The Village of Belcarra's Road Map to Financial Sustainability

Through Integrated Long-Term Financial & Asset Management Planning



January 2024



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Acknowledgements

This Road Map to Financial Sustainability includes the results of the Village of Belcarra's Integrated Long-Term Financial and Asset Management Plans (together the Road Map, Project or Report). This Road Map has been prepared by Ken Bjorgaard, CPA, CGA, MBA, Local Government Financial Consultant, with the input of Village of Belcarra staff. The Asset Management Plan (Appendix "H") that comprises a significant component of the Village's Integrated Long-Term Financial Plan has been compiled by LandInfo Technologies, with input and consultation from Village of Belcarra staff and Ken Bjorgaard. Land Info technologies is a firm which specializes in providing asset management solutions for small communities in Canada.

The Village of Belcarra is thankful for the grant funding (provided by the Ministry of Municipal Affairs & Housing and administered by the UBCM) for this important Project.

Scope of Work and Limitations

This Road Map, which includes the Village's Integrated Long-Term Financial and Asset Management Plans, serves as a conceptual framework or model for guiding decision making by the Village of Belcarra (Village) and its Council. This includes addressing the challenges associated with the allocation of limited resources, public expectations around services, competing priorities and the need for affordability from both taxpayer's and rate payer's perspectives.

The Village, like other local governments, has to fund programs and services with limited funding, while addressing rising costs, increased service responsibilities and aging infrastructure.

However, the Village is in a unique position in that it has limited options for growth or development, compared to some other communities. This means that the Village has to be very prudent when it comes to spending and controlling costs.

Through this Road Map the Village now has the opportunity to see the longterm consequences of present-day decisions, and to strategically allocate scarce resources in a cost-effective manner with the overall goal of keeping the Village on a sound and sustainable financial track in terms of providing services and amenities to its citizens.

The Village's Integrated Long-Term Financial and Asset Management Plans (Plans) within this Road Map have been produced using the best information available and the Plans will need to be updated as new data or information becomes available including data related to the Village's infrastructure and assets.



Map 1: The Road Map to Financial Sustainability





Executive Summary

This "Road Map to Financial Sustainability" Report provides a comprehensive review of the Village of Belcarra's finances and the many factors which impact or affect the Village's long-term fiscal health. The results of the Village's first Integrated Long-Term Financial plan (15-year time horizon) and related Asset Management Plan (50-year time horizon) have been incorporated into this Road Map. External impacts on the Village and the community are also considered within this Road Map including the broader economic environment and the community's demographics, together with the strategic direction for the Village as recently established by Council. Together these inputs have resulted in this "Road Map to Financial Sustainability", which can be used to inform decisions around the Village's finances into the future.

A number of recommendations are also included throughout this Report, and are summarized at the end, for Council's consideration. These recommendations are aimed at placing the Village on a long-term fiscally sustainable path.

Community

Belcarra's population is aging with a declining younger segment of the population. Based on the 2021 census, 65 children aged 0 to 14 were enumerated in Belcarra, representing respectively 9.5% of the total population. In comparison, for Canada, the proportion of children was 16.3% in 2021. The census also enumerated 210 persons aged 65 and over, representing respectively 30.7% of the total population. In comparison, for Canada, the proportion of children was 16.3% in 2021.

Housing in Belcarra is becoming less affordable, with more and more households spending a greater percentage of income on housing. Working from home and self-employment have also become more prevalent in Belcarra.

Strategic Direction

Council has undertaken a strategic planning exercise to set out their goals and priorities over their term of office to 2026. Council's priorities including their specific, strategic projects have been included in the Village's Integrated Long-Term Financial Plan and this Road Map.

Economic Outlook & External Environment

The Village of Belcarra and its residents are affected by prevailing economic conditions or factors. These influences will continue to impact the economic health and well-being of community members and the Village itself.

Economic conditions in BC post Covid, like the rest of Canada, have generally deteriorated in 2023 and are leading to uncertainty. Citizens and taxpayers and the Village itself will continue to see the impact of inflation, rising interest rates, etc.

The Village of Belcarra is the smallest municipality in Metro Vancouver and the lower mainland of BC. The Village is impacted by what happens in the region, and has little influence over policy, direction and rates set by external organizations such as TransLink, Metro Vancouver, and the Port of Vancouver. Navigating this complex environment will continue to be a challenge for the Village of Belcarra.





Organization

The Village of Belcarra delivers a variety of municipal services organized around specific functions, namely: Administration and Human Resources, Information Technology, Support Services (engineering, finance, and planning), Building Inspection & Bylaw Enforcement, Public Works & Transportation, Major Road Network (MRN), Emergency Planning and Response Services, Waste & Recycle Depot (WARD), and Water Distribution & Treatment.

The above services are organized under three operating areas or Funds, the General Operating Fund, the Waste & Recycle Depot (WARD) Operating Fund and the Water Operating Fund, with WARD & Water being self-funded utilities which are meant to cover all of their operating and capital costs through user fees paid for by those that benefit from the services.

Fire response & rescue services are not a function or service of the Village of Belcarra. These services are provided through the Sasamat Volunteer Fire Department (SVFD), which is an established Metro Vancouver Regional District (Metro Vancouver) service (established by Supplementary Letters Patent dated January 10, 1980). The SFVD is a regional service, under the auspices of Metro Vancouver, which is cost shared by and undertaken for the benefit of the Villages of Belcarra and Anmore. As such these joint services are requisitioned and funded through Metro Vancouver.

The SVFD is governed by a seven (7) member Board of Trustees with three (3) representatives each from both Belcarra and Anmore Councils and one (1) member from Metro Vancouver.

Recent discussions at the SFVD Board of Trustees have centred around an accelerated timeframe for the replacement of the two firehalls in Anmore and Belcarra. This would require debt financing or borrowing on the part of Metro Vancouver, as Metro Vancouver only recently started to build up a reserve for the firehall replacement costs. As discussions are at an early stage, the magnitude of the capital expenditures and related borrowing for the firehalls has not yet been determined. Once the capital costs and related borrowing are solidified the financial impact on Village of Belcarra taxpayers can be determined.



Photo credit: Village of Belcarra







Financial Condition

The Village's financial position has steadily improved from 2018 to 2022, as evidenced by the increase in its reserve & surplus balances, as well as its lower debt (see Table 1 below). This has resulted in increased cash & investment balances, and more investment income to support capital spending programs.

Summary of Key Financial Numbers (changes from 2018 - 2022)							
Indicators	2018 Year- End Financial Results	2022 Year-End Financial Results	\$ Change				
Cash & Investments	\$ 1,700,055	\$ 3,098,578	\$1,398,523				
Unrestricted Operating Surpluses	\$ 274,594	\$ 378,106	\$103,512				
Reserve Funds	\$ 975,630	\$ 2,174,532	\$1,198,902				
Long-Term Debt	(\$3,727,134)	(\$3,150,134)	\$577,000				
Net Debt (Financial Assets less Liabilities)	(\$2,492,408)	(\$598,098)	\$1,894,310				

Table 1 – Summary of Key Financial Numbers

A Village between forest and sea

The Village has about \$14.6 million (historical cost) of capital assets on its books with a depreciated value of \$10.5 million. In today's dollars these assets are worth approximately \$21.5 million. Setting aside funds for the replacement of these assets is critical and is addressed through the Asset Management & Funding Plans included in this Report.

The Village's key financial indicators around Sustainability, Flexibility and Vulnerability are provided in this Report. The Village has generally improved from 2020 to 2022 in a number of areas, with the build-up of reserves, particularly operating reserves, being an area, which would provide the Village with greater financial resiliency. These indicators can be tracked over time to gauge the Village's progress.







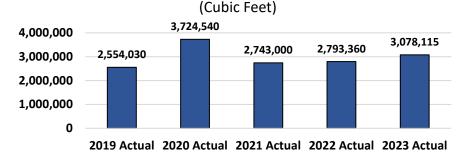
Revenues & Expenses

General Operating Fund

- The Village's 2020 & 2021 revenues were impacted by the pandemic. Overall non-property tax-based revenues have been recovering, with property tax and interest income accounting for the upward trend in revenue collected. As the Village's reserves grow all-important interest revenue will increase and can be used to fund capital projects and increase the Village's fiscal health.
- The Village's non-property tax-based fees & charges have not increased for a number of years, and as a result have not kept up with the Village's cost of delivering the services, including increased staffing costs and other inflationary impacts
- The Village will continue to be impacted by the broader economic environment including inflation and as such needs to operate within a rising cost environment. A sensitivity analysis has been provided which shows how changes in specific revenue and expenses impact property taxation.

Water Operating Fund

- Water user fee increases of about 40% were implemented over a 4-year period (from 2020 to 2023) to put the Village's Water Operating Fund on a more sustainable path.
- The Village of Belcarra's annual water usage fluctuates from year to year, with usage trending upward after the peak in 2020. The Village's water usage and the water rates established by Metro Vancouver (billed by District of North Vancouver) are the main cost drivers in the Water Operating Fund.



Belcarra Historical Water Usage

Graph 1 – Belcarra Historical Water Usage

 Metro Vancouver's non-peak (January to May and October to December) water rates have increased 6% over the four (4) year period from 2020 to 2023 and the peak (June to September) rates over the same period have increased by 27.2%.





WARD Operating Fund

- WARD user fee increases of about 40% were implemented over a 4-year period (from 2020 to 2023) to put the Village's WARD Operating Fund on a more sustainable path.
- The WARD Operating Fund has been in a deficit position over the past few years with annual transfers from WARD surplus required to offset the operating deficits.
- The biggest cost driver in WARD is the contractor processing & hauling costs which are now stable due to new agreement with the contractor which was entered into in 2021. This agreement comes up for renewal in April of 2026, at which time the Village will have the opportunity to go to the market to obtain the best service and pricing.

Debt & Reserves

- The Village's only outstanding debt, the 25-year MFA water debt, won't be paid off until 2037. The debt servicing costs on the debt recently increased based on refinancing at a higher interest rate.
- The Village has about \$300,000 worth of debt servicing cost room as per Provincial legislation (see Table 2 below). This translates into various borrowing limits based on the duration or term of the debt (see Table 2 below). This room does not provide a very large borrowing capacity.

Village of Belcarra Estimated Borrowing Capacity							
Calculation of Liability Servicing Available Maximum Borrowings Over Various Terms Base 4.5% Interest Rate					Based on		
Debt Servicing Costs Liability Based on Servicing New Liability Liability Servicing New Liability Limit Based Annual Servicing Neter Capacity Revenue Debt		5-Year 10-Year 15-Year 20-Year 25-Yea				25-Year Term	
\$570,809	\$269,563	\$301,246	1,300,000	2,300,000	3,100,000	3,800,000	4,300,000



 The Village is able to transfer between \$500,000 and \$600,000 annually to reserves & surpluses which has resulted in healthier overall account balances. Healthy reserve and surplus levels are the key to providing for future asset/infrastructure replacement and minimizing external debt. The Water and WARD reserve transfers are very low, and the Water Reserve is too low to replace critical water infrastructure in the future.



