

AGENDA
SPECIAL FINANCE AND AUDIT COMMITTEE MEETING
BOARD ROOM, SERVICE AND RESOURCE CENTRE
411 DUNSMUIR STREET, NANAIMO, BC
THURSDAY, 2017-MAR-23, AT 9:30 A.M.

1. **CALL THE SPECIAL MEETING OF THE FINANCE AND AUDIT COMMITTEE TO ORDER:**
2. **INTRODUCTION OF LATE ITEMS:**
3. **ADOPTION OF AGENDA:**
4. **ADOPTION OF MINUTES:**
 - (a) Minutes of the Meeting of the Finance and Audit Committee held in the Board Room, Service and Resource Centre, 411 Dunsmuir Street, Nanaimo, BC, on Wednesday, 2016-MAR-08 at 9:30 a.m. Pg. 3-5
5. **PRESENTATIONS:**
 - (a) Deborah Duncan, Deputy Director of Financial Services, Dale Lindsay, Director of Community Development, and Wendy Fulla, Manager of Finance – Business and Asset Planning, to provide a presentation regarding the 20 Year Investment Plan, Asset Management Update, DCC Review.
6. **ADMINISTRATION:**
 - (a) **20 Year Investment Plan and Asset Management Update**

Purpose: This report outlines the City's '20 Year Investment Plan and Asset Management Update' report.

Recommendation: That the Finance and Audit Committee recommends that Council approve continuing the annual 1% property tax increase to 2022 for contributions to the General Asset Management Fund reserve, and include this change in the Annual 2017 – 2021 Financial Plan to be adopted by Council before 2017-MAY-15. Pg. 6-53
 - (b) **Development Cost Charge Bylaw**

Purpose: To update the Finance and Audit Committee regarding the status of the current development cost charge review, to introduce the draft rates and framework for a new bylaw, and to seek direction with respect to next steps including community engagement.

Recommendation: That the Finance and Audit Committee recommend that *Pg. 54-83*
Council direct Staff to:

1. refer the draft development cost charge rates and framework to the Community Planning and Development and the Public Works and Engineering Committees for review and comment; and,
2. initiate public engagement, including consultation with relevant stakeholders, regarding a new development cost charge bylaw; and,
3. upon completion of the above, prepare a new development cost charge bylaw for Council's consideration.

7. **OTHER BUSINESS:**

8. **QUESTION PERIOD:**

9. **ADJOURNMENT:**

MINUTES
FINANCE AND AUDIT COMMITTEE MEETING
BOARD ROOM, SERVICE AND RESOURCE CENTRE
411 DUNSMUIR STREET, NANAIMO, BC
WEDNESDAY, 2017-MAR-08, AT 9:30 A.M.

PRESENT: Councillor W. L. Bestwick, Chair

Members: Mayor W. B. McKay
Councillor M. D. Brennan
Councillor G. W. Fuller
Councillor W. M. Yoachim (vacated 10:24 a.m., returned 10:26 a.m.)

Absent: Councillor J. Hong
Councillor J. A. Kipp
Councillor W. L. Pratt
Councillor I. W. Thorpe

Staff: V. Mema, Chief Financial Officer
K. Fowler, Chief Sustainability Officer
D. Lindsay, Director of Community Development
P. Cooper, Director of Communications and Engagement
D. Duncan, Deputy Director of Financial Services
P. Rosen, Senior Manager of Engineering
L. Mercer, Manager of Accounting Services
W. Fulla, Manager of Finance – Business and Asset Planning
M. Dunstan, Manager of IT Application Systems
C. Sholberg, Community Heritage Planner
R. Collicutt, Senior Applications Analyst
D. Blackwood, Client Support Specialist
M. Brown, Recording Secretary

1. CALL THE FINANCE AND AUDIT COMMITTEE MEETING TO ORDER:

The Finance and Audit Committee Meeting was called to order at 9:30 a.m.

2. INTRODUCTION OF LATE ITEMS

- (a) Councillor Yoachim requested that Agenda Item 6 (d) Request to Staff for a Report Regarding 10 Year Property Tax Increase/Decrease Information be added to the Agenda.

3. ADOPTION OF AGENDA:

It was moved and seconded that the Agenda, as amended, be adopted. The motion carried unanimously.

4. ADOPTION OF MINUTES:

It was moved and seconded that the Minutes of the Finance and Audit Committee Meeting held in the Board Room, Service and Resource Centre, 411 Dunsmuir Street, Nanaimo, BC, on Wednesday, 2016-FEB-08 at 9:30 a.m. be adopted as circulated. The motion carried unanimously.

5. PRESENTATIONS:

- (a) Philip Cooper, Director of Communications and Community Engagement, and Ross Collicutt, Senior Application Analyst, provided a PowerPoint presentation introducing the new City of Nanaimo Website.

It was moved and seconded that the PowerPoint presentation introducing the new City of Nanaimo website be received for information. The motion carried unanimously.

6. ADMINISTRATION:

- (a) Heritage Home Grant Application – 45 Milton Street

It was moved and seconded that the Finance and Audit Committee recommend Council approve a \$2,500 Heritage Home Grant for the installation of a gutter system and storm windows on the Young/Pargeter Residence located at 45 Milton Street. The motion carried unanimously.

- (b) Heritage Facade Grant – 101 Commercial Street

It was moved and seconded that the Finance and Audit Committee recommend Council approve a \$14,999.25 Heritage Facade Grant to rehabilitate the exterior of the Ashlar Lodge Masonic Temple located at 101 Commercial Street. The motion carried unanimously.

Councillor Yoachim vacated the boardroom at 10:24 a.m.
Discussion was suspended as quorum was lost at 10:24 a.m.
Councillor Yoachim returned to the boardroom at 10:26 a.m.
The meeting regained quorum and reconvened at 10:26 a.m.

It was moved and seconded that the Finance and Audit Committee direct Staff to bring forward a report which outlines the regulatory and financial challenges faced by heritage building owners, the purpose of the City's heritage incentive programs, and how these incentives impact the conservation and rehabilitation of the City's heritage buildings. The motion carried unanimously.

- (c) 2016 Budget Carryforwards

It was moved and seconded that the 2016 Budget Carryforwards report dated 2017-MAR-08 be received for information. The motion carried unanimously.

(d) Request to Staff for a Report Regarding 10 Year Property Tax Increase/Decrease Information

It was moved and seconded that the Finance and Audit Committee direct Staff to provide a report showing the property tax increases and decreases using both the proposed and actual percentages over the past ten years. The report should also include tax and other municipal services comparatives from Langford, Lantzville, and Ladysmith on homes of the same value as they compare to the same priced home in the City of Nanaimo. The motion carried unanimously.

7. ADJOURNMENT:

It was moved and seconded at 10:56 a.m. that the meeting terminate. The motion carried unanimously.

CHAIR

CERTIFIED CORRECT:

CORPORATE OFFICER

DATE OF MEETING March 23, 2017

AUTHORED BY DEBORAH DUNCAN, DEPUTY DIRECTOR, FINANCIAL SERVICES

SUBJECT 20 YEAR INVESTMENT PLAN AND ASSET MANAGEMENT UPDATE

OVERVIEW

Purpose of Report

This report outlines the City's '20 Year Investment Plan and Asset Management Update' report. The '20 Year Investment Plan and Asset Management Update' is provided in Appendix A.

Recommendation

That the Finance and Audit Committee recommends that Council approve continuing the annual 1% property tax increase to 2022 for contributions to the General Asset Management Fund reserve, and include this change in the Annual 2017 – 2021 Financial Plan to be adopted by Council before 2017-MAY-15.

BACKGROUND

The City of Nanaimo's investment in infrastructure supports delivery of needed and desired services to the community. The estimated current replacement cost of the City's infrastructure is \$2.7 billion. A robust asset management system and long term planning provides decision makers with critical information and analysis for infrastructure investment and funding strategies.

In 2008, Staff began developing the City's asset management knowledge and capacity. Asset Management Reports were presented to Council in 2010 and in early 2013. These reports provided an overview of the City's infrastructure, long term renewal plans and progress towards adopting asset management best practices where practical. In 2013, Council approved three new asset management reserves for the general, sewer and water funds. Annual increases to property taxes and user fees were approved to provide sustainable contributions to these reserves. The annual 1% increase for the General Asset Management Fund reserve was approved to 2017. The annual increase to sewer user fees was approved to 2022, and annual increases to water user fees was approved to 2020.

A '20 Year Investment Plan and Asset Management Update' has been prepared for attention directing purposes to allow Council to review and make decisions on the City's investment and funding strategies. The 20 Year Investment Plan projects \$1.1 billion for investment with current funding strategies providing \$794 million. The total projected funding gap is \$258 million. The projected funding shortfall includes \$117 million in development contribution charges for new/upgraded infrastructure required due to growth. The projected funding shortfall for renewal, strategic and new/upgraded infrastructure funded from general revenues and reserves is \$141 million.

Strategies to close the funding gap include:

- Continue annual 1% increase to property taxes for contributions to the General Asset Management Fund reserve;
- Complete current DCC review and adoption of new bylaw; and,
- Continue development of the City's asset management capacity including development of governance, risk management frameworks and performance monitoring.

A separate Staff Report will provide additional information regarding the current DCC review and related recommendation.

OPTIONS

1. The Finance and Audit Committee recommends that Council approve continuing the annual 1% property tax increase to 2022 for contributions to the General Asset Management Fund reserve, and include this change in the Annual 2017 – 2021 Financial Plan to be adopted by Council before 2017-MAY-15.
2. The Finance and Audit Committee may provide different direction.


SUMMARY POINTS

- The '20 Year Investment Plan and Asset Management Update' has been prepared for attention directing purposes to allow Council to review and make decisions on the City's investment and funding strategies.
- The projected funding gap is \$258 million which includes \$117 million shortfall in development contribution charges for new/upgraded infrastructure required for growth.
- Strategies to reduce the funding gap include continuing the annual 1% property tax increase to 2022 for contributions to the General Asset Management Fund reserve.

ATTACHMENTS:

- Appendix A: 20 Year Investment Plan and Asset Management Update

Submitted by:



Deborah Duncan
Deputy Director, Financial Services

Concurrence by:



Victor Mema
Chief Financial Officer



CITY OF NANAIMO

20 Year Investment Plan and Asset Management Update

March 23, 2017





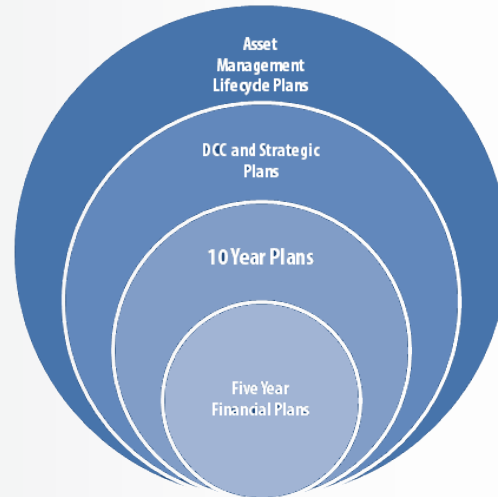
Executive Summary

The 20 Year Investment Plan and Asset Management Update will provide Council with an overview of the City's long term investment plans and funding strategies. The plan includes current investment in strategic initiatives and programs, annual investment programs for renewal of existing infrastructure and new/upgraded infrastructure required for growth to maintain current levels of service. The plan will support Council's review and decision making regarding current planning processes, the City's Asset Management System and funding strategies.

The City's planning processes include:

- Asset Management Lifecycle Plans for each infrastructure type
- Strategic Plans adopted by Council
- 10 Year Departmental Project Plans that incorporate AM and Strategic Plans
- Five Year Financial Plans

Projects are identified in longer range planning processes and prioritized in departmental 10 year plans and then in the City's Five Year Financial Plans. As projects move ahead in each planning process additional work is completed to refine timing and cost estimates and to coordinate with other types of infrastructure projects. Resource and funding constraints are considered when projects are included in the City's Five Year Financial Plan.



20 Year Investment Plan

The 20 Year Investment Plan has been prepared for attention directing purposes and to allow Council to review and make decisions. Projected investment over the next 20 years is \$1.1 billion and current funding strategies may provide \$794 million. Strategies have been identified to address the projected funding shortfall of \$258 million. The projected shortfall includes \$117 million in development contribution charges for new/upgraded infrastructure. Completion of the current DCC review and new bylaw is intended address this shortfall.

The Asset Management Update will Provide:

- An overview of the City's AM System
- Infrastructure information by asset type – eg water, sewer, transportation
- AM System improvement initiatives

Staff Recommendations:

- Continue annual 1% property tax increases to 2022 for the General Fund Asset Management reserve.
- Complete DCC review and adopt new DCC bylaw.
- Develop financial policies including a Reserve Policy and a Debt Policy.
- Continue to develop the City's AM System including adoption of an AM Policy and an AM Strategy.
- Complete the next Asset Management Update in five years to re-assess the effectiveness of the City's asset management capacity and funding strategies.





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Long-Term Planning: 20 Year Investment Plan



Long Term Planning Framework

Long term plans support the delivery of a wide range of needed and desired services, and the implementation of Council's strategic priorities, for the community. Long term plans help prepare the organization to move ahead with needed investigation and design work, and with the timing and allocation of resources and funding.

City provided services include:

- Fire and Police protection
- Water
- Sanitary sewer
- Transportation
- Drainage
- Solid waste collection
- Recreation
- Culture
- Social



Strategic priorities are identified in the City's Official Community Plan, planNanaimo, the Community Sustainability Action Plan and in supporting master plans adopted by Council. Examples of strategic plans include the Strategic Plan Update (2016 – 2019), Transportation Master Plan, Cultural Plan for a Creative Nanaimo, Beban Park Master Plan Update and Harewood Centennial Park Improvement Plan. Implementation of these priorities requires investment in community partnerships, planning processes and infrastructure.

