds for the year.

#### Investment Policy

It is the policy of the City of Nanaimo to invest City funds in a secure manner which will provide the optimal blend of investment security and return while meeting the daily cash flow demands of the City and complying with the statutory requirements of the *Community Charter*.

#### Revenue Policy

In compliance with the *Community Charter*, the City has adopted a Revenue Policy.

##### 1. Proportion of revenue by source

###### Property taxes

- The City of Nanaimo will attempt to keep the proportional share of revenue from property taxes at a level similar to the average of comparable municipalities.
- Where new sources of revenue are made available to the City from senior governments, wherever possible, these revenues will be used to reduce dependency on property taxation revenue.

###### Parcel taxes

- Parcel taxes will be used whenever Council determines that they are more appropriate than property taxes.

###### Fees and Charges

- Wherever possible, fees and charges will be used to assign costs to those who benefit from the service provided; the proportion of the costs recovered by fees and charges will vary with the nature of the service provided.

# APPENDICES

## Appendix B - continued

### GOVERNING POLICY AND REGULATORY REQUIREMENTS

#### Proceeds of borrowing

- Borrowing will be considered when determining the funding sources of large capital projects that provide benefits to taxpayers over a long period of time (20 years or more).
- Council will consider a policy to identify an appropriate level of debt for the community.

#### Other sources of revenue

- The City will continue to seek other sources of revenue in order to reduce reliance on property taxes.
- The City will consider hydro electric power generation where practical and environmentally supportable.

#### 2. Distribution of property taxes among the classes

- The City of Nanaimo will maintain the percentage of property taxes received from residential taxpayers at a level comparable to the average of similar municipalities.
- The City will attempt, over time, to reduce the commercial tax rate to the average of all BC municipalities.
- Between 2009 and 2013, the light and major industrial tax rates will be reduced to the same level as the commercial tax rate.

#### 3. Permissive Tax Exemptions

- The City of Nanaimo believes that Permissive Tax Exemptions are an appropriate way to recognize the value of the services provided to the community by non-profit organizations.
- Permissive Tax Exemption requests will be reviewed by the Grants Advisory Committee based on policies and guidelines approved by Council. The Committee will make recommendations to Council.
- Permissive Tax Exemptions will be reviewed at least every three years to ensure that the organization and property still meets the criteria established by Council.

#### 4. Revitalization Tax Exemptions

- The City of Nanaimo believes that Revitalization Tax Exemptions are an appropriate tool to assist the City in realizing its strategic objectives.
- The City can exempt municipal taxes for up to ten years for projects undertaken by landowners, where the project meets defined objectives of a City strategy.
- Recipients of exemptions must enter into a Revitalization Tax Exemption Agreement with the City.
- Every Revitalization Tax Exemption must be approved by Council.

# APPENDICES

## Appendix C

### City of Nanaimo Statistics

According to the 2011 census data, Nanaimo is the fifth fastest growing medium sized population centre in BC. The City's 2011 population was 83,810, an increase of 5,118 net new citizens since 2006. This represents a 6.5% increase in population since 2006, and an average annual growth rate of 1.3%.

Land area is 91.30 square kilometres with a population density of 918.0 persons per square kilometre. This compares to the provincial land area of 922,509.29 square kilometres with a population density of 4.8 persons per square kilometre.

Summary Statistics	City of Nanaimo	BC	Canada
Source: Statistics Canada, 2011			
Median Age, 2011	44.8	41.9	40.6
Median Age, 2006	43.2	40.8	39.5
<b>Families and Households</b>	23,885	1,238,155	9,389,695
Married couple families	66.7%	71.7%	67.0%
Common law couple families	15.5%	13.0%	16.7%
Lone Parent Families	17.8%	15.3%	16.3%
<b>Total private households</b>	36,205	1,764,635	13,320,615
Couple family with children	19.4%	24.4%	26.5%
Couple family without children	32.6%	30.2%	29.5%
Lone parent families	17.8%	15.3%	16.3%
One person	30.2%	28.2%	27.6%
Multiple family	1.5%	2.9%	2.0%
Other	5.4%	4.7%	4.1%
<b>Structural type of dwelling</b>	36,205	1,764,640	13,320,615
Single detached house	58.9%	47.7%	55.0%
Semi detached house	4.8%	3.0%	4.9%
Row house	4.4%	7.4%	5.9%
Apartment	29.4%	39.1%	32.6%
Other	2.5%	2.8%	1.6%

### The following lists the major employers in Nanaimo as of December 1, 2011

- School District #68
- Nanaimo Regional General Hospital
- Vancouver Island University
- British Columbia Ferry Service Inc.
- Shaw Cable
- City of Nanaimo
- Nordia
- WalMart
- Dept. of Fisheries & Oceans
- Costco Wholesale
- The Real Canadian Superstore
- Coastal Community Credit Union
- Thrifty Foods

# APPENDICES

## Appendix D

### Glossary

#### **Asset Management**

Asset management includes the planning, design, construction, operation and maintenance of infrastructure used to provide services. Asset management is a primary function of local government.

#### **Assessed Value**

The value calculated for each parcel of real property using appraisal criteria established by the B.C. Assessment. Each property reflects market prices of the land and its improvements and recognizes any change of use. These values are the basis of levying property taxes.

#### **B.C. Assessment**

The provincial agency, also known as the B.C.A., is assigned to appraise and evaluate all real property within British Columbia.

#### **CUPE**

The Canadian Union of Public Employees.

#### **CVRD**

Cowichan Valley Regional District.

#### **Debt Services**

Annual principle and interest payments on contracted debt.

#### **Development Cost Charges (DCC)**

A fee imposed on new development to assist in the funding of future off-site services (infrastructure) which is needed, in part, by the new development.

#### **Expenditures**

The cost of goods and services, received for both the regular City operations and all projects (operating and capital).

# APPENDICES

## Appendix D - continued

### Glossary

#### Financial Plan

Under Section 165 of the *Community Charter*, following public consultation, Council must adopt a five-year financial plan, by bylaw and before May 15 each year. The plan must identify proposed expenditures, funding sources and transfers between funds.

#### FTE

Full time equivalent staffing positions.

#### Fund

A fiscal entity of self balancing accounts used by governments to control common financial activities.

#### GAAP

General Accepted Accounting Principles used to guide accounting professional practices and methods.

#### GIS

Geographical Information System.

#### Grant

A financial contribution to or from governments.

#### Grants in Lieu of Taxes (GILT)

Revenues received from senior governments and other organizations, which are exempt from property taxes.

#### IAFF

International Association of Fire Fighters.

#### Operating Expenditures

The cost of goods and services, received for regular City operations only. Does not include operating or capital projects.

#### PILTs

Payment in Lieu of Taxes. The City receives payments from utility corporations and the Nanaimo Port Authority in lieu of property taxes.

# APPENDICES

## Appendix D - continued

### Glossary

#### Projects

Includes annual asset renewal programs or one time expenditures for new infrastructure or services. Excludes operating expenditures.

#### PSAB

The Public Sector Accounting and Auditing Board.

#### RDN

Regional District of Nanaimo.

#### Regional Parks Agreement

Cost sharing agreement between the City and the Regional District of Nanaimo where the Regional District contributes to portion of City's annual costs for operating recreation and sports field facilities.

#### Reserves

Discretionary funds established to pay for specific projects.

#### Revenues

Sources of income received by the City. They include property taxes, user fees, grants, permits and licenses, fines, grants, interest.

#### SCBA

Self-contained breathing apparatus.

#### Tax Rates

The annual charges for levying property taxes to properties within the City. These rates are applied against each \$1,000 of assessed value.

# THE CITY OF NANAIMO



Gardens along Maffeo Sutton Park

Take a  
**MOMENT**

## **Mayor and Council**

This year, the Engineering and Public Works Department has created Project Summary Sheets to accompany the Draft 2016-2020 Financial Plan. There is a separate sheet for each (Engineering & Public Works) project in the 2016 Capital Plan and sheets are organized to match the order presented in the Project Plan pages.

### **Project Summary Sheets include the following information:**

#### **Budget Book Reference:**

- Provides the reference number used in chapter 6 of the Draft 2016 – 2020 Financial Plan.

#### **Project:**

- Project number and title.

#### **Expenditure/Budget:**

- Indicates the total project cost on a year to year basis and identifies major project categories.

#### **Funding:**

- Identifies how the project will be funded.

#### **Asset Category:**

- Identifies if the project is a renewal, new/upgrade or strategic.

#### **Project Description:**

- This gives a brief description of what is involved in the project and its location.

#### **Justification:**

- Identifies the reason the project is proposed. This section is not present on all.

#### **Communication Plan:**

- Identifies how staff are proposing to communicate with stakeholders and the public related to the project. This section has not been fully implemented for all projects but will be moving forward.

#### **Project Map:**

- Identifies the project components on a map pertaining to the location of the project.

As indicated above, these sheets only pertain to projects in the 2016 year of the Draft 2016-2020 Capital Plan. It is the intent that in future years there will be a project summary sheet for all Engineering and Public Works projects in the Five Year Capital Plan.

These sheets are a work in progress and will be refined as we move forward. Any input that Council could provide related to the usefulness of the sheets, would be appreciated.

## 2016 Engineering and Public Works Project Summary Sheet

### 2016 - 2020 Financial Plan

**Budget Book Reference:** P-S1 (Grants)

**Project:** I/O 90005 Toilet Rebate Program

**2016 Budget:** \$ 100,000

**2016 Funding:** Water Revenue

**Asset Category:** Strategic

**Project Description:** The program provides home owners with a \$50 rebate, upon proof of installation, for replacing toilets using 13 litres of water or more per flush with a CSA-approved low-flow model.

Building on the success of the single family residential properties program, the toilet rebate program was increased in 2015 by \$50,000 to accommodate multi-family residential properties.

## **2016 Engineering and Public Works Project Summary Sheet**

### **2016 - 2020 Financial Plan**

**Budget Book Reference:** P-S1 (Grants)

**Project:** I/O 90013 Water Supply: Appliance Rebate Program

**2016 Budget:** \$ 30,000

**2016 Funding:** Water Revenue

**Asset Category:** Strategic

**Project Description:** In partnership with BC Hydro, the program provides a rebate to home owners for the purchase of qualified clothes washers (ENERGY STAR<sup>®</sup>). Rebates are \$100 or \$200 depending on the maximum water factor and modified energy factor. The program consists of a Spring and Fall intake and is administered by BC Hydro.

**2016 Engineering and Public Works Project Summary Sheet**  
**2016 - 2020 Financial Plan**

**Budget Book Reference:** P-S1

**Project:** I/O 90024 Public Education of Water System

**2016 Budget:** \$ 65,000

**2016 Funding:** Water Supply Reserve

**Asset Category:** Strategic

**Project Description:** Development of education material including a video and display boards to enhance the public's understanding of the City's water system. The Water Treatment Plant will house the completed display boards.

**2016 Engineering and Public Works Project Summary Sheet**  
**2016 - 2020 Financial Plan**

**Budget Book Reference:** P-S1 (Transportation Initiatives)

**Project:** I/O 50040 Alternate Transportation Education and Marketing

**2016 Budget:** \$ 7,500

**2016 Funding:** General Revenue

**Asset Category:** Strategic

**Project Description:** Promotion of alternative modes of transportation to help shift travel behaviours; fund events such as Bike to Work Week/Bike to School Week and the transit/cycling map.

## 2016 Engineering and Public Works Project Summary Sheet

### 2016 - 2020 Financial Plan

**Budget Book Reference:** P-S1 (Transportation Initiatives)

**Project:** I/O 50033 Transportation Pedestrian: Safer School Travel Program

**2016 Budget:** \$ 10,000

**2016 Funding:** General Revenue

**Asset Category:** New/Upgrade

**Project Description:** Program improves safe student access to/from schools for pedestrians and cyclists. Typically is used to support larger projects that improve student access/safety or fund smaller projects raised by schools.

**2016 Engineering and Public Works Project Summary Sheet**  
**2016 - 2020 Financial Plan**

<b>Budget Book Reference:</b>	P-S3 (Drainage)
<b>Project:</b>	I/O 50047 Drainage Studies/Predesign
<b>2016 Budget:</b>	\$ 21,450
<b>2016 Funding:</b>	General Revenue
<b>Asset Category:</b>	Strategic
<b>Project Description:</b>	Annual studies to complete a comprehensive review of the drainage infrastructure within a catchment. The review includes evaluation of condition and capacity as well as prioritization for renewal and upgrading before potential failure, surcharging and flooding occurs.

## **2016 Engineering and Public Works Project Summary Sheet**

### **2016 - 2020 Financial Plan**

**Budget Book Reference:** P-S3 (Community Planning)

**Project:** I/O 50035 City Orthophotos

**2016 Budget:** \$ 25,000

**2016 Funding:** General Revenue

**Asset Category:** Strategic

**Project Description:** As part of an ongoing remote sensing program designed to acquire data that supports a broad scope of organizational and business needs.

This phase of the work is anticipated to include updates to orthophotos and/or potentially oblique view imagery.

**2016 Engineering and Public Works Project Summary Sheet**  
**2016 - 2020 Financial Plan**

<b>Budget Book Reference:</b>	P-S3 (Sanitary Sewer)
<b>Project:</b>	I/O 80004 Sanitary Sewer Studies
<b>2016 Budget:</b>	\$ 50,000
<b>2016 Funding:</b>	Sewer Reserve
<b>Asset Category:</b>	Strategic
<b>Project Description:</b>	Annual studies to complete a comprehensive review of sanitary sewer infrastructure within a catchment. The review includes an evaluation of condition and capacity, as well as prioritization for renewal and upgrading before potential failure, surcharging and backflow occurs.

## 2016 Engineering and Public Works Project Summary Sheet

### 2016 - 2020 Financial Plan

**Budget Book Reference:** P-S3 (Sanitary Sewer)

**Project:** I/O 80018 Sanitary Sewer Study: Townsite and Brechin Master Plan

**2016 Budget:** \$ 50,000

**2016 Funding:** Sewer Reserve

**Asset Category:** Strategic

**Project Description:** A master plan is a comprehensive review of the sanitary infrastructure within a catchment. The review includes an evaluation of condition and capacity, as well as prioritization for renewal and upgrading.

The 2014 City Wide Sewer Model provided a priority sequencing of the remaining sewer master plans to be completed. The Townsite and Brechin catchment area master plan was ranked as the highest priority. The master plan will identify condition and capacity issues within the catchment area.

**2016 Engineering and Public Works Project Summary Sheet**  
**2016 - 2020 Financial Plan**

**Budget Book Reference:** P-S3 (Sanitary Sewer)

**Project:** I/O 80020 Sanitary Sewer Study: Fillinger Cres Routing Study

		<b>2015</b>	<b>2016</b>	<b>Total</b>
<b>Budget:</b>	Study	\$ 12,000	\$ 40,000	\$ 52,000

<b>Funding:</b>	Sewer Reserve	\$ 12,000	\$ 40,000	\$ 52,000
-----------------	---------------	-----------	-----------	-----------

**Asset Category:** Strategic

**Project Description:** A study is required to determine options for relocating the sanitary sewer line prior to replacement. A geotechnical review has already indicated that the current location along the edge of a bank is problematic and replacing the pipe in the same location is not recommended. The sanitary sewer line will need to be replaced on either Fillinger Crescent or on the shore.

**2016 Engineering and Public Works Project Summary Sheet**  
**2016 - 2020 Financial Plan**

<b>Budget Book Reference:</b>	P-S3 (Transportation)
<b>Project:</b>	I/O 50007 Traffic Counters
<b>2016 Budget:</b>	\$ 15,000
<b>2016 Funding:</b>	General Revenue
<b>Asset Category:</b>	Strategic
<b>Project Description:</b>	Monitoring of traffic volumes at major intersections, typically on a four year cycle, with data used for transportation planning and to adjust traffic signal parameters/optimize performance.

**2016 Engineering and Public Works Project Summary Sheet**  
**2016 - 2020 Financial Plan**

<b>Budget Book Reference:</b>	P-S3 (Transportation)
<b>Project:</b>	I/O 50114 Transportation Planning Studies
<b>2016 Budget:</b>	\$ 50,000
<b>2016 Funding:</b>	General Revenue
<b>Asset Category:</b>	Strategic
<b>Project Description:</b>	Transportation planning studies address existing and future issues within the transportation network; used to address issues as they arise through the year.

**2016 Engineering and Public Works Project Summary Sheet**  
**2016 - 2020 Financial Plan**

**Budget Book Reference:** P-S3 (Water Distribution)

**Project:** I/O 70005 Water Studies

**2016 Budget:** \$ 50,000

**2016 Funding:** Water Reserve

**Asset Category:** Strategic

**Project Description:** Annual studies to complete a comprehensive review of the water distribution infrastructure within a pressure zone. The review includes an evaluation of condition and capacity, as well as prioritization for renewal and upgrading to maintain minimum operating pressures and required fire flows.

**2016 Engineering and Public Works Project Summary Sheet**  
**2016 - 2020 Financial Plan**

**Budget Book Reference:** P-S3 (Water Supply)

**Project:** I/O 90014 Water Supply: Water Audit Updates

**2016 Budget:** \$ 10,000

**2016 Funding:** Water Supply Reserve

**Asset Category:** Strategic

**Project Description:** Update of the inaugural 2012 Water Audit. The update will review existing water usage and accounting measures; identify where and how improvements can be made to quantify and characterize water usage, consumption, unaccounted amounts and determine a representative system leakage index.

**2016 Engineering and Public Works Project Summary Sheet**  
**2016 - 2020 Financial Plan**

**Budget Book Reference:** P-S3 (Water Supply)

**Project:** I/O 90016 Water Supply: Water Conservation Strategy

**2016 Budget:** \$ 30,000

**2016 Funding:** Water Supply Reserve

**Asset Category:** Strategic

**Project Description:** To continue progress towards the target of a 10% reduction in per capita water demand per decade as set out in the City of Nanaimo Strategic Plan (2012-2015). Current water conservation measures in place include water regulations, education, and rebates.

## 2016 Engineering and Public Works Project Summary Sheet 2016 - 2020 Financial Plan

**Budget Book Reference:** P-C1

**Concurrent Project:** Boxwood Connector & Utility Project

**Components:**

P_5157	DCC R85 (100 % Growth)	Boxwood Connector: Bowen to Northfield
P_5164	DCC R49 (82% growth)	Northfield (Bowen to Boxwood)
P_5193		Boxwood Connector Pond DR
P_6174		Boxwood Connector & Utility Project
P_7290		Boxwood Connector & Utility Project

				Total Project
		2016	2018	Cost
<b>Budget:</b>	Drainage - Design	\$ 30,000	\$ -	\$ 30,000
	Drainage - Construction	\$ -	\$ 300,000	\$ 300,000
	Transportation	\$ 1,550,000	\$ 5,510,000	\$ 7,060,000
	Sanitary Sewer - Design	\$ 45,000	\$ -	\$ 45,000
	Sanitary Sewer - Construction	\$ -	\$ 685,000	\$ 685,000
	Watermain - Design	\$ 50,000	\$ -	\$ 50,000
	Watermain - Construction	\$ -	\$ 521,000	\$ 521,000
		<b>\$ 1,675,000</b>	<b>\$ 7,016,000</b>	<b>\$ 8,691,000</b>
<b>Funding:</b>	Roads DCC's	\$ 1,550,000	\$ 5,382,200	\$ 6,932,200
	Sewer Reserve	\$ 45,000	\$ 685,000	\$ 730,000
	Water Reserve	\$ 50,000	\$ 521,000	\$ 571,000
	General Revenue	\$ 30,000	\$ 427,800	\$ 457,800
		<b>\$ 1,675,000</b>	<b>\$ 7,016,000</b>	<b>\$ 8,691,000</b>

**Asset Category:** New/Upgrade

**Project Description:** The Boxwood Connector includes development of a new road from the intersection of Boxwood Road to Bowen Road at the south entrance to Beban Park. These improvements will reduce congestion and collisions at the intersection of Bowen and Northfield Roads; improve access to Beban Park and improve the pedestrian and cycling network.

The overall project includes the underground utilities such as water, drainage and sanitary sewer which will be required for the development of the adjacent land. A storm water detention pond will be constructed to the north of the Boxwood connector to control the flow of storm water into the Northfield trunk sewer.

**Justification:**

### **Drainage**

The Northfield Creek Master Drainage Plan recommended that a natural pond with an outlet control structure be constructed to control storm water flows in the catchment. The construction of the pond will avoid significant upgrades to downstream pipes which are not large enough to convey current or future storm water flows. The report identified that the construction of the pond was more cost effective than upsizing the downstream piping.

### **Transportation**

The Bowen Road and Northfield Road intersection has the worst safety performance of all City of Nanaimo intersections (excluding intersection shared with Ministry of Transportation and Infrastructure). Congestion occurs during peak afternoon periods and is anticipated to grow over time.