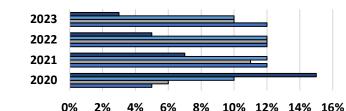


Property Taxes & Utility Fees

 Property tax increases were lower in 2021, 2022 and 2023, in comparison to the large increase (15%) in 2020. Water & WARD user rates have had to increase to put these funds on a more sustainable path and so these utilities can pay for their increased operating costs. These utilities need to be setting aside more funds for asset or capital replacement.

Graph 2 - % Changes in Property Taxes & User Fees

% Changes in Property Taxes & User Fees



	2020	2021	2022	2023
Property Taxes - % change	15%	7%	5%	3%
Water Not Connected Fee - % change	10%	12%	12%	10%
Water Connected Fee - % change	6%	11%	12%	10%
Refuse & Recycling Fee - % change	5%	12%	12%	12%

Growth & Development

- The Village of Belcarra generates limited additional property taxation from new assessments or new construction. These additional tax dollars have averaged between \$5,000 and \$6,000 annually over the past 4 years.
- Assessed values in Belcarra have been increasing due to market changes which has translated to more taxes going to other taxing authorities such as BC Provincial School taxes, and the Metro Vancouver and TransLink tax levies.
- As per the Village's recent draft OCP: "land for new housing options in Belcarra is limited and the two areas for potential development face hurdles in that one is Provincial Crown Land and the other is the remote Farrer Cove area which does not have public road access. This makes any new development uncertain and complex." See Table 3 below for estimated development revenue in today's dollars from these lands should they be developed in the future.



Photo credit: Village of Belcarra





Potential Development Revenue as Identified in Draft OCP							
Development Property Description	Estimated Number of Residential Lots	Estimated Total Assessed Property Values	2023 Residential Tax Rate per \$1,000 of Assessed Value	Estimated Annual Property Tax Revenue Currently			
20 acres of Provincial Crown Land (potential development)	TBD	\$44,400,000	1.25034	\$55,515			
Farrer Cove (potential development)	TBD	\$64,500,000	1.25034	\$80,647			
Totals		\$108,900,000		\$136,162			

Table 3 – Potential Development Revenue as Identified in Draft OCP

Asset Management Plan

 The estimated replacement cost of the Village's assets/infrastructure in 2023 dollars is about \$21.5 million (see Table 4). The majority of these assets are in Water Treatment & Distribution (\$10.5 million), Stormwater Collection (\$4.0 million) & Transportation (4.5 million).

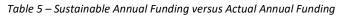
Asset Groups (Systems)	Replacement Value (2023 CAD)	Average Life Span	Average Remaining Years	% of Useful Life Consumed
Land & Natural Assets	N/A	N/A	N/A	N/A
Buildings, Structures and Components	\$1,399,500	44	24	44%
Equipment	\$155,900	18	14	23%
Fleet	\$500,000	12	11	8%
Information Systems	\$94,000	5	3	40%
Multi-Use Path, Trail & Road Shoulder Network	\$136,767	26	15	43%
Stormwater Collection	\$4,029,252	72	40	44%
Transportation	\$4,521,164	23	13	44%
Waste & Recycle Depot	\$185,000	15	11	27%
Water Treatment and Distribution	\$10,502,029	66	44	34%
Grand Total	\$21,523,612			

Table 4 – Asset Inventory & Replacement Values

 Based on the Asset Management Plan results the Village's sustainable annual funding level for all Funds is \$575,737, and the Village has annual excess funding of \$199,666 in the General Fund and annual funding shortfalls of \$15,083 and \$166,120 in the WARD and Water Funds, respectively (see Table 5 below). The sustainable annual funding levels are for the replacement of the Village's existing assets/infrastructure only at the end of their useful lives and these amounts do not include any investment in new and/or upgraded assets/infrastructure.







Assets Groups (Systems)	Sustainable Annual Funding	Actual Annual Funding	Difference [Annual Funding - Gap or Excess)
Land & Natural Assets	N/A	N/A	N/A
Buildings & Components	\$30,454	As per below	As per below
Equipment	\$7,720	As per below	As per below
Fleet	\$41,667	As per below	As per below
Information Systems	\$18,800	As per below	As per below
Multi-Use Pathways, Trails & Road Shoulder (MTRS) Network	\$5,230	As per below	As per below
Stormwater Collection	\$57,576	As per below	As per below
Transportation	\$208,887	As per below	As per below
Subtotal General Capital	\$370,334	\$570,000	\$199,666
Waste & Recycle Depot	\$16,083	\$1,000	-\$15,083
Water Treatment and Distribution	\$189,320	\$23,200	-\$166,120
Grand Totals	\$575,737	\$594,200	\$18,463

- The replacement cost of assets as shown in the Asset Management Plan are rough projections of asset value in 2023 dollars.
- These estimates are intended to provide a comparative, broad basis for decision-making and do not reflect the true, accurate costs of undertaking the projects.



Photo credit: Village of Belcarra





Community Needs & Expectations Financial Sustainability Strategy Affordable Services Sustainable Intrastructure

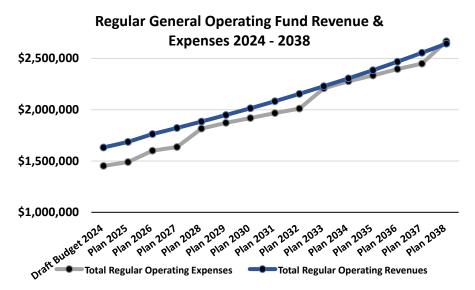
A Village between forest and sea

Integrated Long-Term (15-Year) Financial Plans

General Operating Fund

The draft or base long-term General Operating Fund financial plan reflects annual property tax increases of 4%, including for 2024. The key to the plan is maintaining a gap between total revenues and total expenses, the net of which can be transferred to reserves/surpluses to provide for the Village's long-term sustainability including the ability to fund capital projects internally with minimal or no debt. This includes new assets as well as the replacement of the assets and infrastructure as identified in the Asset Management Plan. The detailed plan is shown in Appendix "C".

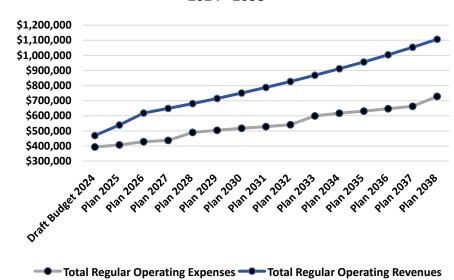
Graph 3 – Regular General Operating Fund Revenue & Expenses 2024 – 2038



Water Operating Fund

The draft or base long-term Water Operating Fund financial plan includes a 20% increase in water rates for 2024, 15% for 2025, 15% for 2026, and 5% each year thereafter. As shown in the Asset Management Plan the Water Operating Fund is not currently at a sustainable annual funding level for the replacement of its \$10.5 million of infrastructure, therefore water rates need to increase to make up for the funding gap. The detailed plan is shown in Appendix "D".

Graph 4 – Regular Water Operating Fund Revenue & Expenses 2024 - 2038



Regular Water Operating Fund Revenue & Expenses 2024 - 2038

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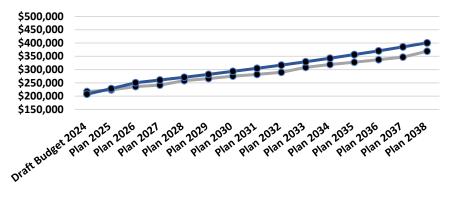


WARD Operating Fund

The draft or base long-term WARD Operating Fund financial plan includes 20% increase in 2024, 10% increases in each of 2025 and 2026, and 4% increases each year thereafter. As shown in the Asset Management Plan the WARD Operating Fund is not currently at a sustainable funding level for the replacement of its infrastructure. In addition, the WARD operating surplus balance is very low and cannot continue to fund annual operating deficits at its current level. The detailed plan is shown in Appendix "E".

Graph 5 – Regular WARD Operating Fund Revenue & Expenses 2024 - 2038



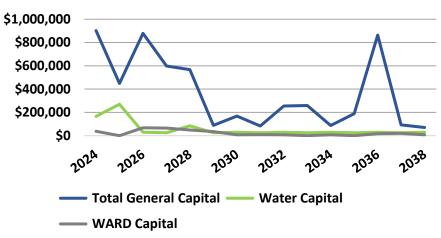


Total Regular Operating Expenses — Total Regular Operating Expenses

Long-Term (15-Year) Capital Plans

Detailed long-term (15-year) capital plans for all of the Village's Funds (General, Water & WARD) are provided in Appendix "F". Capital spending will peak over the next few years, and it is important that the Village build up its reserves to fund projects internally, particularly in the Water and WARD Funds.

Graph 6 – 15-Year (2024 – 2038) Capital Plan



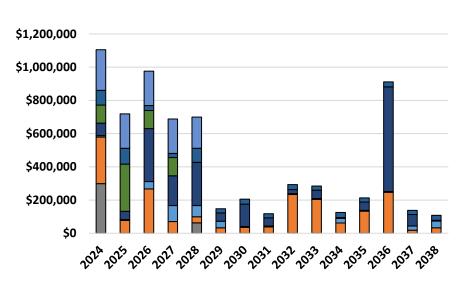
15-Year (2024 - 2038) Capital Plan

The funding plan to pay for the 15-year capital plan includes the use of the Village's various reserves (including the Growing Communities Reserve fund and the Canada Community-Building Reserve Fund), as well as TransLink grants.





Graph 7 – Funding Sources for Long-Term (15-Year) Capital Plan



Funding Sources for Long-Term (15-Year) Capital Plan

Grants TransLink

- Water Capital Reserve
- Growing Communities Fund Reserve
- Transportation Infrastructure Reserve
- Vehicle & Equipment Capital Reserve
- General Capital Reserve
- Canada Community-Building Fund Reserve

Budget/Financial Plan Scenarios

A summary of budget/financial plan scenarios is provided for the Village's three Operating Funds starting with the base budget or financial plan. These scenarios reflect various property tax and user rate increases and the impact on the Village reserves of the noted changes. The long-term consequences of different tax and rate increases are transparent with these scenarios.

Road Map to Financial Sustainability

Financial Policies and Practices

During the course of this review the Village's existing finance policies were examined and other local government finance policies were reviewed for applicability to Belcarra. In addition, best financial practices within local governments were reviewed to determine any recommendations. As a result, specific recommendations have been made and are included in this report.

Summary of Recommendations for Financial Sustainability

A number of recommendations have been made throughout this report and are summarized on pages 85 to 88. These recommendations fall under the following categories:

- Recommendations arising from financial planning
- Recommendations arising from asset management
- Recommendation resulting from policy and practice review





Background

The duly elected Council of the Village of Belcarra (Village) has adopted an actionable strategic plan with key objectives with three of these objectives being: the creation of a Long-Term Financial Plan, the development of an Asset Management Plan and the production of a community Financial Sustainability Report. This Road Map to Financial Sustainability is the culmination of these key objectives with the results of being reflected in this Road Map to Financial Sustainability (Road Map).

The following definition of financial sustainability has been agreed upon and is assumed within the Village's planning processes:

A financially sustainable organization that can adequately cover its operating costs, maintain in good repair its existing assets, replace assets where appropriate, fund future growth and service improvements, and plan for external impacts such as inflation, changes in technology, etc., to the extent possible, all funded over an appropriate period of time with stable and incremental revenues.