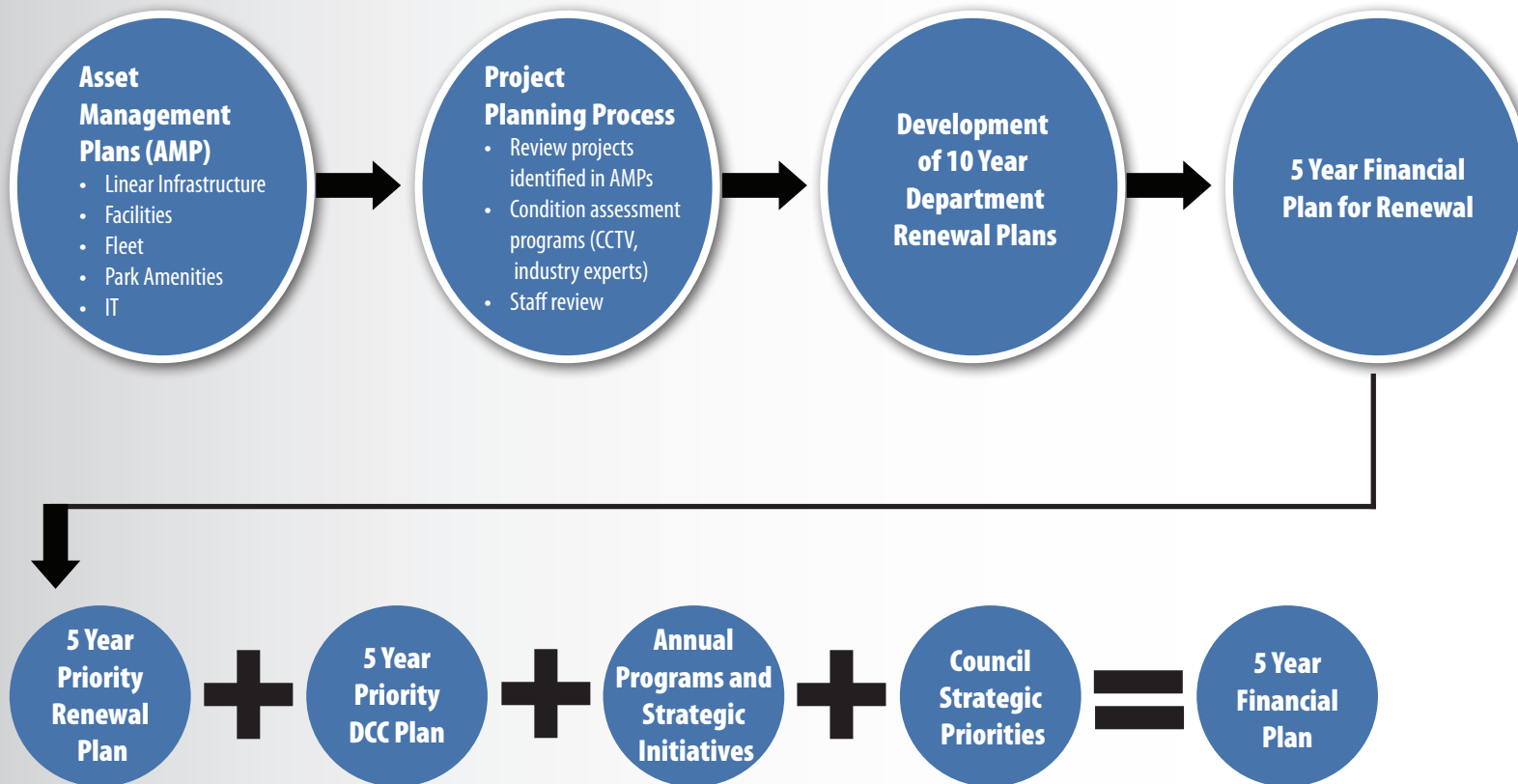
Asset management lifecycle plans are maintained for all types of City infrastructure. These attention directing plans support identifying needed condition assessment programs and are compared to current maintenance information to identify priority projects for infrastructure renewal.

Review of the City's infrastructure capacity and identification of new/upgraded infrastructure needed due to growth are undertaken in periodic DCC Reviews. The last DCC review was completed in 2008. The current DCC review process is now ready for Council's review and direction and for stakeholder consultation. Detailed information will be provided in a separate DCC Review report.

Five Year Financial Plans

In accordance with the laws of British Columbia through the Community Charter, municipalities must prepare a five year financial plan each year. Priority projects are identified and included within the City's Financial Plans that minimize risk to delivery of services, support development in the community, and implement Council's strategic priorities and plans within reasonable funding levels.

Overview of the City's Long Term Planning Process





20 Year Investment Plan

The 20 Year Investment Plan has been prepared for attention directing purposes and to allow Council to review and make decisions. Projected investment over the next 20 years is \$1.1 billion and current funding strategies may provide \$794 million. Strategies have been identified to address the projected funding shortfall of \$258 million. The projected shortfall includes \$117 million in development contribution charges for new/upgraded infrastructure. Completion of the current DCC review and new bylaw may address this shortfall.

Components of the 20 Year Investment Plan include:

1. New/upgraded infrastructure investment identified in the current Development Cost Charges Review
2. Provisional 2017 – 2021 Financial Plan
 - a. Priority infrastructure renewal projects
 - b. Priority DCC projects
 - c. Strategic projects
 - i. Examples: Affordable Housing Strategy, Social Wellness Strategy, property acquisition, Harewood Centennial Park, new pedestrian, cycling and transit amenities
3. Departmental 10 year plans
 - a. Priority infrastructure renewal projects;
 - b. Priority DCC projects;
 - c. Projects where further investigation is ongoing/ required:
 - i. Examples: renewal of the Public Works Yard, renewal of the Curling Club facility, Beban Park: power distribution upgrade, renewal of recreational dams, renewal of the Departure Bay Activity Centre;
4. Infrastructure lifecycle plans.



Current Funding Strategies

The City maintains reserves that fund the majority of annual investment plans. Annual contributions to these reserves are from general revenues, user fees, DCCs and senior government grant programs and reflect the City's current funding strategies

Current funding strategies in the 20 year plan include:

- \$7M allocation of annual general revenues to projects;
- Council's current commitment for increases to the City's asset management reserves through annual increases to property taxes and user fees (Appendix A);
- Contributions to specific reserves for IT, Equipment Replacement (Fleet) and Facility Development (Parks and Recreation);
- Current DCC bylaw rates and contribution levels to DCC reserves; and
- Community Works Fund.

The newly created Strategic Infrastructure Reserve, other senior government grants and private contributions have not been included in current funding strategies, except for transportation DCC projects. Approximately \$12 million in grant funding for specific transportation projects has been included in the 20 Year Investment Plan.

Borrowing can be used and repayment will spread funding needs over a longer period of time. The cost of debt has not been included in current funding strategies.





Long Term Planning Purpose and Risks

Significant diligence, collaboration and collection of the best available information is used to develop long term plans. The purpose of long term plans are attention directing to identify significant issues and allow time to develop and implement strategies. Variables that impact long term plans are:

- Changes to useful life or remaining useful life assumptions;
- Changes to timing and cost estimates;
- Unplanned liabilities which may impact contributions or require an unplanned allocation from reserves; and
- Inflation as all expenditures and revenues are reported in 2016 dollars.

As planning processes advance to detailed design, tender and construction phases changes in cost estimates may be realized.

As well, significant constraints both external and internal may impact the ability of the City to execute its investment plans. These constraints may include political, economic, social, technical, environmental and legal.



Excluded Projects

Pending ongoing assessments, renewal or replacement of Fire Station #1 and expansion of the Police Operations Building are not included in the 20 Year Investment Plan.

20 Year Investment Plan

The 20 year projected investment is \$1.1 billion. Current funding strategies provide up to \$794 million. The projected deficit is \$258 million. This deficit is divided between \$141 million for strategic priorities, annual programs and renewal of current infrastructure and \$117 million for new/upgraded infrastructure required for growth.

Summary Analysis

Projected Infrastructure Investment	20 Year Total	%	
Transportation, Drainage, Fleet, Facilities, Parks	543,862,373	52%	
Sanitary Sewer	112,873,642	11%	
Water	394,776,602	38%	
	1,051,512,617	100%	
Current Funding Strategies	20 Year Total	%	
Transportation, Drainage, Fleet, Facilities, Parks	419,381,250	53%	
Sanitary Sewer	100,391,892	13%	
Water	274,046,546	35%	
	793,819,688	100%	
Projected Funding Shortfall	20 Year Total	%	
Transportation, Drainage, Fleet, Facilities, Parks	(124,481,123)	48%	
Sanitary Sewer	(12,481,750)	5%	
Water	(120,730,056)	47%	
	(257,692,929)	100%	
20 Year Total Project Funding Excess/ (Shortfall)	Total	DCC	Renewal/ Upgrade
General	(124,481,123)	(42,930,326)	(81,550,798)
Sanitary Sewer	(12,481,750)	(24,066,329)	11,584,579
Water	(120,730,056)	(49,846,834)	(70,883,222)
	(257,692,929)	(116,843,489)	(140,849,440)

Excludes proposed DCC Transportation project Brechin/Island Hwy/Northfield Intersection Upgrades. The project is anticipated to be a cost share, with senior government funding \$30M of the projected \$35M cost.





20 Year Investment Plan Analysis by Fund

The funding gaps are unique to each fund: general, sewer and water. It is important to also consider the need to maintain reasonable reserve balances to support the organization's financial resiliency and ability to respond to unexpected changes in investment timing or costs. Changes can occur due to early infrastructure failure, and cost estimates cannot be finalized until the detailed design and tender phases of each project.

General Fund

- Projected shortfall is \$124 million which includes \$43 million for DCC contributions.
- The funding gap is most significant in the first 10 years.
- Projects in the 20 Year Investment Plan include: Wellcox Access, Port Theatre Expansion, Waterfront Walkway Development (in front of Yacht Club), Curling Club facility renewal, Public Works Yard facility renewal and renewal of recreational dams.

Sewer Fund

- Projected DCC contributions shortfall is \$24 million.
- Projected balance in sewer reserves is \$11.6 million.
- The current 2017 – 2021 Financial Plan includes borrowing for DCC projects with repayment from non DCC reserves.

Water Fund

- Projected shortfall is \$121 million which includes \$50 million for DCC contributions.
- Funding gap is most significant in last 10 years of the plan due to construction of a new dam projected to start in 2027.

Debt

Borrowing is used to 'spread' funding needs over a longer period where appropriate. The cost of borrowing has not been included in the 20 Year Investment Plan.

Strategies to Reduce the Funding Gap

To address the funding needs for current infrastructure renewal, Council may consider strategies to reduce the gap between funding required and available funding. These strategies can include:

- Continue 1% increases to property taxes to 2022 for contribution to General Asset Management Reserve;
- Complete the DCC review and adoption of new bylaw;
- Decommission underutilized/inefficient infrastructure;
- Implement improvements to the City's AM System
 - Develop governance documents including an Asset Management Policy and an Asset Management Strategy
 - Develop levels of service
 - Develop risk frameworks
 - Develop performance monitoring;
 - Ensure appropriate monitoring and application for grant funding and private contributions.



Asset Management Update

Why Asset Management?

Delivering services and achieving organizational objectives requires a robust asset management system. "Asset management translates the organization's objectives into asset-related decisions, plans and activities, using a risk based approach." (International Standard ISO 55000, 2014).

As outlined in ISO 55000, a robust asset management system must:

- Be informed by all stakeholders, regulatory and financial constraints.
- Be a key responsibility of leadership at all levels in the organization.
- Be a collaborative and integrated activity across the organization and include engineering, development environmental, social and financial disciplines.
- Include operating and performance monitoring and evaluation to ensure processes are achieving organizational objectives.
- Include continuous improvement initiatives that provide value in improving efficiency and effectiveness to achieving organizational objectives.

The required changes in financial reporting for municipalities in 2008 brought needed attention to aging infrastructure, and challenges facing local governments in funding operations, renewal and growth of their infrastructure. Asset management (AM) principles and practices were developed to help local governments face these challenges.

Increased global awareness and promotion of AM is evident in the Government of Canada's inclusion of asset management in the New Building Canada Plan and Gas Tax agreements. Furthermore, a growing number of provincial governments require or recommend demonstration of asset management capacity to determine local government's eligibility for grant funding.

The City of Nanaimo's investment in infrastructure supports delivery of needed and desired services to the community. The City faces operational, environmental, social and financial challenges in delivering these services due to: ageing infrastructure, growth, changing regulatory standards and the community's demand for new services. A robust asset management system (AM System) provides decision makers with information and analysis for infrastructure investment.





The City of Nanaimo has completed significant work in developing its asset management system and continues to improve collaboration, processes and information to support Council's decision making. In early 2013, Council received the City's first Asset Management Plan, '2012 Asset Management Update'. The update followed a multi-year process to: provide education and training, develop long term infrastructure renewal plans for all asset types and develop a funding strategy.

Council confirmed its support for the City's asset management system through:

- Creation of asset management reserves and annual contributions to those reserves through annual increases to property taxes and sewer and water user fees; and
- Included asset management as a strategic priority in its 2012 – 2015 Strategic Plan.



City Infrastructure Overview

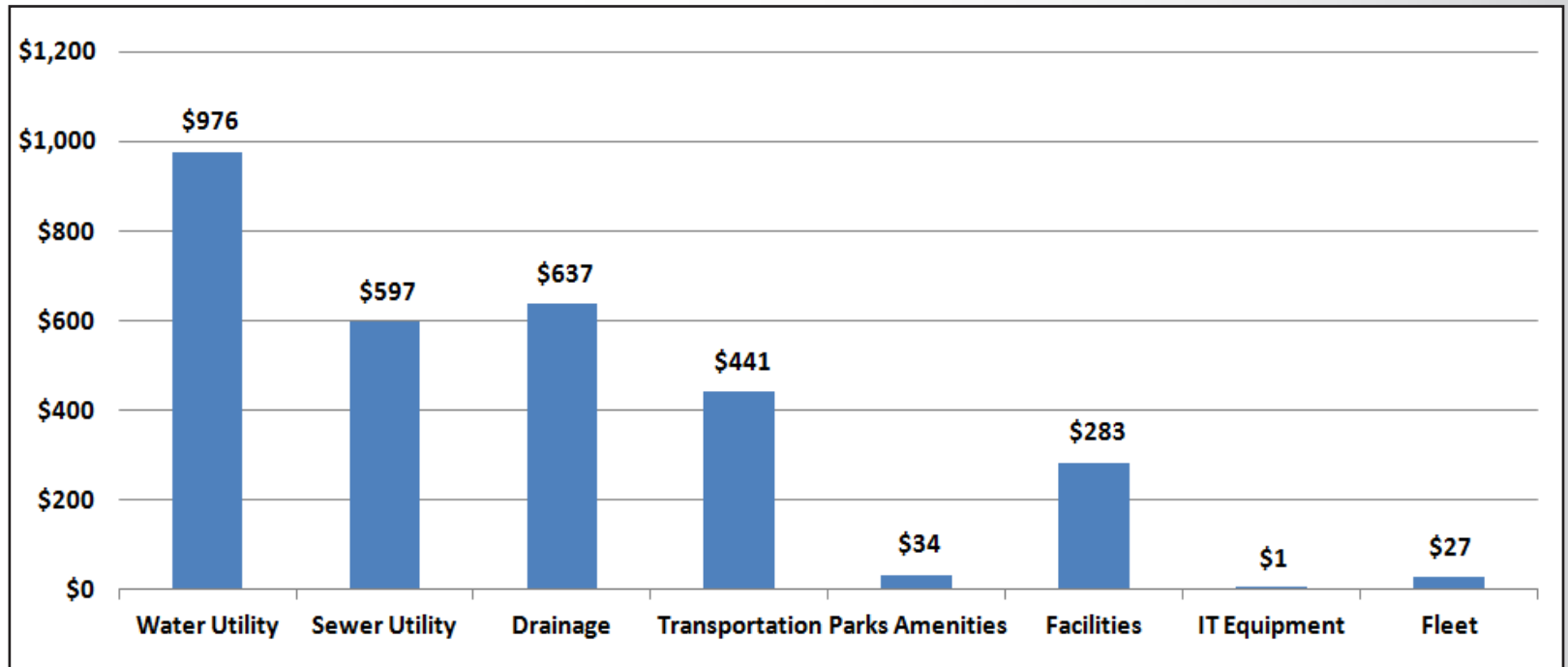
The City provides a wide range of services to the community that require stewardship of a diverse group of assets. These assets provide needed and desired services to support the economic, environmental and social well being of the community.

The City currently owns and operates \$3 billion in infrastructure assets that support provision of police and fire protection, transportation, drainage, water, sewer, parks, recreation and cultural services.

The table below provides an overview of key asset types.

Infrastructure	Description	Current Asset Value - \$M	%
Water Utility	Water supply dams, water treatment plant, reservoirs, mains, control stations	976	33%
Sewer Utility	Mains, lift stations and forcemains	597	20%
Drainage	Mains	637	21%
Transportation	Roads, bridges, sidewalks, traffic signals, street lighting	441	15%
Parks Amenities	Playfields, playgrounds, trails, recreational dams	34	1%
Facilities	Civic offices, public works yard, fire and police buildings, parkades, recreation and cultural buildings	283	9%
IT Equipment	Fibre optic network, major servers	1	0%
Fleet	Cars, pickups, heavy equipment, sanitation equipment, fire apparatus, zambonis	27	1%
Total		2,996	100%





Asset Management Steering Committee

The City's Asset Management Steering Committee continues to lead and coordinate ongoing improvements to the organization's AM capabilities and competencies. The committee has representation from across the organization including engineering, development, facilities, IT and finance disciplines. Members of the committee lead specific initiatives such as review and updating infrastructure lifecycle planning models, participation in senior government programs and implementation of AM process and information improvements.