## 2016 Engineering and Public Works Project Summary Sheet 2016 - 2020 Financial Plan

**Concurrent Project:** Boxwood Connector & Utility Project Continued

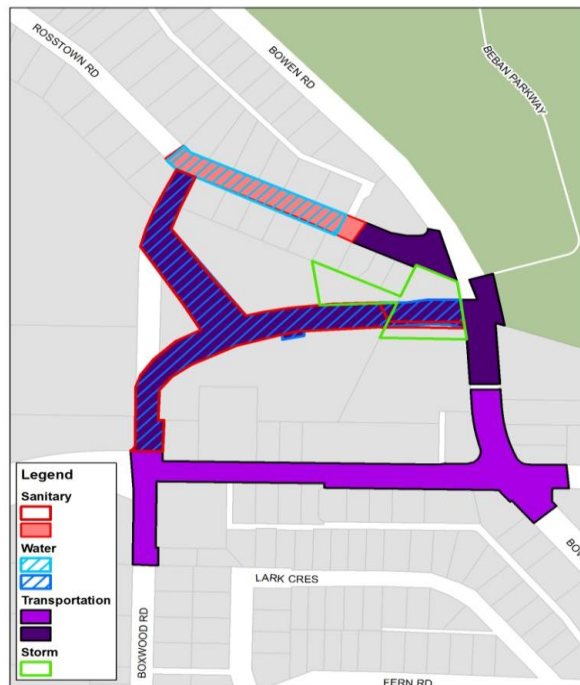
### Sanitary Sewer

With the construction of the new road, sanitary sewer infrastructure will be required to service the development of adjacent land. Upgrades are required to existing sanitary sewer on Rosstown Road as they are on a six month flushing program due to settlement of the pipe.

### Water

With the construction of the new road, water distribution infrastructure will be required to service the development of adjacent land. Upgrades are required to existing water infrastructure on Rosstown Road as they are causing operational and maintenance issues.

**Project Map:**



### Budget Revision

Based on the most current information available on the project, the timing and budget will be revised for the final 2016-2020 Financial Plan. The revised project budget is as follows:

				Total Project
	2016	2019	2021	Cost
<b>Budget:</b>				
Drainage - Design	\$ 30,000	\$ -	\$ -	\$ 30,000
Drainage - Construction	\$ -	\$ -	\$ 1,000,000	\$ 1,000,000
Transportation	\$ 100,000	\$ 3,000,000	\$ 5,650,000	\$ 8,750,000
Sanitary Sewer - Design	\$ 45,000	\$ -	\$ -	\$ 45,000
Sanitary Sewer - Construction	\$ -	\$ -	\$ 685,000	\$ 685,000
Watermain - Design	\$ 50,000	\$ -	\$ -	\$ 50,000
Watermain - Construction	\$ -	\$ -	\$ 521,000	\$ 521,000
	<b>\$ 225,000</b>	<b>\$ 3,000,000</b>	<b>\$ 7,856,000</b>	<b>\$ 11,081,000</b>

## 2016 Engineering and Public Works Project Summary Sheet

### 2016 - 2020 Financial Plan

**Budget Book Reference:** P-C1

**Concurrent Project:** Victoria Rd Sidewalk & Utility Project

**Components:** P\_5209 Victoria Rd SW & Utility Project  
P\_6179 Victoria Rd SW & Utility Project

		2014 Actuals	2015 Budget	2016 Budget	Total Project Cost
<b>Expenditures/Budget:</b>	Drainage	\$ -	\$ -	\$ 526,000	\$ 526,000
	Transportation - Sidewalk	\$ -	\$ -	\$ 274,000	\$ 274,000
	Sanitary Sewer - Design	\$ 11,189	\$ 44,611	\$ -	\$ 55,800
	Sanitary Sewer - Construction	\$ -	\$ -	\$ 687,000	\$ 687,000
		<b>\$ 11,189</b>	<b>\$ 44,611</b>	<b>\$ 1,487,000</b>	<b>\$ 1,542,800</b>
<b>Funding:</b>	Sewer Asset Management Reserve	\$ -	\$ -	\$ 687,000	\$ 687,000
	Sewer Reserve	\$ 11,189	\$ 44,611	\$ -	\$ 55,800
	General Revenue	\$ -	\$ -	\$ 800,000	\$ 800,000
		<b>\$ 11,189</b>	<b>\$ 44,611</b>	<b>\$ 1,487,000</b>	<b>\$ 1,542,800</b>

**Asset Category:** New/Upgrade

**Project Description:** The project will include the following improvements:

- 475 meters of new concrete curb and sidewalk on the west side of Victoria Road and fronting Knowles Park complete with select boulevard tree plantings between Rainer and Needham Streets.
- Complete roadway resurfacing between Rainer and Needham including defined on street parking and a dedicated bicycle lane on the west side, and a multi use shoulder on the east side.
- Improved pedestrian crossings at both Rainer and Needham Streets.
- Replacement of 580 meters of sanitary sewer between Rainer and Farquhar Streets.
- Installation of 305 meters of new drainage piping between Rainer and Needham Streets.

**Justification:** **Sidewalk**

The section of Victoria Road between Rainer and Needham Streets is the only stretch of Victoria Road without a formal sidewalk on at least one side. The sidewalk will accommodate pedestrians traveling to Bayview school.

**Drainage**

Drainage is required for the installation of the new sidewalk to prevent water from pooling on the road. It will also assist with local drainage issues and reduces storm water inflow and infiltration into the sanitary sewer system.

**Sanitary Sewer**

The existing vitrified clay sanitary sewers were installed in the 1930's and 1960's and are deteriorating causing operational and maintenance issues.

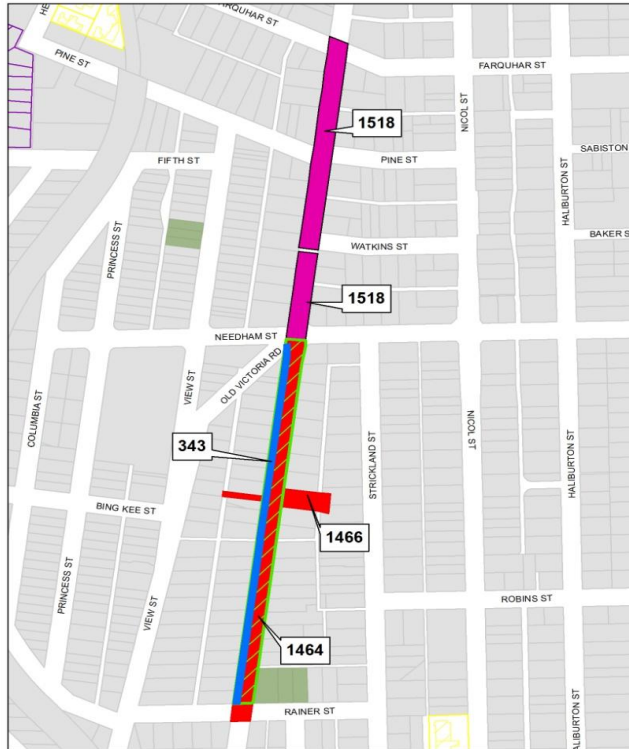
**Communication Plan:** Letters of notice to affected property  
Site signage at project location  
Stakeholder consultation  
Website information

## 2016 Engineering and Public Works Project Summary Sheet

### 2016 - 2020 Financial Plan

**Concurrent Project:** Victoria Rd Sidewalk & Utility Project Continued

**Project Map:**



Red shading indicates sanitary sewer  
Green shading indicates drainage  
Blue shading indicates water  
Purple shading indicates transportation

## 2016 Engineering and Public Works Project Summary Sheet 2016 - 2020 Financial Plan

**Budget Book Reference:** P-C2

**Concurrent Project:** Beban Plaza Utilities Project

**Components:** P\_5183 Beban Plaza DR  
P\_6208 Beban Plaza SS

		2015	2016	Total Project Cost
<b>Budget:</b>	Drainage - Design	\$ 30,000	\$ -	\$ 30,000
	Drainage - Construction	\$ -	\$ 592,000	\$ 592,000
	Sanitary Sewer - Design	\$ 20,000	\$ -	\$ 20,000
	Sanitary Sewer - Construction	\$ -	\$ 197,000	\$ 197,000
		<b>\$ 50,000</b>	<b>\$ 789,000</b>	<b>\$ 839,000</b>
<b>Funding:</b>	General Asset Management Reserve	\$ -	\$ 592,000	\$ 592,000
	Drainage Projects Reserve	\$ 30,000	\$ -	\$ 30,000
	Sewer Reserve	\$ 20,000	\$ 197,000	\$ 217,000
		<b>\$ 50,000</b>	<b>\$ 789,000</b>	<b>\$ 839,000</b>

**Asset Category:** Renewal

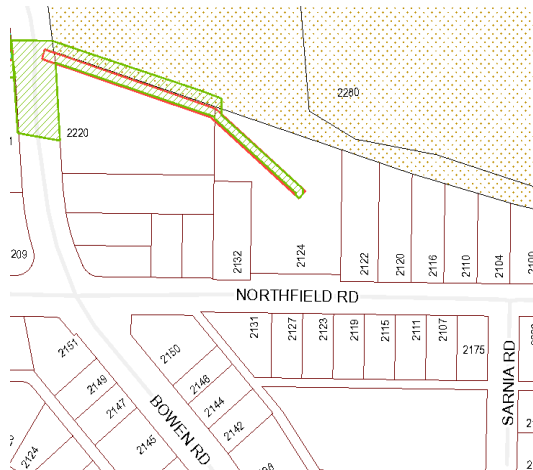
**Project Description:** Replacement of 370 meters of existing 900 mm diameter drainage and replacement of 270 meters of existing 250 mm diameter sanitary sewer.

**Justification:** **Drainage**  
Existing drainage pipe is located underneath the Beban Plaza Mall buildings. An aging drainage pipe under a private structure creates a liability risk for the City.

**Sanitary Sewer**  
The existing sanitary sewers have settled causing operational and maintenance issues.

**Communication Plan:** Letters of notice to affected property  
Site signage at project location  
Stakeholder consultation

**Project Map:**



Red shading indicates sanitary sewer  
Green shading indicates drainage

## 2016 Engineering and Public Works Project Summary Sheet 2016 - 2020 Financial Plan

**Budget Book Reference:** P-C2

**Concurrent Project:** Cliff St Area Corridor & Utility Project

**Components:**

I/O 50054	Downtown Street Lighting: Commercial & Skinner
P_5174	Cliff St Area Corridor & Utility Project
P_6182	Cliff St Area Corridor & Utility Project
P_7325	Cliff St Area Watermain

Expenditures/Budget:		2014 Actuals	2015 Budget	2016 Budget	Total Project Cost
Drainage - Design		\$ 7,388	\$ 21,355	\$ -	\$ 28,743
Drainage - Construction		\$ -	\$ -	\$ 338,000	\$ 338,000
Transportation - Pedestrian Improvements		\$ -	\$ -	\$ 65,000	\$ 65,000
Transportation - Road Rehab		\$ -	\$ -	\$ 112,860	\$ 112,860
Transportation - Street Lights		\$ -	\$ -	\$ 295,000	\$ 295,000
Sanitary Sewer - Design		\$ 4,650	\$ 20,350	\$ -	\$ 25,000
Sanitary Sewer - Construction		\$ -	\$ -	\$ 450,500	\$ 450,500
Watermain - Design		\$ 7,067	\$ 17,933	\$ -	\$ 25,000
Watermain - Construction		\$ -	\$ -	\$ 522,000	\$ 522,000
		<b>\$ 19,105</b>	<b>\$ 59,638</b>	<b>\$ 1,783,360</b>	<b>\$ 1,862,103</b>

<b>Funding:</b>	General Asset Management Reserve	\$ -	\$ -	\$ 300,000	\$ 300,000
	Water Asset Management Reserve	\$ -	\$ -	\$ 522,000	\$ 522,000
	Drainage Projects Reserve	\$ -	\$ 18,295	\$ -	\$ 18,295
	Sewer Reserve	\$ 4,650	\$ 20,350	\$ 450,500	\$ 475,500
	Water Reserve	\$ 7,067	\$ 17,933	\$ -	\$ 25,000
	General Revenue	\$ 7,388	\$ 3,060	\$ 510,860	\$ 521,308
		<b>\$ 19,105</b>	<b>\$ 59,638</b>	<b>\$ 1,783,360</b>	<b>\$ 1,862,103</b>

**Asset Category:** Renewal

**Project Description:** The project will include the following elements:

- Replacement of drainage, sanitary sewer and watermain on Cliff Street from Terminal Avenue to Comox Avenue.
- Replacement of sanitary sewer in the right of way behind the Foundry Pub and Carpenter's union building.
- Replacement of drainage, sanitary sewer and watermain on Benson Street from Cliff Street to Skinner Street
- New watermain looping on Skinner Street.
- Sidewalk and street lighting on Benson Street.
- Repaving of Cliff Street, Benson Street and Skinner Street between Bastion and Benson Streets.
- Replacement of street lights on Skinner Street between Bastion and Commercial Street with heritage style luminaries.

**Justification:** **Drainage**

The existing drainage pipe is in poor condition and is undersized for the drainage area.

**Pedestrian Improvements**

The sidewalk will create a formal pedestrian connection between Skinner Street and Cliff Street. The sidewalk was included because the replacement of the utilities will require a full road reconstruction on Benson Street and the installation of the sidewalk will be cost effective when paired with the other work.

## 2016 Engineering and Public Works Project Summary Sheet 2016 - 2020 Financial Plan

**Concurrent Project:** Cliff St Area Corridor & Utility Project Continued

### Road Rehab

Cliff Street and Benson Street will require full road rehabilitation due to the extent of the utility replacement.

### Street Lights

Street lights on Benson Street are being installed to upgrade lighting to current standards required for roadway lighting and make the new sidewalk safer for pedestrians. The installation of the street lights will be cost effective when paired with the other work.

Heritage style street lights that will replace older streetlights in the downtown area. The RCMP has expressed concerns about the level of lighting of the existing street lights. The new lights are expected to create a safer environment for pedestrians and improve aesthetics in the downtown area.

### Sanitary Sewer

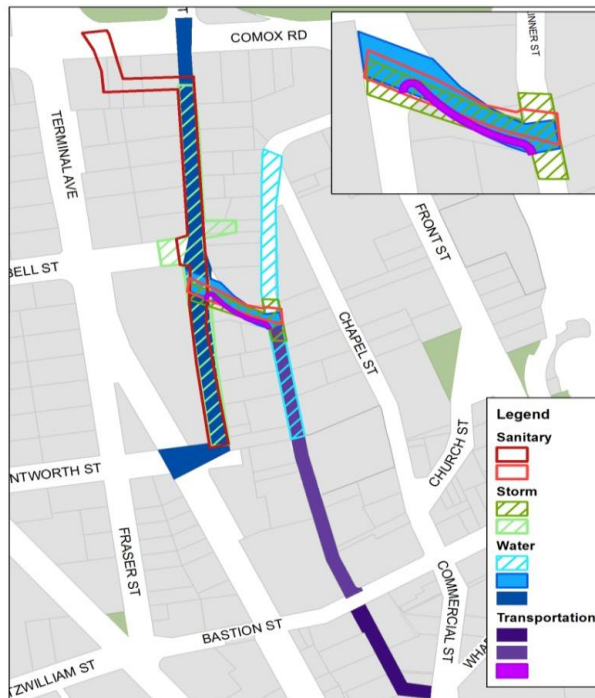
Condition assessments of the existing sanitary sewer show several structural and operational issues and needs to be replaced.

### Watermain

Existing cast iron watermain on Benson Street and Cliff Street were poorly constructed and are in need of replacement. Watermain looping on Skinner Street is required to remove dead ends and increase fire flows in the area.

**Communication Plan:** Letters of notice to affected property  
Site signage at project location  
Stakeholder consultation

**Project Map:**



## 2016 Engineering and Public Works Project Summary Sheet 2016 - 2020 Financial Plan

**Budget Book Reference:** P-C2

**Concurrent Project:** College Dr Area Watermain Twinning

**Components:**

I/O 80022	Douglas Place SS: Camosun to End
P_7342	DCC W47 College Drive Twinning WM
P_7343	College Dr Area WM Twinning
P_9266	College Dr Area Supply WM Twinning

		2016	2017	2018	Total Project Cost
<b>Budget:</b>	Sanitary Sewer	\$ -	\$ -	\$ 21,250	\$ 21,250
	Watermain (Distribution) - Design	\$ 40,000	\$ -	\$ -	\$ 40,000
	Watermain (Distribution) - Construction	\$ -	\$ -	\$ 473,000	\$ 473,000
	Watermain (Supply) - Design	\$ -	\$ 65,000	\$ -	\$ 65,000
	Watermain (Supply) - Construction	\$ -	\$ -	\$ 650,000	\$ 650,000
		<b>\$ 40,000</b>	<b>\$ 65,000</b>	<b>\$ 1,144,250</b>	<b>\$ 1,249,250</b>
<b>Funding:</b>	Water DCC's	\$ -	\$ -	\$ 111,300	\$ 111,300
	Sewer Reserve	\$ -	\$ -	\$ 21,250	\$ 21,250
	Water Reserve	\$ 40,000	\$ -	\$ 361,700	\$ 401,700
	Water Supply Reserve	\$ -	\$ 65,000	\$ 650,000	\$ 715,000
		<b>\$ 40,000</b>	<b>\$ 65,000</b>	<b>\$ 1,144,250</b>	<b>\$ 1,249,250</b>

**Asset Category:** Renewal

**Project Description:** Replace existing brittle water supply main on College Drive, complete twinning of College Drive watermain for redundancy and replacement of sanitary sewer infrastructure and water distribution main to improve minimum operating pressures and fire flows.

**Justification:** **Sanitary Sewer**  
To remove extra long services from Camosun to properties in cul-de-sac which are sub-standard and replace with a sanitary sewer main.

**Watermain - Distribution**

The completed Tralee Road twin main will provide redundancy for College and Westwood Lake area. The Mount Royal and Douglas Place replacement is part of the 100 mm diameter asbestos cement replacement program due to thin walls which are prone to breaks.

**Watermain- Supply**

The 1979 250 mm diameter watermain on College Drive is a critical watermain supplying Towers reservoir and Westwood neighbourhood and is nearing end of life and must be renewed.

**Project Map:**



Red shading indicates sanitary sewer  
Blue shading indicates water

## 2016 Engineering and Public Works Project Summary Sheet

### 2016 - 2020 Financial Plan

**Budget Book Reference:** P-C2

**Concurrent Project:** Duke & Sixth Utility Upgrade

**Components:**  
P\_5226 673 Winchester DR  
P\_6176 Sixth St SS: Bruce to Georgia  
P\_7335 Duke & Sixth Utility Upgrade

		2016	2018	Total Project Cost
<b>Budget:</b>	Drainage	\$ -	\$ 49,000	\$ 49,000
	Sanitary Sewer - Design	\$ 40,000	\$ -	\$ 40,000
	Sanitary Sewer - Construction	\$ -	\$ 377,000	\$ 377,000
	Watermain - Design	\$ 36,000	\$ -	\$ 36,000
	Watermain - Construction	\$ -	\$ 347,000	\$ 347,000
		<b>\$ 76,000</b>	<b>\$ 773,000</b>	<b>\$ 849,000</b>
<b>Funding:</b>	Sewer Reserve	\$ 40,000	\$ 377,000	\$ 417,000
	Water Reserve	\$ 36,000	\$ 347,000	\$ 383,000
	General Revenue	\$ -	\$ 49,000	\$ 49,000
		<b>\$ 76,000</b>	<b>\$ 773,000</b>	<b>\$ 849,000</b>

**Asset Category:** Renewal

**Project Description:** Utility replacement of drainage and watermain infrastructure due to condition and upsizing of sanitary sewer from 200 mm diameter to 300 mm diameter to address capacity shortfall.

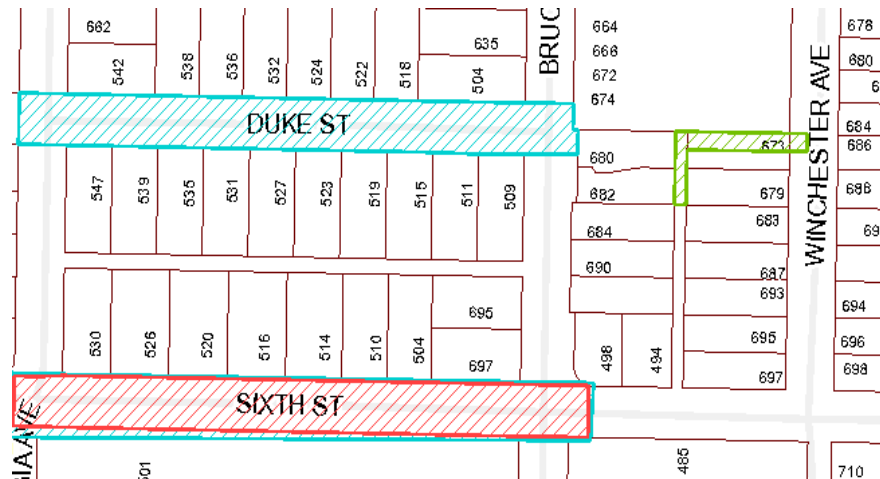
**Justification:**

**Drainage**  
Replacement of vitrified clay pipe in deteriorating condition as identified by Public Works staff.

**Sanitary Sewer**  
Sixth Street has high inflow and infiltration noted in sewer monitoring station and main will be upsized to address capacity shortfall.