This Road Map is the starting point and not the end point on the Village's road to financial sustainability. The Integrated Long-Term Financial and Asset Management Plans and related model will have to be used as an evolving tool that is updated as new or better data/information becomes available. The asset management information which feeds into the Integrated Long-Term Financial (includes the condition, life expectancy and replacement cost of infrastructure/assets) will also have to be maintained and updated regularly.

There are important recommendations and financial indicators provided in this Road Map which can be tracked and updated over time to gauge the Village's progress towards financial sustainability.

In completing this road map the following Financial Planning Process and Planning Model was used (see next page) which takes into account both external and internal factors.

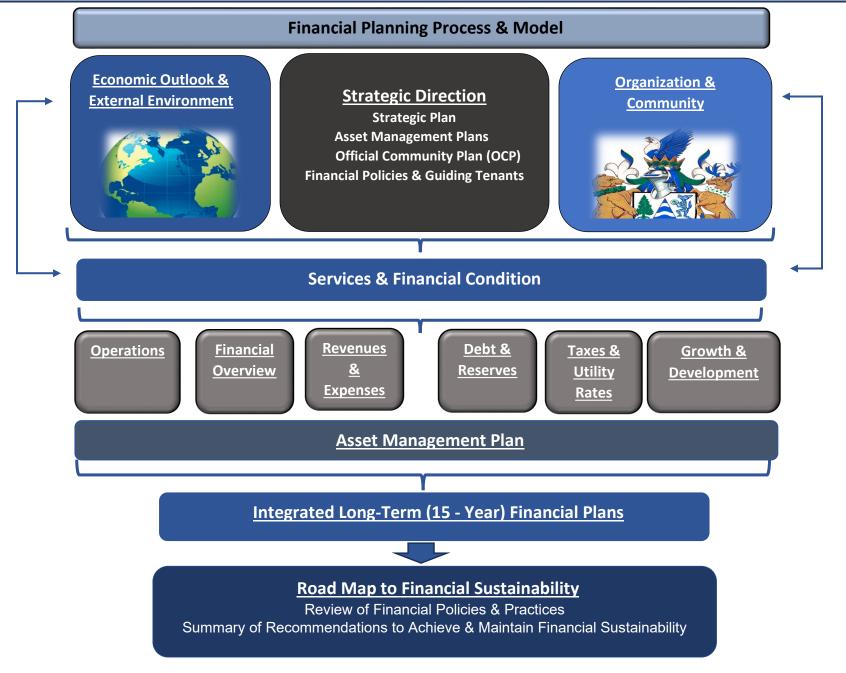


Map 2: Village of Belcarra and Indian Arm





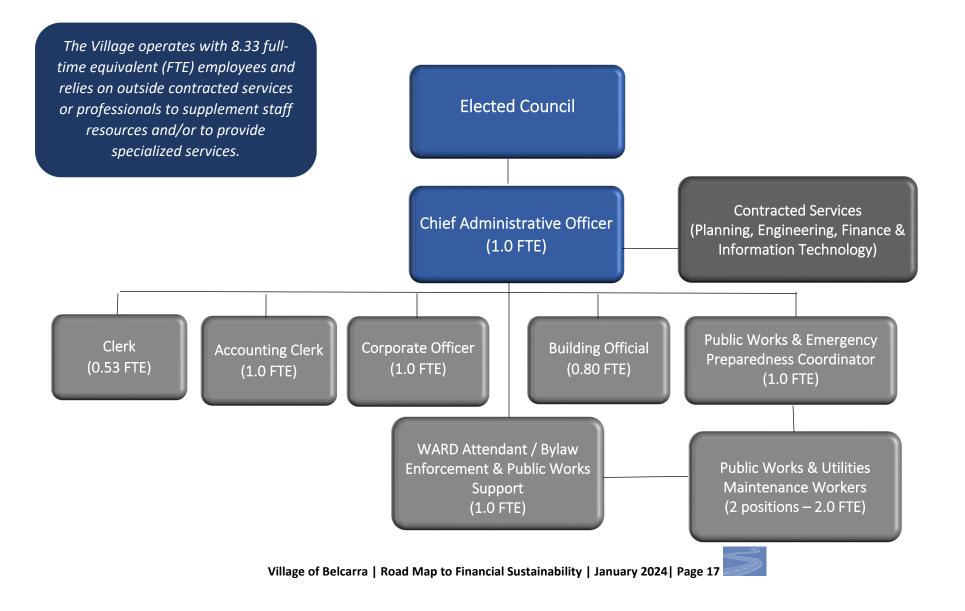








Organizational Flowchart







The Village of Belcarra provides a range of municipal services, including:

Administration and Human Resources – includes Council support services, management of legal issues, records management, various human resources functions and oversight of departmental areas.

Information Technology – comprised of services related to the Village's information systems technology and infrastructure including its website.

Support Services (engineering, finance and planning) – includes the Village's contracted support services for engineering, finance and planning. These services are provided on an as needed basis.

Building Inspection & Bylaw Enforcement – includes the enforcement of various regulatory bylaws such as parking.

Public Works & Transportation - includes the provision of services that relate to the Village's roads, bridges, and drainage systems as well as for the maintenance of pedestrian walkways and trails.

Major Road Network (MRN) – includes the maintenance and upkeep of the regional Bedwell Bay Road, the costs of which are funded by TransLink.

Emergency Planning and Response Services – includes emergency planning or preparedness and response as required.

Waste & Recycle Depot (WARD) – includes refuse and recycling collection at the drop-off center and pick-up and disposal of these same materials.

Water Distribution & Treatment – includes the distribution and treatment of the water supply which is used for domestic and firefighting purposes.

The Village is part of the Metro Vancouver Regional District (MVRD) and participates in and receives a number of regional services through MVRD. **Fire Response & Rescue Services** are provided through MVRD.

This shared regional service (joint service with the Villages of Belcarra & Anmore) is requisitioned and funded through the Metro Vancouver Regional District and is run by the Sasamat Volunteer Fire Department or SVFD. The SVFD provides services to both the Village of Belcarra and the Village of Anmore. The SVFD owns and maintains two firehalls and various fire apparatus and equipment, and all calls in Belcarra and Anmore are answered by the volunteer force which has members from both municipalities.

Fire Response & Rescue Services and the SVFD are governed through a seven (7) member Board of Trustees with three (3) representatives each from both Belcarra and Anmore and one (1) member from Metro Vancouver.

Based on its limited staff resources and the services the Village provides it is important that the Village implement and utilize technology to allow for greater efficiency and to keep up with the demand for services (see Recommendation #1 below).

Recommendation #1 Financial Planning (FP)

That the Village implement automated solutions such as electronic bill payments and e-commerce services (provides electronic billings, account balance look-up & bill payment services for residents & customers) to assist staff and to supplement limited staff resources.



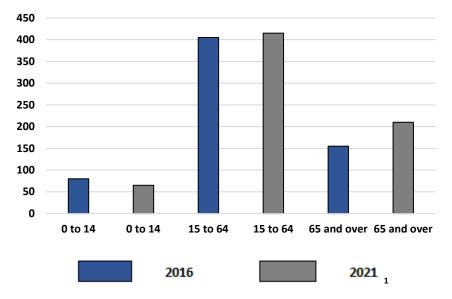


Community

population.

The community of Belcarra has specific attributes which need to be considered when planning for a sustainable future. These attributes are highlighted in this section.

Graph 8 – Population Counts, Belcarra



Population Counts

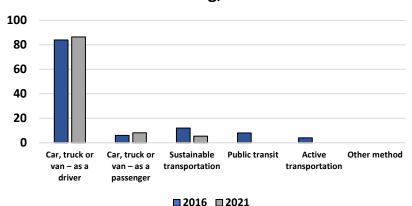
A Village between forest and sea

In 2021, 65 children aged 0 to 14 were enumerated in Belcarra, representing respectively 9.5% of the total population. In comparison, for Canada, the proportion of children was 16.3% in 2021.

The working age population (15 to 64) for Belcarra represented 60.6% of the total population. In comparison, for Canada, the proportion of the population aged 15 to 64 was 64.8% in 2021.

In 2021, 210 persons aged 65 and over were enumerated in Belcarra, representing respectively 30.7% of the total population. In comparison, for Canada, the proportion of seniors was 19.0% in 2021.

Graph 9 – Employed labour force by main mode of commuting, $Belcarra^2$



Employed labour force by main mode of commuting, Belcarra

Belcarra's population is aging with a declining younger segment of the

² https://www12.statcan.gc.ca/census-recensement/2021/as-sa/fogsspg/page.cfm?topic=13&lang=E&dguid=2021A00055915036 (accessed Sept. 2, 2023)



¹ https://www12.statcan.gc.ca/census-recensement/2021/as-sa/fogsspg/page.cfm?topic=2&lang=E&dguid=2021A00055915036 (accessed Sept. 2, 2023)

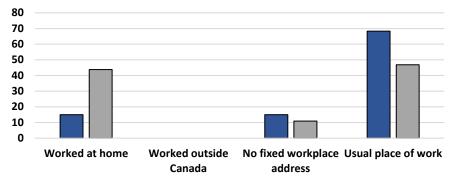




The use of alternate forms of transportation used by Belcarra residents, in the form of public transit and active transportation, have decreased down from 2016 to 2021. 2021 was potentially being impacted by the pandemic.

Graph 10 – Employed labour force by place of work status, Belcarra

Employed labour force by place of work status, Belcarra, 2016 to 2021



■2016 ■2021

³Working from home has become more prevalent in Belcarra, which may again be influenced by the pandemic. This trend does not appear to be changing.

A Village between forest and sea

Table 6 - Number and Median After-Tax Income of Belcarra Households

Number and median after-tax income of households, Belcarra and its neighbouring census subdivisions, 2015 and 2020

Geography	Numbe	er of hou	seholds	Median after-tax income of households		
	2016	2021	% change	2015	2020	% change
Anmore (Village)	690	745	8.0	123,000	136,000	10.6
Belcarra (Village)	255	265	3.9	114,000	138,000	21.1
Metro Vancouver A (Regional district electoral area)	6,100	7,685	26.0	45,600	58,000	27.2
North Vancouver (District municipality)	31,115	32,700	5.1	96,000	106,000	10.4
Port Moody (Village)	12,980	13,105	1.0	85,000	99,000	16.5

⁴The average household after tax income in Belcarra exceeds that of the surrounding area.

⁴ https://www12.statcan.gc.ca/census-recensement/2021/as-sa/fogsspg/page.cfm?topic=5&lang=E&dguid=2021A00055915036 (accessed Sept. 2, 2023)



³ https://www12.statcan.gc.ca/census-recensement/2021/as-sa/fogsspg/page.cfm?topic=13&lang=E&dguid=2021A00055915036 (accessed Sept. 2, 2023)



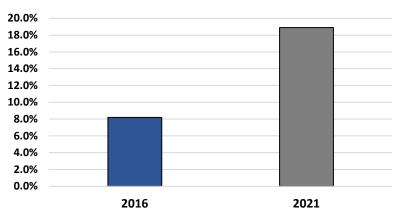


Table 7 – Total Belcarra Population by Labour Force Status

Total population aged 15 years and over by labour force status and broad age groups, Belcarra, 2021							
Labour force status	Total	15 to 24	25 to 64	65 and over			
Total population aged 15 years and over	600	70	320	210			
In the labour force	335	35	260	45			
Employed	325	25	260	40			
Unemployed	15	10	0	0			
Not in the labour force	265	35	60	165			
Participation rate (%)	55.8	50.0	81.3	21.4			
Employment rate (%)	54.2	35.7	81.3	19.0			
Unemployment rate (%)	4.5	33.3	0.0	0.0			

⁵The unemployment rate for Belcarra residents 25 and older is very low as most people are actively engaged in employment.