To date, the City's asset management activities have been primarily focused on:

- Development of organizational knowledge and capacity;
- Development and maintenance of long term asset management plans including renewal of current infrastructure and new/upgraded infrastructure required due to growth;
- Integrating asset management in strategic planning; and
- Participation in provincial and national asset management programs.

Presentations to Council later this year will provide more detailed information on the City's draft AM Policy and draft AM Strategy.





Asset Management Update

Asset Management includes all activities to operate, maintain, renew and construct infrastructure. The 2012 Asset Management Update focused on renewal of current infrastructure. Since then, further development of the City's AM System has included:

- Improvements to asset information, including implementation of condition assessment programs.
- Comprehensive review and update of long term renewal plans for all asset types, including useful life and replacement cost estimates.
- Comprehensive review and update of new/upgraded infrastructure required to accommodate growth.
- Participation in provincial and national asset management programs to develop AM governance, a risk framework and level of service measures to support the City's AM System.
- Increased cross-functional coordination through the Asset Management Steering Committee.
- Organizational changes and improvements to financial planning processes. Examples include creation of a Facilities management group and utilization of business cases.

The Asset Management Update includes both renewal of current infrastructure and new/upgraded infrastructure required due to growth.



Renewal of Current Infrastructure: Asset Management Lifecycle Plans

Asset management plans were prepared for each of the City's asset types (eg facilities, fleet, roads, drainage, sewer, water). The plans focus on renewal of current infrastructure include timing, costs and funding sources over the lifecycle of each asset type.

During 2016, cross-functional teams updated detailed asset management plans for all of the City's major asset types. This work required reviewing and updating complex models with:

- Current inventory and condition data;
- Key assumptions for useful life or remaining useful life; and
- Projected infrastructure replacement timing and cost estimates.

New/Upgraded Infrastructure Due to Growth: Current DCC Review

The current DCC Review process included:

- Updated community growth estimates;
- Projected infrastructure investment including timing and cost;
- Proposed changes to current charges.

A separate DCC Review report will provide additional information and seek endorsement from Council for proceeding to next steps including stakeholder consultation and new DCC bylaw.





City Infrastructure Overview

The following sections provide updated information on each of the City's infrastructure types:

- Water Utility Infrastructure
- Sewer Utility Infrastructure
- General Fund
 - o Transportation
 - o Drainage
 - o Parks Amenities
 - o Facilities
 - o Information Technology
 - o Fleet



Water Utility Infrastructure

The City provides water that is clean and safe to drink with minimal service disruption, to satisfy all anticipated consumption and fire protection. The water utility is self funded through user fees which provide funding for annual operating and maintenance activities and for the infrastructure renewal program. In addition, development cost charges are collected from developers that provide funding for new/upgraded infrastructure required for growth.

The City's water system is made up of dams, reservoirs, facilities (pump/pressure reducing control stations), water treatment plant and over 600 kilometers of supply and distribution mains.

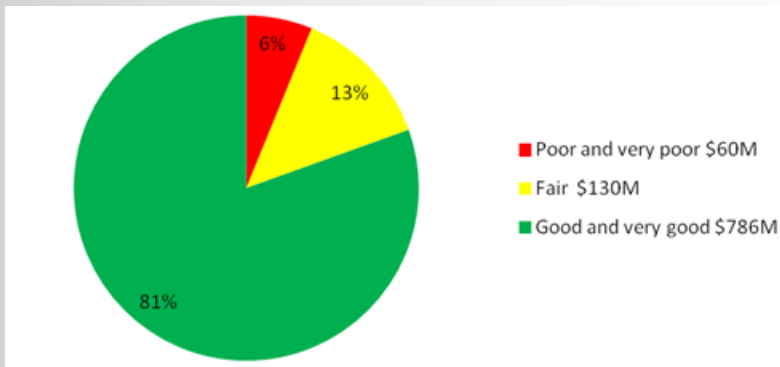
Department documents and processes are maintained to provide information on all infrastructure assets. Detailed information for mains including, location, material type and in-service year are maintained in the City's GIS system. Engineering drawings, often referred to as 'as built' drawings, are completed after construction of all water infrastructure and are the primary source of asset information.

The asset management update includes long term infrastructure investment plans for:

- Renewal of current infrastructure;
- New/upgraded infrastructure required for growth.

Water Infrastructure Current Condition

Condition of current infrastructure only, does not include capacity.

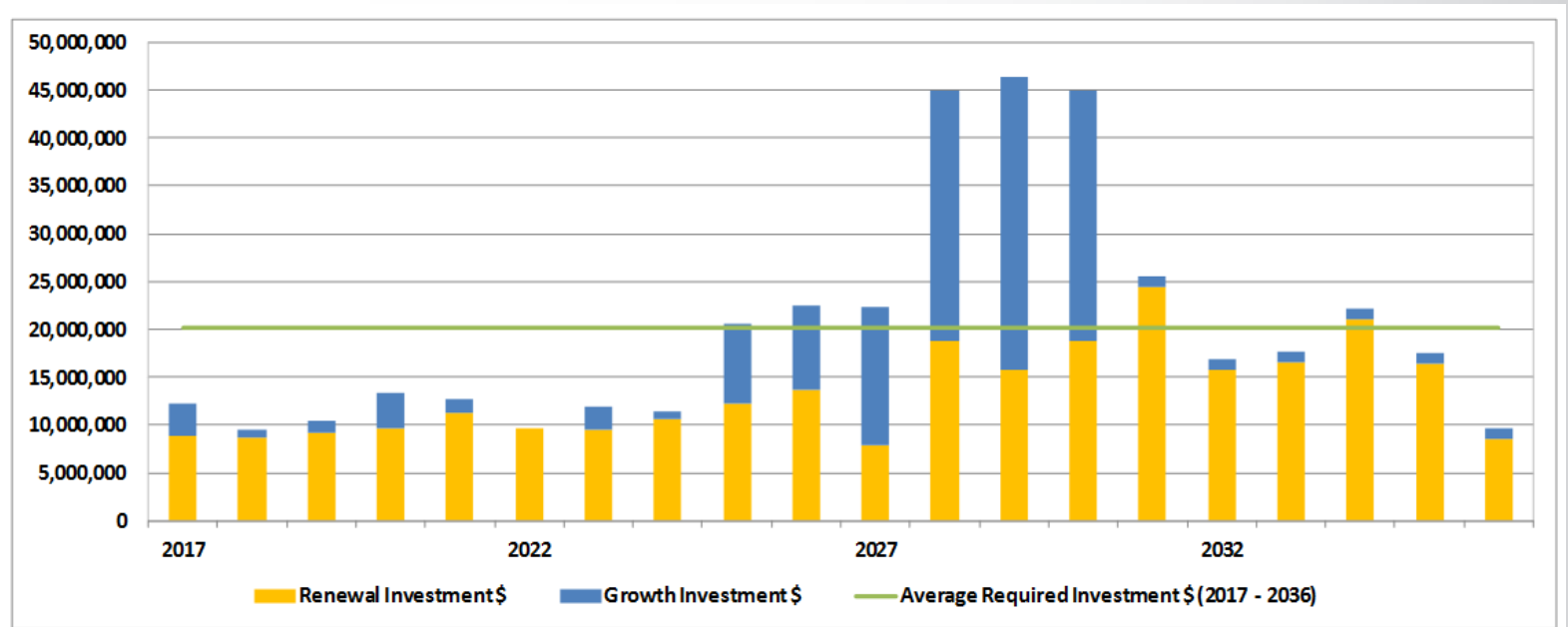




Water Infrastructure 20 Year Infrastructure Plan: Renewal and Growth

The graph is generated from the City's asset renewal models. Projected renewal needs in first five years will not be the same as projects in the City's approved Five Year Plan due to project prioritization, resource and funding constraints.

Due to growth, it is expected that a new dam will be needed to maintain adequate water supply. The cost of the new dam is estimated at \$88 million with design and construction anticipated to start in 2027.



Sewer Utility Infrastructure

The City provides sewer services that maintain public health and safety, with minimal service disruption and impact to the environment and property. The sewer utility is self funded through user fees which provide funding for annual operating and maintenance activities and for the infrastructure renewal program. In addition, development cost charges are collected from developers that provide funding for new/upgraded infrastructure required for growth.

The City’s sewer system is made up of mains and facilities (lift stations). There are over 550 kilometers of sewer mains. Sewer treatment is provided by the Regional District of Nanaimo.

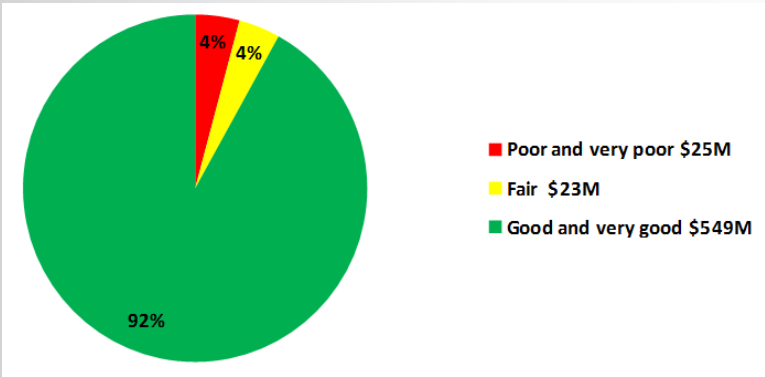
Department documents and processes are maintained to provide information on all infrastructure assets. Detailed information for mains including, location, material type and in service year are maintained in the City’s GIS system. Engineering drawings, often referred to as ‘as built’ drawings, are completed after construction of all sewer infrastructure and are the primary source of asset information.

The asset management update includes long term infrastructure investment plans for:

- Renewal of current infrastructure;
- New/upgraded infrastructure required for growth.

Sewer Infrastructure Current Condition

Condition of current infrastructure only, does not include capacity.

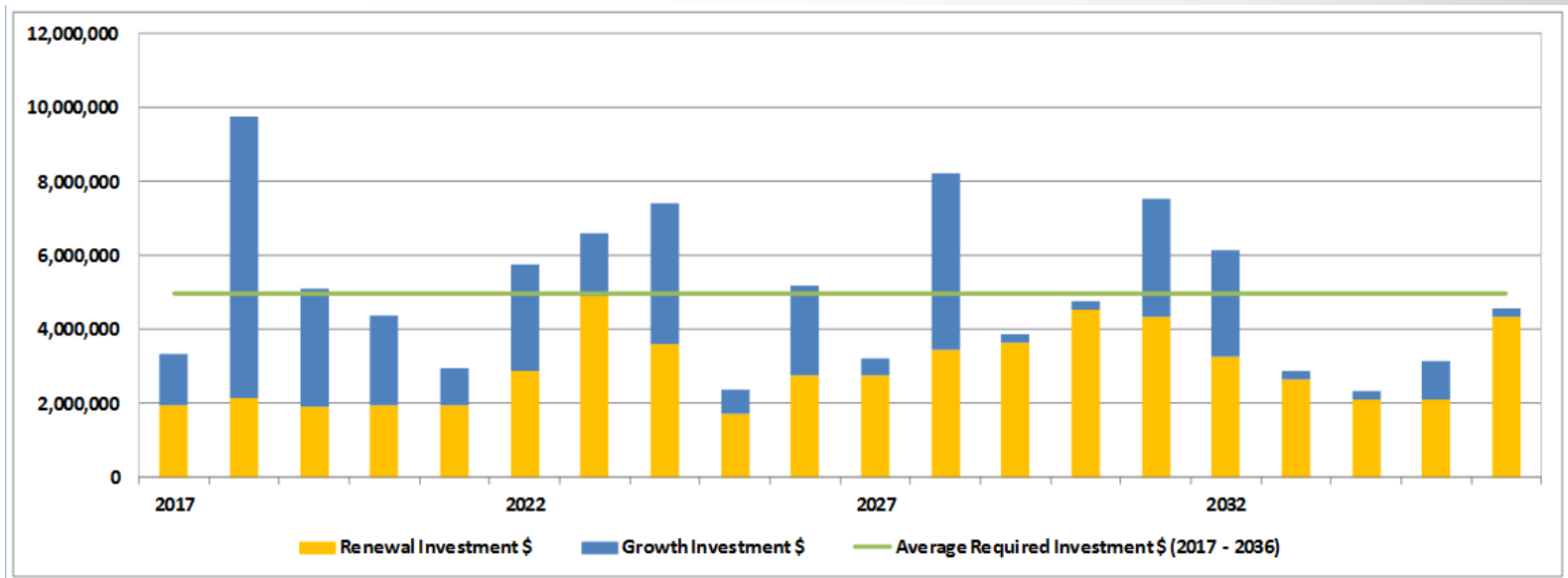




Sewer Infrastructure 20 Year Infrastructure Plan: Renewal and Growth

The graph is generated from the City's asset renewal models. Projected renewal needs in first five years will not be the same as projects in the City's approved Five Year Plan due to project prioritization, resource and funding constraints.

Due to growth, an upgrade to the Chase River Trunk is planned in 2018 for \$5M.



General Fund

Excluding the Water and Sewer Utilities, all other City services are primarily funded by property taxes. User fees are charged for some services including parks and recreation, solid waste collection and development services. In addition, development cost charges are collected from developers that provide funding for new/upgraded transportation, drainage and parks infrastructure required for growth.

General Fund long term infrastructure planning includes the following assets:

- Transportation
- Drainage
- Parks Amenities
- Facilities
- Information Technology
- Fleet

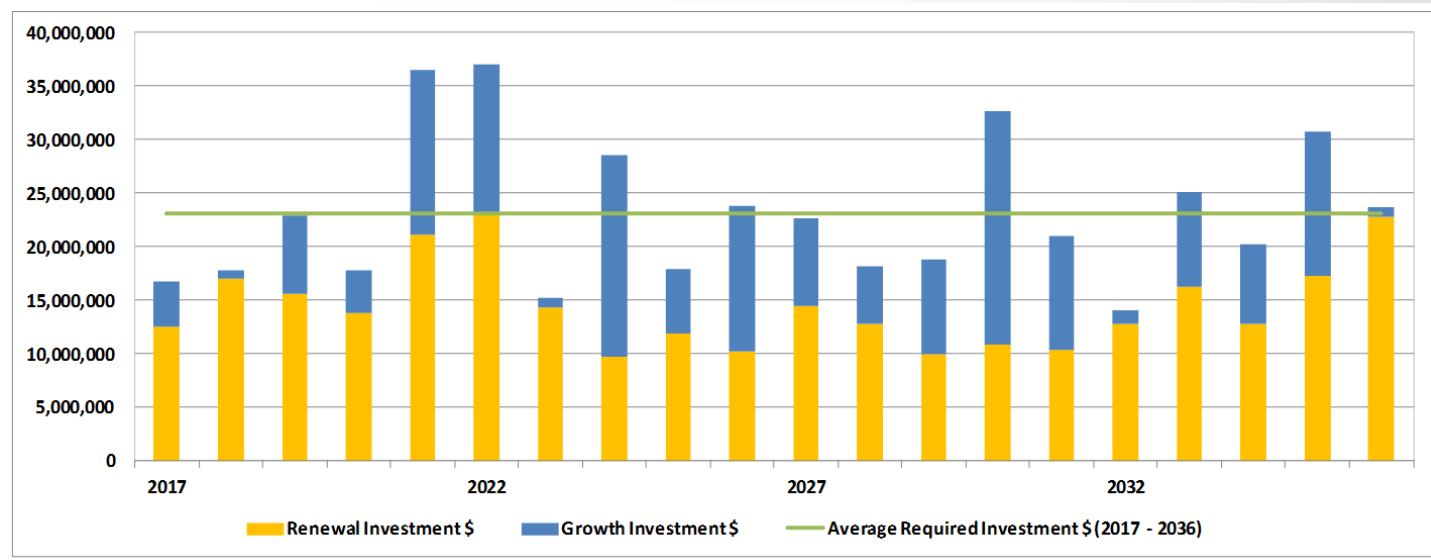
A summary of long term planning for the General Fund is followed by sections for each of the above-noted assets.