**Water**  
Duke Street replacement is part of the asset management strategy to replace old (> 40 years) and high pressure asbestos cement watermain.  
Sixth Street replacement is part of the 100 mm diameter asbestos cement replacement program due to thin walls which are prone to breaks.

**Project Map:**



Red shading indicates sanitary sewer  
Green shading indicates drainage  
Blue shading indicates water

## 2016 Engineering and Public Works Project Summary Sheet 2016 - 2020 Financial Plan

**Budget Book Reference:** P-C2

**Concurrent Project:** Garner Cres Area Utility Upgrade

**Components:** P\_6209 Garner Cres Area Utility Upgrade  
P\_7334 Garner Cres Area Utility Upgrade

		2015	2016	Total Project Cost
<b>Budget:</b>	Sanitary Sewer - Design	\$ 25,000	\$ -	\$ 25,000
	Sanitary Sewer - Construction	\$ -	\$ 798,200	\$ 798,200
	Watermain	\$ -	\$ 422,000	\$ 422,000
		<b>\$ 25,000</b>	<b>\$ 1,220,200</b>	<b>\$ 1,245,200</b>
<b>Funding:</b>	Water Asset Management Reserve	\$ -	\$ 422,000	\$ 422,000
	Sewer Reserve	\$ 25,000	\$ 798,200	\$ 823,200
		<b>\$ 25,000</b>	<b>\$ 1,220,200</b>	<b>\$ 1,245,200</b>

**Asset Category:** Renewal

**Project Description:** The project will include the following renewal:

- Replacement of a total of 770 meters of sanitary sewers in the back yard easements of Garner Crescent and Emery Way, and in the lane between Garner Crescent and Emery Way.
- Replacement of 500 meters of 1950's era cast iron watermain on Emery Way and Garner Crescent.

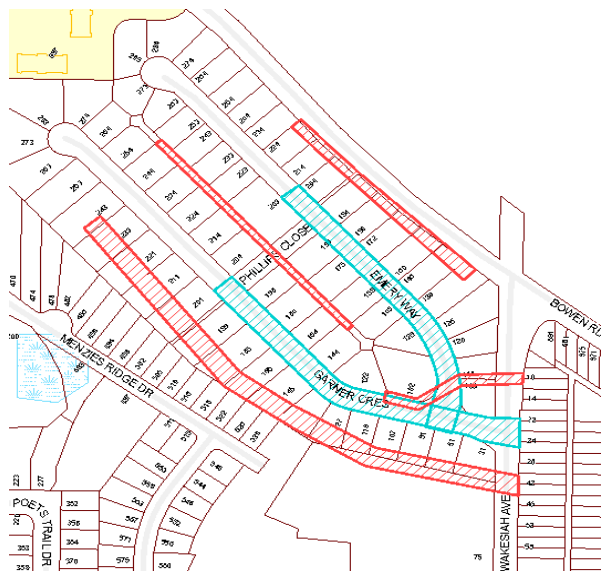
**Justification:** **Sanitary Sewer**  
Existing sanitary sewer pipes have structural deficiencies as well as root intrusion and settlement. These issues are causing operational and maintenance issues.

### **Water**

The aging cast iron pipe has deteriorated causing low flows and operational and maintenance issues.

**Communication Plan:** Letters of notice to affected property  
Site signage at project location  
Stakeholder consultation

**Project Map:**



Red shading indicates sanitary sewer

Blue shading indicates water

## 2016 Engineering and Public Works Project Summary Sheet 2016 - 2020 Financial Plan

**Budget Book Reference:** P-C2

**Concurrent Project:** Glenayr/Wingrove Area Utility Project

**Components:** P\_5217 Glenayr Drive DR: Loat to Bay  
P\_7328 Glenayr/Wingrove Area Utility Project

		2015	2016	2017	Total Project Cost
<b>Budget:</b>	Drainage	\$ -	\$ -	\$ 140,000	\$ 140,000
	Watermain - Design	\$ 25,000	\$ 12,000	\$ -	\$ 37,000
	Watermain - Construction	\$ -	\$ -	\$ 395,000	\$ 395,000
		<b>\$ 25,000</b>	<b>\$ 12,000</b>	<b>\$ 535,000</b>	<b>\$ 572,000</b>
<b>Funding:</b>	Water Reserve	\$ 25,000	\$ 12,000	\$ 395,000	\$ 432,000
	General Revenue	\$ -	\$ -	\$ 140,000	\$ 140,000
		<b>\$ 25,000</b>	<b>\$ 12,000</b>	<b>\$ 535,000</b>	<b>\$ 572,000</b>

**Asset Category:** Renewal

**Project Description:** Construction of 350 meters of piped drainage along Glenayr Drive and replacement of 550 meters of 1960's era asbestos cement watermain on Glenayr Drive and Wingrove Street.

**Justification:** **Drainage**  
The existing open ditch along Glenayr Drive is deep with steep sidewalls. The sides of the ditch are being eroded causing operational and maintenance issues. The depth of the ditch and the steepness of the side walls present a safety hazard to pedestrians.

### **Water**

This high pressure watermain was installed in 1964 and is constructed of asbestos cement. Although this particular pipe doesn't have a history of breaks, there are pipes close by of similar vintage and material that have had issues.

**Project Map:**



Green shading indicates drainage

Blue shading indicates water

## 2016 Engineering and Public Works Project Summary Sheet 2016 - 2020 Financial Plan

**Budget Book Reference:** P-C2

**Concurrent Project:** Lambert Ave Utility Upgrade

**Components:** P\_5204 Lambert Ave DR: 5th to 6th  
P\_6183 Lambert Ave SS: Fifth to Sixth

		Total Project		
		2016	2018	Cost
<b>Budget:</b>	Drainage - Design	\$ 30,000	\$ -	\$ 30,000
	Drainage - Construction	\$ -	\$ 366,000	\$ 366,000
	Sanitary Sewer - Design	\$ 60,000	\$ -	\$ 60,000
	Sanitary Sewer - Construction	\$ -	\$ 506,000	\$ 506,000
		<b>\$ 90,000</b>	<b>\$ 872,000</b>	<b>\$ 962,000</b>
<b>Funding:</b>	Sewer Reserve	\$ 60,000	\$ 506,000	\$ 566,000
	General Revenue	\$ 30,000	\$ 366,000	\$ 396,000
		<b>\$ 90,000</b>	<b>\$ 872,000</b>	<b>\$ 962,000</b>

**Asset Category:** Renewal

**Project Description:** Sanitary sewer infrastructure renewal and replacement of existing ditches with piped drainage infrastructure.

**Justification:**

**Drainage**  
2011 Seventh St Sub-Catchment Area Sanitary Sewer Study recommended installing a drainage pipe on Lambert Street, disconnecting storm services from the sanitary sewer mains and adding them onto new drainage pipe. This will reduce rain related inflow and infiltration into sanitary sewer mains.

**Sanitary Sewer**  
Replacement is required to address operating and maintenance issues including, root ingress at joints and high inflow and infiltration. As identified in the 2014 Chase River Sanitary Sewer Master Plan one section will need to be upsized to address capacity shortfall.

**Project Map:**



## 2016 Engineering and Public Works Project Summary Sheet 2016 - 2020 Financial Plan

**Budget Book Reference:** P-C2

**Concurrent Project:** Nanaimo Lakes Drainage & Road Rehabilitation Project

**Components:** P\_5197 Nanaimo Lakes DR & RHB Project

		<b>2016</b>
<b>Budget:</b>	Drainage	\$ 150,000
	Transportation - Road Rehab	\$ 820,000
		<b>\$ 970,000</b>

<b>Funding:</b>	General Asset Management Reserve	\$ 970,000
		<b>\$ 970,000</b>

**Asset Category:** Renewal

**Project Description:** Replacement of a corrugated steel pipe (CSP) culvert on Nanaimo Lakes Road and road rehabilitation of Nanaimo Lakes Road from Wakesiah to Lincoln.

**Justification:**

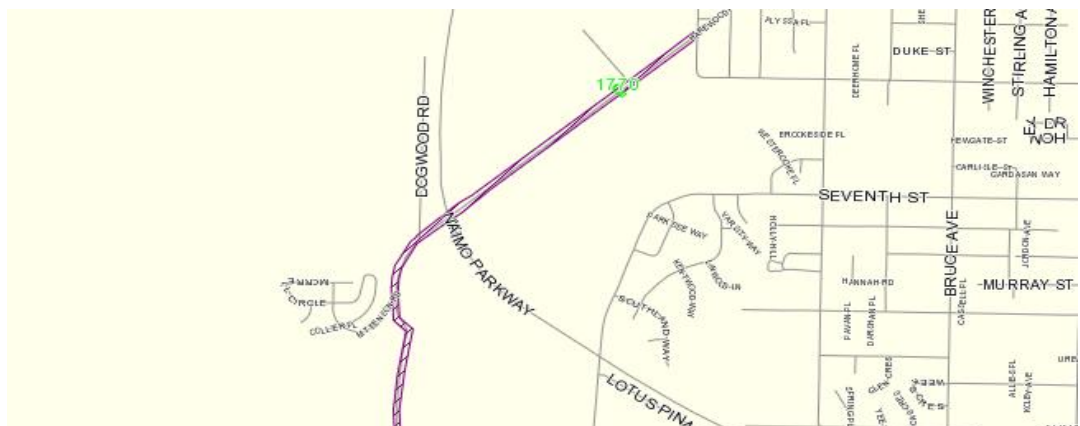
**Drainage**  
Existing CSP culvert is corroded and requires replacement.

**Road Rehab**  
To maintain pavement quality on major roads and to minimize lifecycle costs.

**Communication Plan:**

Letters of notice to affected property  
Site signage at project location  
News releases

**Project Map:**



## 2016 Engineering and Public Works Project Summary Sheet 2016 - 2020 Financial Plan

**Budget Book Reference:** P-C2

**Concurrent Project:** Robins St. Utility Upgrade

**Components:** P\_6184 Robins St SS: Pipe 509596 @ Nicol  
P\_7357 Robins St WM: Strickland to Haliburton

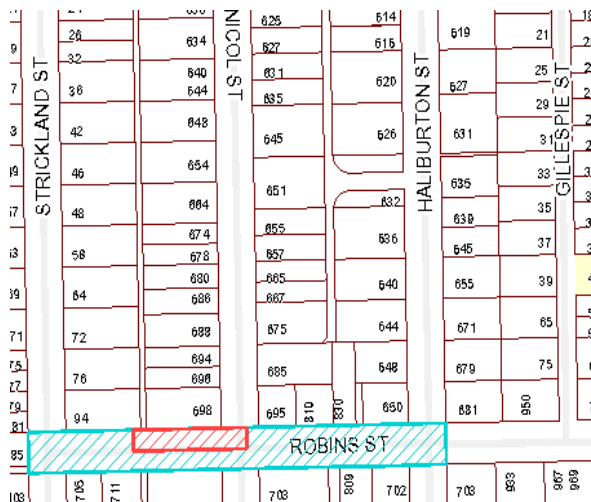
		<b>2016</b>
<b>Budget:</b>	Sanitary Sewer	\$ 15,000
	Watermain	\$ 100,000
		<b>\$ 115,000</b>
<b>Funding:</b>	Sewer Reserve	\$ 15,000
	Water Reserve	\$ 100,000
		<b>\$ 115,000</b>
<b>Asset Category:</b>	Renewal	

**Project Description:** Replacement of 20 meters of vitrified clay sanitary sewer pipe and 200 meters of 1950's era cast iron watermain.

**Justification:** **Sanitary Sewer**  
Replacement required due to deteriorating condition.  
**Water**  
Replacement required due to operational and maintenance issues and to improve fire flows in surrounding area.

**Communication Plan:** Letters of notice to affected property  
Site signage at project location

**Project Map:**



Red shading indicates sanitary sewer  
Blue shading indicates water

## 2016 Engineering and Public Works Project Summary Sheet 2016 - 2020 Financial Plan

**Budget Book Reference:** P-C2

**Concurrent Project:** Seventh St. Utility Upgrade

**Components:** P\_6211 Seventh St SS: Siphon to Park Ave  
P\_7298 Seventh St WM: Park to Douglas

		2016	2017	Total Project Cost
<b>Budget:</b>	Sanitary Sewer	\$ -	\$ 182,000	\$ 182,000
	Watermain - Design	\$ 30,000	\$ -	\$ 30,000
	Watermain - Construction	\$ -	\$ 273,000	\$ 273,000
		<b>\$ 30,000</b>	<b>\$ 455,000</b>	<b>\$ 485,000</b>
<b>Funding:</b>	Sewer Reserve	\$ -	\$ 182,000	\$ 182,000
	Water Reserve	\$ 30,000	\$ 273,000	\$ 303,000
		<b>\$ 30,000</b>	<b>\$ 455,000</b>	<b>\$ 485,000</b>

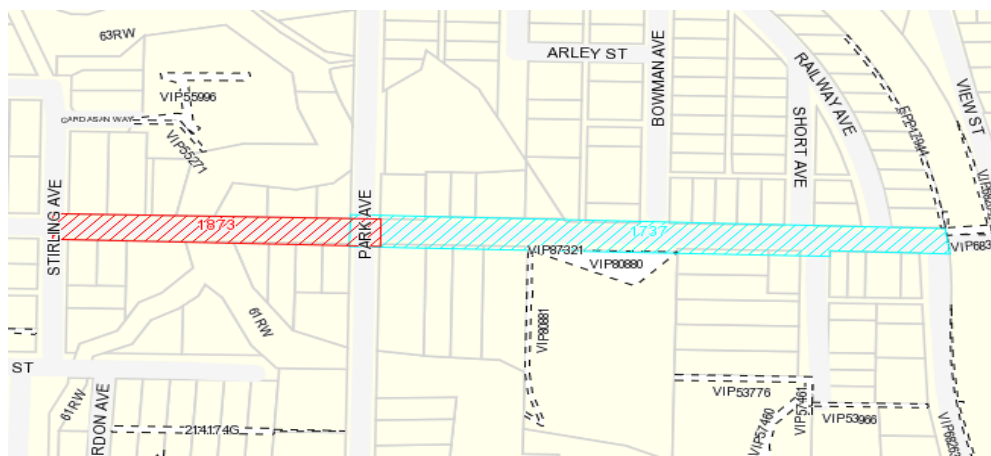
**Asset Category:** Renewal

**Project Description:** Replacement of existing 400 mm diameter steel and 375 mm diameter reinforced concrete sanitary sewer infrastructure due to capacity issues and 300 mm diameter asbestos cement watermain infrastructure due to condition.

**Justification:** **Sanitary Sewer**  
2014 Chase River Sewer Master Plan identified that the siphon required upsizing due to capacity shortfall.  
**Water**  
Geotechnical concerns within the existing watermain alignment increase the risk of a break and issues with the existing pipe. This watermain is a high priority asbestos cement watermain with a previous watermain break in July 2009.

**Communication Plan:** Letters of notice to affected property  
Site signage at project location

**Project Map:**



Red shading indicates sanitary sewer  
Blue shading indicates water

## 2016 Engineering and Public Works Project Summary Sheet 2016 - 2020 Financial Plan

**Budget Book Reference:** P-C2

**Concurrent Project:** Sherwood Dr. Utility Upgrade

**Components:** I/O 50128 Sherwood Dr DR: 1571 Sherwood to Bowstring  
P\_7380 Sherwood Dr. Utility Upgrade

		2015	2016	Total Project Cost
<b>Budget:</b>	Drainage	\$ -	\$ 28,000	\$ 28,000
	Watermain - Design	\$ 5,000	\$ -	\$ 5,000
	Watermain - Construction	\$ -	\$ 518,000	\$ 518,000
		<b>\$ 5,000</b>	<b>\$ 546,000</b>	<b>\$ 551,000</b>
<b>Funding:</b>	Water Reserve	\$ 5,000	\$ 518,000	\$ 523,000
	General Revenue	\$ -	\$ 28,000	\$ 28,000
		<b>\$ 5,000</b>	<b>\$ 546,000</b>	<b>\$ 551,000</b>

**Asset Category:** Renewal

**Project Description:** The project will include the following renewal:

- Replacement of the 600 mm diameter corrugated steel pipe culvert at Bowstring Close and Sherwood Drive.
- Replacement of 650 meters of 1970's era asbestos cement watermain on Sherwood Drive.

**Justification:**

### Drainage

The existing culvert is corroded and requires replacement.

### Water

A watermain break in the summer of 2015 caused substantial damage to the road and nearby property. The existing asbestos cement watermains in this project area are classified as a higher risk for failure due to the age, pressure and recent watermain break. This project has been accelerated from 2020 to 2016 due to the recent break.

**Communication Plan:** Letters of notice to affected property  
Site signage at project location

**Project Map:**



Green shading indicates drainage

Blue shading indicates water

## 2016 Engineering and Public Works Project Summary Sheet 2016 - 2020 Financial Plan

**Budget Book Reference:** P-C2

**Concurrent Project:** Terminal South Complete Street & Utility Project

**Components:**  
P\_5222 Terminal South Complete Street & Utility Project  
I/O 50126 Terminal @ St George/Princess Royal - VEH  
P\_6217 Terminal South Complete Street & Utility Project  
P\_7309 Terminal South Complete Street & Utility Project

		2016	2017	2018	Total Project Cost
<b>Budget:</b>	Drainage - Design	\$ 55,000	\$ -	\$ -	\$ 55,000
	Drainage - Construction	\$ -	\$ 420,000	\$ -	\$ 420,000
	Transportation - Road Rehab	\$ -	\$ 996,000	\$ 1,032,200	\$ 2,028,200
	Transportation - Traffic Signal Controller	\$ 86,400	\$ -	\$ -	\$ 86,400
	Sanitary Sewer - Design	\$ 120,000	\$ -	\$ -	\$ 120,000
	Sanitary Sewer - Construction	\$ -	\$ 1,317,400	\$ -	\$ 1,317,400
	Watermain - Design/Construction	\$ 18,000	\$ 462,000	\$ -	\$ 480,000
		<b>\$ 279,400</b>	<b>\$ 3,195,400</b>	<b>\$ 1,032,200</b>	<b>\$ 4,507,000</b>
<b>Funding:</b>	General Asset Management Reserve	\$ 55,000	\$ 1,416,000	\$ 432,200	\$ 1,903,200
	Sewer Asset Management Reserve	\$ 120,000	\$ 1,317,400	\$ -	\$ 1,437,400
	Water Reserve	\$ 18,000	\$ 462,000	\$ -	\$ 480,000
	General Revenue	\$ 86,400	\$ -	\$ 600,000	\$ 686,400
		<b>\$ 279,400</b>	<b>\$ 3,195,400</b>	<b>\$ 1,032,200</b>	<b>\$ 4,507,000</b>

**Asset Category:** Renewal

**Project Description:** Road surface rehabilitation of Terminal Ave from Stewart Ave to St. George, renewal of traffic signal controller at Terminal Ave and St. George, upgrade of pedestrian signal controller including addition of countdown pedestrian signal display and renewal of drainage, sanitary sewer and watermain infrastructure.

**Justification:**

**Drainage**  
Replacement of some pipes is required due to poor condition.

**Transportation - Road Rehab**  
To adjust surface failures by renewing the pavement, which will prolong the life of the road.

**Transportation - Traffic Signal Controller**  
Replace electrical traffic signal components that are at the end of their service life.

**Sanitary Sewer**  
Several sections of sanitary sewer will be replaced. Closed Circuit TV (CCTV) video confirms that the pipes are in deteriorating condition and should be replaced. Some sections lay underneath the road surface to be rehabilitated and are in poor condition and are not anticipated to last for the life of the new road surface and may trigger premature cutting and patching of the road asphalt in the future if not renewed now. A final section will be impacted during the replacement of a section of the drainage infrastructure due to its close proximity.