Graph 11 – Percent of households in Belcarra that spent 30% or more of income on shelter costs



Percent of households that spent 30% or more of income on shelter costs

⁶Housing in Belcarra is becoming less affordable, with more and more households spending a greater percentage of income on housing.

⁶ https://www12.statcan.gc.ca/census-recensement/2021/as-sa/fogsspg/page.cfm?topic=7&lang=E&dguid=2021A00055915036 (accessed Sept. 2, 2023)



⁵ https://www12.statcan.gc.ca/census-recensement/2021/as-sa/fogsspg/page.cfm?topic=12&lang=E&dguid=2021A00055915036 (accessed Sept. 2, 2023)





Table 8 – Belcarra Employed Labour Force by Class of Worker

Employed labour force by class of worker and broad age groups, Belcarra (Village), 2021								
	Tot	al	15 to 24		25 to 64		65 and over	
Class of worker	Count	%	Count	%	Count	%	Count	%
Total employed labour force	325	100.0	25	100.0	260	100.0	40	100.0
Employee	180	56.3	25	100.0	145	55.8	10	25.0
Self-employed (incorporated or unincorporated)	135	42.2	0	0.0	115	44.2	30	75.0

7

As Belcarra's population ages they are more likely to be self-employed.

⁷ https://www12.statcan.gc.ca/census-recensement/2021/as-sa/fogsspg/page.cfm?topic=12&lang=E&dguid=2021A00055915036 (accessed Sept. 2, 2023)









Strategic Direction

Strategic Plan

Council has undertaken a strategic planning exercise to set out their goals and priorities over their term of office (to 2026). Council's priorities, as shown below, including their specific, strategic projects have been included in the Village's Integrated Long-Term Financial Plan.

Manage & Renew Our Infrastructure

We will manage and safeguard our assets and infrastructure by:

- Continuing to build our Asset Management Program (for hard & natural assets)
- Renewing key infrastructure & assets (see Key Project List)
- Making water system improvements (see Key Project List)
- Making waste & recycle service and facility improvements.

Placing an Emphasis on Emergency Management & Preparedness

We will make public safety a priority by:

- Updating our emergency preparedness plan
- Creating and implementing a fire safety & resiliency plan
- Implementing a mass notification system.

Steward Our Community & Its Natural Environment

We will care for our Community and value its natural environment by:

- Inventorying, mapping, and maintaining our natural assets (tree canopies, wetlands, riparian areas, etc.)
- Adopting and operationalizing a new Official Community Plan (OCP) Incrementally building out and maintaining a multi-use path,
- Trail, and road shoulder (MTRS) network
- Re-developing the tennis court site.

Achieve Financial Sustainability though Fiscal Management

We will operate in a fiscally responsible and financially sustainable manner by:

- Creating a long-term (15 years) financial plan that is integrated with asset management & that considers alternate land use scenarios
- Providing regular fiscal updates
- Instituting a Finance Committee
- Creating a formal, ongoing grant writing process.





Asset Management Plans

The Village of Belcarra engaged LandInfo Technologies to complete a comprehensive Asset Inventory/ Replacement Plan & Condition Assessment Framework (Project) for the Village. The primary objective was to create a detailed GIS integrated asset inventory with asset attributes that enable staff to analyze and report on the condition, life expectancy, replacement cost as well as the probability and consequence of failure of assets. This work has been completed and the information has been used in the Village's financial planning model and is now available in the Village's GIS system.

The Village also engaged LandInfo Technologies to identify its natural assets and their associated attributes. This included parks, environmentally sensitive areas, green spaces, stormwater management facilities, water courses, registered springs, tree canopies, and other such assets. These natural have been identified and inventoried with the inventory including information on the type, location (mapping), size, condition, and management practices of each asset, and are now captured in the Village's GIS system.

The Asset Management Plan can now be used to make more informed decisions and has been included in this Road Map. The Asset Management Plan is provided in Appendix "H".

Official Community Plan (OCP)

The Village is in the process of undertaking a major update to its Official Community Plan. As a policy framework plan with a long-range horizon, it is not appropriate to cost all aspects of the OCP. Further investigation, consultation, prioritization and budgeting will have to occur for any items that have financial implications. In other words, an implementation plan will have to be developed for the OCP initiatives which have a monetary impact including the various time periods for implementation. As the OCP initiatives are solidified they can come forward as Spending Package submissions which will be considered within the budgeting and financial planning process.

Implementation of the OCP will thus be incremental over the life of the plan. A local government is not required to implement everything in an OCP, but everything it implements must be consistent with the adopted OCP. Therefore, as a policy tool, the OCP will provide a framework for setting priorities, work plans, and municipal budgets.





Financial Policies & Guiding Tenets

The Village has a number of existing financial policies which address accountability and promote financial best practices. These policies have been reviewed as part of this planning exercise. The following guiding tenets have formed the basis for creating the Village Integrated Long-Term Financial Plan and related Road Map.

An important outcome of this Road Map is a number of recommended financial policies and practices which are aimed at achieving and maintaining financial sustainability for the organization and community. The following tenets or principles have been guided the Village's Integrated Long-Term Financial Plan and this Road Map.

Revenue Sources

Guiding Tenets

- those who receive direct benefits from a good or service should pay for that good or service according to the level or value of the benefit received;
- the full cost of providing a good or service should be the starting point when calculating user fees;
- in cases where groups of individuals may lack the resources required to consume Village goods and services, the Village may choose to provide a subsidy;
- the nature of a funding source should be considered to determine the appropriateness in funding a particular service or project, with the goal of matching limited funding sources with one-time or limited duration projects and matching ongoing funding sources with ongoing expenditures; and
- leveraging external funding sources and opportunities should be a priority

Infrastructure & Asset Investments Guiding Tenets

- infrastructure/assets should be environmentally and economically sustainable;
- infrastructure/assets are a capital investment and must be responsibility managed;
- there needs to be a systematic and predictable method of budgeting for the renewal and replacement funding for infrastructure/assets;
- infrastructure/assets must be maintained in a condition that enables them to perform their intended functions;
- a priority should be placed on funding the maintenance, renewal, and replacement of existing infrastructure/assets before funding new assets/infrastructure; and
- infrastructure programs should support the values and objectives contained in plans and priorities approved by Council.

Reserves & Surpluses

Guiding Tenets

- maintain adequate levels of reserves and surpluses to achieve financial stability for taxpayers and rate payers, including provision to fund emergency expenditures;
- build and maintain reserves to fund major planned and/or unforeseen expenditures;
- provide for stabilization in terms of fluctuations in operating and capital activities including offsetting cyclical and volatile revenues and expenditures;
- build up reserves to serve as internal financing and funding sources and to thus minimize external debt;
- reserves and surpluses should not be used to fund ongoing operating expenditures; and
- ensure adequate reserve levels to fund renewal and replacement of infrastructure/assets.





<u>Debt Management</u> Guiding Tenets

- pay as you go funding and internal reserve financing is preferable to external debt;
- any debt should not impact long-term financial flexibility and should limit financial risk exposure;
- any debt should minimize the long-term cost of financing;
- debt should never be used to pay for operations;
- debt may be used to moderate significant tax or rate increases;
- debt levels should be managed to minimize the impact of debt servicing costs on taxpayers; and
- the term of the debt financing should not exceed the anticipated useful life of the underlying assets or infrastructure.

Operating Costs

Guiding Tenets

- deliver core services efficiently and effectively ensuring value for money and the transparent stewardship of public funds;
- promote, establish, maintain and explore programs and facilities that encourage the use of alternative models and levels of delivery of services through continuous improvement;
- leverage external investments as much as possible (e.g., Community-Building Fund and TransLink funding);
- match one-time or limited duration operating expenses with limited funding sources and match ongoing operating expenses with ongoing funding sources; and
- regularly review municipal expenditures in the context of inflationary increases.







Economic Outlook & External Environment

Economic Outlook

The Village of Belcarra and its residents are influenced by many prevailing economic conditions or factors. These influences will continue to impact the economic health and well-being of community members and the Village itself.

Economic conditions in BC post Covid, like the rest of Canada, have generally deteriorated in 2023 and are leading to uncertainty. The following trends have been identified by Deloitte in their June 2023 Economic outlook:

- British Columbia is in for a weak period of growth relative to its recent performance. Households in the province are the most indebted in the country and this will weigh on consumer spending.
- Further, non-residential investment drove economic gains for years in the province (BC), but as work winds down on major projects such as the Trans Mountain pipeline expansion and the LNG Canada facility, investment will detract from growth prospects.
- Strong household spending at the start of the year (2023) was supported by a drawdown in savings and an accumulation in debt. After averaging 5.8% in the last quarter of 2022, the household savings rate plunged to 2.9% in the first quarter of this year, its lowest rate since before the pandemic. Further, data from Equifax shows that consumer credit card balances were up 14.5% yearover-year in the first quarter and that more mortgage holders are missing payments on their non-mortgage debt.

- High inflation expectations have triggered demands for higher wages and caused businesses to raise prices to accommodate higher salaries, something called wage-push inflation.
- Many businesses hold pessimistic views about future sales growth due to concerns over a potential recession and reduced household consumption resulting from the rising cost of living. These factors will weigh on business investment outside of the energy sector.
- The economy cannot escape the impact of high inflation and the most rapid tightening in monetary policy in decades without slowing.
- Labour market strength supported household spending in the face of higher debt payments and inflation earlier this year (2023). However, the labour market is projected to cool substantially over the rest of this year and push the unemployment rate to 5.6% by year end. The good news is that we do not expect employment to decline, as population is rapidly rising thanks to immigration.
- The above factors point to the need to be cautious in terms of spending plans as many citizens and taxpayers will continue to see the impact of inflation, rising interest rates, etc. The Village and its citizens cannot escape these influences and have to operate and live within the context of these economic realities. This means adjusting, as best as possible, ways of doing business to respond the external environment.