General Fund 20 Year Infrastructure Plan: Renewal and Growth

The graph is generated from the City's asset renewal models. Projected renewal needs in first five years will not be the same as projects in the City's approved Five Year Plan due to project prioritization, resource and funding constraints.



Transportation

The City provides transportation amenities that are safe, accessible, clean and convenient.

The City's transportation system includes roads (arterial, industrial, collector and local), bridges, sidewalks, traffic signals and street lights.

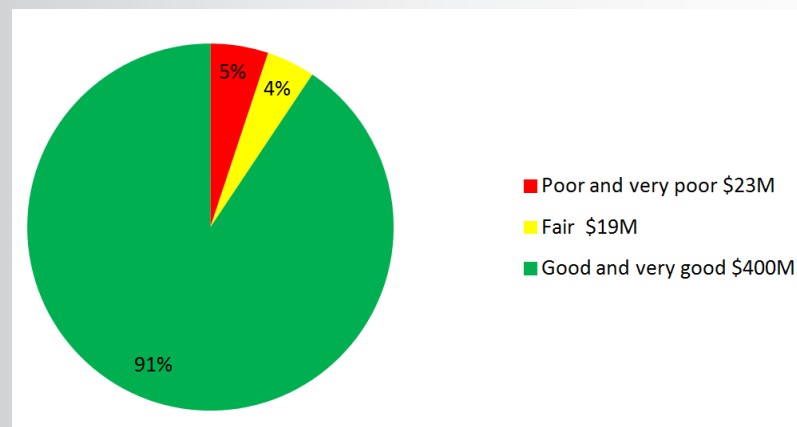
Detailed asset information for transportation infrastructure is maintained in the City's GIS system. Road inventory information is also maintained in the City's pavement management system (PMS). A condition assessment program is completed every three to five years that provides updated information to the PMS. Department documents are also maintained to provide additional information on bridges, sidewalks, traffic signals and street lighting.

The asset management update includes long term infrastructure investment plans for:

- Renewal of current infrastructure;
- New/upgraded infrastructure required for growth.

Transportation Infrastructure Current Condition

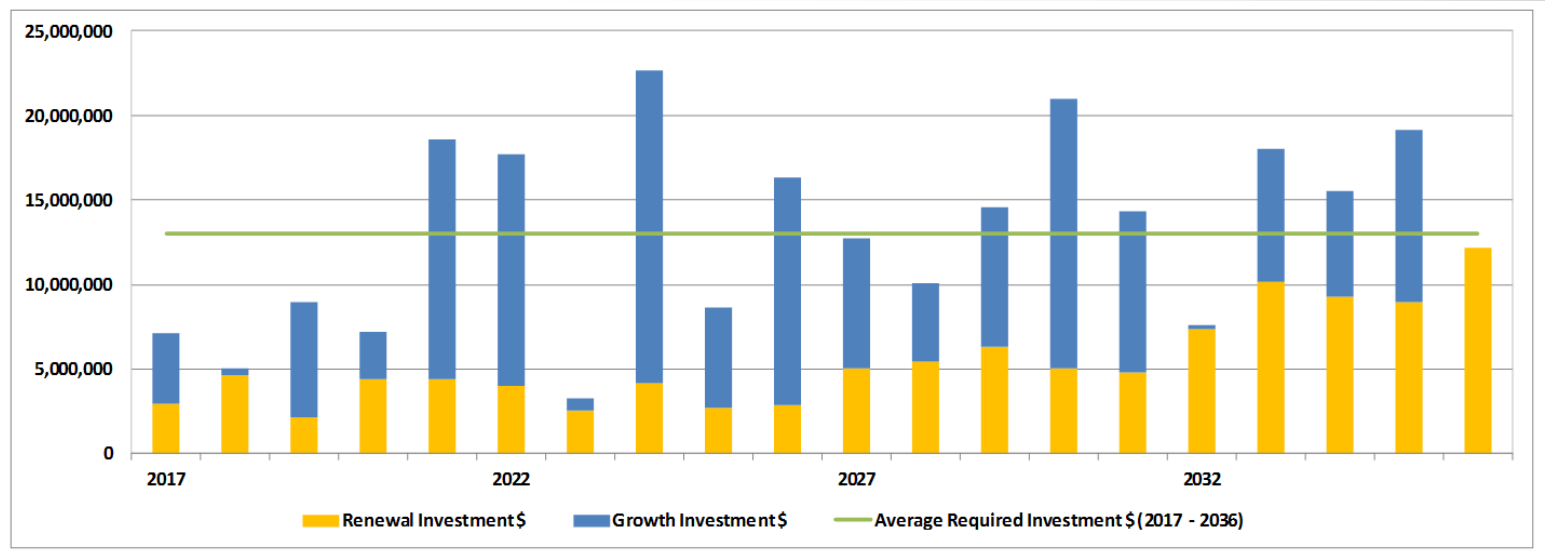
Condition of current infrastructure only, does not include capacity.





Transportation Infrastructure 20 Year Infrastructure Plan: Renewal and Growth

The graph is generated from the City's asset renewal models. Projected renewal needs in first five years will not be the same as projects in the City's approved Five Year Plan due to project prioritization, resource and funding constraints.



Drainage

The City provides a drainage system that minimizes impact to property and the environment.

The City's drainage system includes mains, ditches and retention ponds.

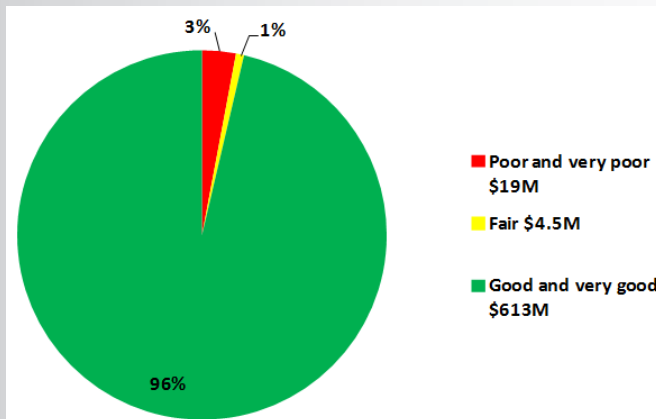
Detailed asset information for mains including location, material type and in service year are maintained in the City's GIS system. There is a ongoing data correction process underway to verify and update data in the GIS system. Engineering drawings, often referred to as 'as built' drawings, are completed after construction of drainage mains and are the primary source of asset information.

The asset management update includes long term infrastructure investment plans for:

- Renewal of current infrastructure;
- New/upgraded infrastructure required for growth.

Drainage Infrastructure Current Condition

Condition of current infrastructure only, does not include capacity.

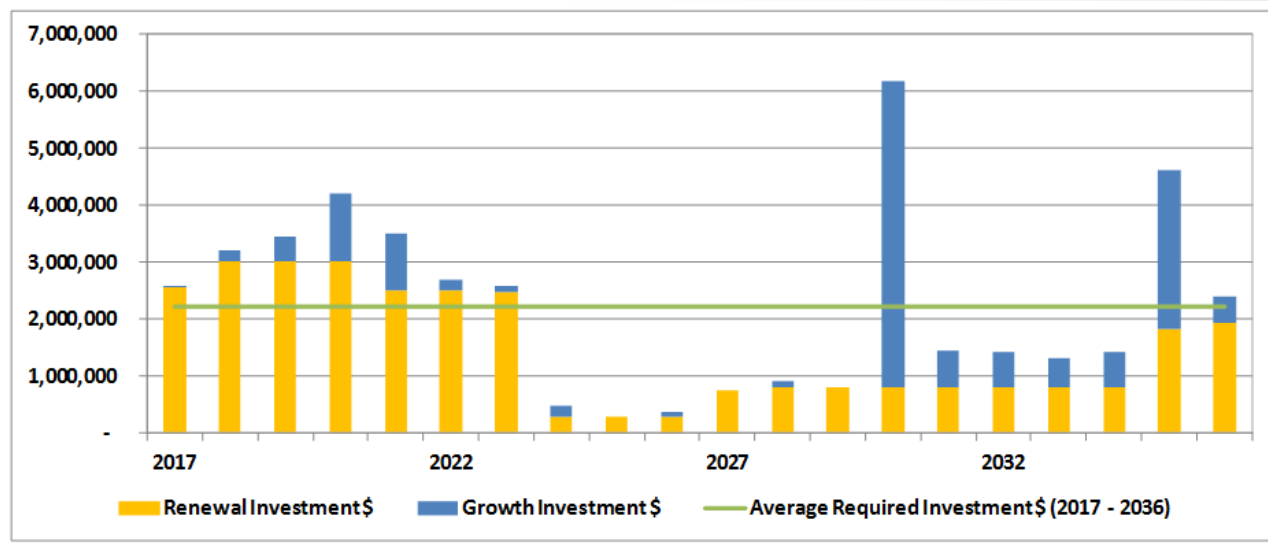




Drainage Infrastructure 20 Year Infrastructure Plan: Renewal and Growth

The graph is generated from the City's asset renewal models. Projected renewal needs in first five years will not be the same as projects in the City's approved Five Year Plan due to resource and funding constraints.

Due to growth, it is expected that the development of a 'wet pond' for \$2.9 million will be constructed in 2030.



Parks Amenities

The City's current parks amenities include:

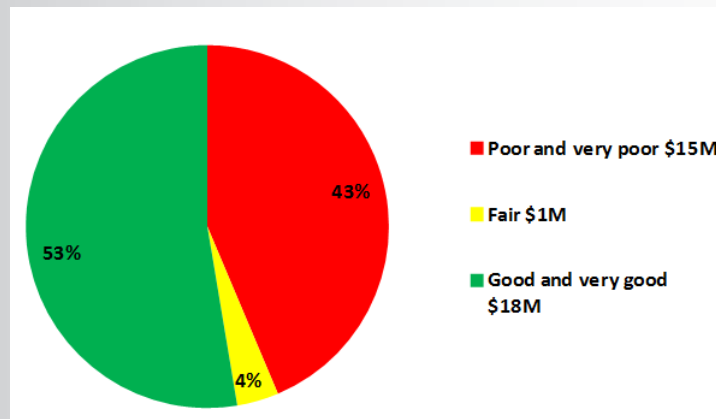
- 13 destination parks including Maffeo Sutton and Westwood Lake parks
- 87 neighbourhood parks
- 4 spray parks
- 23 sports fields including 2 artificial turf fields
- 61 playgrounds
- 12 tennis/sport courts
- 140 kilometres of trails
- 2 highway gateways
- 3 boat ramps
- 6 dams in recreational areas

The asset management update includes long term infrastructure investment plans for:

- Renewal of current infrastructure;
- New/upgraded infrastructure required for growth.

Parks Amenities Infrastructure Current Condition

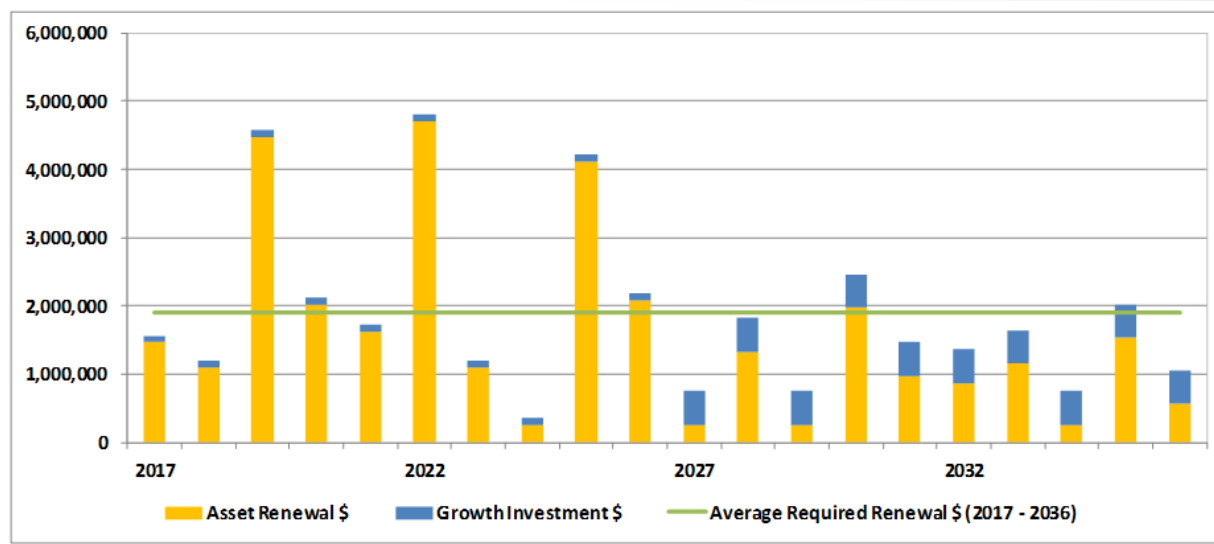
Condition of current infrastructure only, does not include capacity.





Parks Amenities Infrastructure 20 Year Infrastructure Plan: Renewal and Growth

The graph is generated from the City's asset renewal models. Projected renewal needs in first five years will not be the same as projects in the City's approved Five Year Plan due to project prioritization, resource and funding constraints.



Facilities

The City currently has over 100 facilities, which support delivery of services. These include:

- Civic office buildings including City Hall and the Service and Resource Centre (SARC)
- Fire and police buildings
- Public works yards
- Recreation facilities including aquatic, arena and community centres
- Cultural facilities including the Port Theatre
- Parkades
- Port of Nanaimo Centre.

Asset management for buildings is complex, as they are made up of many components with different useful lives, different functions and different operating and maintenance requirements.

The facilities long term renewal plan is based on the replacement of existing components within each building to maintain current function and service levels. Department documents maintain inventory data for facilities and their components. Condition assessment programs have been implemented to support optimum functionality and replacement schedules for facilities. Ongoing energy saving initiatives will replace inefficient components with more energy efficient components. Significant work has been undertaken to improve facility asset information including the implementation of condition assessment programs.