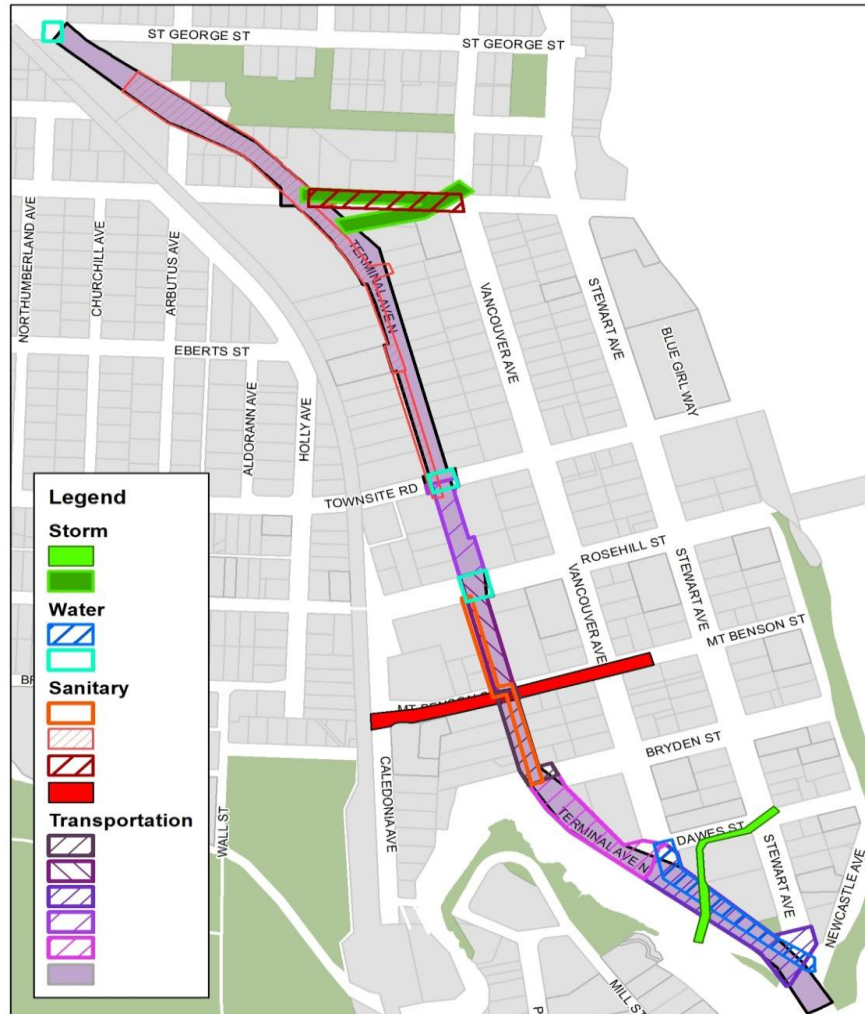
**Water**  
Replacement of late 50's and early 60's cast iron watermain of various diameters which has deteriorated causing low flows and operational and maintenance issues.

## 2016 Engineering and Public Works Project Summary Sheet 2016 - 2020 Financial Plan

**Concurrent Project:** Terminal South Complete Street & Utility Project Continued

**Communication Plan:** Letters of notice to affected property  
Site signage at project location  
Stakeholder consultation  
Website information  
News releases

**Project Map:**



## 2016 Engineering and Public Works Project Summary Sheet

### 2016 - 2020 Financial Plan

**Budget Book Reference:** P-C2

**Concurrent Project:** Tom's Turnabout Area Utility Upgrade

**Components:**

I/O 70002	Tom's Turnabout PRV Review
P_5219	Laguna Way DR (Tom's Turnabout to Laguna Way)
P_7279	Tom's Turnabout PRV
P_7353	Tom's Turnabout Area Utility Upgrade

				Total Project
		2015	2016	Cost
<b>Budget:</b>	Drainage	\$ -	\$ 90,000	\$ 90,000
	Watermain - Design	\$ 15,000	\$ -	\$ 15,000
	Watermain - Construction	\$ -	\$ 300,000	\$ 300,000
	Watermain - PRV Review	\$ 50,000	\$ -	\$ 50,000
	Watermain - PRV	\$ -	\$ 150,000	\$ 150,000
		<b>\$ 65,000</b>	<b>\$ 540,000</b>	<b>\$ 605,000</b>
<b>Funding:</b>	Water Reserve	\$ 65,000	\$ 450,000	\$ 515,000
	General Revenue	\$ -	\$ 90,000	\$ 90,000
		<b>\$ 65,000</b>	<b>\$ 540,000</b>	<b>\$ 605,000</b>

**Asset Category:** Renewal

**Project Description:** The project will include the following renewal:

- Replacement of 70 meters of drainage pipe in the easement between Tom's Turnabout and Laguna Way.
- Replacement of 300 meters of 1970's era asbestos cement watermain on Tom's Turnabout and the easement between Tom's Turnabout and Laguna Way.
- Renewal of existing PRV station at Hammond Bay Road and Tom's Turnabout.

**Justification:**

**Drainage**  
The condition of the existing drainage infrastructure is deteriorating and requires replacement. Replacing the existing watermain in the easement would require replacement of the drainage pipe due to the proximity of the drainage pipe to the watermain.

**Water**

Two watermain breaks have occurred on Tom's Turnabout. The existing asbestos cement watermain in this project area are classified as a higher risk for failure due to the age, pressure and recent watermain breaks.

**PRV**

Replacement required due to deteriorating condition and operating and maintenance issues.

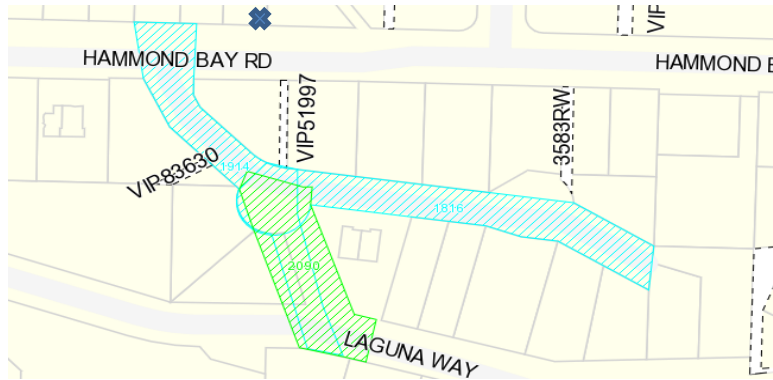
**Communication Plan:**

- Letters of notice to affected property
- Site signage at project location
- Stakeholder consultation

## 2016 Engineering and Public Works Project Summary Sheet 2016 - 2020 Financial Plan

**Concurrent Project:** Tom's Turnabout Area Utility Upgrade Continued

**Project Map:**



Green shading indicates drainage

Blue shading indicates water

x indicates location of PRV

## 2016 Engineering and Public Works Project Summary Sheet

### 2016 - 2020 Financial Plan

**Budget Book Reference:** P-C2

**Concurrent Project:** Townsite/Holly Corridor & Utility Project

**Components:** P\_5208 Townsite/Holly Corridor & Utility Project  
P\_7354 Holly Ave WM: Townsite to Bradley

		2015	2016	Total Project Cost
<b>Budget:</b>	Drainage	\$ -	\$ 15,000	\$ 15,000
	Transportation - Cycling	\$ -	\$ 40,000	\$ 40,000
	Transportation - Pedestrian Improvements	\$ -	\$ 75,000	\$ 75,000
	Watermain - Design	\$ 6,000	\$ -	\$ 6,000
	Watermain - Construction	\$ -	\$ 217,000	\$ 217,000
		<b>\$ 6,000</b>	<b>\$ 347,000</b>	<b>\$ 353,000</b>
<b>Funding:</b>	Water Reserve	\$ 6,000	\$ 217,000	\$ 223,000
	General Revenue	\$ -	\$ 130,000	\$ 130,000
		<b>\$ 6,000</b>	<b>\$ 347,000</b>	<b>\$ 353,000</b>

**Asset Category:** Renewal

**Project Description:** The project will include the following elements:

- Replacement of existing drainage between Rosehill Street and Bradley Street.
- Pedestrian upgrades at the Townsite Road crosswalk at Holly Avenue, including a traffic island with pedestrian refuge island and curb extensions at the southwest corner.
- Pedestrian upgrades at the intersection of Townsite Road and Vancouver Avenue including curb extensions for the southwest and northwest corner of Townsite Road and Vancouver Avenue and a raised bus stop at the southeast corner of Vancouver Avenue and Townsite Road.
- Bike lanes on Townsite Road from Arbutus Avenue to Stewart Avenue and bike lanes or shared vehicle and bike lanes on Holly Avenue from Rosehill Street to Townsite Road.
- Replacement of 200 meters of 1930's era cast iron watermain on Holly Avenue between Townsite Road and Bradley Street.

**Justification:**

**Drainage**  
Replacement required due to deteriorating condition of the existing drainage piping.

**Transportation**  
Pedestrian upgrades at Townsite Road and Holly Avenue create a safer environment for pedestrians crossing Townsite Road by narrowing the crossing distance. This route links the E&N trail with Downtown Nanaimo.

Pedestrian upgrades at Townsite Road and Vancouver Avenue create a safer environment for pedestrians crossing Townsite Road and Vancouver Avenue by narrowing the crossing distance. These upgrades were identified in the Newcastle-Brechin Neighborhood plan. The raised bus stop allows people with mobility issues to access the bus easier.

The Townsite Road Bike Route is identified in the Transportation Master Plan as a priority cycling route.

**Water**  
The aging cast iron pipe has deteriorated causing low flows and operational and maintenance issues.

## 2016 Engineering and Public Works Project Summary Sheet

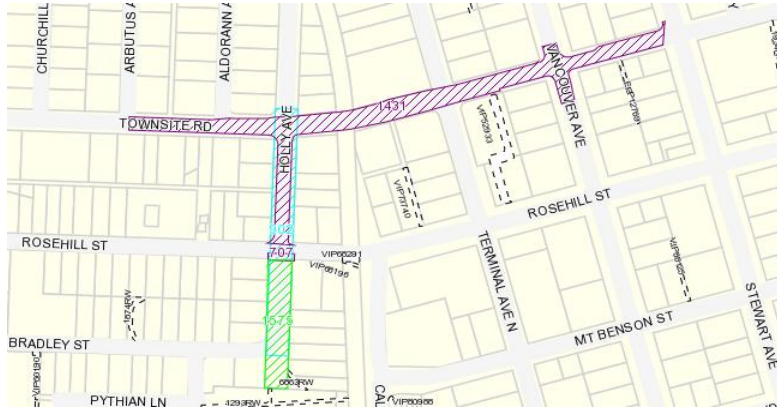
### 2016 - 2020 Financial Plan

**Concurrent Project:** Townsite/Holly Corridor & Utility Project Continued

**Communication Plan:**

- Letters of notice to affected property
- Site signage at project location
- Stakeholder consultation
- News releases
- Website information

**Project Map:**



Green shading indicates drainage

Purple shading indicates sewer

Blue shading indicates water

## 2016 Engineering and Public Works Project Summary Sheet

### 2016 - 2020 Financial Plan

**Budget Book Reference:** P-E1 (Fleet - City)

**Project:** P\_7382 Water: New Fleet Units

**2016 Budget:** \$ 22,000

**2016 Funding:** Water Reserve

**Asset Category:** New/Upgrade

**Project Description:** Purchase of a used vehicle for the water cross connection control program to be implemented in 2016. Project will increase the size of the City fleet.

**2016 Engineering and Public Works Project Summary Sheet**  
**2016 - 2020 Financial Plan**

**Budget Book Reference:** P-E1 (Maintenance Equipment)

**Project:** P\_5232 Drainage Equipment

**2016 Budget:** \$ 25,000

**2016 Funding:** General Revenue

**Asset Category:** New/Upgrade

**Project Description:** Purchase of portable FloDar equipment to measure storm drainage flows in various strategic locations in the drainage collection system.

**Justification:** Flow data from the monitoring station will be used to calibrate drainage system models to evaluate pipe capacities and determine if and when pipe upgrades are required.

## 2016 Engineering and Public Works Project Summary Sheet

### 2016 - 2020 Financial Plan

**Budget Book Reference:** P-E1 (Maintenance Equipment)

**Project:** I/O 70001 Water Ops Maintenance Equipment

**2016 Budget:** \$ 14,400

**2016 Funding:** Water Reserve

**Asset Category:** New/Upgrade

**Project Description:** In conjunction with the cross connection control program the City will purchase/build 12 hydrant backflow preventers for private construction. Contractors would be charged for use of the preventers in addition to a daily flat rate for the water consumed.

## 2016 Engineering and Public Works Project Summary Sheet

### 2016 - 2020 Financial Plan

**Budget Book Reference:** P-E2 (Fleet - City)

**Project:** P\_5060 Fleet Replacements

**2016 Budget:** \$ 523,000

**2016 Funding:** Equipment Depreciation Reserve

**Asset Category:** Renewal

**Project Description:** Replacement of vehicles, pickups, heavy equipment and garbage trucks that have reached end of useful life. Planned purchases for 2016 include:

- Light duty unit for Roads department to replace unit #103 Dodge Caravan (in-service 2003)
- Light duty unit for Bylaw department to replace unit #271 Dodge Ram 1/2 ton 4x4 (in-service 2003)
- Medium duty unit for Water department to replace unit #234 Dodge 3/4 ton (in-service 2001)
- Medium duty unit for Parks department to replace unit #257 Ford F350 (in-service 2004)
- Heavy duty unit for Drainage department to replace unit #406 full size single axle dump truck (in-service 2001)
- Heavy duty unit for Roads department to replace unit #425 small 4x4 dump truck (in-service 2001)

## 2016 Engineering and Public Works Project Summary Sheet

### 2016 - 2020 Financial Plan

**Budget Book Reference:** P-E2 (Furniture & Equipment Replacement)

**Project:** I/O 50000 Engineering Services: Furniture & Equipment Replacement

**2016 Budget:** \$ 25,000

**2016 Funding:** General Revenue

**Asset Category:** Renewal

**Project Description:** Routine replacement of furniture and equipment including computers for staff in the Engineering Services department, as needed.

## 2016 Engineering and Public Works Project Summary Sheet

### 2016 - 2020 Financial Plan

**Budget Book Reference:** P-E2 (Furniture & Equipment Replacement)

**Project:** I/O 50059 Public Works Yard: Furniture & Equipment Replacement

**2016 Budget:** \$ 15,000

**2016 Funding:** General Revenue

**Asset Category:** Renewal

**Project Description:** Replacement of furniture and equipment for Engineering & Public Works staff located at the Public Works yard.

## 2016 Engineering and Public Works Project Summary Sheet

### 2016 - 2020 Financial Plan

**Budget Book Reference:** P-E2 (Maintenance Equipment)

**Project:** I/O 50121 Construction: Equipment Replacement

**2016 Budget:** \$ 19,100

**2016 Funding:** General Revenue

**Asset Category:** Renewal

**Project Description:** Replacement of small tools and equipment used by the Construction department in daily operations.  
Planned purchases for 2016 include:

- Vibrating plate
- Replacement of the speed reader touch screen on message board
- Pipe laser

## 2016 Engineering and Public Works Project Summary Sheet 2016 - 2020 Financial Plan

**Budget Book Reference:** P-E2 (Maintenance Equipment)

**Projects:** P\_5014 Transportation Maintenance Equipment  
I/O 50067 Transportation Maintenance Equipment

**2016 Budget:** \$ 29,500

**2016 Funding:** General Revenue

**Asset Category:** Renewal

**Project Description:** Replacement of small tools and equipment used by the Transportation department (includes roads and signs and lines) in daily operations. Planned purchases for 2016 include:

- Hand held blower
- Pole pruner
- Line laser
- Thermoplastic applicator
- Unallocated funds (\$5,000) for unanticipated small tools replacement

## 2016 Engineering and Public Works Project Summary Sheet

### 2016 - 2020 Financial Plan

**Budget Book Reference:** P-E2 (Maintenance Equipment)

**Project:** I/O 50058 Drainage Maintenance Equipment

**2016 Budget:** \$ 15,000

**2016 Funding:** General Revenue

**Asset Category:** Renewal

**Project Description:** Replacement of small tools and equipment used by the Drainage department in daily operations. Planned purchases for 2016 include:

- Concrete saw
- Misc small hand held tools
- Unallocated funds (\$10,000) for unanticipated small tools replacement

## 2016 Engineering and Public Works Project Summary Sheet

### 2016 - 2020 Financial Plan

**Budget Book Reference:** P-E2 (Maintenance Equipment)

**Project:** P\_5216 Fleet: Small Equipment  
I/O 50061 Fleet: Small Tools Replacement

**2016 Budget:** \$ 25,000

**2016 Funding:** Equipment Depreciation Reserve

**Asset Category:** Renewal

**Project Description:** Replacement of small tools and equipment used by various City departments for which the Fleet department charges for their use (hourly rate). Planned purchases for 2016 include:

- Hydraulic power pack
- Stanley hoe pack
- Unallocated funds (\$7,500) for unanticipated small tools replacement

## 2016 Engineering and Public Works Project Summary Sheet

### 2016 - 2020 Financial Plan

**Budget Book Reference:** P-E2 (Maintenance Equipment)

**Project:** I/O 80000 Sanitary Sewer Ops Maintenance Equipment

**2016 Budget:** \$ 20,000

**2016 Funding:** Sewer Reserve

**Asset Category:** Renewal

**Project Description:** Replacement of small tools and equipment used by the Sewer department in daily operations. Planned purchases for 2016 include:

- AC/hydraulic saw with hepa filter and hood to meet new WorkSafe standards for AC pipe cutting.
- Unallocated funds (\$10,000) for unanticipated small tools replacement

## 2016 Engineering and Public Works Project Summary Sheet

### 2016 - 2020 Financial Plan

**Budget Book Reference:** P-E2 (Maintenance Equipment)

**Project:** I/O 70001 Water Ops Maintenance Equipment

**2016 Budget:** \$ 25,000

**2016 Funding:** Water Reserve

**Asset Category:** Renewal

**Project Description:** Replacement of small tools and equipment used by the Water department in daily operations. Planned purchases for 2016 include:

- AC/hydraulic saw with hepa filter and hood to meet new Work safe standards for AC pipe cutting.
- Tripod and harness to meet Work safe standards for confined space
- Unallocated funds (\$10,000) for unanticipated small tools replacement

## 2016 Engineering and Public Works Project Summary Sheet

### 2016 - 2020 Financial Plan

**Budget Book Reference:** P-E2 (Misc - Fleet Shop Equipment)

**Project:** I/O 50062 Fleet: Shop Equipment Replacement

**2016 Budget:** \$ 5,000

**2016 Funding:** Equipment Depreciation Reserve

**Asset Category:** Renewal

**Project Description:** Replacement of major shop equipment in the Fleet facility. Planned purchases for 2016 include:

- Gas powered welder

## 2016 Engineering and Public Works Project Summary Sheet

### 2016 - 2020 Financial Plan

**Budget Book Reference:** P-E2 (Misc - Survey Equipment)

**Project:** I/O 50036 Integrated Survey Control Monuments

**2016 Budget:** \$ 10,000

**2016 Funding:** General Revenue

**Asset Category:** Renewal

**Project Description:** This program adds, renews and maintains the survey control monuments.

**Justification:** Survey monuments are needed to establish survey control both for City projects and all surveying (legal and topographic) within the City limits. Legal plans are required to tie to at least two survey monuments.

## 2016 Engineering and Public Works Project Summary Sheet

### 2016 - 2020 Financial Plan

<b>Budget Book Reference:</b>	P-E2 (SNIC Equipment)
<b>Projects:</b>	I/O 50100 Snow/Ice Control Equipment P_5210 Snow/Ice Control Equipment
<b>2016 Budget:</b>	\$ 78,000
<b>2016 Funding:</b>	General Revenue
<b>Asset Category:</b>	Renewal
<b>Project Description:</b>	<p>Replacement of snow and ice equipment such as sanders, plows and anti-icing tanks. Planned purchases for 2016 include:</p> <ul style="list-style-type: none"><li>• Under body plow (replacement of unit #6208 in-service 1999 and used with unit #406 which is scheduled for replacement in 2016)</li><li>• Front plow (replacement of unit #6248 in-service 2000 and used with unit #425 which is scheduled for replacement in 2016)</li><li>• Front plow (replacement of unit #6234 in-service 2003 and used with unit #406 which is scheduled for replacement in 2016)</li><li>• Sander (replacement of unit #6211 in-service 1996 and used with unit #406 which is scheduled for replacement in 2016)</li><li>• Sander (replacement of unit #6245 in-service 2000 and used with unit #425 which is scheduled for replacement in 2016)</li></ul>

## 2016 Engineering and Public Works Project Summary Sheet

### 2016 - 2020 Financial Plan

**Budget Book Reference:** P-F2 (Public Works Yard)

**Project:** I/O 50060 Public Works Yard: Upgrades

**2016 Budget:** \$ 65,000

**2016 Funding:** General Revenue

**Asset Category:** Renewal

**Project Description:** Various projects beyond routine maintenance and repairs at the Public Works yard. Identified work for 2016 includes yard paving, fire alarm upgrades in Purchasing building, dedicated power to fuel head pumps to allow pumps to be turned off without disabling other systems, additional security camera in North yard, irrigation system upgrade, and carbon monoxide detectors in small equipment shop.