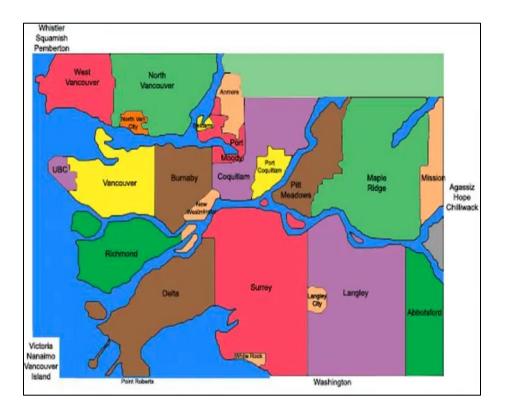


External Environment

The Village of Belcarra is the smallest municipality within the Metro Vancouver Regional District and the lower mainland of BC. The Village is impacted by what happens in the region, and has little influence over policy, direction and rates set by external organizations such as TransLink, Metro Vancouver, and the Port of Vancouver, including:

- Regional transportation planning
- Regional planning and related growth strategy
- Regional parks strategy and planning
- Metro Vancouver water rates
- Metro Vancouver regional waste tipping charges
- Market value of recyclables and compost
- Water infrastructure conveyance costs as established by the District of North Vancouver
- Vancouver Port Authority policies and direction
- Wage & benefit patterns established throughout the region
- Environmental policy and direction

Operating within this complex and dynamic external environment presents its challenges, including the inability to directly control specific costs. Navigating this complex environment will continue to be a challenge for the Village of Belcarra, as the Village has a limited tax base and prospects for growth in comparison to the other communities in Metro Vancouver. In other words, the Village's ability to pay and to absorb cost increases is not at the level of the other communities and organizations within the region.



Map 3: Lower Mainland







Operations & Financial Condition

Operations

The Village of Belcarra is organized around three (3) operating areas or funds, as follows:

- General Operating Fund accounts for the operating revenues and expenses related to general operations (Building Inspection & Bylaw Enforcement, Public Works & Transportation, and the Major Road Network (MRN) and Emergency Planning and Response Services) and the support functions necessary for all services (Administration and Human Resources, Contracted Support functions (planning, engineering, finance and information technology, etc. The Village engages outside support contractors to provide expertise and specialized services as opposed to providing these services from within the organization.
- Waste & Recycle Depot (WARD) Operating Fund accounts for the operating revenues and expenses related to refuse and recycling collection at the drop-off center and pick-up and disposal of these same materials.
- Water Operating Fund accounts for the operating revenues and expenses related to the distribution and treatment of the water supply which is used for domestic and firefighting purposes.

A percentage of General Operating Fund costs are charged to the Major Road Network (operating & maintenance costs are funded by TransLink), the Waste Recycle Depot Operating Fund and the Water Operating Fund to account for the full cost of supporting these services. The WARD Operating Fund and the Water Operating Fund are treated as self-funding or self-balancing utilities in that the fees charged to the users of these functions are meant to cover operating costs, including the capital costs associated with the renewal or rehabilitation of assets/infrastructure, any new assets or infrastructure and any related debt servicing costs.

Sasamat Fire Service

Fire response & rescue services are not a function or service of the Village of Belcarra. These services are provided through the Sasamat Volunteer Fire Department (SVFD), which is an established Metro Vancouver Regional District (Metro Vancouver) service (established by Supplementary Letters Patent dated January 10, 1980). The SFVD is a regional service, under the auspices of Metro Vancouver, which is cost shared by and undertaken for the benefit of the Villages of Belcarra and Anmore. As such these joint services are requisitioned and funded through Metro Vancouver.

The SVFD is governed by a seven (7) member Board of Trustees with three (3) representatives each from both Belcarra and Anmore Councils and one (1) member from Metro Vancouver.

Recent discussions at the SFVD Board of Trustees have centred around an accelerated timeframe for the replacement of the two firehalls in Anmore and Belcarra. This would require debt financing or borrowing on the part of Metro Vancouver, as Metro Vancouver only recently started to build up a reserve for the firehall replacement costs. As discussions are at an early stage, the magnitude of the capital expenditures and related borrowing for the firehalls has not yet been determined. Once the capital costs and related borrowing are solidified the financial impact on Village of Belcarra taxpayers can be determined.





Financial Overview

Table 9 – Summary of Key Financial Numbers

Summary of Key Financial Numbers (changes from 2018 - 2022)							
Indicators	2018 Year- End Financial Results	2022 Year-End Financial Results	\$ Change				
Cash & Investments	\$ 1,700,055	\$ 3,098,578	\$1,398,523				
Unrestricted Operating Surpluses	\$ 274,594	\$ 378,106	\$103,512				
Reserve Funds	\$ 975,630	\$ 2,174,532	\$1,198,902				
Long-Term Debt	(\$3,727,134)	(\$3,150,134)	\$577,000				
Net Debt (Financial Assets less Liabilities)	(\$2,492,408)	(\$598,098)	\$1,894,310				

The Village's financial position has steadily improved as evidenced by the increase in its reserve & surplus balances, as well as lower debt. This has resulted in increased cash & investment balances, and more investment income to support capital spending programs.

A Village between forest and sea

VILLAGE OF BELCARRA

Statement of Financial Position

As at December 31, 2022

	2022
Financial assets:	
Cash	\$ 2,047,060
Investments	1,051,518
Receivables	94,577
MFA debt reserve deposit	57,631
i	3,250,786
Liabilities:	
Accounts payable and accrued liabilities	108,408
Performance bonds and refundable deposits	258,734
Deferred revenue	318,608
Debt	3,150,134
Employee future benefit	13,000
	3,848,884
Net debt	(598,098)
Non-financial assets :	
Tangible capital assets	10,505,991
Prepaid expenses	13,268
Inventories held-for-consumption	25,519
	10,544,778
Accumulated surplus	\$ 9,946,680

The Village's has about \$14.6 million (historical cost) of capital assets on its books with a depreciated value of \$10.5 million. Setting aside funds for the replacement of these assets is critical and is addressed through the Asset Management & Funding Plan include in this Report. The performance bonds and refundable deposits in the Statement of Financial Position (\$258,735 under Liabilities) have been held for some time and should be reviewed.







Recommendation #2 (FP)

That the Village's performance bonds, and refundable deposits be reviewed to determined whether the funds should be returned, continue to be held by the Village or taken into revenue.

The Village's financial indicators are shown in Table 10 below. Most of the indicators are trending in the right direction with the trend being toward greater sustainability and flexibility; however, operating reserves could be increased to provide greater sustainability. These indicators can be used to track the Village's progress over time.

The Village is reliant on the annual Small Communities Grant (\$259,000) from the Province of BC for its core operations which was 12.8% of its total revenues in 2022. This is noted as a vulnerability factor. This grant increased to \$327,000 in 2022 due to a one-time top up from the Province of BC and the grant in 2021 was \$257,000, which is the range expected for this grant.

Recommendation #3 (FP)

That the Village continue to track its financial indicators annually based on year-end results with the results being reported to Council and the community.

Strong Fiscal Futures A Blueprint for Strengthening BC Local Governments' Finance System









Table 10 - Summary of Financial Indicators	2020	2021	2022	Explanation	Trend			
Sustainability								
Financial assets to financial liabilities	63.9%	75.3%	84.5%	Ability to cover obligations or liabilities	Improving			
Total surplus & reserve funds per household	5,198	6,740	7,524	Indication of savings for future expenditures & ability to minimize new debt	Improving			
Total operating expenses as a % of taxable assessment	0.36%	0.36%	0.31%	Ability to cover operating cost with tax base	Improving			
Operating reserve & unrestricted surpluses as a % of operating expenses	20.30%	21.04%	20.12%	Indicates the ability to offset unexpected revenue losses or excess expenses	Worsening			
Flexibility								
Municipal residential taxes per household	2,893	3,119	3,295	Increase in tax burden per household; % rise decreasing	Improving			
Total long-term debt per water user	14,372	13,758	13,126	Remaining debt burden on each water user	Improving			
Average residential taxation as a percentage of average after tax household income	2.1%	Not available	Not available	Impact of property taxation on households	Not available			
Total taxation as a % of total assessment	0.14%	0.15%	0.13%	Ability to sustain tax revenue	Improving			
Debt servicing costs (interest and principal) as a % of water revenues	42.2%	39.8%	36.8%	Ability to cover debt costs; have dedicated parcel tax to cover debt costs	Improving			
Net book value of tangible capital assets as a percentage of historical cost of tangible capital assets	75.5%	73.6%	72.0%	Indication of remaining life of assets or % consumed	Expected decline			
Vulnerability								
Operating grants as a % of total revenues	10.0%	10.9%	12.8%	Degree of reliance on assistance for core operations; 2022 affected by one- time top up in grant	Worsening			
Capital grants as a % of total capital expenditures	0.0%	26.9%	0.0%	Ability to tap into grants for capital projects	Worsening			





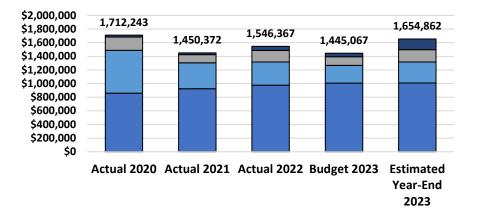


Revenues & Expenses

General Operating Fund

Graph 12 – Regular Geneal Operating Fund Revenue 2020 - 2023

Regular General Operating Fund Revenue 2020 - 2023



■ Taxes Grant Transfers Fees & Charges Interest Income

Note: 2020 revenue was impacted by Covid-19 Restart grant revenue funds which were used to offset loss of revenue and increased expenses.

The Village's 2020 & 2021 revenues were impacted by the pandemic. Overall non-property tax-based revenue has been recovering, with property tax and interest income accounting for the upward trend in revenue collected.

A Village between forest and sea

The Village has a fees and charges bylaw with the following fees listed. Other than the annual increases in WARD and Water user fees or rates many of these fees have not changed for a number of years and have thus not kept up with the cost of providing the services, including increased staff costs.

Schedule 1 - General Administration Schedule 2 - Building Permit and Inspection Services Schedule 3 - Business Licence Fees Schedule 4 - Finance and Taxes Schedule 5 - Engineering, Public Works, Permits and Services Schedule 6 - Fire Prevention Fees Schedule 7 - Municipal Property Rentals Schedule 8 - Planning, Land and Development Services Schedule 9 - Filming Permits and Services Schedule 10 - Recycling and Garbage Collection and Removal (WARD) Schedule 11 - Grow Operation, Health, Nuisance and Safety Fees Schedule 12 - Animal Control Fees Schedule 13 - Waterworks Fees

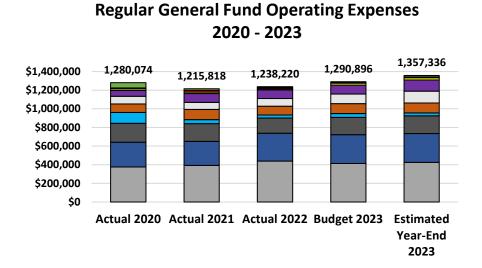
Recommendation #4 (FP)

That a comprehensive review of the Village's fees & charges be undertaken with the goal of increasing non-property tax-based revenue, and that these fees be reviewed annually to keep up with the Village's increased cost of providing services which includes the impact of inflation.





Graph 13 – Regular General Fund Operating Expenses 2020 - 2023



Interest, Bank Expenses, Bad Debts & Other

- Fire & Emergency Operations
- Bylaw Enforcement
- Building & Plumbing Inspection
- Council, Grants & Meetings
- Contracted Support Services (Finance, Engineering, Website & Other)
- Planning
- Municipal Hall, Legal & Audit
- Public Works

The Village has been subject to ongoing cost pressures from inflation which has translated into increased wage & benefit costs, increased insurance costs, increases from service providers, etc.