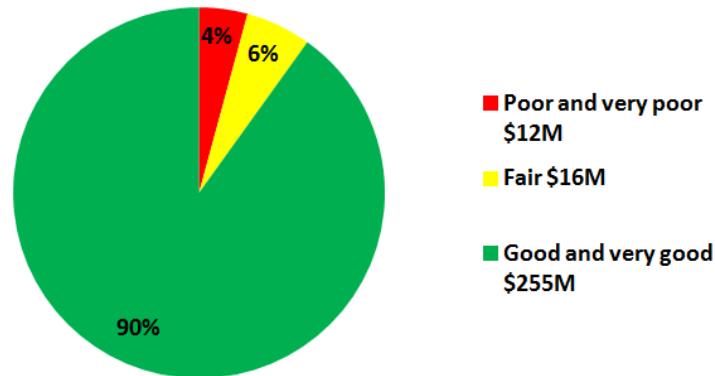
The asset management update includes long term infrastructure investment plans for:

- Renewal of current infrastructure





Facilities Infrastructure Current Condition

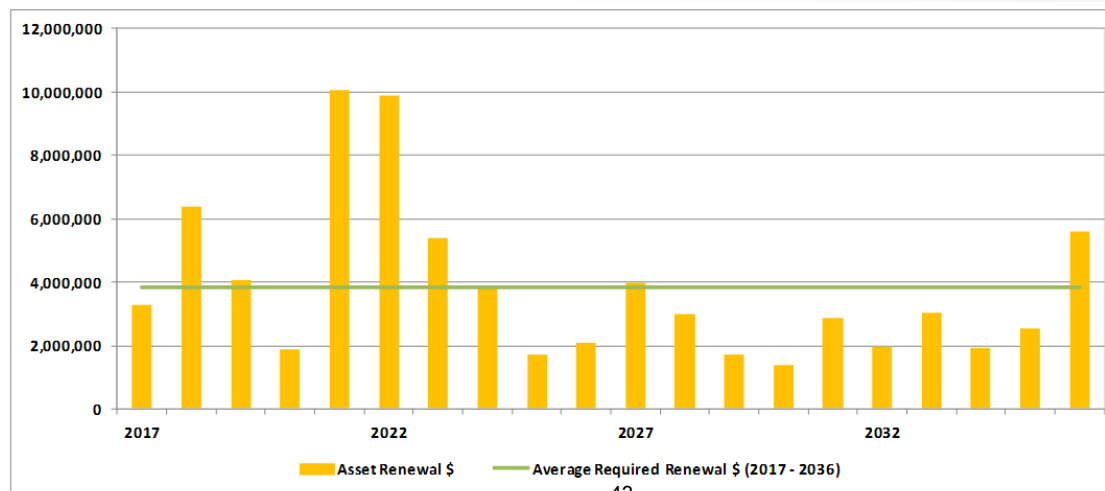


Facility Infrastructure 20 Year Infrastructure Renewal Plan: Renewal

The graph is generated from the City's asset renewal models. Projected renewal needs in first five years will not be the same as projects in the City's approved Five Year Plan due to project prioritization, resource and funding constraints.

The long term plan includes replacement of:

- Public Works Yard facility \$8.8M
- Departure Bay Activity Centre \$2.1M



Information Technology

The City's technology equipment includes typical computer network hardware, software, communication infrastructure, radio systems and specialized equipment. These systems support over 140 business applications and 600 workstations distributed over many sites and supports day to day delivery of City services. Developing asset management plans for technology equipment is challenging as renewal can be required due to changing technologies, end of maintenance and support services as well as physical end of life. Replacement of assets may include different configurations and functionality as replacement with current functionality is no longer available.

The asset management update includes long term infrastructure investment plans for:

- Renewal of current infrastructure

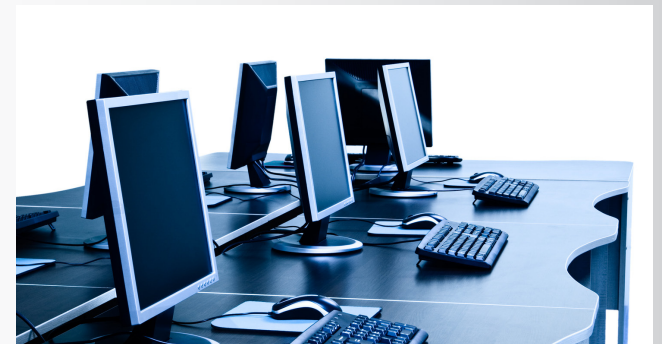
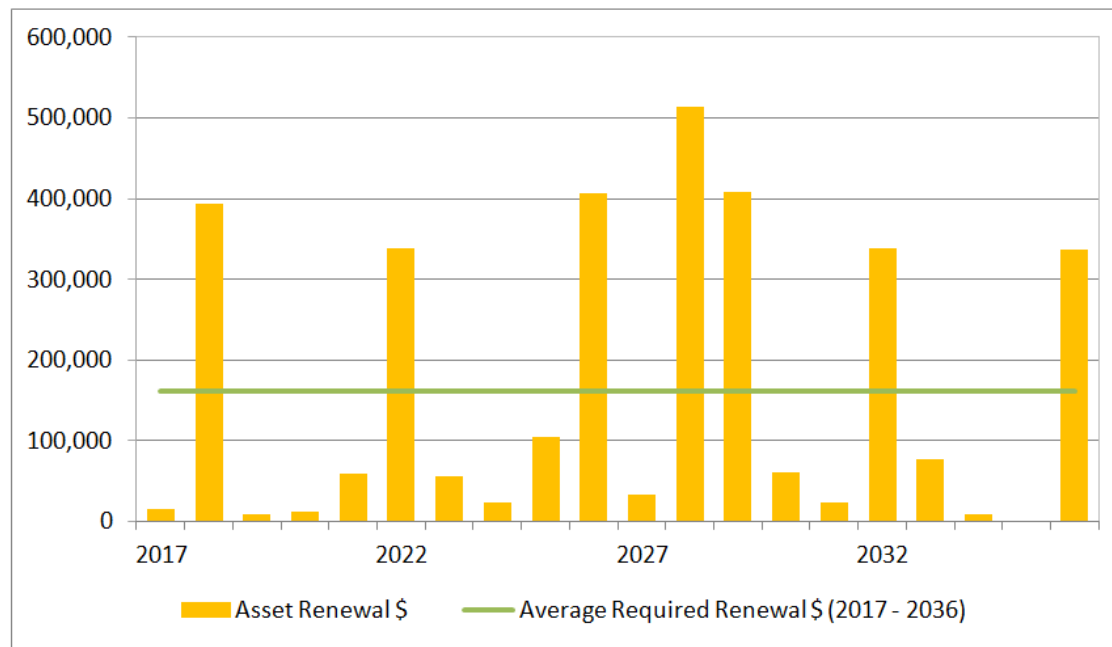




Information Technology 20 Year Infrastructure Plan: Renewal

Includes only major IT hardware and fibre optic cable network.

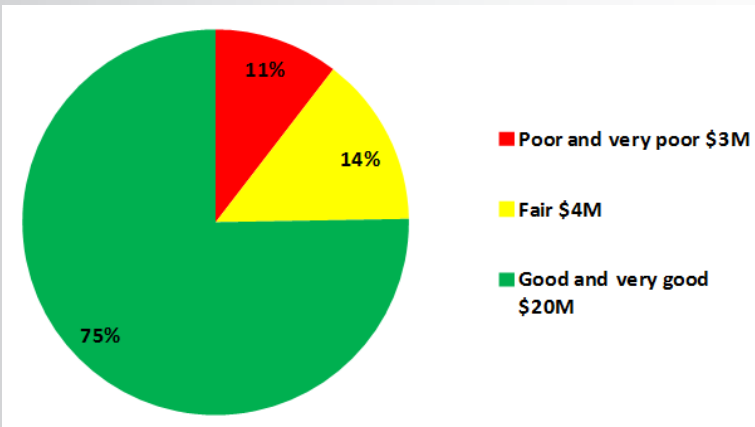
The graph is generated from the City's asset renewal models. Projected renewal needs in first five years will not be the same as projects in the City's approved Five Year Plan due to project prioritization, resource and funding constraints.



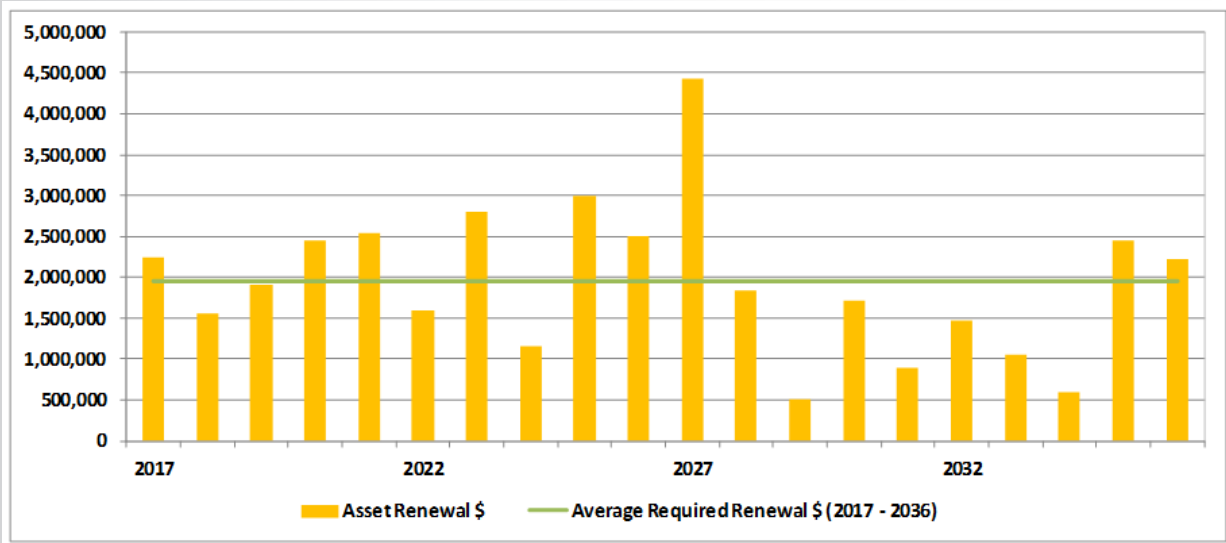
Fleet

The City's fleet includes cars, trucks, heavy equipment, solid waste collection equipment, fire apparatus and ice resurface equipment. The lifecycle of this equipment is relatively short lived compared to other City assets.

Fleet Current Condition



Fleet 20 Year Infrastructure Plan: Renewal





Continuous Improvement: The City's Asset Management System

The City's Asset Management Steering Committee is leading and coordinating the following AM improvement initiatives.

Sustainability

The City has participated in many sustainability initiatives to increase both awareness of environmental impacts in the community and to reduce the City's annual energy consumption.

The pillars of sustainability include environment, socio-cultural and economic components. While these factors are often included in the City's planning processes, there is a need to improve the transparency and consistency of applying sustainability criteria and objectives in the City's asset management system from strategic to operational levels.

Leadership in Asset Management Program (LAMP)

Nanaimo is one of 12 municipalities across Canada participating in a federal program to develop asset management tools. These tools include asset management governance documents and defined levels of service.

Expected benefits for the City are:

- Asset Management Policy (AM Policy) for Council's approval that will establish governance parameters for the management of the infrastructure used to provide City services. The policy will also describe guiding principles adopted in applying asset management to achieve the organization's objectives. These principles may include sustainability.
- Strategic Asset Management Strategy (SAMP) document that articulates how the organization deploys resources, processes and systems to meet AM objectives. The SAMP will focus on specific actions to be undertaken in the organization to improve/enhance its AM capabilities and competencies and to develop a structured set of actions aimed at enabling good, or where proven cost-effective, best AM practices.

- Defined levels of service (LOS) will identify specific performance measures at the operational, management and strategic level. These measures will inform infrastructure investment decisions and provide important feedback on the effectiveness of the City's AM system.

Risk Assessment Framework

Nanaimo is participating in a federal grant program to develop a risk framework that will support infrastructure investment decision making.

Staff Training

AM training and learning opportunities are provided to staff.

Information Management

AM is data intensive, and the City currently uses the GIS system and other systems and tools to maintain inventory and condition information on its assets. A GIS Strategic Plan is under way. A primary focus will be asset management information needs. A business case is being developed for a computerized maintenance management system (CMMS). This system would integrate operating activities with asset investment planning. Further development and implementation of condition assessment programs for facilities and parks amenities infrastructure will be included in future financial plans.



Appendix

Appendix A

Asset Management Reserves

In 2013, Council approved the following annual increases for contributions to asset management reserves. In 2017, the annual contribution to the General Asset Management Reserve will be \$4.7 million.

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
General AM Reserve	1.0%	1.0%	1.0%	1.0%	1.0%					
Sewer AM Reserve	5.0%	5.0%	5.0%	5.0%	5.0%	4.0%	4.0%	4.0%	4.0%	4.0%
Water AM Reserve	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%		

Below is a summary of contributions and withdrawals to the City's asset management reserves.

	Actual				2017 - 2021 Financial Plan					
	2013	2014	2015	2016	2017	2018	2019	2020	2021	Total
General Fund										
General Fund Asset Management	0	837,682	2,524,998	4,863,087	7,551,309	5,943,698	4,596,992	6,994,737	10,469,195	
Additions	897,309	1,822,389	4,394,824	3,777,925	4,723,913	4,701,921	4,709,745	4,753,458	4,797,070	34,578,554
Withdrawals	59,627	135,073	2,056,735	1,089,703	6,331,524	6,048,627	2,312,000	1,279,000	2,413,000	21,725,289
Balance @ December 31	837,682	2,524,998	4,863,087	7,551,309	5,943,698	4,596,992	6,994,737	10,469,195	12,853,265	
Sewer Fund										
Sanitary Sewer Asset Management	0	238,155	746,650	512,605	834,516	1,031,770	798,097	1,271,965	1,388,177	
Additions	238,155	508,495	793,114	1,093,156	1,415,425	1,688,327	1,968,368	2,273,314	2,587,906	12,566,260
Withdrawals	0	0	1,027,159	771,245	1,218,171	1,922,000	1,494,500	2,157,102	1,628,246	10,218,423
Balance @ December 31	238,155	746,650	512,605	834,516	1,031,770	798,097	1,271,965	1,388,177	2,347,837	
Water Fund										
Water Asset Management	0	308,840	943,649	1,225,984	1,135,280	2,311,281	3,986,835	2,622,744	3,162,909	
Additions	308,840	634,809	987,345	1,361,522	1,755,246	2,202,554	2,662,909	3,149,165	3,146,362	16,208,752
Withdrawals	0	0	705,010	1,452,226	579,245	527,000	4,027,000	2,609,000	4,063,100	13,962,581
Balance @ December 31	308,840	943,649	1,225,984	1,135,280	2,311,281	3,986,835	2,622,744	3,162,909	2,246,171	

In 2015, \$1.6M transferred from local improvement reserve to general asset management reserve

Definitions

Definitions

Asset: A useful or valuable resource with the intended purpose of providing a benefit or service.

Asset Management: An integrated approach involving planning, engineering and finance to effectively manage existing and new municipal infrastructure to maximize benefits, reduce risk and provide satisfactory levels of service to the community.

Asset Management Plan: A plan developed for the management of infrastructure assets that combines multi-disciplinary management strategies (including technical and financial) over the lifecycle of the asset type in the most cost-effective manner to deliver a specified level of service.

Asset Management Policy: Endorsed by senior management to establish responsible governance for the practice of asset management. The policy includes guiding principles in applying asset management to achieve the organization's objectives.

Asset Management Strategy: Focuses on specific actions to be undertaken in the organization to improve/enhance its AM capabilities and competencies and to develop a structured set of actions aimed at enabling good, or where proven cost-effective, best practices.

Asset Management System: A structured approach for the development, coordination and control of activities for managing assets that align organizational activities to deliver services and meet organizational objectives.

Asset Type: Group of assets that have similar characteristics and/or functionality.

Development Cost Charges (DCC): The Local Government Act allows the City to collect monies from developers to offset new/upgraded infrastructure investment needed for growth. The City of Nanaimo has enjoyed a prolonged period of steady growth and that growth is expected to continue. The City has been collecting DCCs since 2001. Periodic reviews of the expected investment in infrastructure and charges support Council's decision regarding rates. The current DCC review process is nearing completion.