**2016 Engineering and Public Works Project Summary Sheet**  
**2016 - 2020 Financial Plan**

**Budget Book Reference:** P-F2 (Public Works Yard)

**Project:** I/O 50095 Public Works Yard: Doors

**2016 Budget:** \$ 24,000

**2016 Funding:** General Revenue

**Asset Category:** Renewal

**Project Description:** Replacement of Truck Barn exterior overhead doors which have reached end of useful life.

## 2016 Engineering and Public Works Project Summary Sheet

### 2016 - 2020 Financial Plan

**Budget Book Reference:** P-IT2 (Business Applications)

**Project:** P\_5003 GIS Development

**2016 Budget:** \$ 45,000

**2016 Funding:** General Revenue

**Asset Category:** Renewal

**Project Description:** This project is the first step in the implementation of a computerized maintenance management system (CMMS). A CMMS is a software package that maintains a database of information about an organizations maintenance operations.

The first step will be to evaluate the organizations needs and develop a business case. The objective will be to lay the foundation for this application that has the potential to greatly improve efficiency, data access and service delivery.

## 2016 Engineering and Public Works Project Summary Sheet 2016 - 2020 Financial Plan

**Budget Book Reference:** P-SS1 (Mains)

**Project:** P\_6168 DCC SS17: Jingle Pot to East Wellington

Expenditures/Budget:		2014 Actuals	2015 Budget	2016 Budget	Total Project Cost
Sanitary Sewer - Design		\$ 129,762	\$ 314,238	\$ -	\$ 444,000
Sanitary Sewer - Construction		\$ -	\$ -	\$ 3,024,000	\$ 3,024,000
		<b>\$ 129,762</b>	<b>\$ 314,238</b>	<b>\$ 3,024,000</b>	<b>\$ 3,468,000</b>

Funding:	Sewer DCC's	\$ 129,762	\$ 314,238	\$ 2,000,000	\$ 2,444,000
	Sewer Reserve	\$ -	\$ -	\$ 1,024,000	\$ 1,024,000
		<b>\$ 129,762</b>	<b>\$ 314,238</b>	<b>\$ 3,024,000</b>	<b>\$ 3,468,000</b>

**Asset Category:** New/Upgrade

**Project Description:** Project will upgrade 950 meters of existing 450 mm diameter asbestos cement sanitary sewer between Jingle Pot Road and Maxey Road to 600 mm diameter. As well, 180 meters of existing 600 mm diameter asbestos cement sanitary sewer will be upgraded to 750 mm diameter on Maxey Road near East Wellington Road.

**Justification:** Pipe needs to be upsized due to existing capacity shortfalls as identified in 2012 Millstone Trunk Sewer Master Plan.

**Communication Plan:** Letters of notice to affected property  
Site signage at project location  
Stakeholder consultation

**Project Map:**



## 2016 Engineering and Public Works Project Summary Sheet

### 2016 - 2020 Financial Plan

**Budget Book Reference:** P-SS1 (Mains)

**Project:** P\_6215 DCC Sanitary Sewer Unspecified Projects

**2016 Budget:** \$ 75,000

**2016 Funding:** Sewer DCC's

**Asset Category:** New/Upgrade

**Project Description:** Annual budget for design and/or installation of new or upsizing of sanitary sewer infrastructure not in current year plan.

**Justification:** Allows the City to respond to opportunities that arise as a result of development.

## 2016 Engineering and Public Works Project Summary Sheet

### 2016 - 2020 Financial Plan

<b>Budget Book Reference:</b>	P-SS2 (Condition Assessment Program)
<b>Project:</b>	I/O 80005 Sewer Infrastructure Monitoring and Model Calibration
<b>2016 Budget:</b>	\$ 75,000
<b>2016 Funding:</b>	Sewer Reserve
<b>Asset Category:</b>	Renewal
<b>Project Description:</b>	Annual program to operate and maintain sewer flow and rainfall monitoring stations located throughout the City.
<b>Justification:</b>	Flow and rainfall data from monitoring stations is used to calibrate sanitary sewer models to evaluate pipe capacities and determine if and when pipe upgrades are required. Data from stations is also used to determine the quantity and type of rain related inflow & infiltration in sewer system. This will inform a future inflow and infiltration reduction strategy to support the Regional District of Nanaimo's Liquid Waste Management Plan.

## 2016 Engineering and Public Works Project Summary Sheet

### 2016 - 2020 Financial Plan

**Budget Book Reference:** P-SS2 (Condition Assessment Program)

**Project:** I/O 80006 Sewer Infrastructure Condition Assessment Program

**2016 Budget:** \$ 400,000

**2016 Funding:** Sewer Reserve

**Asset Category:** Renewal

**Project Description:** Annual program to evaluate and assess condition of critical sanitary sewer mains in the City using Closed Circuit TV (CCTV) inspection.

**Justification:** To identify:

- Pipes with deteriorating condition before potential failure, surcharging and backflow events occur
- Areas of rain related inflow and infiltration

Information is used for renewal prioritization in Five Year Financial Plan and to update the City's Asset Management Plan.

## 2016 Engineering and Public Works Project Summary Sheet

### 2016 - 2020 Financial Plan

**Budget Book Reference:** P-SS2 (Design)

**Project:** P\_6105 Sanitary Sewer Designs

**2016 Budget:** \$ 60,000

**2016 Funding:** Sewer Reserve

**Asset Category:** Renewal

**Project Description:** Unallocated funding for design and scope changes to sanitary sewer projects. Examples include civil engineers, environmental consultants, geotechnical engineers, and others to facilitate projects.

**Justification:** These funds are essential to completing projects in a timely manner and engaging consultants where needed.

## 2016 Engineering and Public Works Project Summary Sheet

### 2016 - 2020 Financial Plan

**Budget Book Reference:** P-SS2 (Mains)

**Project:** I/O 80008 Sanitary Sewer Service Connection Upgrades

**2016 Budget:** \$ 175,000

**2016 Funding:** Sewer Reserve

**Asset Category:** Renewal

**Project Description:** Upgrade sewer services in Harewood area.

**Justification:** To align with commitments made within the Regional District of Nanaimo's Liquid Waste Management Plan, this yearly program helps to reduce inflow and infiltration of rainwater into sewer system.

## 2016 Engineering and Public Works Project Summary Sheet

### 2016 - 2020 Financial Plan

**Budget Book Reference:** P-SS2 (Mains)

**Project:** I/O 80021 Sanitary Sewer: Road Rehabilitation

**2016 Budget:** \$ 100,000

**2016 Funding:** Sewer Reserve

**Asset Category:** Renewal

**Project Description:** Annual funding for adjustments, repairs or replacements to sanitary sewer infrastructure resulting from road rehabilitation projects in the current construction year. For example repairing and raising manholes to the new pavement grade, and repairing cracked or broken sanitary mains prior to paving.

## 2016 Engineering and Public Works Project Summary Sheet

### 2016 - 2020 Financial Plan

**Budget Book Reference:** P-SS2 (Mains)

**Project:** P\_6103 Sanitary Infrastructure

**2016 Budget:** \$ 200,000

**2016 Funding:** Sewer Reserve

**Asset Category:** Renewal

**Project Description:** Annual program to cost share with development to add new, replace and/or upsize sanitary sewer infrastructure adjacent to the development site.

**Justification:** Cost sharing with developers provides opportunities to complete priority projects at a reduced cost.

## 2016 Engineering and Public Works Project Summary Sheet

### 2016 - 2020 Financial Plan

**Budget Book Reference:** P-SD1 (Condition Assessment Program)

**Project:** I/O 50048 Drainage Condition Assessment Program

**2016 Budget:** \$ 150,000

**2016 Funding:** General Revenue

**Asset Category:** Renewal

**Project Description:** Annual program to evaluate and assess condition of critical drainage mains in the City using Closed Circuit TV (CCTV) inspection.

**Justification:** To identify mains with deteriorating condition before potential failure, surcharging or flooding events occur. Information is used for renewal prioritization in Five Year Financial Plan and to update the City's Asset Management Plan.

## 2016 Engineering and Public Works Project Summary Sheet

### 2016 - 2020 Financial Plan

**Budget Book Reference:** P-SD1 (Design)

**Project:** P\_5005 Drainage Designs

**2016 Budget:** \$ 50,000

**2016 Funding:** General Revenue

**Asset Category:** Renewal

**Project Description:** Unallocated funding for design and scope changes to drainage projects. Examples include hydrology engineers, environmental consultants, others to facilitate projects.

**Justification:** These funds are essential to completing projects in a timely manner and engaging consultants where needed.

## 2016 Engineering and Public Works Project Summary Sheet

### 2016 - 2020 Financial Plan

**Budget Book Reference:** P-SD1 (Mains)

**Project:** P\_5054 Drainage Infrastructure

**2016 Budget:** \$ 75,000

**2016 Funding:** General Revenue

**Asset Category:** Renewal

**Project Description:** Annual program to cost share with development to add new, replace or upsize drainage infrastructure adjacent to the development site.

**Justification:** Cost sharing with the developers provides opportunities to complete priority projects at a reduced cost.

## 2016 Engineering and Public Works Project Summary Sheet 2016 - 2020 Financial Plan

**Budget Book Reference:** P-SD1 (Mains)

**Project:** P\_5211 Wild Otter Esmt VIP52002 Drainage: Starlight to Willow Grouse

		2016	2018	Total Project Cost
<b>Budget:</b>	Drainage - Design	\$ 25,000	\$ -	\$ 25,000
	Drainage - Construction	\$ -	\$ 240,000	\$ 240,000
		<b>\$ 25,000</b>	<b>\$ 240,000</b>	<b>\$ 265,000</b>
<b>Funding:</b>	General Revenue	\$ 25,000	\$ 240,000	\$ 265,000
		<b>\$ 25,000</b>	<b>\$ 240,000</b>	<b>\$ 265,000</b>

**Asset Category:** Renewal

**Project Description:** Replacement of 350 and 450 mm diameter corrugated metal (CMP) drainage pipe.

**Justification:** Replacement required due to deteriorating condition, as pipes are corroding, and operational and maintenance issues.

Risk of flooding and property damage from pipe failure.

**Project Map:**



**2016 Engineering and Public Works Project Summary Sheet**  
**2016 - 2020 Financial Plan**

**Budget Book Reference:** P-SD1 (Mains)

**Project:** I/O 50057 Fill Deposit Sites

**2016 Budget:** \$ 25,000

**2016 Funding:** General Revenue

**Asset Category:** Renewal

**Project Description:** Annual program to develop and maintain fill sites.

**Justification:** Fill deposit sites are required to support maintenance activities and capital projects.

## 2016 Engineering and Public Works Project Summary Sheet 2016 - 2020 Financial Plan

**Budget Book Reference:** P-SD1 (Mains)

**Project:** I/O 50120 Hammond Bay Road Drainage: 1362 to 1380 Ivy Lane

**2016 Budget:** \$ 7,000

**2016 Funding:** General Revenue

Total project costs including delayed watermain project P-7271 DCC W48 Hammond Bay Rd Watermain: Ivy to Sherwood that will be constructed with drainage main are:

					Total Project
		2012 Actuals	2015	2016	Cost
<b>Expenditures/Budget:</b>	Drainage	\$ -	\$ -	\$ 7,000	\$ 7,000
	Watermain - Design	\$ 6,544	\$ 18,456	\$ -	\$ 25,000
	Watermain - Construction	\$ 4,887	\$ 245,113	\$ -	\$ 250,000
		<b>\$ 11,431</b>	<b>\$ 263,569</b>	<b>\$ 7,000</b>	<b>\$ 282,000</b>
<b>Funding:</b>	Water DCC's	\$ 4,001	\$ 92,250	\$ -	\$ 96,251
	Water Reserves	\$ 7,430	\$ 171,319	\$ -	\$ 178,749
	General Revenue	\$ -	\$ -	\$ 7,000	\$ 7,000
		<b>\$ 11,431</b>	<b>\$ 263,569</b>	<b>\$ 7,000</b>	<b>\$ 282,000</b>

**Asset Category:** Renewal

**Project Description:** Replacement of 20 meters of existing corrugated steel drainage pipe (CSP) on Hammond Bay Road. Project will be completed in conjunction with watermain projected delayed from 2015.

**Justification:** Existing CSP is corroded and requires replacement.

**Communication Plan:** Letters of notice to affected property  
Site signage at project location  
Press release

**Project Map:**



## 2016 Engineering and Public Works Project Summary Sheet 2016 - 2020 Financial Plan

**Budget Book Reference:** P-T1 (Cycling Amenities)

**Project:** P\_5201 Bruce (4th to Bowen) - Cycling

		2016	2018	Total Project Cost
<b>Budget:</b>	Cycling Lanes - Design	\$ 25,000	\$ -	\$ 25,000
	Cycling Lanes - Construction	\$ -	\$ 225,000	\$ 225,000
		<b>\$ 25,000</b>	<b>\$ 225,000</b>	<b>\$ 250,000</b>
<b>Funding:</b>	General Revenue	\$ 25,000	\$ 225,000	\$ 250,000
		<b>\$ 25,000</b>	<b>\$ 225,000</b>	<b>\$ 250,000</b>

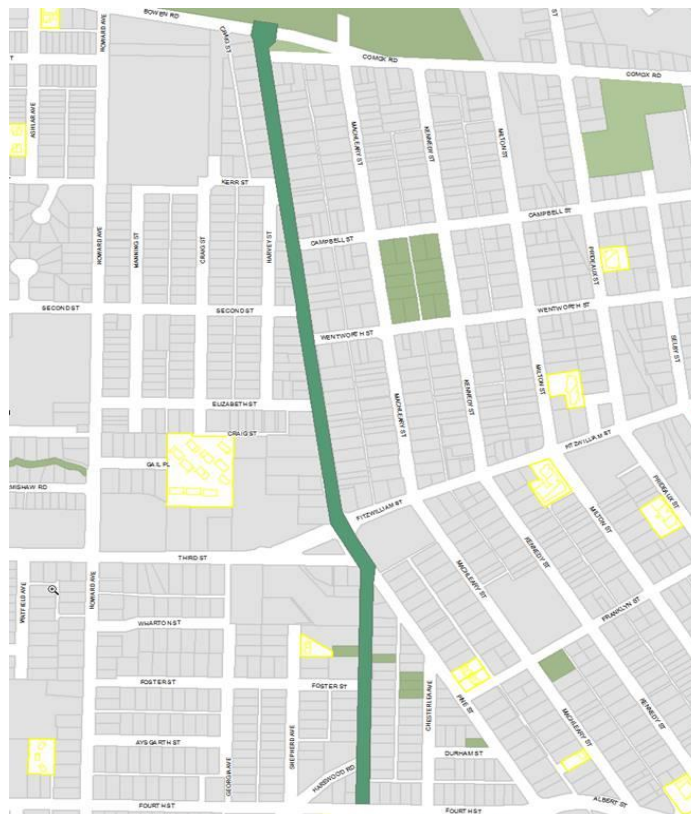
**Asset Category:** New/Upgrade

**Project Description:** Development of improved cycling facilities on Bruce Ave / Pine Street from Fourth Street to Bowen Road. This project is part of the Harewood Bikeway which seeks to improve cycling facilities along the Pine / Bruce / Tenth corridor.

**Justification:** Improve north-south cycling facilities in Harewood, an area of high cycling potential and consistent with the Transportation Master Plan and Neighbourhood Plan.

**Communication Plan:** Letters of notice to affected property  
Site signage at project location

**Project Map:**



## 2016 Engineering and Public Works Project Summary Sheet 2016 - 2020 Financial Plan

**Budget Book Reference:** P-T1 (Cycling Amenities)

**Project:** P\_5201 Second Street Bikeway - Cycling

**2016 Budget:** \$ 140,000

**2016 Funding:** General Revenue

**Asset Category:** New/Upgrade

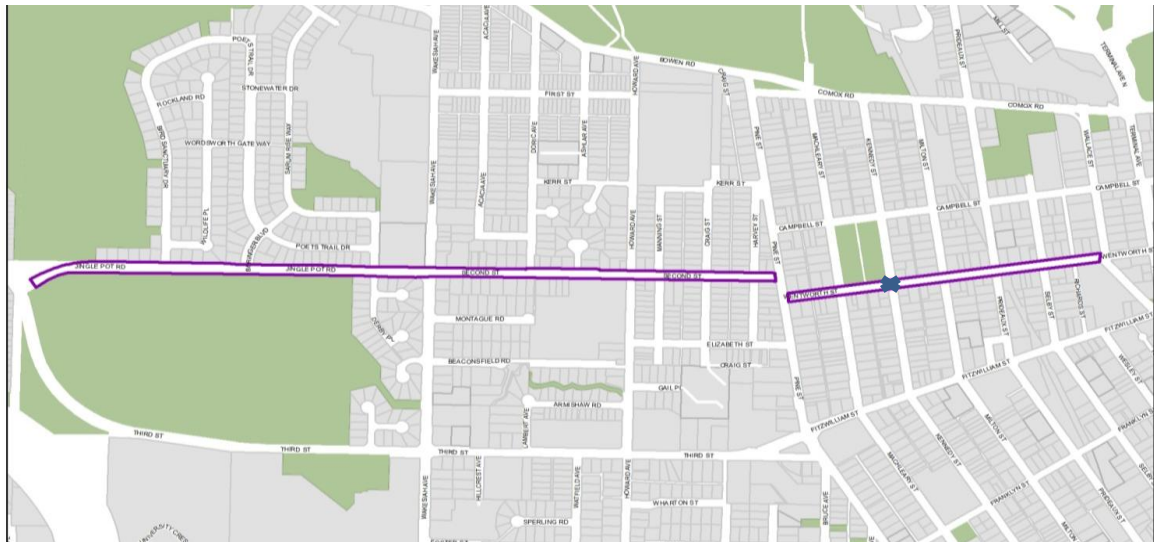
**Project Description:** Development of improved cycling facilities on Jingle Pot Road, Second Street and Wentworth Street from Third Street to Wallace Street. This project will develop cycling lanes from Jingle Pot Road to Pine Street and shared lanes on Wentworth Street from Pine Street to Wallace Street. As well, a traffic circle will be installed on Wentworth Street at Kennedy Street.

**Justification:** This project will improve cycling facilities along the Jingle Pot/Second Street/Wentworth corridor and the traffic circle will calm traffic on Wentworth Street.

This corridor was identified as a priority in the Transportation Master Plan.

**Communication Plan:**  
Letters of notice to affected property  
Site signage at project location  
Stakeholder consultation  
Website information

**Project Map:**



Purple indicates cycling lanes  
x indicates location of traffic circle

## 2016 Engineering and Public Works Project Summary Sheet

### 2016 - 2020 Financial Plan

**Budget Book Reference:** P-T1 (Design)

**Project:** P\_5081 DCC Road Designs & Unspecified Projects

**2016 Budget:** \$ 100,000

**2016 Funding:** Road DCC's

**Asset Category:** New/Upgrade

**Project Description:** Annual budget for design and/or installation of new or improvements to existing (to increase capacity) transportation infrastructure not in current year plan.

**Justification:** Allows the City to respond to opportunities that arise as a result of development.

## 2016 Engineering and Public Works Project Summary Sheet

### 2016 - 2020 Financial Plan

**Budget Book Reference:** P-T1 (Pedestrian Amenities)

**Project:** P\_5200 Wakesiah Ave (Foster to Fourth) Sidewalk - Pedestrian

**2016 Budget:** \$ 30,000

**2016 Funding:** General Revenue

**Asset Category:** New/Upgrade

**Project Description:** Project will be removed from plan for final 2016 - 2020 Financial Plan.

## 2016 Engineering and Public Works Project Summary Sheet

### 2016 - 2020 Financial Plan

**Budget Book Reference:** P-T1 (Pedestrian Amenities)

**Project:** I/O 50012 Transportation Pedestrian: Aulds Rd @ Metral Dr - Audible Signal, Pedestrian Pushbuttons, Countdown Timers

**2016 Budget:** \$ 14,800

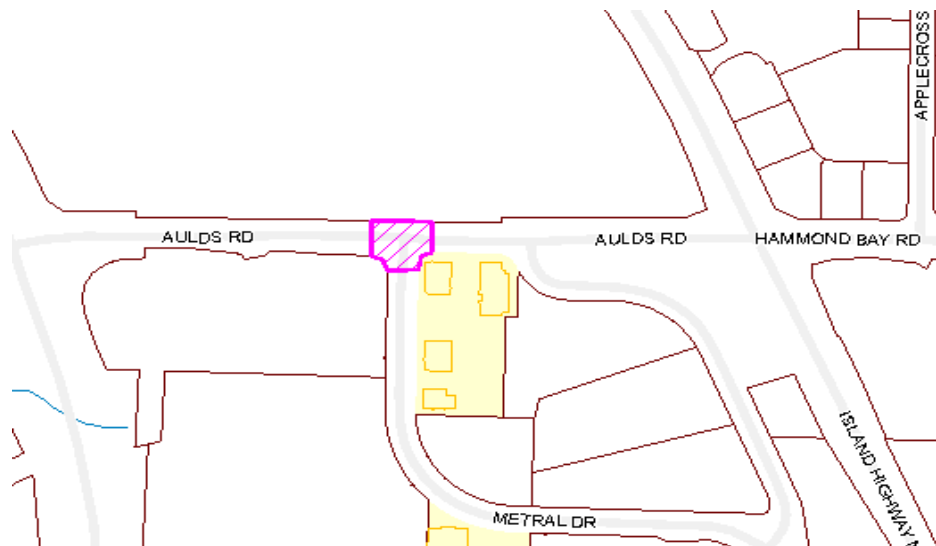
**2016 Funding:** General Revenue

**Asset Category:** New/Upgrade

**Project Description:** Upgrade older style pedestrian pushbuttons and hand/man pedestrian signal display with new bulldog pedestrian pushbuttons, LED hand/man overlay, countdown timer and audible pedestrian signals.