The below General Operating Fund Sensitivity Analysis shows the impact of certain variables on the property tax levy. The Sensity Analysis shows that changes in operating expenses have a greater impact on the tax levy than changes in revenue. For example, a 1% increase in non-property tax fees and charge equates to a -0.13% reduction in the tax levy and a 1% increase in regular operating expenses (not including indemnities, wages & benefits) equates to a 0.72% increase in the tax levy.

Submission of operating spending packages is a way of reviewing and approving increased operating costs related to new or additional resources including those that result from increases service levels.

Recommendation #5 (FP)

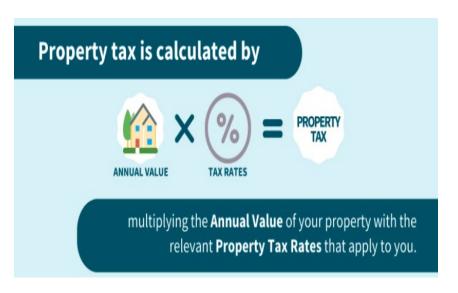
That Operating Spending Packages be completed as a means of approving all new expenditures that are related to new or expanded services or increased service levels.





Table 11 – General Operating Fund Sensitivity Analysis

General Operating Fund Sensitivity Analysis (Based on 2023 Budget)						
1% Increase in Property Taxes = \$9,957 of Revenue						
Variables	\$ Impact on Property Tax Levy	% Impact on Property Tax Levy	Comments			
	(change in levy)	(change in levy)				
1% Increase in Non- Property Tax Fees & Charges Operating Revenue	(\$1,268)	-0.13%				
1% increase in Small Communities Grant	(\$2,570)	-0.26%				
1% Increase in Regular Operating Expenses (Not including Indemnities, Wages & Benefits)	\$7,192	0.72%	After allocation of centralized support costs			
1% Increase in Indemnities, Wages & Benefits	\$5,717	0.57%				



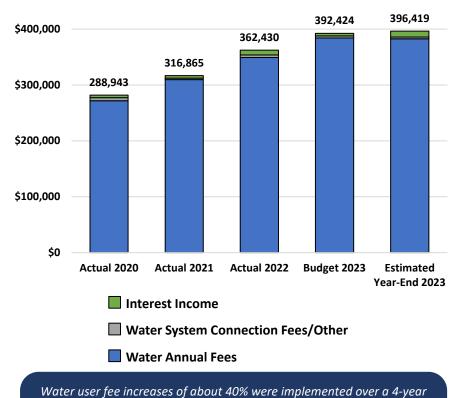






Water Operating Fund

Graph 14 – Regular Water Operating Fund Revenue 2020 - 2023



period (from 2020 to 2023) to put the Village's Water Operating Fund on

a more sustainable path. Water rates set by Metro Vancouver and

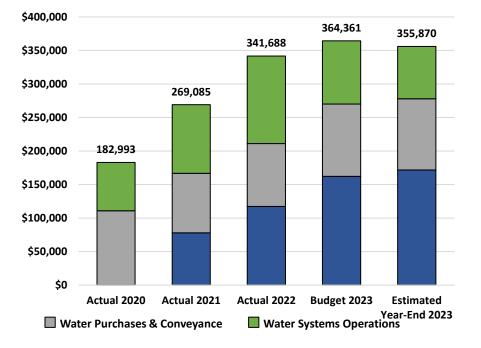
charged by the District of North Vancouver and actual water usage are

the biggest cost drivers impacting rates in the Water Operating Fund.

Water Operating Fund Revenue 2020 - 2023

Note: In 2021 centralized support cost recoveries were instituted and charged to the water, WARD and MRN operating areas. These cost recoveries were phased in over a 3-year period to reach full cost recovery in 2023.

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Water Operating Fund Expenses 2020 - 2023

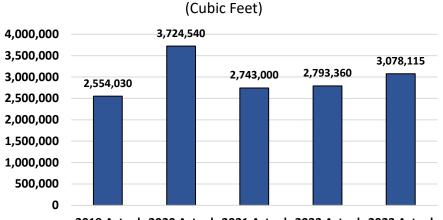
Graph 15 – Regular Water Operating Fund Expenses 2020 - 2023

Total Regular Operating Expenses





Graph 16 – Belcarra Historical Water Usage



Belcarra Historical Water Usage

2019 Actual 2020 Actual 2021 Actual 2022 Actual 2023 Actual

The Village of Belcarra's annual water usage fluctuates from year to year, with usage trending upward after the peak in 2020. The water usage and the water rates established by Metro Vancouver are the key drivers of costs for the Village's Water Operating Fund.

Metro Vancouver's non-peak (January to May and October to December) water rates have increased 6% over the four (4) year period from 2020 to 2023 and the peak (June to September) rates over the same period have increased by 27.2%.

The Water Operating Fund Sensitivity Analysis (Table 12) shows the impact of certain variables on the water user rates. The Sensity Analysis shows that changes in specific operating expenses have on water user rates. For example, every 1% increase in centralized support costs equates to a 0.42% increase in water rates, every 1% increase in Metro Vancouver water

A Village between forest and sea

charges will increase water rates by 0.22% and every 1% increase in regular operating expenses will increase water rates by 0.10%

Table 12 – Water Operating Fund Sensitivity Analysis

Water Operating Fund Sensitivity Analysis (Based on 2023 Budget)

1% Increase in Water User Rates = \$3,840 of Revenue

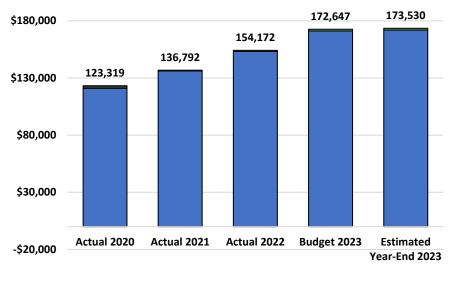
Variables	\$ Impact on Water User Rates	% Impact on Water User Rates	Comments
1% Increase in Centralized Support Costs	\$1,615	0.42%	
1% increase in Water Charges from Metro Vancouver	\$839	0.22%	Billed from District of North Vancouver
1% increase in District of North Vancouver Infrastructure Charge	\$240	0.06%	
1% Increase in Regular Operating Expenses (Not including Allocation of Centralized Support Costs, Wages & Benefits and Water Charges)	\$389	0.10%	
1% Increase in Wages & Benefits	\$553	0.14%	Not including Allocation of Centralized Support Costs





WARD Operating Fund

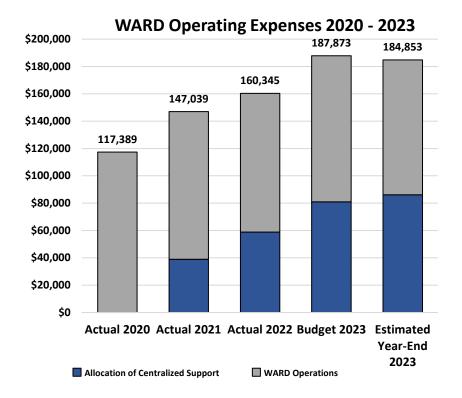
Graph 17 – WARD Operating Revenue 2020 - 2023



WARD Operating Revenue 2020 - 2023

📕 Fees & Charges 🛛 🔲 Covid Restart Grant 📃 Interest Income

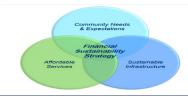
WARD user fee increases of about 40% were implemented over a 4year period (from 2020 to 2023) to put the Village's WARD
Operating Fund on a more sustainable path. The WARD Operating
Fund has been in a deficit position over the past few years with
annual transfers from WARD surplus required to offset the deficits.
The biggest cost driver in WARD is the contractor processing &
hauling costs which are now stable due to new agreement with the
contractor which was entered into in 2021. Graph 18 – WARD Operating Expenses 2020 - 2023



Note: In 2021 centralized support cost recoveries were instituted and charged to the water, WARD and MRN operating areas. These cost recoveries were phased in over a 3-year period to reach full cost recovery in 2023.

The below WARD Operating Fund Sensitivity Analysis shows the impact of certain variables on the WARD user rates. The Sensity Analysis shows that changes in specific operating expenses have on WARD user rates. For





example, every 1% increase in the waste & recyclables contractor's charges equates to a 0.40% increase in WARD user rates.

Table 13 – WARD Operating Fund Sensitivity Analysis

WARD Operating Fund Sensitivity Analysis						
(Based on 2023 Budget) 1% Increase in WARD User Rates = \$1,710 of Revenue						
Variables	\$ Impact on WARD User Rates	% Impact on WARD User Rates	Comments			
1% Increase in Centralized Support Costs	\$810	0.47%				
1% increase in Waste & Recycle Contractor Charges	\$676	0.40%	Waste Connections is the Contractor			
1% Increase in Regular Operating Expenses (Not including Allocation of Centralized Support Costs, Contractor Charges & Wages & Benefits)	\$97	0.06%				
1% Increase in Wages & Benefits	\$235	0.14%				

A Village between forest and sea



Photo credit: Village of Belcarra



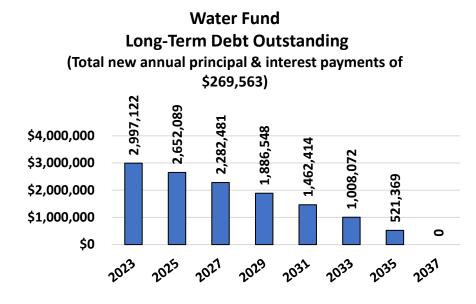




Debt & Reserves

Debt

Graph 19 – Water Fund Long-Term Debt Outstanding



The Village's 25-year MFA water debt won't be paid off until 2037. The debt servicing costs on the debt recently increased based on refinancing at a higher interest rate. The increase in debt servicing cost on the debt are recovered via a parcel tax.

Village of Belcarra Estimated Borrowing Capacity							
Calculation of Liability Servicing Available		, ,			Based on		
Liability Servicing Limit Based on 2022 Revenue	Debt Servicing Costs Based on New Annual Water Debt	Liability Servicing Capacity Available	5-Year Term	10-Year Term	15-Year Term	20-Year Term	25-Year Term
\$570,809	\$269,563	\$301,246	1,300,000	2,300,000	3,100,000	3,800,000	4,300,000

Table 14 – Village of Belcarra Borrowing Capacity

The Village currently has about \$300,000 worth of debt servicing cost room as per Provincial legislation. This translates into various borrowing limits based on the duration or term of the debt. This room does not provide for a very large borrowing capacity.