ISO: International Organization for Standardization is an international standard setting body composed of representatives from various national standards organizations.

Level of service: A composite indicator that reflects the social, environmental and economic goals of the community and may include any of the following parameters: safety, customer satisfaction, quality, quantity, capacity, reliability, responsiveness, environmental acceptability, cost and availability.

Definitions - con't

Lifecycle costs: Lifecycle costs refer to the total cost of ownership over the life of an asset. This may include but is not limited to capital costs, operating costs, maintenance costs, renewal costs, replacement costs, environmental costs and decommissioning costs.

Stakeholders: Internal and external people and organizations that can affect or be affected by the organization's actions. Examples include members of the community including businesses, Council, employees, unions, suppliers and other governments.

Sustainability: The pillars of sustainability include ensuring that the current social, economic and environmental commitments are considered in investment decisions and that those decisions will not compromise the ability of future generations to meet their own needs.

Upgrade: Investment in added or enhanced components to existing infrastructure assets designed to increase service capacity required for growth. Upgrading may also be required to meet building code changes, new regulations, adjusted service levels, or technology improvements.

Acronymns

AM	Asset Management
AM Policy	Asset Management Policy
DCC	Development Cost Charges
ISO	International Standards Organization
SAMP	Strategic Asset Management Strategy

DATE OF MEETING March 23, 2017

AUTHORED BY DALE LINDSAY, DIRECTOR, COMMUNITY DEVELOPMENT

SUBJECT DEVELOPMENT COST CHARGE BYLAW

OVERVIEW

Purpose of Report

To update the Finance and Audit Committee regarding the status of the current development cost charge review, to introduce the draft rates and framework for a new bylaw, and to seek direction with respect to next steps including community engagement.

Recommendation

That the Finance and Audit Committee recommend that Council direct Staff to:

1. Refer the draft development cost charge rates and framework to the Community Planning and Development and the Public Works and Engineering Committees for review and comment; and,
2. Initiate public engagement, including consultation with relevant stakeholders, regarding a new development cost charge bylaw; and,
3. Upon completion of the above, prepare a new development cost charge bylaw for Council's consideration.

BACKGROUND

The City of Nanaimo first introduced development cost charges (DCCs) in 1982 in order to allow for the collection of monies to assist with the cost of infrastructure required for new growth. The current DCC bylaws were implemented on 2009-MAR-11. These bylaws currently require the payment of fees for new development, which is deemed to result in a capital cost burden on the community's infrastructure. The current bylaws collect DCCs for six categories: roads, sewer, storm, water distribution, water supply, and parks. For each category, bylaw rates are established based on the proposed use. As per the legislation, DCCs can be collected at subdivision or at building permit stage. The present bylaws require a single family DCC payment for the subdivision of most single dwelling residential land with the remaining charges applicable upon the issuance of a building permit for commercial, institutional, industrial, and multi-family use.

In order to assist with the review and development of a new DCC bylaw, an internal DCC Steering Committee comprised of staff from Engineering and Public Works, Finance, Community Planning, and Parks was established. The committee has now completed the work required in order to establish the framework for a new DCC bylaw including:

- projecting the types and amount of new development contemplated for the next 25 years,

- identification of the level of service and associated new projects and/or upgrades required to support this anticipated growth, and
- equitably distributing the cost of infrastructure improvements between existing taxpayers and new development (benefitting factor).

Further information with respect to this work and the associated framework for a new DCC bylaw, is attached to this report (Attachment A).

DISCUSSION

The draft framework prepared by staff maintains payment triggers for the same infrastructure categories as in the existing bylaws with the general triggers for payment (subdivision or building permit). In addition to revised rates, the proposed DCC framework includes the following substantive changes over the existing bylaws.

Varied Roads DCCs Based on Location

The current Official Community Plan, Transportation Master Plan and the Community Sustainability Action Plan all recognize that future residential development in the community should be concentrated in and around the established urban nodes. These combined policies are intended to better utilize the existing infrastructure and to encourage mixed-use walkable communities that can support alternative transit. With the exception of the downtown core, the existing roads DCC bylaw does not reflect these policy goals nor does the bylaw differentiate between developments within a designated growth node versus development elsewhere in the community. In order to address this issue, the draft DCC framework anticipates the establishment of different multi-family roads DCC rates based on the location of the development. The proposal is to create four areas, with different DCC rates in each area in order to better reflect the capital cost burden of development, with lowest rates in the established mixed-use urban nodes.

New Approach to the Collection of Storm Water DCCs

At present, the current DCC storm water bylaw establishes a rate for each square meter of floor area for a proposed use. As such, a one-storey building with 1,000m² of floor area pays the same rate as a 10-storey building with the same floor area, despite the fact the taller building covers less ground and results in less impervious surface. In order to address this issue, the new DCC framework proposes to collect storm water DCCs based on the footprint of the building.

New Category for Small Lot Development

Since the implementation of the existing DCC bylaws in 2009, amendments have been made to the City's Zoning Bylaw with respect to the development of small lots and the addition of a new housing form - row housing. At present, the DCC bylaws have a single rate for a single family lot regardless of the size of the property. The draft DCC framework is proposing a new category of DCC be established with a rate reflective of the capital cost burden created by a smaller property. For the purposes of the new bylaw, small lot is suggested to include a lot less than 370m² or a row housing lot.

Introduction of DCCs in Downtown

As noted above, current DCC bylaws do not apply to development with the downtown. The DCC framework is proposing to no longer exempt the downtown core, but instead move towards a model which also recognizes the other urban nodes in the community. Roads / transportation DCCs are proposed to be the lowest in the downtown core as new development in this area is anticipated to have a lower capital cost burden.

Further information with respect to these substantive changes is included in Attachment A.

Assist Factor

The *Local Government Act* states that the purpose of DCCs is to assist local governments in paying the cost of new infrastructure required for growth. As such, the legislation requires that 100% of the cost cannot be charged to new development and that the local government must establish an “assist factor”. There is no regulation on the level of assistance required. The existing DCC bylaws were established with the minimum assist factor of 1% for all infrastructure types with the exception of water supply which has a 25% assist factor. The proposed DCC framework has been drafted anticipating that the assist rates will remain unchanged.

Ultimately, the assist factor reflects Council's desire to encourage development and, as noted in the *Best Practices Guide*, is largely a political decision. If DCC rates are considered to be too high, Council could adjust the rates to one or more infrastructure types by increasing the assist factor. While such an increase would reduce DCC rates, project balances would need to be funded through general revenue and as such put further pressure on taxation and/or user rates.

Next Steps

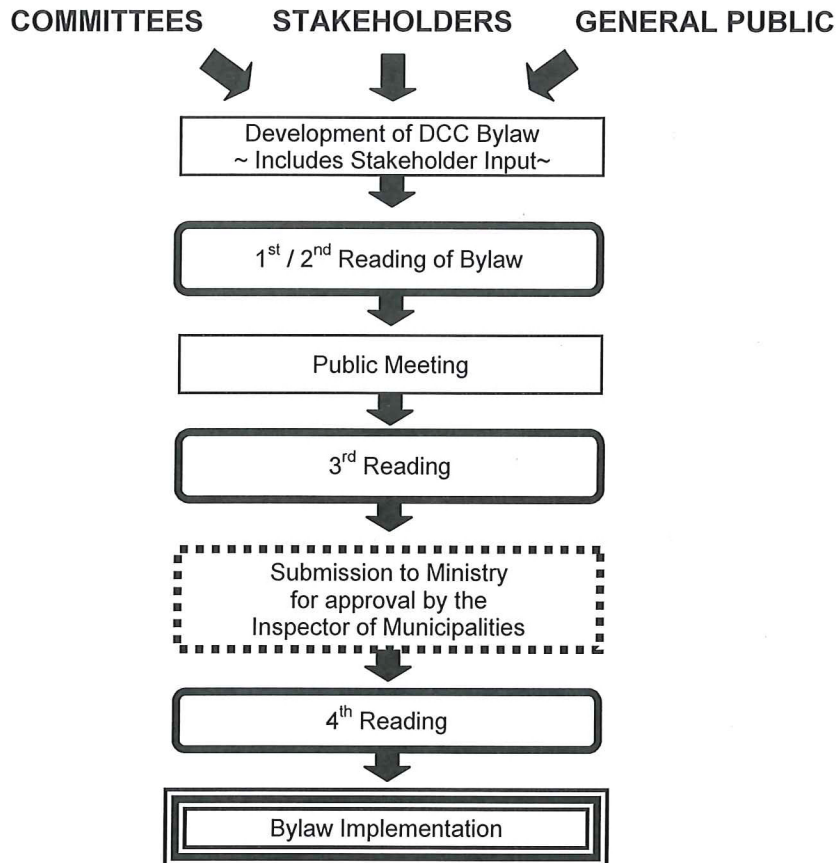
Community Engagement

Staff is recommending that prior to the drafting of the new bylaw, the proposed DCC framework be referred to both the Community Planning and Development and the Public Works and Engineering Committees for their review and input. In addition, opportunities for community engagement, including meetings with local stakeholders are required. These groups would include, but are not limited to: the Chamber of Commerce, the Canadian Home Builders' Association, and the Vancouver Island Real Estate Board. Opportunities will also be provided for the general public to provide input with respect to the proposed DCC bylaw.

After introduction and prior to third reading of the amendment bylaw, Staff recommends that a public meeting be hosted by Council to receive input with respect to the draft bylaw.

DCC Bylaw Stakeholder Participation Strategy

Flow Chart



OPTIONS

1. That the Finance and Audit Committee recommend that Council direct Staff to:
 1. Refer the draft development cost charge rates and framework to the Community Planning and Development and the Public Works and Engineering Committees for review and comment; and,
 2. Initiate public engagement, including consultation with relevant stakeholders, regarding a new development cost charge bylaw; and,
 3. Upon completion of the above, prepare a new development cost charge bylaw for Council's consideration.
2. That the Finance and Audit Committee provide a different direction.

SUMMARY POINTS

- The DCC steering Committee has completed the work necessary to establish the framework for a new DCC bylaw
- A proposed framework including projected DCC rates have been established
- Staff is recommending that a Community and Stakeholder engagement occur to assist with the drafting of the bylaw including formal referrals to the planning and public works committees.

ATTACHMENTS

Attachment A: Development Cost Charge Review

Submitted by:



D. Lindsay
Director, Community Development



Development Cost Charge Review



March 23, 2017

Executive Summary

Like many other cities and towns in British Columbia, the City faces significant development pressure that requires the expansion of existing, or the installation of new infrastructure systems, to support the demand development places on utilities and services. The costs associated with these infrastructure requirements create significant public sector financial burdens. To mitigate these financial pressures, Development Cost Charges (DCCs) are utilized by local governments as a cost recovery mechanism for apportioning infrastructure project costs among developers of land.

The City implemented a DCC program in 1982. The last review of the DCC program was completed in 2008 and new DCC Bylaws were adopted in 2009. Currently, staff are undertaking a review of the DCC program and would like to bring forward the results to Council for their consideration.

The DCC Review has been led by a committee made up of staff members across the organization. Most of the members are also on the City's Asset Management Steering Committee. The DCC Review Committee supports the cross functional integration needed to develop, maintain and improve the City's DCC Program.

The City of Nanaimo has followed the "Development Cost Charge Best Practices Guide" published by the Province of British Columbia's Ministry of Community Services for the formulation and administration of its DCC program. This guide builds on the general provision of the Local Government Act (LGA) and encourages certainty and consistency in the development of DCC programs, especially in the area of cost charge calculation and bylaw administration.

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What are Development Cost Charges?

Development Cost Charges (DCCs) are a method to fund infrastructure associated with growth. Monies are collected from land developers to offset some of the infrastructure expenditures incurred to service the needs of new development. These development cost charges are imposed by bylaw pursuant to the Local Government Act as a method to finance capital projects related to:

- Roads
- Drainage
- Sanitary sewer
- Water
- Parkland

Guiding Principles

The DCCs Best Practices Guide is based on six principles that should be followed in developing a DCC Bylaw.

Integration

Development of DCCs must be consistent with community plans, land use plans, and corporate and financial plans

Benefiter Pays

Infrastructure should be paid by those will use and benefit from the installation of such systems.

Fairness and Equity

DCCs should distribute costs between existing users and new development in a fair manner.

Accountability

All information on which DCCs are based should be accessible and understandable by stakeholders.

Certainty

Certainty should be built into the DCC process in terms of stable charges and orderly construction of infrastructure. Balance should be found between stability of DCC rates to assist the development industry, and ensuring sufficient financing is available for construction of infrastructure in a timely manner

Consultative Input

The development of DCCs must provide adequate opportunities for meaningful and informed input from the public and other interested parties.

Assist Factors

The Local Government Act states that the purpose of DCCs is to assist local governments with the cost burden of upgraded and new infrastructure as a result of development. As such, Local Government must pay a minimum assist factor of 1% for all infrastructure types. The City's current DCC program includes a 1% assist factor for roads, drainage, parkland, sewer, water distribution and a 25% assist factor for water supply.

How are DCCs developed for the City of Nanaimo?

The City's Official Community Plan (OCP), plan Nanaimo, acts as a guide for decision making on planning and land management issues for City Council. The Plan provides direction related to elements such as; the location and type of development, the availability of transportation choices and utility servicing, and environmental and economic considerations. The Plan is an important reference for Council and staff to develop long term strategies for needed infrastructure investment to support growth.

The City implemented DCC charges in 1982. The last review and update was undertaken in 2008 and the DCC rates were increased in 2009 (Appendix A). The current review includes updated growth and development assumptions, required infrastructure investment and improved methodologies to support equity among different types of development.

Projecting population growth and type of development, and projecting timing and costs of needed infrastructure investment is challenging. Significant effort has been made during the current DCC review to collect and analyse the information.

Process followed for the current DCC program:

- In depth investigation of long term demand for residential, retail, office and industrial development. This resulted in estimates for the City's population growth, and assumptions for single family, multi family, industrial, commercial development.

- Capacity assessments and other programs led by Community Development and Engineering Staff identified infrastructure investment required to support projected development. This resulted in a compilation of projects and cost estimates for each type of infrastructure development including roads, drainage, sanitary sewer and water infrastructure.
- Calculated draft DCC rates to support the appropriate collection of monies needed for new infrastructure.

Next steps:

- Consultation with Council regarding DCC increases in respect to encouraging development in Nanaimo. Assist factor adjustments to be considered which can reduce the burden on developers, taking into account that this would shift the financial burden onto tax payers.
- Community Engagement – Meetings with community stakeholders, such as local builders and real estate boards, to be held for their review and input. Opportunity for the general public to provide input will also be provided.
- Council approves new DCC bylaw.

DCC Framework Changes

- Area classifications for multi-family development identified for Roads DCC charges. All City planning documents recognize that development should be concentrated in established growth nodes to better utilize existing infrastructure. Currently DCC rates do not differentiate between development within or outside of a growth node. The Draft DCC framework includes four multi-family zones to better reflect the burden development is placing on City infrastructure.
- Changed allocation methodology for Drainage DCCs. The impact of development on the City's drainage infrastructure is dependent on the amount of run-off that development creates. Currently DCCs are charged on the whole building area (m2) without consideration for the building footprint and how much the building covers the surface of the lot. The Draft DCC framework methodology calculates charges based on the footprint of the building and better reflects the actual burden on the City's drainage infrastructure.
- Addition of Small Lot Single Family Dwellings classification. Currently single family dwellings are charged one DCC rate regardless of the size of the property. The Draft DCC framework includes a new category for small single family dwellings to reflect the smaller burden these types of development have on City infrastructure.
- Removal of DCC exclusion of the downtown area. The Draft DCC framework removes the exemption of DCCs from the downtown area which is consistent with recognition of urban nodes for DCC classifications.