**Justification:** Pushbuttons are easier to operate, and provide feedback for the visually or hearing impaired. As well, countdown timers improve pedestrian safety at signals.

**Project Map:**



## 2016 Engineering and Public Works Project Summary Sheet

### 2016 - 2020 Financial Plan

**Budget Book Reference:** P-T1 (Pedestrian Amenities)

**Project:** I/O 50014 Transportation Pedestrian: Bastion @ Commercial Countdown Timers

**2016 Budget:** \$ 6,400

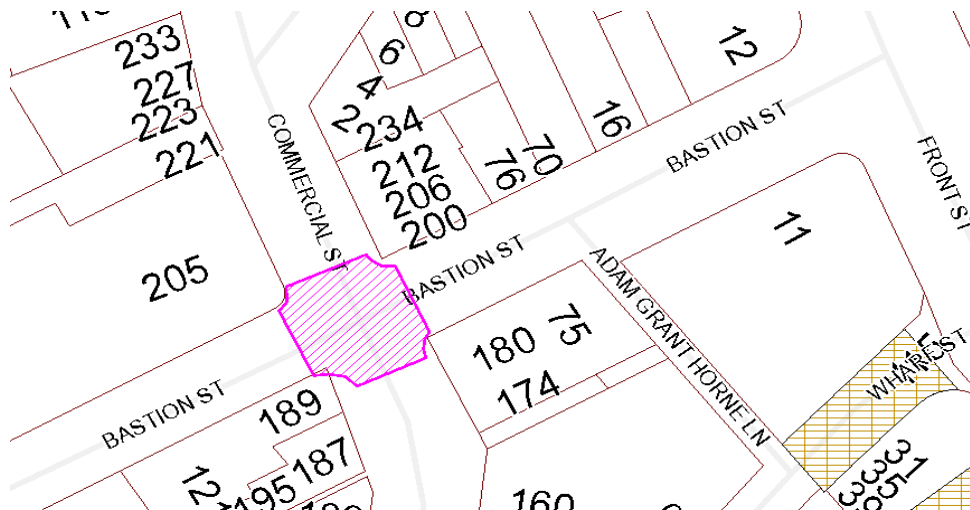
**2016 Funding:** General Revenue

**Asset Category:** New/Upgrade

**Project Description:** Upgrade older style hand/man pedestrian signal display with new LED hand/man overlay and countdown timer pedestrian signal displays.

**Justification:** Countdown timers improve pedestrian safety at signals.

**Project Map:**



## 2016 Engineering and Public Works Project Summary Sheet

### 2016 - 2020 Financial Plan

**Budget Book Reference:** P-T1 (Pedestrian Amenities)

**Project:** I/O 50022 Transportation Pedestrian: Hammond Bay @ Morningside Flasher

**2016 Budget:** \$ 15,000

**2016 Funding:** General Revenue

**Asset Category:** New/Upgrade

**Project Description:** Installation of side mount pedestrian activated warning flashers at existing school crosswalk adjacent to Hammond Bay Elementary at the corner of Hammond Bay Road and Morningside Drive.

**Justification:** Improves pedestrian safety by allowing pedestrians to identify themselves to approaching traffic.

**Project Map:**



## 2016 Engineering and Public Works Project Summary Sheet

### 2016 - 2020 Financial Plan

**Budget Book Reference:** P-T1 (Pedestrian Amenities)

**Project:** I/O 50123 Transportation Pedestrian: Franklyn St @ Wesley

**2016 Budget:** \$ 15,000

**2016 Funding:** General Revenue

**Asset Category:** New/Upgrade

**Project Description:** Project will be move to 2017 for final 2016 - 2020 Financial Plan.

## 2016 Engineering and Public Works Project Summary Sheet

### 2016 - 2020 Financial Plan

**Budget Book Reference:** P-T1 (Pedestrian Amenities)

**Project:** I/O 50124 Small Scale Street Improvements

**2016 Budget:** \$ 10,000

**2016 Funding:** General Revenue

**Asset Category:** New/Upgrade

**Project Description:** Small scale street improvements such as curb letdowns for crosswalks and/or other small scale civil works.

**Justification:** To respond to small scale issues indentified within the current budget year.

## 2016 Engineering and Public Works Project Summary Sheet

### 2016 - 2020 Financial Plan

**Budget Book Reference:** P-T1 (Pedestrian/Cycling Amenities)

**Project:** I/O 50034 Transportation Pedestrian: Traffic Calming Program

**2016 Budget:** \$ 25,000

**2016 Funding:** General Revenue

**Asset Category:** New/Upgrade

**Project Description:** Physical measures (i.e. speed humps, traffic circles, signage or pavement marking) to reduce traffic speeds and volume on neighbourhood streets to acceptable levels. Technical review is done to confirm existing on-site conditions as well as a resident survey to meet both technical warrants and neighbourhood support.

**Justification:** Create safe communities and increase the livability of neighbourhoods of residents.

## 2016 Engineering and Public Works Project Summary Sheet

### 2016 - 2020 Financial Plan

**Budget Book Reference:** P-T1 (Street Lights)

**Project:** I/O 50066 Sustainability: Street Lighting Reductions

**2016 Budget:** \$ 6,000

**2016 Funding:** Sustainability Initiatives Reserve

**Asset Category:** New/Upgrade

**Project Description:** Pilot project to upgrade street lights to more efficient technology such as LED lighting.

**Justification:** Reduces energy costs.

## 2016 Engineering and Public Works Project Summary Sheet 2016 - 2020 Financial Plan

**Budget Book Reference:** P-T2 (Bridges)

**Project:** P\_5229 Bastion Bridge

	2016	2017	Total Project Cost
<b>Budget:</b>	\$ 75,000	\$ 550,000	\$ 625,000
	<b>\$ 75,000</b>	<b>\$ 550,000</b>	<b>\$ 625,000</b>
<b>Funding:</b>			
General Asset Management Reserve	\$ -	\$ 400,000	\$ 400,000
General Revenue	\$ 75,000	\$ 150,000	\$ 225,000
	<b>\$ 75,000</b>	<b>\$ 550,000</b>	<b>\$ 625,000</b>

**Asset Category:** Renewal

**Project Description:** Structural upgrades to the Bastion Street Bridge, engineering work will be undertaken in 2016 with construction occurring in 2017. Structural upgrades to the bridge are anticipated to include substructure reinforcing, new guardrails, bearings, replacement of expansion joints and re-decking. Budget includes limited seismic upgrades.

**Justification:** A independent condition assessment of the bridge has identified maintenance work that needs to be undertaken if the bridge is to remain in service.

**Communication Plan:**  
Letters of notice to affected property  
Site signage at project location  
News releases  
Website information

**Project Map:**



## 2016 Engineering and Public Works Project Summary Sheet

### 2016 - 2020 Financial Plan

**Budget Book Reference:** P-T2 (Bridges)

**Project:** I/O 50082 Wellcox Yard Trestle Maintenance

**2016 Budget:** \$ 40,000

**2016 Funding:** General Revenue

**Asset Category:** Renewal

**Project Description:** Every year the trestle is thoroughly inspected and it is anticipated that additional annual replacement and upgrades will be required to keep the structure operational until a replacement or alternative access is in place.

**Justification:** The Port Trestle provides the only public access to the Wellcox Assembly Wharf. It is an older mostly wooden structure that is very close to the end of its useful life. Over the past 5 years there have been three projects to help extend the life of the structure by replacing rotted wooden components and adding steel reinforcing. It is expected that additional maintenance will be required for it to remain in service.

## **2016 Engineering and Public Works Project Summary Sheet**

### **2016 - 2020 Financial Plan**

<b>Budget Book Reference:</b>	P-T2 (Condition Assessment Program)
<b>Project:</b>	I/O 50125 Road Condition Survey
<b>2016 Budget:</b>	\$ 100,000
<b>2016 Funding:</b>	General Revenue
<b>Asset Category:</b>	Renewal
<b>Project Description:</b>	A road condition assessment program is completed every three years and the information is used to update the City's pavement management system. The system generates optimum road surface replacement schedules which are used to identify priority projects for the five year Financial Plan and update the City's Asset Management Plan.
<b>Justification:</b>	To ensure the pavement management system remains relevant and accurate.

## 2016 Engineering and Public Works Project Summary Sheet

### 2016 - 2020 Financial Plan

**Budget Book Reference:** P-T2 (Planning & Design)

**Project:** P\_5000 Transportation Designs

**2016 Budget:** \$ 100,000

**2016 Funding:** General Revenue

**Asset Category:** Renewal

**Project Description:** Unallocated funding for design and scope changes to transportation projects. Examples include electrical consultants for traffic signals, traffic specialists for signal timing plans, geotechnical engineers and others to facilitate projects

**Justification:** These funds are essential to completing projects in a timely manner and engaging consultants where needed.

**2016 Engineering and Public Works Project Summary Sheet**  
**2016 - 2020 Financial Plan**

**Budget Book Reference:** P-T2 (Railway Crossings)

**Project:** I/O 50039 Railway Crossing Repairs

**2016 Budget:** \$ 25,000

**2016 Funding:** General Revenue

**Asset Category:** Renewal

**Project Description:** Annual program for minor repairs to railway crossings.

**Justification:** To maintain public safety of the railway crossings.

## 2016 Engineering and Public Works Project Summary Sheet

### 2016 - 2020 Financial Plan

**Budget Book Reference:** P-T2 (Road Rehabilitation)

**Project:** P\_5010 Terminal Preservation - Rehabilitation

**2016 Budget:** \$ 300,000

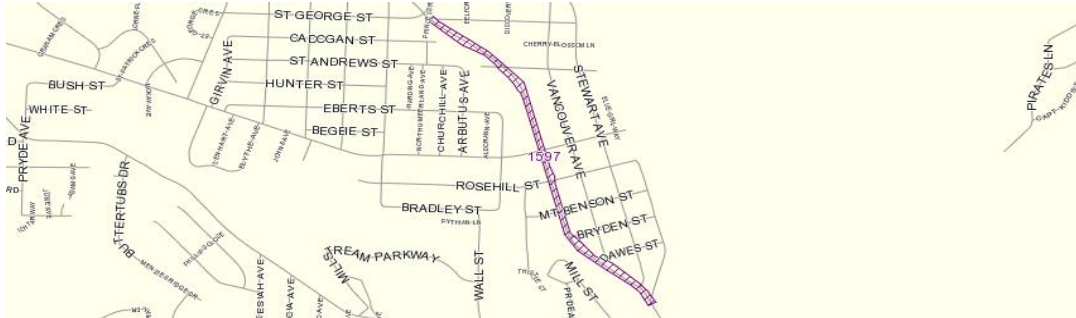
**2016 Funding:** General Asset Management Reserve

**Asset Category:** Renewal

**Project Description:** Sections of the existing road are failing to the point that the road pavement sub-structure needs to be excavated and replaced in advance of the major road rehabilitation work planned.

**Justification:** Structural failures on the road need to be addressed prior to the major road rehabilitation work planned for 2017 and 2018.

**Project Map:**



**2016 Engineering and Public Works Project Summary Sheet**  
**2016 - 2020 Financial Plan**

**Budget Book Reference:** P-T2 (Road Rehabilitation)

**Project:** P\_5010 Major Road Rehabilitation - Unallocated

**2016 Budget:** \$ 60,000

**2016 Funding:** General Revenue

**Asset Category:** Renewal

**Project Description:** Unallocated road rehabilitation funding to address issues that arise during the year on major roads.

**2016 Engineering and Public Works Project Summary Sheet**  
**2016 - 2020 Financial Plan**

**Budget Book Reference:** P-T2 (Road Rehabilitation)

**Project:** P\_5013 Pavement Preservation

**2016 Budget:** \$ 162,100

<b>2016 Funding:</b>	General Asset Management Reserve	\$	100,000
	General Revenue	\$	62,100
		<b>\$</b>	<b>162,100</b>

**Asset Category:** Renewal

**Project Description:** The use of preventative maintenance techniques such as microsurfacing, chip sealing and slurry sealing on locations identified through the pavement management system, that will prolong the life of the pavement.

**Justification:** Preventative maintenance techniques are a cost effective way to ensure that the road surfaces meet or exceed their anticipated service life.

## 2016 Engineering and Public Works Project Summary Sheet 2016 - 2020 Financial Plan

**Budget Book Reference:** P-T2 (Road Rehabilitation)

**Project:** P\_5013 Oceanview Terrace: Norasea to Bayshore

**2016 Budget:** \$ 198,162

<b>2016 Funding:</b>	General Asset Management Reserve	\$	100,000
	General Revenue	\$	98,162
		<b>\$</b>	<b>198,162</b>

**Asset Category:** Renewal

**Project Description:** Rebuilding of Oceanview Terrace from Norasea Road to Bayshore Drive.

**Justification:** The road has reached end of life and requires replacement.

**Project Map:**



## 2016 Engineering and Public Works Project Summary Sheet

### 2016 - 2020 Financial Plan

**Budget Book Reference:** P-T2 (Road Rehabilitation)

**Project:** P\_5013 Howden Dr Rehabilitation (Ross to End)

**2016 Budget:** \$ 90,000

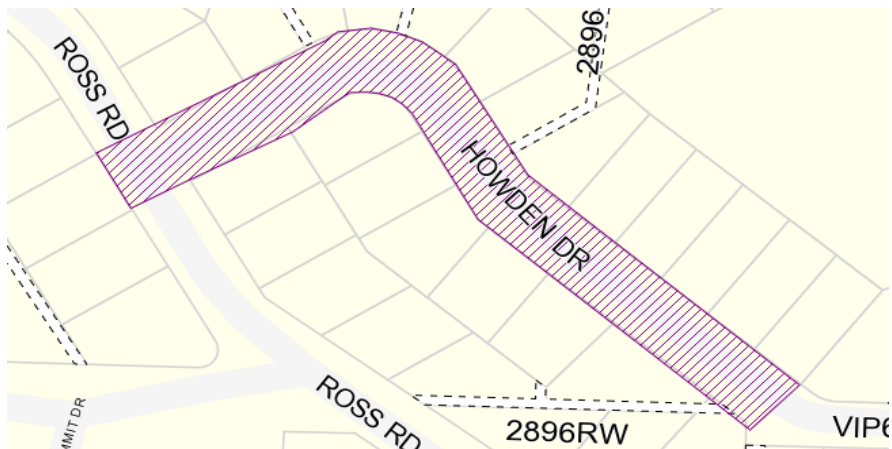
**2016 Funding:** General Revenue

**Asset Category:** Renewal

**Project Description:** Rebuilding of Howden Drive from Ross to End. The watermain will be replaced prior to paving as a cost share with a development off Crystal Place.

**Justification:** The road has reached end of life and requires replacement.

**Project Map:**



## 2016 Engineering and Public Works Project Summary Sheet

### 2016 - 2020 Financial Plan

**Budget Book Reference:** P-T2 (Road Rehabilitation)

**Project:** P\_5013 Museum Way Rehabilitation (Commercial to back of Port of Nanaimo Centre)

**2016 Budget:** \$ 85,500

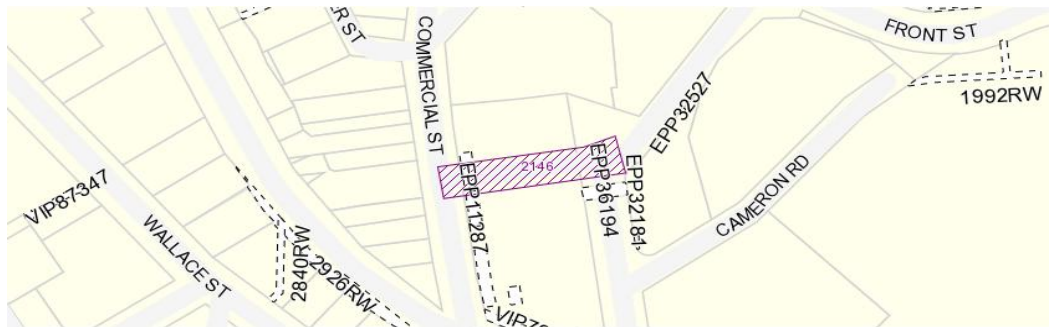
**2016 Funding:** General Revenue

**Asset Category:** Renewal

**Project Description:** Replace Museum Way paver road with coloured stamped concrete.

**Justification:** Existing block pavers are not performing to required standard resulting in operating, maintenance and liability issues.

**Project Map:**



## 2016 Engineering and Public Works Project Summary Sheet

### 2016 - 2020 Financial Plan

**Budget Book Reference:** P-T2 (Road Rehabilitation)

**Project:** P\_5013 Local Road Paving Program Unallocated

**2016 Budget:** \$ 23,338

**2016 Funding:** General Revenue

**Asset Category:** Renewal

**Project Description:** Unallocated road rehabilitation funding to address issues that arise during the year on local roads.

## 2016 Engineering and Public Works Project Summary Sheet

### 2016 - 2020 Financial Plan

**Budget Book Reference:** P-T2 (Road Rehabilitation)

**Project:** P\_5043 Road Infrastructure

**2016 Budget:** \$ 100,000

**2016 Funding:** General Revenue

**Asset Category:** Renewal

**Project Description:** Annual program to cost share with development on transportation related projects, (paving, road widening, sidewalks, etc) adjacent to development sites.

**Justification:** Cost sharing with developers provides opportunities to complete priority projects at a reduced cost.

**2016 Engineering and Public Works Project Summary Sheet**  
**2016 - 2020 Financial Plan**

**Budget Book Reference:** P-T2 (Street Lights)

**Project:** I/O 50052 Street Light Upgrades Annual Program

**2016 Budget:** \$ 50,000

**2016 Funding:** General Revenue

**Asset Category:** Renewal

**Project Description:** Replace and maintain street lights throughout the City.

**Justification:** Ensure street lights are functioning safely and properly.

## 2016 Engineering and Public Works Project Summary Sheet

### 2016 - 2020 Financial Plan

**Budget Book Reference:** P-W1 (Distribution Mains)

**Project:** P\_7131 DCC Water Unspecified Projects

**2016 Budget:** \$ 150,000

**2016 Funding:** Water DCC's

**Asset Category:** New/Upgrade

**Project Description:** Annual budget for design and/or installation of new or upsizing of water infrastructure not in current year plan.

**Justification:** Allows the City to respond to opportunities that arise as a result of development.

## 2016 Engineering and Public Works Project Summary Sheet 2016 - 2020 Financial Plan

**Budget Book Reference:** P-W1 (Distribution Mains)

**Project:** P\_7277 King Rd Watermain: Jingle Pot to PZ Boundary

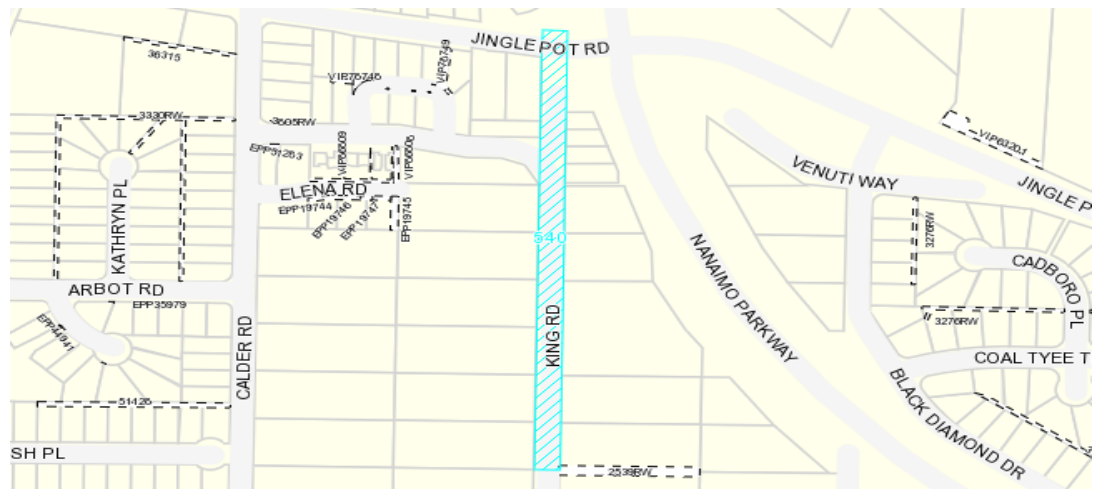
		2016	2018	Total Project Cost
<b>Budget:</b>	Watermain - Design	\$ 25,000	\$ -	\$ 25,000
	Watermain - Construction	\$ -	\$ 257,000	\$ 257,000
		<b>\$ 25,000</b>	<b>\$ 257,000</b>	<b>\$ 282,000</b>
<b>Funding:</b>	Water Reserve	\$ 25,000	\$ 257,000	\$ 282,000
		<b>\$ 25,000</b>	<b>\$ 257,000</b>	<b>\$ 282,000</b>

**Asset Category:** New/Upgrade

**Project Description:** Upsizing of a 1973 150 mm diameter watermain to 200 mm diameter.

**Justification:** 2006 College Heights Water Study recommended increasing watermain diameter to improve fire flows and minimum pressures in the area.