Debt versus Sustainable Reserve Funding Example

Assumptions:

* A Water Reservoir is due for replacement in 2033 (in 10 years)

* The cost of the Water Reservoir today is \$1.9 million

* The cost of the Water Reservoir will

grow to \$3,094,900 by 2033 due to

annual inflation of 5%

* The effective interest rate on the debt is 4.50%

Option 1: Sustainable Savings Total cost in 2033 Annual Funding Starting in 2024 Accumulated Annual Funding after 10 Y Interest earnings to 2033 @ 4% Total cost to taxpayer/rate payer	\$3,094,900 \$257,777 \$2,577,770 <u>\$517,129</u> \$2,577,770	B C=B×10 D
Option 2: Debt Financing Total cost in 2033 Annual Principal Payments Principal Payments over 10 Years Annual Interest Payments Interest paid over 10 years@ 4.5% Total cost to taxpayer/rate payer	\$3,094,900 \$266,877 \$2,668,770 \$139,271 <u>\$1,392,710</u> <u>\$4,061,480</u>	C = B × 10 D E = D × 10
Difference Difference Expressed in 2033 Dollars (with payments discounted over 10 years @ 5%)	<u>\$1,483,710</u> <u>\$558,397</u>	F-E

The MFA borrowing process is outlined at the below link: https://mfa.bc.ca/sites/default/files/Processes/01_muni_long_term_tem porary_borrowing_process.pdf





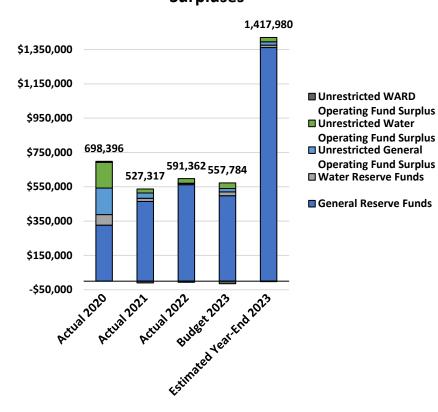




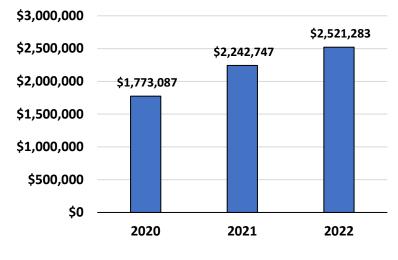
Reserves, Surpluses & Deferred Revenue

Graph 20 – Historical Transfers to (from) Reserves & Surpluses

Historical Transfers to (from) Reserves & Surpluses



Note: 2020 transfers were larger based on the COVID-19 Restart Grant funds received. In 2023 a one-time BC Growing Communities grant was received from the Province of BC in the amount of \$759,000 which is being transferred to reserves Graph 21 – Total Reserve & Surplus Balances



Total Reserve & Surplus Balances

■ Total Reserves & Surpluses

The Village is able to transfer between \$500,000 and \$600,000 annually to reserves & surpluses which has resulted in healthier overall account balances. Healthy reserve and surplus levels are the key to providing for future asset/infrastructure replacement and minimizing external debt. The Water Capital Reserve is very low based on the magnitude of water infrastructure.







At the end of 2023 the Village will have approximately \$192,000 of deferred revenue on hand. The Major Road Network funding from TransLink is dedicated for the Bedwell Bay Rd. operating & maintenance costs. The Climate Action Program and Next Generation 911 funds have to be used as per the program guidelines.

In terms of the Village's overall reserves, it would be prudent to establish operating reserves for Water and WARD, similar to the Financial Stabilization Reserve in the General Operating Fund, as these two utilities are subject to unpredictable changes in operating costs.

Table 15 – Deferred Revenue Projections

DEFERRED REVENUE PROJECTIONS

(Based on draft financial plan)

	2023	2024
Deferred Revenue		
Climate Action Program	90,164	97,746
Major Road Network (MRN) TransLink	79,397	75,680
Nex Generation 911	22,500	45,000
Total Deferred Revenue	\$192,061	\$218,426

Recommendation #6 (FP)

That the Village create additional operating reserves for the Water & WARD utilities to stabilize operations and to offset unanticipated expenditure increases and/or losses of revenue.

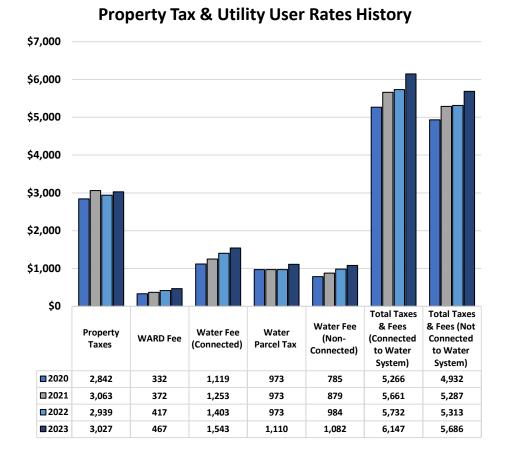






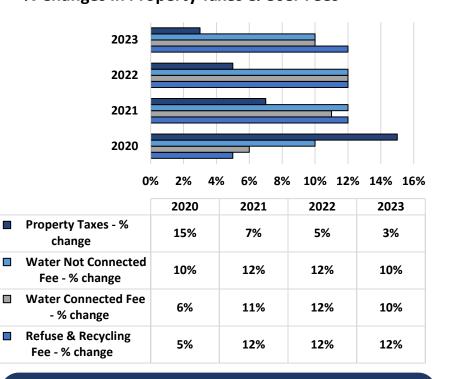
Property Taxes & Utility Rates

Graph 22 – Property Tax & Utility User Rates History



% Changes in Property Taxes & User Fees

Graph 23 – % Changes in Property Taxes & User Fees



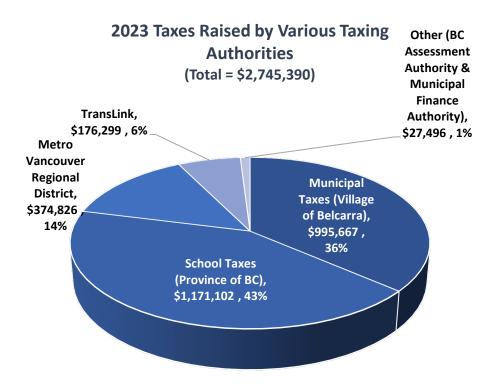
Property tax increases have decelerated since the large increase in 2020. Water & WARD user rates have had to increase to put these funds on a more sustainable path that can pay for increased operating costs.





The Village of Belcarra serves as a collection agency for the various taxing authorities. Only 36% of the total tax burden is controlled by Belcarra. All of these taxes, together with the Village's water and WARD user rates and water parcel tax, are reflected on the annual tax notices.

Graph 24 – 2023 Taxes Raised by Various Taxing Authorities



A Village between forest and sea

There are many taxing authorities that affect each taxpayer. Each take up a piece of the tax pie. Only 36% of the total tax burden is directly attributed to and controlled by the Village. School Taxes take up the largest part of the pie at 43%.

In BC, an additional school tax rate applies to high-valued residential properties, including:

- Detached homes
- Stratified condominium or townhouse units
- Most residential class vacant land

The additional school tax rate applies on the portion valued over \$3 million. The additional tax rate is:

- 0.2% on the residential portion assessed between \$3 million and \$4 million
- 0.4% on the residential portion assessed over \$4 million

Many Village of Belcarra residents are subject to the above additional school tax, based on having property values greater than the \$3 million. The \$3 million threshold has not changed even though the market or assessed value of properties has increased dramatically over the past few years.





Growth & Development

Table 16 – New Construction Assessments & Revenue 2020 & 2021

	20	20	2021		
Property Classes	Non- Market (new construction) Assessments	New Construction Tax Dollars	Non- Market (new construction) Assessments	New Construction Tax Dollars	
Residential	3,940,500	5,636	3,731,900	5,730	
Utilities	0	0	0	0	
Business & Other	0	0	0	0	
Recreation/Non- Profit	0	0	0	0	
Total All Classes	\$3,940,500	\$5,636	\$3,731,900	\$5,730	

Table 17 – New Construction Assessments & Revenue 2022 & 2023

	20	22	2023		
Property Classes	Non- Market (new construction) Assessments	New Construction Tax Dollars	Non- Market (new construction) Assessments	New Construction Tax Dollars	
Residential	4,239,000	5,642	4,180,700	5,227	
Utilities	0	0	0	0	
Business & Other	48,300	157	0	0	
Recreation/ Non-Profit	(3,000)	-4	0	0	
Total All Classes	\$4,284,300	\$5,795	\$4,180,700	\$5,227	

Table 18 – Assessed Property Value Changes 2023 & 2022

Village of Belcarra - 2023 Assessed Values (Market & Non-Market) & Percentage Changes						
Property Classes	2023 Assessment Roll	(new New		% Chg. Due to Market	Total % Change	
01 - Residential	\$785,128,800	\$4,180,700	0.58%	9.13%	9.72%	
02 - Utilities	\$248,600	\$0	0.00%	4.10%	4.10%	
06 - Business & Other	\$70,700	\$0	0.00%	35.96%	35.96%	
08 - Recreation/ Non-Profit	\$10,145,100	\$0	0.00%	3.71%	3.71%	
Total All Classes	\$795,593,200	\$4,180,700				

Village of Belcarra - 2022 Assessed Values (Market & Non-Market) & Percentage Changes

Property Classes	2022 Assessment Roll	Non- Market (new construction) Assessments	% Chg. Due New Construction	% Chg. Due to Market	Total % Change
01 - Residential	\$715,599,700	\$4,239,000	0.72%	21.19%	21.91%
02 - Utilities	\$238,800	\$0	0.00%	17.00%	17.00%
06 - Business & Other	\$52,000	\$48,300	1305.41%	0.00%	1305.41%
08 - Recreation/ Non-Profit	\$9,782,500	(\$3,000)	-0.04%	32.02%	31.98%
Total All Classes	\$725,673,000	\$4,284,300			







Table 19 – Assessed Value Property Changes 2021 & 2020

Village of Belcarra - 2021 Assessed Values (Market & Non-Market) & Percentage Changes						
Property Classes	2021 Assessment Roll	Non- Market (new construction) Assessments	% Chg. Due New Construct.	% Chg. Due to Market	Total % Change	
01 - Residential	\$586,965,100	\$3,731,900 0.64%		-0.22%	0.42%	
02 - Utilities	\$204,100	\$0	0.00%	0.34%	0.34%	
06 - Business & Other	\$3,700	\$0	0.00%	0.00%	0.00%	
08 - Recreation/ Non-Profit	\$7,412,000	\$0	0.00% 0.05%		0.05%	
Total All Classes	\$594,584,900	\$3,731,900				
	Belcarra - 202	\$3,731,900 20 Assessed Va Percentage Cha		& Non-Marke	et) &	
	Belcarra - 202	20 Assessed Va		& Non-Marke % Chg. Due to Market	et) & Total % Change	
Village of	Belcarra - 202 I 2020 Assessment	20 Assessed Va Percentage Cha Non- Market (new construction)	nges % Chg. Due New Constructi	% Chg. Due to	Total %	
Village of Property Classes	Belcarra - 202 I 2020 Assessment Roll	20 Assessed Va Percentage Cha Non- Market (new construction) Assessments	nges % Chg. Due New Constructi on	% Chg. Due to Market	Total % Change	
Village of Property Classes 01 - Residential	Belcarra - 202 2020 Assessment Roll \$584,525,700	20 Assessed Va Percentage Cha Non- Market (new construction) Assessments \$3,940,500	nges % Chg. Due New Constructi on 0.61%	% Chg. Due to Market -10.01%	Total % Change -9.40%	
Village of Property Classes 01 - Residential 02 - Utilities 06 - Business &	Belcarra - 2020 2020 Assessment Roll \$584,525,700 \$203,400	20 Assessed Va Percentage Cha Non- Market (new construction) Assessments \$3,940,500 \$0	nges % Chg. Due New Constructi on 0.61% 0.00%	% Chg. Due to Market -10.01% -7.42%	Total % Change -9.40% -7.42%	

A Village between forest and sea

The Village of Belcarra generates limited additional property taxation from new assessments or new construction. These additional tax dollars have averaged between \$5,000 and \$6,000 annually over the past 4 years. Assessed values in Belcarra have been increasing due to market changes which has translated to more taxes going to other taxing authorities such as BC Provincial School taxes, and the Metro Vancouver and the TransLink tax levies.