Draft DCC Rates

Categories	Single Family Dwelling	Small Lot SFD	Multifamily Dwelling				Commercial/ Institutional		Industrial	Mobile Home	Camp Grounds
			DT	Zone 2	Zone 3	Zone 4	DT	Zone 2			
	\$ per lot	\$ per lot	\$ per m2				\$ per m2		\$ per m2	\$ per unit	\$ per unit
Sanitary Sewer	\$1,886.71	\$1,320.70	\$11.37	\$11.37	\$11.37	\$11.37	\$10.79	\$10.79	\$2.75	\$1,159.54	\$294.80
Drainage**	35.38	26.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	22.99	7.08
Water Distribution	342.22	239.55	2.06	2.06	2.06	2.06	1.96	1.96	0.50	210.32	53.47
Water Supply	5,649.18	3,954.43	34.04	34.04	34.04	34.04	32.31	32.31	8.24	3,471.89	882.69
Parks	1,734.54	1,214.18	10.40	10.40	10.40	10.40	-	-	-	1,062.15	300.61
Roads	6,246.00	4,419.34	14.73	35.35	47.14	58.92	35.35	103.12	23.57	4,124.72	1767.74
Total	\$15,894.03	\$11,174.38	\$72.78	\$93.40	\$105.19	\$116.97	\$80.59	\$148.36	\$35.24	\$10,051.61	3,306.39

** Drainage DCCs will be charged per m2 of lot coverage (m2 of first floor).

Significant changes in the current DCC rates include:

- Increased Roads DCC rates due to a higher number of projects.
- Increased Sanitary Sewer DCC rates primarily due to higher project cost estimates.
- Increased Roads and Drainage DCC rates for commercial and industrial development due to change in methodology to better reflect the impact of that development.

Appendix A

Current DCC Rates

The City of Nanaimo's last DCC Review was completed in 2008 and the rates went into effect in March 2009 as follows:

Categories	Single Family Dwelling	Multifamily Dwelling	Commerical/ Institutional	Industrial	Mobile Home	Camp Grounds
	\$ per lot	\$ per m2	\$ per m2	\$ per M2	\$ per unit	\$ per unit
Sanitary Sewer	\$916.07	5.49	5.33	1.37	559.56	\$131.67
Drainage	630.63	3.78	3.66	0.93	385.21	90.63
Water Distribution	327.81	1.97	1.91	0.49	200.24	47.11
Water Supply	5,912.26	35.47	34.36	8.77	3,611.38	849.74
Parks	1,734.54	10.40	-	-	1,062.15	300.61
Roads	4,266.19	25.59	24.80	6.34	2,605.92	613.16
Total	\$13,787.50	82.70	70.06	17.90	8,424.46	\$2,032.92

**the downtown area (defined as the "Old City Neighbourhood") was exempt from DCCs in this bylaw.*

Appendix B

Comparative Analysis of Old DCC Bylaw to New DCC Review

Total DCC Project Costs		
	2008 DCC Bylaw	Current DCC Review
Roads	\$104,811,000	\$221,940,000
Sewer	22,466,395	39,555,518
Storm	27,334,548	26,911,622
Water Distribution	13,270,790	17,949,145
Water Supply	185,131,061	130,410,000
Parks	33,653,141	34,000,000
Total	\$386,666,935	461,766,285

Appendix B – cont'd

2008 DCC Bylaw Rates						
Categories	SFD	Multifamily	Comm/Int	Industrial	M.H.P	Campgrounds
CON DCCs	\$13,787.50	82.70	70.06	17.90	8,424.46	\$2,032.92
RDN Sanitary	2,272.85	13.40	13.60	3.45	1,346.75	276.30
Total DCCs	\$16,060.35	96.10	83.66	21.35	9,771.21	\$2,409.22

Current DCC Review Rates								
Categories	SFD	Multifamily		Comm/Int		Industrial	M.H.P	Campgrounds
CON DCCs	\$15,894.03	DT	72.78	DT	80.59	35.24	10,051.61	\$3,306.39
Small lot	\$11,174.38		93.40		148.36			
			105.19					
			116.97					
RDN Sanitary	2,951.37	17.40		17.66		4.50	1,748.81	482.21
Totals DCCs	\$18,845.40	DT	90.18	DT	98.25	39.74	11,800.42	\$3,788.60
Small lot	\$14,125.78		110.80		166.02			
			122.59					
			134.37					

Appendix C

Water Supply Project List

					Allocated to Growth		Allocated to Existing Residents	
#	Project Name/Description	Location	Project Timing Range	Total Project Cost	Growth Percent	Growth Cost	Existing Percent	Existing Cost
1	Jump Creek II Dam	Jump Creek	2020/2027-2030	\$ 88,000,000	100%	\$ 88,000,000	0%	\$ -
3	Extension Reservoir 9	Extension	2027	\$ 3,300,000	100%	\$ 3,300,000	0%	\$ -
30	Labieux Rd Pump Station Upgrade - install 2 additional pumps	Labieux Rd Pump Station	2020	\$ 200,000	100%	\$ 200,000	0%	\$ -
36	Vanderneuk Road New Reservoir	Vanderneuk Rd Reservoir	2029	\$ 5,100,000	100%	\$ 5,100,000	0%	\$ -
37	Uplands Drive Supply Main - new supply main for Vanderneuk Reservoir	Uplands Dr Supply Main (Rock City Rd to Vanderneuk Reservoir)	2028	\$ 8,900,000	100%	\$ 8,900,000	0%	\$ -
38	WTP - incremental cost from last DCC Review cost estimate.		2017-2041	\$ 12,000,000	30%	\$ 3,600,000	70%	\$ 8,400,000
39	Boundary Ave/Isi Hwy - increase capacity	Boundary Ave/Island Hwy	2026	\$ 7,300,000	75%	\$ 5,475,000	25%	\$ 1,825,000
40	Nanaimo Lakes Rd Supply Main - replacement	Nanaimo Lakes Road Supply Main	2025	\$ 1,700,000	25%	\$ 425,000	75%	\$ 1,275,000
41	#1 Reservoir to College Park Supply Main - new main adjacent to current main	College Park Supply Main Duplication	2017	\$ 2,110,000	100%	\$ 2,110,000	0%	\$ -
NEW 42	Towers Reservoir - increase existing tank /construct 2nd tank	Towers Reservoir	2019	\$ 1,800,000	50%	\$ 900,000	50%	\$ 900,000
				\$ 130,410,000		\$ 118,010,000		\$ 12,400,000

Transportation Project List

Transportation Project List					Allocated to Growth		Allocated to Existing Residents		Allocated to Other Funding Sources	
ID	Name	Project Timing	Priority Ranking	Total Project Cost ³	Percent	Cost	Percent	Allocated to Existing Cost	Percent	Allocated to MOT
118	Boxwood Rd/Northfield to E. Wellington	2017-2026	1	\$ 4,380,000	100%	\$ 4,380,000	0%	\$ -	0%	\$ -
122	Jingle Pot /Westwood Intersection Upgrade	2017-2026	2	\$ 1,090,000	50%	\$ 545,000	50%	\$ 545,000	0%	\$ -
119	Boxwood Connector	2019-2026	3	\$ 15,630,000	50%	\$ 7,815,000	50%	\$ 7,815,000	0%	\$ -
108	Rutherford Rd (HB to Uplands)	2017/2025	4	\$ 7,500,000	75%	\$ 5,625,000	25%	\$ 1,875,000	0%	\$ -
140	10 Yr Transportation Master Plan Update	2022-2034	4	\$ 1,500,000	50%	\$ 750,000	50%	\$ 750,000	0%	\$ -
132	Cranberry Connector	2021	6	\$ 5,810,000	75%	\$ 4,357,500	25%	\$ 1,452,500	0%	\$ -
115	Rock City Rd (Labieux to DBR)	2022	7	\$ 9,680,000	63%	\$ 6,137,120	21%	\$ 2,042,480	16%	\$ 1,500,400
139	Norwell / Jingle Pot / Hwy 19A Intersection Upgrade	2022	8	\$ 3,280,000	34%	\$ 1,115,200	33%	\$ 1,082,400	33%	\$ 1,082,400
127.1	Bruce Ave (Third to Eighth)	2024	9	\$ 12,460,000	50%	\$ 6,230,000	50%	\$ 6,230,000	0%	\$ -
137	Fifth (Wakesiah to Bruce)	2024	10	\$ 5,350,000	50%	\$ 2,675,000	50%	\$ 2,675,000	0%	\$ -
103.1	Hammond Bay Rd (Nottingham to DBR)	2017/2026	11	\$ 11,990,000	75%	\$ 8,992,500	25%	\$ 2,997,500	0%	\$ -
125	Third (Wakesiah to Pine)	2027	12	\$ 5,810,000	75%	\$ 4,357,500	25%	\$ 1,452,500	0%	\$ -
109	Uplands (Hammond Bay to Cedar Gr.)	2027	13	\$ 1,950,000	100%	\$ 1,950,000	0%	\$ -	0%	\$ -
111	Calinda (Enterprise to HBR)	2028	14	\$ 4,700,000	58%	\$ 2,726,000	19%	\$ 893,000	23%	\$ 1,081,000
131	Cranberry Ave (Extension to Isl Hwy)	2026/2029	15	\$ 7,500,000	56%	\$ 4,200,000	19%	\$ 1,425,000	25%	\$ 1,875,000
113	Hammond Bay Rd/Hwy 19A Intersection Upgrade	2029	16	\$ 1,240,000	33%	\$ 413,333	33%	\$ 413,333	33%	\$ 413,333

Transportation Project List – cont'd

135	Townsite / Terminal Intersection Upgrade	2029	17	\$ 2,000,000	50%	\$ 1,000,000	50%	\$ 1,000,000	0%	\$ -
138.2	E&N (Seventh to Ext Rd)	2030	18	\$ 7,400,000	60%	\$ 4,440,000	20%	\$ 1,480,000	20%	\$ 1,480,000
112	Uplands (Emerald-DBR) / DBR (Mexicana-Rock City)	2030	19	\$ 5,170,000	50%	\$ 2,585,000	50%	\$ 2,585,000	0%	\$ -
116	Bowen Rd / Isl Hwy Intersection Upgrade	2030	20	\$ 3,360,000	25%	\$ 840,000	25%	\$ 840,000	50%	\$ 1,680,000
110.2	Turner (Metral to 19A)	2031	21	\$ 3,440,000	78%	\$ 2,683,200	0%	\$ -	22%	\$ 756,800
120	Northfield (Pkwy to Boxwood Connector)	2031	22	\$ 6,070,000	40%	\$ 2,428,000	40%	\$ 2,428,000	20%	\$ 1,214,000
101	HB Rd (Turner to Norasea)	2033	23	\$ 7,600,000	75%	\$ 5,700,000	25%	\$ 1,900,000	0%	\$ -
136	Brechin /Hwy 19A/ Northfield Intsn Upgrade	2033	24	\$ 35,000,000	11%	\$ 3,850,000	4%	\$ 1,400,000	85%	\$ 29,750,000
134	Pearson Bdrge Intersection Upgrade	2034	25	\$ 6,000,000	40%	\$ 2,400,000	40%	\$ 2,400,000	20%	\$ 1,200,000
126	Bowen Rd (Buttertubs to Pine)	2035	26	\$ 10,230,000	75%	\$ 7,672,500	25%	\$ 2,557,500	0%	\$ -
124	Wakesiah Ave (Bowen to Fifth)	2037	27	\$ 7,520,000	100%	\$ 7,520,000	0%	\$ -	0%	\$ -
104	Departure Bay Rd (HB Rd to Montrose)	2038	28	\$ 10,320,000	75%	\$ 7,740,000	25%	\$ 2,580,000	0%	\$ -
117	Northfield Rd (Boundary to Sarnia)	2040	29	\$ 9,120,000	75%	\$ 6,840,000	25%	\$ 2,280,000	0%	\$ -
110.1	Metral (Enterprise to Turner)	2040	30	\$ 5,200,000	66%	\$ 3,432,000	22%	\$ 1,144,000	12%	\$ 624,000
128	Maki / Tenth (Junction to Creek Crossing)	2041	31	\$ 3,640,000	86%	\$ 3,130,400	0%	\$ -	14%	\$ 509,600
				\$ 221,940,000	56.2%	\$ 124,530,253	24.4%	\$ 54,243,213	19.4%	\$ 43,166,533

Sewer Project List

					Allocated to Growth		Allocated to Existing Residents	
DCC #	Project Name	Location	Project Timing Range	Total Project Cost	Growth Percent	Growth Cost	Existing Percent	Existing Cost
NEW	Catchment Master Plans	Downtown N and S, Brechin, Departure Bay, Linley Valley, Wellington N Slope, North Shore, Cilaire, Northfield, Millstone and Chase River Catchments	2018-2041	\$ 2,133,600	30%	\$ 640,080	70%	\$ 1,493,520
NEW	Pine St & Esmnt (Bruce to Albion)	Pine Street (321 Bruce adj to Chase River thru to Albion)	2026	\$ 1,046,244	100%	\$ 1,046,243	0%	\$ -
NEW	Seventh & Park Area	Seventh St (Siphon to Park Ave)	2018	\$ 406,400	80%	\$ 325,120	20%	\$ 81,280
NEW	Sixth St	Nanaimo Lakes to Bruce	2018/2019/2020	\$ 1,318,098	97%	\$ 1,276,822	3%	\$ 41,274
NEW	Seventh & Brookfield Area	Brookfield Dr Esmnt, Seventh St, Howard Ave	2018/2021/2026	\$ 1,385,216	85%	\$ 1,180,175	15%	\$ 205,044
NEW	Bruce and Murray Area	Bruce and Murray Area	2019	\$ 152,400	100%	\$ 152,400	0%	\$ -
SS45	Chase River Pump Station & Forcemain	Eight St - Stirling to 441 Eighth, Island Hwy - 1169 Island Hwy to MH 6991 at Chase River PW, Stirling Ave - Nova to Murray, Other locations TBD	2018/2019/2026, 10-20 years	\$ 5,703,340	65%	\$ 3,723,585	35%	\$ 1,979,752
SS46	Richard Lake Trunk	RDN Chase River PS to Cedar Road	2019/10-20	\$ 2,297,426	100%	\$ 2,297,427	0%	\$ -
NEW	Long Lake Trunk	Ross (Bournemouth to Rock City)	2032	\$ 2,645,369	67%	\$ 1,759,232	33%	\$ 886,136
SS48	Departure Bay Trunk	Departure Bay (Rock City to 2937 Dep Bay) Rock City (Ocean Pearl to Dep Bay)	2028	\$ 4,561,739	96%	\$ 4,380,129	4%	\$ 181,609