**Project Map:**



## 2016 Engineering and Public Works Project Summary Sheet 2016 - 2020 Financial Plan

**Budget Book Reference:** P-W1 (Distribution Mains)

**Project:** P\_7293 Holland & East Wellington Looping Watermain

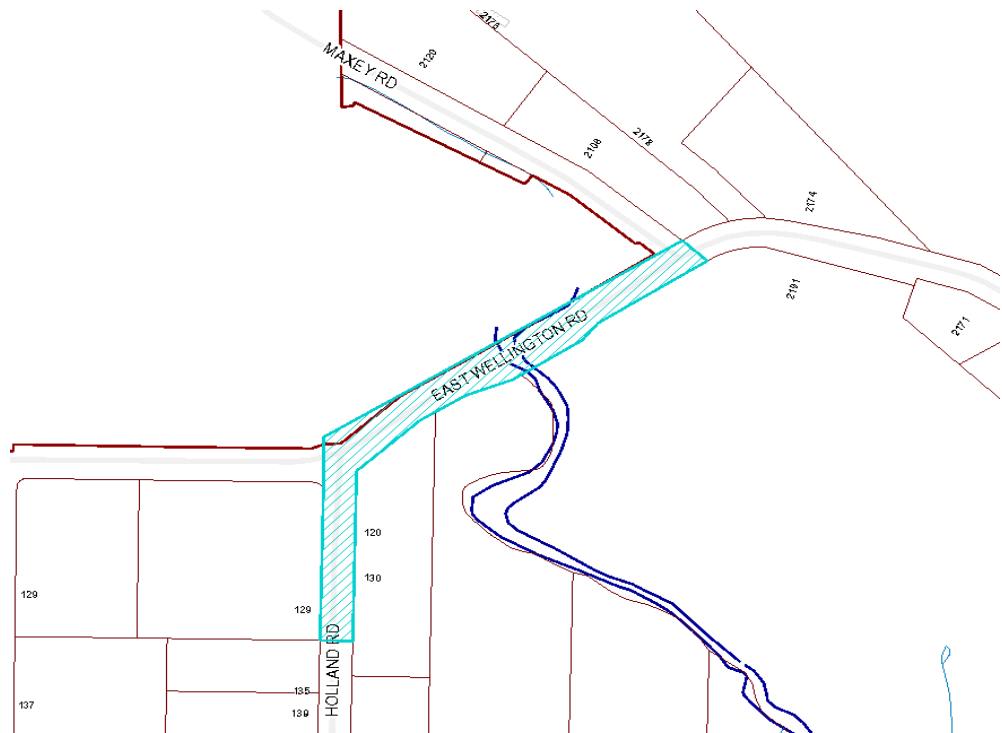
		2016	2018	Total Project Cost
<b>Budget:</b>	Watermain - Design	\$ 30,000	\$ -	\$ 30,000
	Watermain - Construction	\$ -	\$ 300,000	\$ 300,000
		<b>\$ 30,000</b>	<b>\$ 300,000</b>	<b>\$ 330,000</b>
<b>Funding:</b>	Water Reserve	\$ 30,000	\$ 300,000	\$ 330,000
		<b>\$ 30,000</b>	<b>\$ 300,000</b>	<b>\$ 330,000</b>

**Asset Category:** New/Upgrade

**Project Description:** Construction of a new 200 mm diameter PVC watermain.

**Justification:** To strengthen the existing distribution system, to improve fire flows, to increase minimum pressures and improve water quality .

**Project Map:**



## 2016 Engineering and Public Works Project Summary Sheet

### 2016 - 2020 Financial Plan

**Budget Book Reference:** P-W1 (Distribution Mains)

**Project:** P\_7341 DCC W49 Departure Bay Rd Watermain: Uplands to Rock City Rd

		2015	2016	Total Project Cost
<b>Budget:</b>	Watermain	\$ 2,000	\$ 328,000	\$ 330,000
		<b>\$ 2,000</b>	<b>\$ 328,000</b>	<b>\$ 330,000</b>
<b>Funding:</b>	Water DCC's	\$ 2,000	\$ 328,000	\$ 330,000
		<b>\$ 2,000</b>	<b>\$ 328,000</b>	<b>\$ 330,000</b>

**Asset Category:** New/Upgrade

**Project Description:** Upgrade 250 meters of existing 200 mm diameter watermain to 250 mm diameter.

**Justification:** Larger diameter watermain is required to service growth and provide minimum operating pressures and minimum fire flows.

**Communication Plan:** Letters of notice to affected property  
Site signage at project location  
Stakeholder consultation  
News releases

**Project Map:**



## 2016 Engineering and Public Works Project Summary Sheet 2016 - 2020 Financial Plan

**Budget Book Reference:** P-W1 (Supply Mains)

**Project:** P\_9260 DCC WS41: #1 Reservoir to College Pk Dup Supply WM

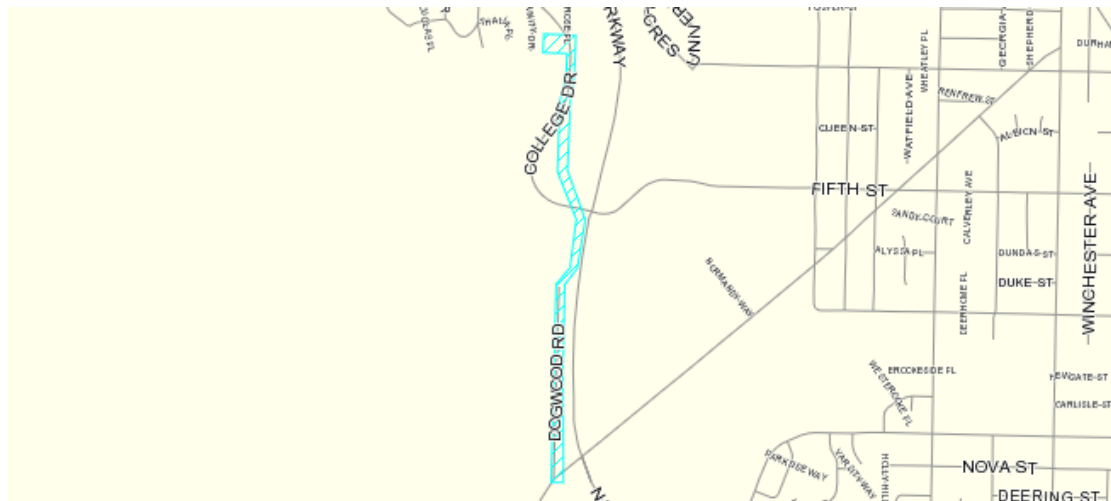
		2012 - 2014				Total Project
		Actuals	2015 Budget	2016 Budget	2017 Budget	Cost
<b>Expenditures/Budget:</b>	Watermain (Supply)	\$ 2,255,692	\$ 794,979	\$ 2,110,000	\$ 2,110,000	\$ 7,270,671
		<b>\$ 2,255,692</b>	<b>\$ 794,979</b>	<b>\$ 2,110,000</b>	<b>\$ 2,110,000</b>	<b>\$ 7,270,671</b>
<b>Funding:</b>	Government Grant - Federal	\$ 1,842,000	\$ -	\$ -	\$ -	\$ 1,842,000
	Water DCC's	\$ 413,692	\$ 744,979	\$ 1,582,500	\$ 1,582,500	\$ 4,323,671
	Water Reserve	\$ -	\$ 50,000	\$ 527,500	\$ 527,500	\$ 1,105,000
		<b>\$ 2,255,692</b>	<b>\$ 794,979</b>	<b>\$ 2,110,000</b>	<b>\$ 2,110,000</b>	<b>\$ 7,270,671</b>

**Asset Category:** New/Upgrade

**Project Description:** The construction of a new water supply main from the intersection of Dogwood and Nanaimo Lakes to College Park Reservoir. The final phase of the duplicate main is currently in the engineering/design phase and will be constructed in 2016/2017. Phase one was completed in 2013. The dogwood PRV (separate project) will be replaced in conjunction with this project for \$280,000 in 2017.

**Justification:** To address capacity issues in North Nanaimo and support development. Project will also improve fire storage in existing reservoirs.

**Project Map:**



## 2016 Engineering and Public Works Project Summary Sheet

### 2016 - 2020 Financial Plan

**Budget Book Reference:** P-W2 (Condition Assessment Program)

**Project:** I/O 70008 Water Infrastructure Condition Assessment Program

**2016 Budget:** \$ 100,000

**2016 Funding:** Water Reserve

**Asset Category:** Renewal

**Project Description:** Annual program to evaluate and assess condition of critical watermains in the City.

**Justification:** To identify pipes with deteriorating condition to minimize infrastructure failure and maintain operating pressures and fire flows. Information is used to identify priority projects for five year Financial Plan and update the City's Asset Management Plan.

## 2016 Engineering and Public Works Project Summary Sheet

### 2016 - 2020 Financial Plan

**Budget Book Reference:** P-W2 (Condition Assessment Program)

**Project:** I/O 90015 Water Supply: Leak Detection Study

**2016 Budget:** \$ 30,000

**2016 Funding:** Water Supply Reserve

**Asset Category:** Renewal

**Project Description:** Completion of leak detection surveys to manage the City's water losses and maintain the current low water leakage levels.

**2016 Engineering and Public Works Project Summary Sheet**  
**2016 - 2020 Financial Plan**

<b>Budget Book Reference:</b>	P-W2 (Design)
<b>Project:</b>	P_7105 Water Designs & Studies
<b>2016 Budget:</b>	\$ 60,000
<b>2016 Funding:</b>	Water Reserve
<b>Asset Category:</b>	Renewal
<b>Project Description:</b>	Unallocated funds for design and scope changes to water projects. Examples include civil engineers, environmental consultants, geotechnical engineers, and others to facilitate projects.
<b>Justification:</b>	These funds are essential to completing projects in a timely manner and engaging consultants where needed.

## 2016 Engineering and Public Works Project Summary Sheet

### 2016 - 2020 Financial Plan

**Budget Book Reference:** P-W2 (Distribution Mains)

**Project:** I/O 70010 Water: Road Rehabilitation

**2016 Budget:** \$ 200,000

**2016 Funding:** Water Reserve

**Asset Category:** Renewal

**Project Description:** Annual funding for adjustments, repairs or replacements to water infrastructure resulting from road rehabilitation projects in the current construction year. For example raising values to the new pavement grading, and replacing older mains and services prior to paving.

## 2016 Engineering and Public Works Project Summary Sheet

### 2016 - 2020 Financial Plan

**Budget Book Reference:** P-W2 (Distribution Mains)

**Project:** P\_7104 Water Infrastructure

**2016 Budget:** \$ 300,000

**2016 Funding:** Water Reserve

**Asset Category:** Renewal

**Project Description:** Annual program to cost share with development on adding new, replacement and/or upsizing of water distribution infrastructure adjacent to development sites.

**Justification:** Cost sharing with developers provides opportunities to complete priority projects at a reduced cost.

## 2016 Engineering and Public Works Project Summary Sheet

### 2016 - 2020 Financial Plan

**Budget Book Reference:** P-W2 (Distribution Mains)

**Project:** P\_7291 Wall St Watermain: Pythian Lane to Curling Club

**2016 Budget:** \$ 250,000

**2016 Funding:** Water Reserve

**Asset Category:** Renewal

**Project Description:** Replacement of 270 meters of existing 1930's era cast iron watermain on Wall Street between Comox Ave and Pythian Lane.

**Justification:** The aging cast iron pipe has deteriorated causing low flows and operational and maintenance issues. This watermain has also experienced a break.

**Communication Plan:** Letters of notice to affected property  
Site signage at project location

**Project Map:**



## 2016 Engineering and Public Works Project Summary Sheet 2016 - 2020 Financial Plan

**Budget Book Reference:** P-W2 (Distribution Mains)

**Project:** P\_7302 Eberts St Watermain: Millstone to Townsite

		2014 Actuals	2015 Budget	2016 Budget	Total Project Cost
<b>Expenditures/Budget:</b>	Watermain - Design	\$ 20,133	\$ 14,867	\$ -	\$ 35,000
	Watermain - Construction	\$ -	\$ -	\$ 370,000	\$ 370,000
		<b>\$ 20,133</b>	<b>\$ 14,867</b>	<b>\$ 370,000</b>	<b>\$ 405,000</b>
<b>Funding:</b>	Water Reserve	\$ 20,133	\$ 14,867	\$ 370,000	\$ 405,000
		<b>\$ 20,133</b>	<b>\$ 14,867</b>	<b>\$ 370,000</b>	<b>\$ 405,000</b>

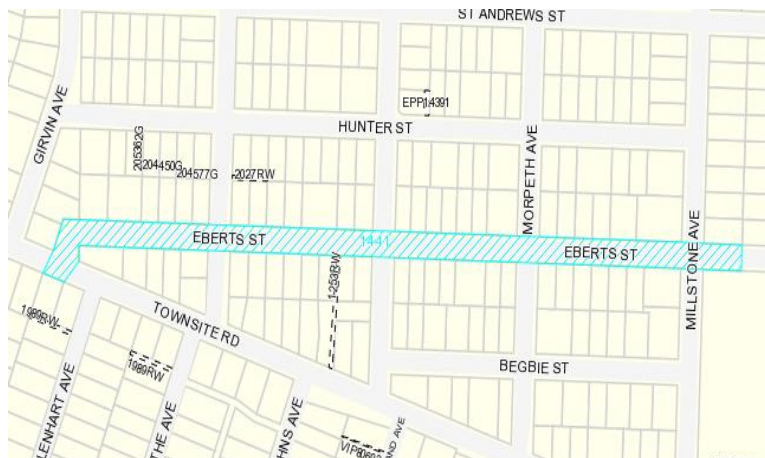
**Asset Category:** Renewal

**Project Description:** Replace 580 meters of existing 1950's era cast iron watermain.

**Justification:** The aging cast iron pipe has deteriorated causing low flows and operational and maintenance issues. The watermain has also experienced two breaks.

**Communication Plan:** Letters of notice to affected property  
Site signage at project location

**Project Map:**



## 2016 Engineering and Public Works Project Summary Sheet

### 2016 - 2020 Financial Plan

**Budget Book Reference:** P-W2 (Distribution Mains)

**Project:** P\_7287/P\_7306 Nanaimo Pky & Cranberry Watermain

		2016	2017	2018	Total Project Cost
<b>Budget:</b>	Watermain - Design	\$ 20,000	\$ 16,000	\$ -	\$ 36,000
	Watermain - Construction	\$ -	\$ -	\$ 366,606	\$ 366,606
		<b>\$ 20,000</b>	<b>\$ 16,000</b>	<b>\$ 366,606</b>	<b>\$ 402,606</b>
<b>Funding:</b>	Water Reserve	\$ 20,000	\$ 16,000	\$ 366,606	\$ 402,606
		<b>\$ 20,000</b>	<b>\$ 16,000</b>	<b>\$ 366,606</b>	<b>\$ 402,606</b>

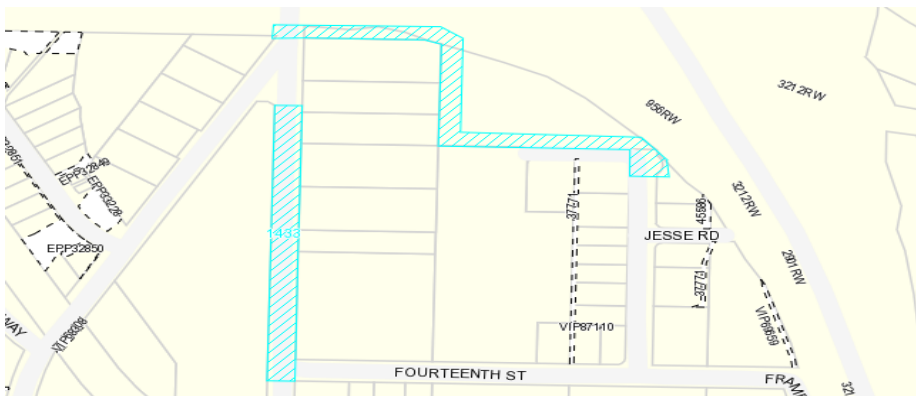
**Asset Category:** Renewal

**Project Description:** Replacement of 1972 150 mm diameter asbestos cement watermain on Cranberry Ave and construction of a new 200 mm diameter PVC watermain between Wilson Road and Extension Road.

**Justification:** Replacement on Cranberry Ave is part of the asbestos cement replacement program due to thin walls which are prone to breaks. This watermain has experienced three breaks.

Removal of dead end on Wilson Road with new looping will improve minimum operating pressures, minimum fire flows and water quality in Chase River area.

**Project Map:**



## 2016 Engineering and Public Works Project Summary Sheet 2016 - 2020 Financial Plan

**Budget Book Reference:** P-W2 (Distribution Mains)

**Project:** P\_7313 Fourth St Watermain: Wakesiah to Harewood

		2015	2016	Total Project Cost
<b>Budget:</b>	Watermain - Design	\$ 60,000	\$ -	\$ 60,000
	Watermain - Construction	\$ -	\$ 640,000	\$ 640,000
		<b>\$ 60,000</b>	<b>\$ 640,000</b>	<b>\$ 700,000</b>
<b>Funding:</b>	Water Asset Management Reserve	\$ 60,000	\$ 640,000	\$ 700,000
		<b>\$ 60,000</b>	<b>\$ 640,000</b>	<b>\$ 700,000</b>

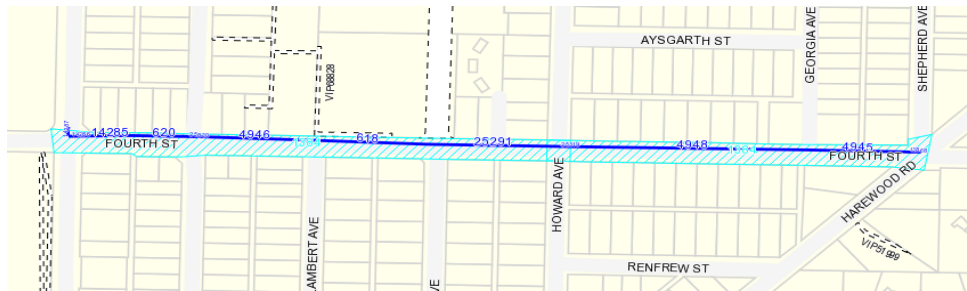
**Asset Category:** Renewal

**Project Description:** Replacement of 700 meters existing 450 mm diameter watermain.

**Justification:** Steel watermain has experienced six breaks in the last 4 years. As well, the valves regularly seize and cause operational and maintenance issues.

**Communication Plan:** Letters of notice to affected property  
Site signage at project location

**Project Map:**



## 2016 Engineering and Public Works Project Summary Sheet 2016 - 2020 Financial Plan

**Budget Book Reference:** P-W2 (Distribution Mains)

**Project:** P\_7329 Hillside Ave Watermain

		2016	2018	Total Project Cost
<b>Budget:</b>	Watermain - Design	\$ 20,000	\$ -	\$ 20,000
	Watermain - Construction	\$ -	\$ 221,000	\$ 221,000
		<b>\$ 20,000</b>	<b>\$ 221,000</b>	<b>\$ 241,000</b>
<b>Funding:</b>	Water Reserve	\$ 20,000	\$ 221,000	\$ 241,000
		<b>\$ 20,000</b>	<b>\$ 221,000</b>	<b>\$ 241,000</b>

**Asset Category:** Renewal

**Project Description:** Replacement of existing asbestos cement watermain with 200 mm diameter PVC and construction of a new 100 mm diameter PVC watermain to improve fire flows to surrounding area.

**Justification:** Replacement section is part of the 100 mm diameter asbestos cement replacement program due to thin walls which are prone to breaks.

Nanaimo Water Servicing Study recommended construction of new watermain to improve fire flows, minimum operating pressures and water quality.