Sewer Project List – cont'd

NEW	Nottingham to Stephenson Pt Area	Hammond Bay to 605 Nottingham, 605 Nottingham to 3229 HB, 3229 HB to 3263 Stephenson Pt, 3263 Stephenson Pt to 3250 Stephenson Pt, 3250 Stephenson Pt to 3190 Stephenson Pt	2021/2026/2031	\$ 1,094,629	100%	\$ 1,094,629	0%	\$ -
SS19	Millstone Trunk - South	DCC SS19 Millstone Trunk/Buttertubs Upsizing	2019/2020	\$ 3,446,527	60%	\$ 2,067,917	40%	\$ 1,378,610
SS47	Doumont Rd & Parkway Area	Esmnt Dumont to 557 Doreen and Esmnt South of Parkway to Turnstone Pl	2022	\$ 349,722	90%	\$ 314,750	10%	\$ 34,972
NEW	Big Bear	Big Bear (Noye to Godfrey)	2032	\$ 322,922	80%	\$ 258,338	20%	\$ 64,584
SS17	Millstone Trunk - North	Easement Jingle Pot Rd East to Int of Maxey & East Wellington	2025	\$ 3,519,918	50%	\$ 1,759,960	50%	\$ 1,759,958
SS18	Millstone Trunk - Central	Millstone (East Wellington Rd to Westwood)	2022	\$ 1,659,128	85%	\$ 1,409,533	15%	\$ 249,595
SS49	Buttertubs Lateral	Buttertubs Lateral	2031	\$ 1,638,956	100%	\$ 1,638,956	0%	\$ -
SS44	Hammond Bay & Turner Area	Hammond Bay (Turner to Emil)	2023	\$ 1,414,072	100%	\$ 1,414,072	0%	\$ -
NEW	Bradley & Mt Benson Area	Bradley and Mount Benson	2017	\$ 509,797	90%	\$ 458,817	10%	\$ 50,980
NEW	Westdale	Westdale (Westdale Esmnt to Hamm Bay)	2017	\$ 258,000	90%	\$ 232,200	10%	\$ 25,800
NEW	Fillinger Cr (5100 to 5190)	Fillinger Cr (5100 Fillinger to 5190 Fillinger)	2018	\$ 1,473,200	20%	\$ 294,640	80%	\$ 1,178,560
NEW	Nova Esmnt Area	Seventh St (Georgia to Bruce)	2018	\$ 187,960	100%	\$ 187,960	0%	\$ -

Sewer Project List – cont'd

SS7	Old Slope Area	Jingle Pot Road (at Old Slope Place)	2031	\$ 758,495	100%	\$ 758,495	0%	\$ -
SS36	Metral Dr Area	Metral Drive Area	2025	\$ 449,397	100%	\$ 449,397	0%	\$ -
SS41	McGuffie & Keel Cove Area		2035	\$ 822,960	100%	\$ 822,960	0%	\$ -
				\$ 39,555,518		\$ 29,943,838		\$ 9,611,673

Water Distribution Project List

					Allocated to Growth		Allocated to Existing Residents	
DCC #	Project Name	Location (Street From - To)	Project Timing Range	Total Project Cost	Percent	Cost	Percent	Cost
NEW	Rebuild City Wide Water Model and Calibration, City Wide Water Distribution Master Plan		2018-2020	\$ 450,000	40%	\$ 180,000	60%	\$ 270,000
NEW	Albion St, Georgia to Bruce	Bruce Ave to Janies Pl, Janes Pl to Calverley, Calverley Pl to Georgia Ave, Bruce Ave to Janes Pl	10-20 Year	\$ 190,269	60%	\$ 114,161	40%	\$ 76,108
NEW	Annsobel Circle, Sealand to end	Annsobel Circle (Sealand Rd to end of Annsobel Circle)	10-20 Year	\$ 90,457	50%	\$ 45,229	50%	\$ 45,229
NEW	Bartlett St, Pryde to end of Adams	Bartlett St (Adams Ave to Pryde Ave), Adams Ave (End of Rd to Bartlett St)	10-20 Year	\$ 240,828	60%	\$ 144,497	40%	\$ 96,331
NEW	Bowen Rd, Isl Hwy N to Rosstown	Whitney Rd to Leam Rd, Leam Rd To Labieux, Labieux to Ciener Dr, Ciener Dr to Kenworth Rd, Rosstown Rd to Whitney Rd, Kenworth Rd to Island Hwy N	10-20 Year/ >20 Years	\$ 1,280,346	60%	\$ 768,208	40%	\$ 512,138
NEW	Bruce Ave, Albion to Fifth	Albion St to Fourth St, Fifth St to Albion St	10-20 Year >20 Years	\$ 382,363	60%	\$ 229,418	40%	\$ 152,945
NEW	Bruce Ave, Tenth to Ninth	Bruce Ave (Ninth St to Tenth St)	10-20 Year >20 Years	\$ 341,980	100%	\$ 341,980	0%	\$ -
NEW	Buttertubs Dr, Bowen to end	Buttertubs Dr (Bowen Rd to Menzies Ridge Dr)	>20 Years	\$ 440,977	100%	\$ 440,977	0%	\$ -
NEW	Cienar Dr, Shenton to Bowen	Cienar Dr (Shenton Rd to Bowen Rd)	2023	\$ 364,945	60%	\$ 218,967	40%	\$ 145,978
W25	Cranberry Connector to Wexford Rd	Cranberry Connector to Wexford Rd	10-20 Year	\$ 376,125	30%	\$ 112,838	70%	\$ 263,288
NEW	Dep Bay & Smugglers Hill Area	NEW PIPE	10-20 Year	\$ 605,517	60%	\$ 363,310	40%	\$ 242,207

Water Distribution Project List – cont'd

NEW	Dover Rd, FH 47047 to end	Mary Ellen to Schtook Rd, Mary Ellen Dr to 40m East	10-20 Year/ >20 Years	\$ 279,840	60%	\$ 167,904	40%	\$ 111,936
NEW	Estevan Rd, Hemlock to St George	Princess Royal Ave; Hemlock to Juniper, Juniper to George	10-20 Year >20 Years	\$ 170,931	60%	\$ 102,559	40%	\$ 68,372
NEW	Fifth & Pine Area		>20 Years	\$ 105,834	100%	\$ 105,834	0%	\$ -
W48	Ham Bay Rd, Oakridge to w in Sherwood Esmnt	Hammond Bay Rd; Stephenson Point Rd to Prince John Way, Nottingham Dr to Stephenson Point Rd, Meadow Lane Rd to Linley Rd, Oakridge Dr (Glen Oaks Dr to Meadow Lane Rd), Prince John Way to Lane, Berkeley Pl to Nottingham Dr, Linley Rd to Nottingham Dr	2017 10-20 Year >20 Years	\$ 1,385,053	60%	\$ 831,032	40%	\$ 554,021
W48	Ham Bay Rd, Vistaview to Williamson	Williamson Rd to Salmon Berry Way, Malaspina Rd to Vista View Cres, Salmon Berry Way to Malaspina Rd	10-20 Year	\$ 548,597	60%	\$ 329,159	40%	\$ 219,438
W48	Ham Bay Rd, Meadow Lane to Piper	Ham Bay Rd, Meadow Lane to Piper	10-20 Year	\$ 1,570,875	60%	\$ 942,525	40%	\$ 628,350
NEW	Howden Dr, Ross to Esmnt	Ross Rd Esmnt between end of Howden and end of Crystal	10-20 Year	\$ 189,000	60%	\$ 113,400	40%	\$ 75,600
NEW	Ashlee Rd, Holland to Towerview	Ashlee Rd (Towerview Cres to Holland Rd)	2023	\$ 202,599	60%	\$ 121,558	40%	\$ 81,041
NEW	Jingle Pot Rd, Shenton to Labieux	Jingle Pot Rd (Labieux Rd to Chantrells Pl)	10-20 Year >20 Years	\$ 348,761	60%	\$ 209,257	40%	\$ 139,504
NEW	Kenworth Rd, Shenton to Bowen	Shenton Rd to Hayes Rd, Hayes Rd to Bowen Rd	2021	\$ 344,557	60%	\$ 206,734	40%	\$ 137,823

Water Distribution Project List – cont'd

NEW	Labieux Rd, Jingle Pot to Pheasant	Labieux Rd; Black Franks Dr, Meadow Lark Tr, Duggan Pl to Black Franks Dr, Meadow Lark Tr to Pheasant Terr, White Court Way to Duggan Pl, Cobblestone Pl to White Court Way, Ardoon Pl to Cobblestone Pl, Jingle Pot Rd to Ardoon Pl	10-20 Year >20 Years	\$ 778,417	60%	\$ 467,051	40%	\$ 311,366
NEW	RoW at end of Linley Valley Dr	NEW PIPE	10-20 Year	\$ 269,798	60%	\$ 161,879	40%	\$ 107,919
W17	Meadow Lane, Ham Bay to end	Meadow Lane Rd; Hammond Bay Rd to Kite Way, Kite Way to end of Road	2020	\$ 200,280	60%	\$ 120,168	40%	\$ 80,112
NEW	Norasea Rd, Ham Bay to Oceanview	Norasea Rd (Westdale Rd towards Oceanview Terr)	10-20 Year >20 Years	\$ 135,790	93%	\$ 126,030	7%	\$ 9,760
NEW	Nova St, Howard to end	Nova St (Holly Hill to Howard Ave)	2021	\$ 138,040	60%	\$ 82,823	40%	\$ 55,217
NEW	Old Victoria and Melideo Area	Old Victoria Rd (~20m south of McKenzie Rd to Lane), Melideo Road WM (Old Victoria to Island Hwy)	2019 10-20 Year	\$ 339,353	100%	\$ 339,353	0%	\$ -
NEW	Pheasant Terr, Labieux to Rosstown	Pheasant Terr; Rosstown Rd to Starlight Trail, Willow Grouse Cres to Labieux Rd, Starlight Trail to Willow Grouse Cres)	10-20 Year >20 Years	\$ 350,972	60%	\$ 210,583	40%	\$ 140,389
NEW	Pine Ridge Cres Area	Not in roadway (Pine Ridge Cres to Turner Rd, along Island Highway N), Pine Ridge Cres (Spartan Rd to end of Pine Ridge Cres)	2023	\$ 560,639	60%	\$ 336,382	40%	\$ 224,257
NEW	Pine St Esmt WM (510 Pine to Albert)	Lane parallel to Pine St (Albert St to Lane)	2021	\$ 124,147	60%	\$ 74,488	40%	\$ 49,659

Water Distribution Project List – cont'd

NEW	Ross Rd WM (Marsh Wren to Norwell) - PH 1 and 2	Ross Road; Emerald Dr to Norwell Dr, Emerald Dr to Knight Rd, ~15m East of March Wren Pl to Shammys Pl, Shammys Pl to Emerald Dr	2021 2026	\$ 1,007,481	60%	\$ 604,488	40%	\$ 402,993
NEW	Rosstown Rd, Master to Boxwood	Rosstown Rd; Mountain Vista Dr to Briarwood Pl, Woodside Pl to Whitney Rd, Sun Valley Dr to Sparrow Ln, Pheasant Terr to Sun Valley Dr, Master Rd to Pheasant Terr, Woodside Pl to Whitney Rd, Briarwood Pl to Woodside Pl	10-20 Year >20 Years	\$ 1,309,587	60%	\$ 785,753	40%	\$ 523,834
NEW	Rosstown Rd (Boxwood to Bowen Rd)	Rosstown Rd (Boxwood to Bowen Rd)	2021	\$ 215,559	60%	\$ 129,335	40%	\$ 86,224
NEW	Shenton Rd, Jingle Pot to Kenworth	Shenton Rd; Gava Pl to Kenworth Rd, Diver Rd to Gava Pl, Jingle Pot Rd to Diver Rd	10-20 Year >20 Years	\$ 879,352	60%	\$ 527,610	40%	\$ 351,742
NEW	Stephenson Point Rd, Ham Bay to valve at pipe dia change	Stephenson Point Rd (~ 155m east from Hammond Bay Rd)	10-20 Year	\$ 139,805	60%	\$ 83,882	40%	\$ 55,923
NEW	Wakesiah & Third Area	Wakesiah Ave; Third St to Beaconsfield Rd, Beaconsfield Rd to Montague Rd, Montague Rd to Second, Second St to First St. Third St; Hillcrest Ave to Wakesiah Ave, Lambert Ave to Hillcrest Ave, Watfield Ave to Lambert Ave. Watfield Ave; Sperling Rd to Third St. Sperling Rd; Foster St to Watfield Ave. Hillcrest Ave; Fourth St to Foster St.	0-5 Year 5-10 Year 10-20 Year >20 Years	\$ 1,590,071	60%	\$ 954,043	40%	\$ 636,028
			2017-2041	17,949,145	62%	11,093,413	38%	6,855,732

Drainage Project List

					Allocated to Growth		Allocated to Existing Residents	
DCC #	Project Name/Description	Location	Project Timing Range	Total Project Cost	Percent	Growth Cost	Percent	Existing Cost
SD57	Wexford Creek - Channel upgrades (mainstream, south tributary, north tributary realignments; upgrade ditch to creek; construct bridge crossing; baseflow augmentation pond; stormwater diversion trunk; sedimentation pond; riparian setback construction on upgraded creek channels, land acquisition)	Wexford Creek - through Town Centre, Lawlor at 10th, 11th, 12th, and Junction Ave, through BC Hydro site, 12th Dr at Quin, 10th St at Wexford Creek, Upper South Wexford tributary on Weyerhaeuser property, West of North Wexford Marsh	2020-2040	13,260,443	60%	\$ 7,956,266	40%	\$ 5,304,177
NEW	Cranberry Ave / 13th Street Detention Facility	Cranberry Ave / 13th St - Wexford Creek	2040	1,001,017	60%	\$ 600,610	40%	\$ 400,407
SD58	Walley Creek - rehabilitate erosion site, retrofit Vista View detention pond, construct infiltration facility, construct detention facility, construct infiltration galleries	Walley Creek - downstream of Shores Dr, Upstream of Vista View Cres, Morningside Park between Shores Dr and Morningside Dr, Dunn Pl and Hammond Bay	2040	588,560	20%	\$ 117,712	80%	\$ 470,848
NEW	Northfield Creek - Boxwood detention facilities, Boxwood singel control structure, upgrades to existing main	Northfield Creek - West of Bowen Road, Mallard Dr to Davies, Northfield Road from McCullough, Lady Rose Pl to Spencer	2016-2040	1,040,153	100%	\$ 1,040,153	0%	\$ -
NEW	Cat Stream - Channel upgrades, regrade and widen stream bed	Cat Stream - Downstream of Wakesiah Ave to Howard Ave, Robins Park	2035/2040	299,439	54%	\$ 162,301	46%	\$ 137,139

Drainage Project List – cont'd

NEW	Chase River - Pipe in R.O.W., new pipe and bank protection	Chase River - West of Park Ave through undeveloped land, 9th St, Douglas Ave, North of Nova Street	2030-2040	2,744,567	60%	\$ 1,646,740	40%	\$ 1,097,827
SD23	Millstone River - Improvement to channel, upsize culverts across Northfield Rd	Millstone River - Between Meredith Rd and Millstone River, South of Rosstown Rd and East of Northfield Rd	2035	1,969,161	20%	\$ 393,832	80%	\$ 1,575,329
NEW	Green Lake Area - Piping	Millstone River - Green Acres Way, through lots 42 and 43, behind lots 43 and 44	2040	426,179	20%	\$ 85,236	80%	\$ 340,943
NEW	Stephenson Point Area - Planta Way Outfall	Stephenson Point - Planta Way	2035	239,689	20%	\$ 47,938	80%	\$ 191,751
SD2	Outfall to Hong Kong Creek	Hong Kong Creek - Extension: Lenwood to Roberta (BR 14-0 and 14-1)	2020-2025	482,726	20%	\$ 96,545	80%	\$ 386,181
NEW	South Nanaimo Lands - Pond 2 (wet pond)	Beck Creek - Existing gully south of Maki Road and east of Fielding Road	2030	2,901,117	60%	\$ 1,740,670	40%	\$ 1,160,447
NEW	Citywide IWMP and drainage studies	Citywide	One IWMP each 2 years	1,958,571	30%	\$ 587,571	70%	\$ 1,371,000
			2017-2041	\$ 26,911,622		\$ 14,475,575		\$ 12,436,048