**Project Map:**



## 2016 Engineering and Public Works Project Summary Sheet

### 2016 - 2020 Financial Plan

**Budget Book Reference:** P-W2 (Distribution Mains)

**Project:** P\_7332 Marban/Alberta Watermain

		2015	2016	Total Project Cost
<b>Budget:</b>	Watermain - Design	\$ 15,000	\$ -	\$ 15,000
	Watermain - Construction	\$ -	\$ 413,000	\$ 413,000
		<b>\$ 15,000</b>	<b>\$ 413,000</b>	<b>\$ 428,000</b>
<b>Funding:</b>	Water Reserve	\$ 15,000	\$ 413,000	\$ 428,000
		<b>\$ 15,000</b>	<b>\$ 413,000</b>	<b>\$ 428,000</b>

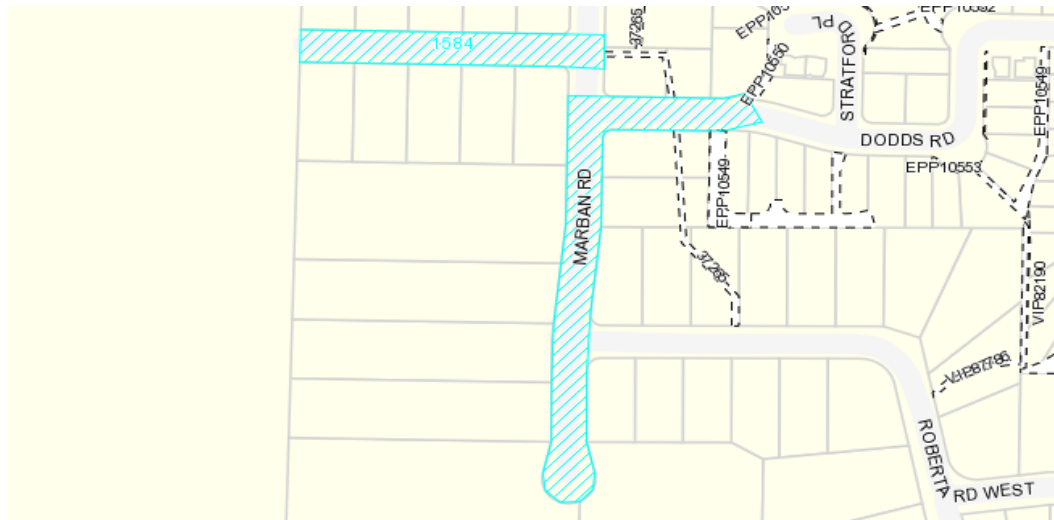
**Asset Category:** Renewal

**Project Description:** Replacement of 540 meters of 1970's era asbestos cement watermain on Marban Road and Alberta Road.

**Justification:** Watermain has experienced a break. As well, part of the 100 mm diameter asbestos cement replacement program due to thin walls which are prone to breaks.

**Communication Plan:** Letters of notice to affected property  
Site signage at project location

**Project Map:**



## 2016 Engineering and Public Works Project Summary Sheet 2016 - 2020 Financial Plan

**Budget Book Reference:** P-W2 (Distribution Mains)

**Project:** P\_7344 Wakesiah Lane Watermain: Harewood to Fourth

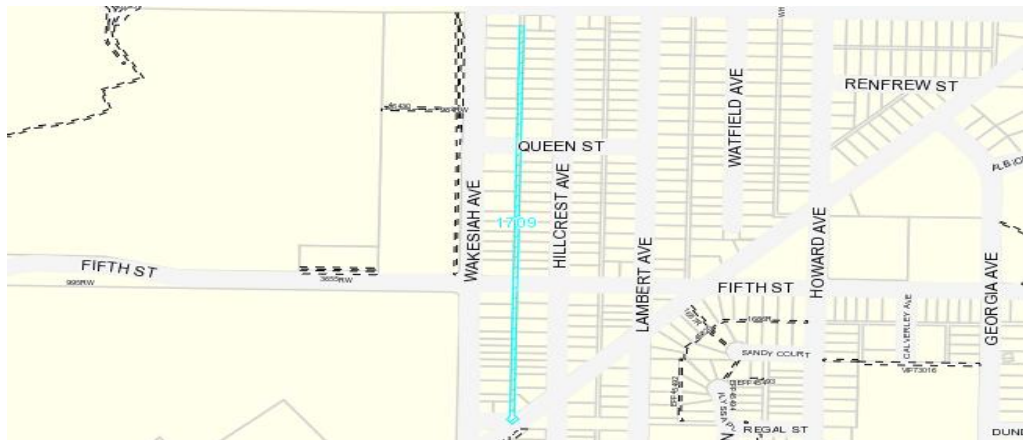
		2016	2018	Total Project Cost
<b>Budget:</b>	Watermain - Design	\$ 40,000	\$ -	\$ 40,000
	Watermain - Construction	\$ -	\$ 517,000	\$ 517,000
		<b>\$ 40,000</b>	<b>\$ 517,000</b>	<b>\$ 557,000</b>
<b>Funding:</b>	Water Reserve	\$ 40,000	\$ 517,000	\$ 557,000
		<b>\$ 40,000</b>	<b>\$ 517,000</b>	<b>\$ 557,000</b>

**Asset Category:** Renewal

**Project Description:** Replacement of 1946 150 mm diameter asbestos cement watermain due to condition.

**Justification:** The aging asbestos cement pipe has deteriorated causing operational and maintenance issues and low flows.

**Project Map:**



## 2016 Engineering and Public Works Project Summary Sheet

### 2016 - 2020 Financial Plan

**Budget Book Reference:** P-W2 (Distribution Mains)

**Project:** P\_7345 Glen Eagle Cres & Quilchena Watermain

		2016	2018	Total Project Cost
<b>Budget:</b>	Watermain - Design	\$ 35,000	\$ -	\$ 35,000
	Watermain - Construction	\$ -	\$ 329,000	\$ 329,000
		<b>\$ 35,000</b>	<b>\$ 329,000</b>	<b>\$ 364,000</b>
<b>Funding:</b>	Water Reserve	\$ 35,000	\$ 329,000	\$ 364,000
		<b>\$ 35,000</b>	<b>\$ 329,000</b>	<b>\$ 364,000</b>

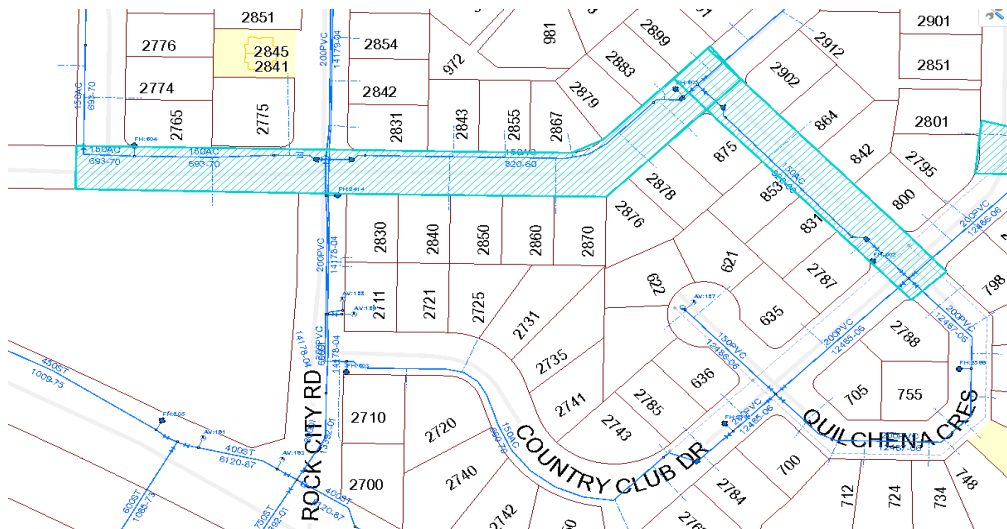
**Asset Category:** Renewal

**Project Description:** Replacement of 1960 150 mm diameter asbestos cement watermain due to condition.

**Justification:** The watermain on Quilchena Crescent is part of the Asset Management Strategy to replace old (>40 years) and high pressure asbestos cement watermain.

The aging watermain of Glen Eagle Crescent has deteriorated and experienced a break.

**Project Map:**



## 2016 Engineering and Public Works Project Summary Sheet

### 2016 - 2020 Financial Plan

**Budget Book Reference:** P-W2 (Distribution Mains)

**Project:** P\_7346 Lundgren Esmt VIP 37175 Watermain: Labieux to End

**2016 Budget:** \$ 120,000

**2016 Funding:** Water Reserve

**Asset Category:** Renewal

**Project Description:** Replacement of 100 meters of asbestos cement watermain on Lundgren Road.

**Justification:** Part of the 100 mm diameter asbestos cement replacement program due to thin walls which are prone to breaks.

**Communication Plan:** Letters of notice to affected property  
Site signage at project location  
Stakeholder consultation

**Project Map:**



## 2016 Engineering and Public Works Project Summary Sheet

### 2016 - 2020 Financial Plan

**Budget Book Reference:** P-W2 (Distribution Mains)

**Project:** P\_7349 Rosshill St Watermain: Vancouver to Stewart

**2016 Budget:** \$ 90,000

**2016 Funding:** Water Reserve

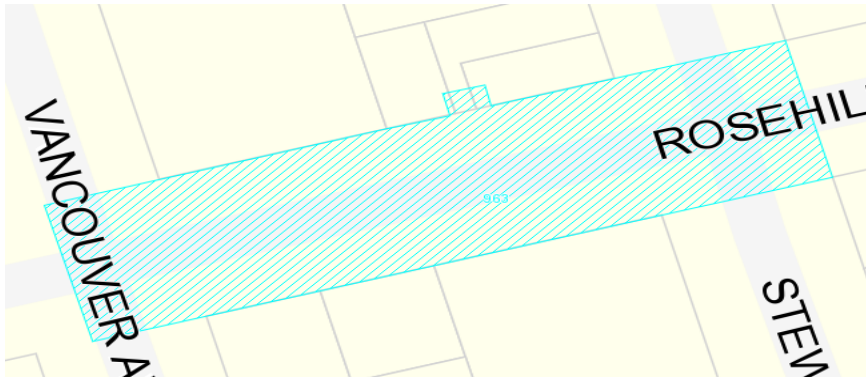
**Asset Category:** Renewal

**Project Description:** Replacement of 130 meters of 1940's era cast iron watermain.

**Justification:** The aging cast iron pipe has deteriorated causing low flows and operational and maintenance issues.

**Communication Plan:** Letters of notice to affected property  
Site signage at project location

**Project Map:**



## 2016 Engineering and Public Works Project Summary Sheet

### 2016 - 2020 Financial Plan

**Budget Book Reference:** P-W2 (Distribution Mains)

**Project:** P\_7365 Hawkins Rd Watermain: End to End

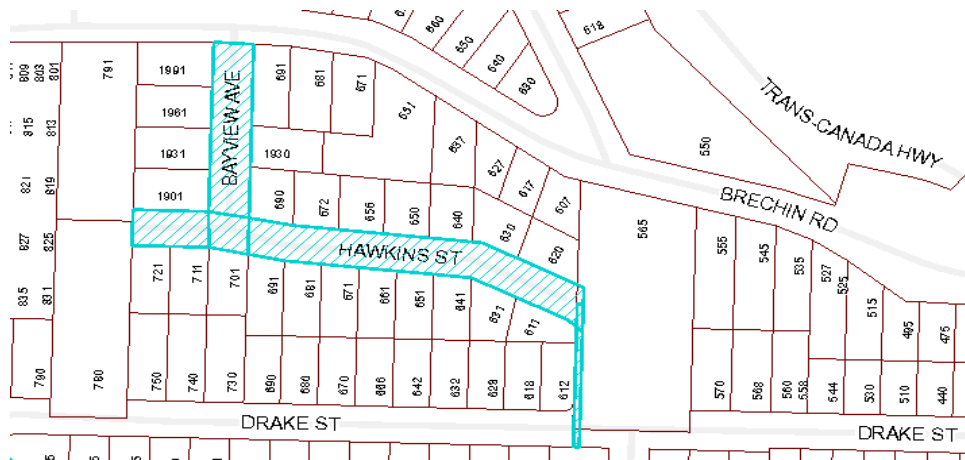
		2016	2018	Total Project Cost
<b>Budget:</b>	Watermain - Design	\$ 28,000	\$ -	\$ 28,000
	Watermain - Construction	\$ -	\$ 343,000	\$ 343,000
		<b>\$ 28,000</b>	<b>\$ 343,000</b>	<b>\$ 371,000</b>
<b>Funding:</b>	Water Reserve	\$ 28,000	\$ 343,000	\$ 371,000
		<b>\$ 28,000</b>	<b>\$ 343,000</b>	<b>\$ 371,000</b>

**Asset Category:** Renewal

**Project Description:** Replacement of 1956 150 mm diameter cast iron watermain due to condition and construction of a new looping watermain.

**Justification:** The aging cast iron watermain sections have deteriorated and experienced breaks. Construction of a new looping watermain will provide minimum operating pressure and fire flows, improve fire flows and strengthen the existing distribution system.

**Project Map:**



## 2016 Engineering and Public Works Project Summary Sheet 2016 - 2020 Financial Plan

**Budget Book Reference:** P-W2 (Distribution Mains)

**Project:** P\_7375 King John & Esmt Watermain: Smugglers Hill & Scarlet Hill

		2016	2018	Total Project Cost
<b>Budget:</b>	Watermain - Design	\$ 28,000	\$ -	\$ 28,000
	Watermain - Construction	\$ -	\$ 283,200	\$ 283,200
		<b>\$ 28,000</b>	<b>\$ 283,200</b>	<b>\$ 311,200</b>
<b>Funding:</b>	Water Reserve	\$ 28,000	\$ 283,200	\$ 311,200
		<b>\$ 28,000</b>	<b>\$ 283,200</b>	<b>\$ 311,200</b>

**Asset Category:** Renewal

**Project Description:** Replacement of 1962 & 1969 150 mm diameter asbestos cement watermain due to condition.

**Justification:** The watermain has deteriorated causing operational and maintenance issues. The sections of the watermain in the two easements on each side of the King John Way cul-de-sac are at the back of the properties at a higher level than the dwellings which could result in significant property damage in the event of a failure.

**Project Map:**



**2016 Engineering and Public Works Project Summary Sheet**  
**2016 - 2020 Financial Plan**

**Budget Book Reference:** P-W2 (Misc Projects)

**Project:** I/O 70014 Water Meter Replacement Program

**2016 Budget:** \$ 330,000

**2016 Funding:** Water Reserve

**Asset Category:** Renewal

**Project Description:** Annual replacement program for residential (\$230k) and commercial (\$100k) water meters to improve recording of consumption and ensure customers are paying for all water consumed.

**Justification:** 2012 Water Audit identified that older residential water meters are under registering and some large water meters in industrial and commercial properties are oversized and under recording low flows.

## 2016 Engineering and Public Works Project Summary Sheet

### 2016 - 2020 Financial Plan

**Budget Book Reference:** P-W2 (Misc Projects)

**Project:** I/O 90004 WPC - Decommissioning

**2016 Budget:** \$ 100,000

**2016 Funding:** Water Supply Reserve

**Asset Category:** Renewal

**Project Description:** Once the Water Treatment Plant is online the Water Process Centre will no longer be required to treat City water. The station will be decommissioned and the chlorination equipment will be disposed of.

## 2016 Engineering and Public Works Project Summary Sheet

### 2016 - 2020 Financial Plan

**Budget Book Reference:** P-W2 (Misc Projects)

**Project:** I/O 90008 Telemetry Improvement

**2016 Budget:** \$ 30,000

**2016 Funding:** Water Supply Reserve

**Asset Category:** Renewal

**Project Description:** The City's supervisory control and data acquisition (SCADA) system and telemetry provide continuous 24/7 monitoring, trending, control and alarm status recognition of outstations which operate critical water and sewer station infrastructure. On-going work includes computer servers, radios, antennas and programmable logic controllers (PLCs).

## 2016 Engineering and Public Works Project Summary Sheet

### 2016 - 2020 Financial Plan

**Budget Book Reference:** P-W2 (Pump Station/PRV Program)

**Project:** P\_7279 Bay and Neyland PRV

**2016 Budget:** \$ 150,000

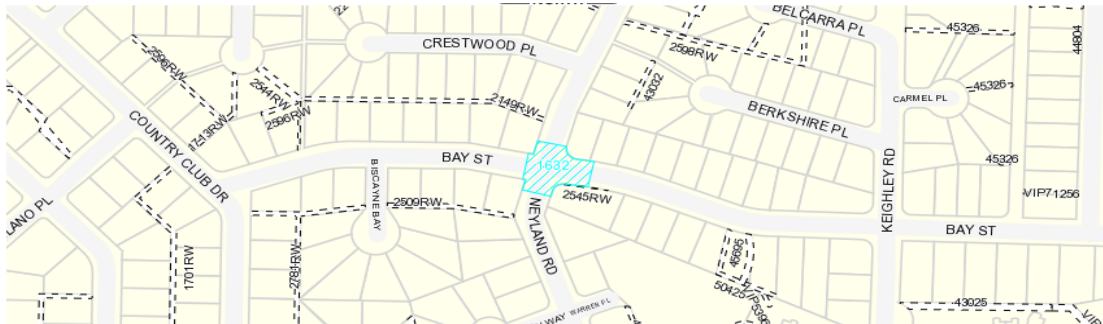
**2016 Funding:** Water Reserve

**Asset Category:** Renewal

**Project Description:** Replacement of 1980 PRV station at Bay Street and Neyland Road.

**Justification:** Station is now sub-standard and in deteriorating condition with valves, piping and chamber all rated in poor condition in a 2014 condition assessment of all City PRVs.

**Project Map:**



## 2016 Engineering and Public Works Project Summary Sheet

### 2016 - 2020 Financial Plan

**Budget Book Reference:** P-W2 (Pump Station/PRV Program)

**Project:** P\_9263 Towers Pump Station Rehab

	2016	2017	Total Project Cost
<b>Budget:</b>	\$ 25,000	\$ 100,000	\$ 125,000
	<b>\$ 25,000</b>	<b>\$ 100,000</b>	<b>\$ 125,000</b>
<b>Funding:</b>	\$ 25,000	\$ 100,000	\$ 125,000
	<b>\$ 25,000</b>	<b>\$ 100,000</b>	<b>\$ 125,000</b>

**Asset Category:** Renewal

**Project Description:** Upgrade to existing pump station. Design work to be completed in 2016 with construction in 2017.

**Justification:** Existing pump station is nearing end of useful life and a number of homes at high elevation rely on this station to receive water.

## 2016 Engineering and Public Works Project Summary Sheet

### 2016 - 2020 Financial Plan

**Budget Book Reference:** P-W2 (Reservoirs)

**Project:** P\_9264 Duke Point Reservoir Upgrades

**2016 Budget:** \$ 75,000

**2016 Funding:** Water Supply Reserve

**Asset Category:** Renewal

**Project Description:** Recoating of steel reservoir.

**Justification:** To protect the steel from possible corrosion recoating is required at this stage in the life-cycle of the reservoir.

**2016 Engineering and Public Works Project Summary Sheet**  
**2016 - 2020 Financial Plan**

**Budget Book Reference:** P-W2 (Supply Mains)

**Project:** I/O 90023 Water Supply: South Fork Tunnel Coating

**2016 Budget:** \$ 50,000

**2016 Funding:** Water Supply Reserve

**Asset Category:** Renewal

**Project Description:** Repair to the coating of the water supply main (main intake pipe line) at South Forks Dam.

**Justification:** A routine tunnel inspection uncovered deficiencies on the coating

## 2016 Engineering and Public Works Project Summary Sheet

### 2016 - 2020 Financial Plan

**Budget Book Reference:** P-W2 (Water Supply Dams)

**Project:** I/O 90007 Annual Dam Safety Reviews: Water Supply Dams

**2016 Budget:** \$ 18,000

**2016 Funding:** Water Supply Reserve

**Asset Category:** Renewal

**Project Description:** Formal inspection of water supply dams - Jump Creek Dam and South Fork Dam by a third party engineer.

**Justification:** Annual dam safety inspections are required as per the British Columbia Dam Safety Regulation, a regulation under the Water Act.

**2016 Engineering and Public Works Project Summary Sheet**  
**2016 - 2020 Financial Plan**

**Budget Book Reference:** P-W2 (Water Supply Dams)

**Project:** I/O 90020 Dam Safety Assessments/Upgrades

**2016 Budget:** \$ 100,000

**2016 Funding:** Water Supply Reserve

**Asset Category:** Renewal

**Project Description:** An engineering review will be undertaken to determine the structural adequacy of the existing log boom anchor points at Jump Creek Dam and South Fork Dam to determine if improvements are necessary. If deemed inadequate, new log boom anchor points will be engineered and constructed in 2017.

**Justification:** The 2013 dam safety review for Jump Creek Dam and South Fork Dam indicated that the review of the existing log boom anchor points was of 'very high' priority.