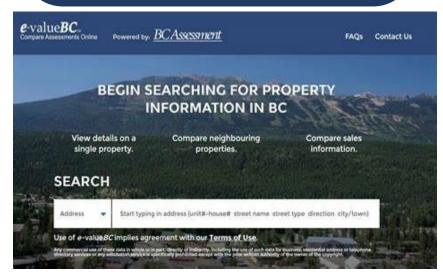


Photo credit: BC Assessment







The following excerpts have been taken from the Village of Belcarra's recent Official Community Plan (OCP) update which is due to go to public hearing.

According to the OCP, "Belcarra's population increased from 643 residents in 2016 to 687 in 2021 - a 6.8% population increase over a 5-year timeline. The Metro 2050 Regional Growth Strategy (RGS) anticipates growth to continue to occur across the region. Belcarra is designated as a Rural area and is not deemed a significant area for growth as it is outside of Metro Vancouver's Urban Containment Boundary and has limited available land base to accommodate future growth. Belcarra is a small Village with a total land area of 5.5 square kilometers (km2) and only 30% (1.6 km2) is developable area."

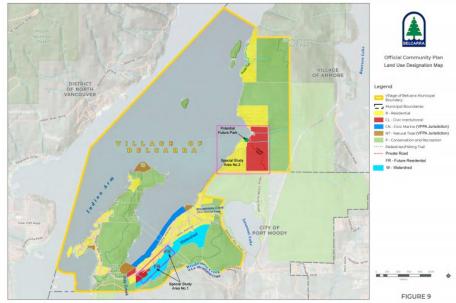
As per the Village's draft OCP update, "new development in Belcarra is constrained by the availability of developable lots with appropriate services required for construction."

The ability to accommodate future residential growth is most likely dependent on what happens with the "Future Residential" areas indicated on Figure 9 OCP (see opposite) within the Land Use Designation Map and the OCP goes on to state that: "No new roads will be funded by the Village during the period of this OCP, however, the Village will participate in and support an appropriate planning process, initiated and paid for by the owners of Farrer Cove (South) properties, which involves all relevant stakeholders to develop legal road access to this area. The capital cost to design and build a new road to service Farrer Cove (South) properties will not be borne by the Village and should minimize traffic impacts on existing Village residents in the area."

According to the OCP, "beyond incremental re-development of existing residential neighbourhoods there are only two areas within the Village boundary that have been identified as having potential to create new housing opportunities. The first of these sites is Provincial Crown land.

A Village between forest and sea

These lands are estimated to be approximately 20 acres in total and could provide approximately 12 half acre lots after accounting for topography, environmental sensitivities, service, and access requirements. The second area identified is Farrer Cove where there is substantial potential to create additional housing through subdivision of 15 large lots and a portion of the Evangelical Laymen's Church (ELC) site." These sites are designated in red as special study areas in the map below.



Map 4: Village of Belcarra, Official Community Plan

As per the draft OCP, "land for new housing options in Belcarra is limited and the two areas for potential development face hurdles in that one is Provincial Crown Land and the other is the remote Farrer Cove area which does not have public road access. This makes any new development uncertain and complex."



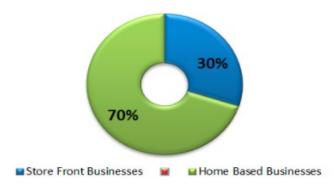


The OCP states that: " 'Commercial' land use designation is new, and no lands have been identified for commercial uses. A new commercial land use designation should encourage businesses that serve the needs of the community, but it is also acknowledged that the small Village population and limited parking available for visitors may make commercial development difficult to realize. However, it may be possible to encourage commercial services by creating a more flexible approach to home-based businesses, which could reduce vehicle trips out of the community to obtain day-today necessities."

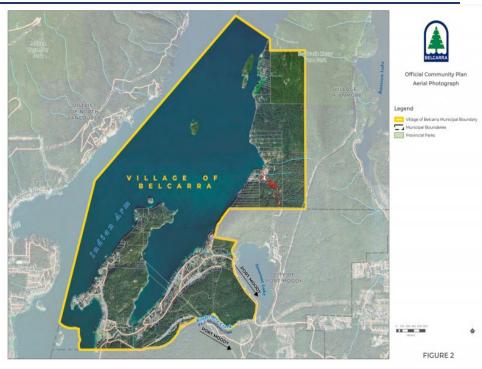
Generally home-based businesses are not assessed under the business/other property class by the BC Assessment Authority (BCAA), accept in special circumstance as outlined by BCAA policy which can be accessed at the following link:

https://info.bcassessment.ca/services-and-products/APPs/Home-Based-Business-Live-Work-Policy.pdf

Successful Start-Up Businesses By Location Where Started



A Village between forest and sea



Map 5: Village of Belcarra Official Community Plan Aerial Photograph

The opportunities for addition business or commercial classified properties, and thus addition property taxes, are limited in Belcarra due to lack of developable commercial land and because the BC Assessment Authority only designates home-based businesses under the business classification in special circumstances.







The potential annual property tax revenue from the development of the two sites identified above is shown in the table below. The actual revenue would be dependent upon the assessed values and property tax rates in effect at the time of development; therefore, the estimated revenue would change. The \$136,162 of new revenue is equivalent to a 13.7% tax impact based on the 2023 property tax levy.

Table 20 – Potential Development Revenue as Identified in Draft OCP

Regional Growth Strategy

Belcarra Official Community Plan

Belcarra Zoning Bylaw

The draft OCP is currently undergoing a revision which will be brought forward in early 2023, and the potential development areas, including the number of possible lots, may change in the revised version.

Potential Development Revenue as Identified in Draft OCP (presented in September of 2023)

Development Property Description	Estimated Current Land Values Per Parcel if Subdivided	Estimated Value of Improvements per Parcel if Developed	Estimated Number of Residential Lots	Estimated Total Assessed Property Values	2023 Residential Tax Rate per \$1,000 of Assessed Value	Estimated Annual Property Tax Revenue Currently
20 acres of Provincial Crown Land (potential development)	\$1,200,000	\$2,500,000	12	\$44,400,000	1.25034	\$55,515
Farrer Cove (potential development)	\$1,500,000	\$2,800,000	15	\$64,500,000	1.25034	\$80,647
Totals				\$108,900,000		\$136,162





The Province of BC has introduced legislation that will bring about sweeping changes to the local planning framework through new requirements to allow increased density in areas currently zoned for single-family or duplex use. The legislation will also change housing needs reporting and public hearing requirements and require more frequent updating of Official Community Plans together with pre-zoning that accommodates a 20-year housing supply.

The legislation and forthcoming regulations will require all local governments to update zoning bylaws to permit one secondary suite or laneway home (accessory dwelling unit) in all single-family residential zones.

The Province will also require zoning bylaws to be updated by June 30, 2024 to permit small-scale, multi-unit housing such as triplexes and townhomes in municipalities of over 5,000 people.

The Province of BC has introduced legislation requiring all local governments to update zoning bylaws to permit one secondary suite or laneway home (accessory dwelling unit) in all single-family residential zones. The Province will also require zoning bylaws to be updated by June 30, 2024 to permit small-scale, multi-unit housing such as triplexes and townhomes in municipalities of over 5,000 people. It is too early to tell if and how these changes in legislation will impact the Village of Belcarra.



Photo credit: Province of BC







Asset Management Plan & Funding Overview

The Village of Belcarra's detailed Asset Management Plan and related results are shown in Appendix "H". A summary of the major findings, a related funding analysis and recommendations follow. The replacement cost of assets as shown in the Asset Management Plan are rough projections of asset value in 2023 dollars. These estimates are intended to provide a comparative, broad basis for decision-making and do not reflect the true, accurate costs of undertaking the projects.

Asset Inventory Valuation

The total estimated replacement cost of the Village's capital assets/infrastructure is approximately \$21.5 million. In comparison the total historical cost of the Village's assets at the end of 2022 was approximately \$14.5 million and the net book value or depreciated cost was 10.5 million. The breakdown in the Village's asset/infrastructure inventory follows is shown the following table.

The estimated replacement cost of the Village's assets/infrastructure in 2023 dollars is about \$21.5 million. The majority of these assets are in Water Treatment & Distribution (\$10.5 million), Stormwater Collection (\$4.0 million) & Transportation (4.5milion) asset groups.

Table 21 – Asset Inventory & Replacement Costs

Asset Groups (Systems)	Replacement Value (2023 CAD)	Average Life Span	Average Remaining Years	% of Useful Life Consumed
Land & Natural Assets	N/A	N/A	N/A	N/A
Buildings, Structures and Components	\$1,399,500	44	24	44%
Equipment	\$155,900	18	14	23%
Fleet	\$500 <i>,</i> 000	12	11	8%
Information Systems	\$94,000	5	3	40%
Multi-Use Path, Trail & Road Shoulder Network	\$136,767	26	15	43%
Stormwater Collection	\$4,029,252	72	40	44%
Transportation	\$4,521,164	23	13	44%
Waste & Recycle Depot	\$185,000	15	11	27%
Water Treatment and Distribution	\$10,502,029	66	44	34%
Grand Total	\$21,523,612			







Sustainable Annual Funding

The total Sustainable Annual Funding in terms of the amount of money that needs to be set aside on an annual basis to replace the Village's assets is \$575,737 which can be broken down to \$370,334 for General Fund assets, \$16,083 for WARD Fund assets and \$189,320 for Water Fund Assets. These values were determined by taking individual asset replacement costs dividing by estimated, remaining useful lives.

Table 22 – Annual Reserve Contributions for Assets

Asset Groups (Systems)	Annual Reserve	%
Land and Natural Assets	N/A	N/A
Buildings, Structures and Components	\$30,454	5.3%
Equipment	\$7,720	1.3%
Fleet	\$41,667	7.3%
Information Systems	\$18,800	3.2%
Multi-Use Path, Trail & Road Shoulder Network	\$5,230	0.9%
Stormwater Collection	\$57 <i>,</i> 576	10%
Transportation	\$208,887	36.2%
Subtotal General Fund Assets	\$370,334	64.0%
Waste & Recycle Depot	\$16,083	2.8%
Water Treatment and Distribution	\$189,320	32.8%
Grand Total	\$575,737	100.0%

The Sustainable Annual Funding levels address the replacement of existing assets/infrastructure only, not new assets. Therefore, reserve transfers need to be higher than Sustainable Annual Funding to pay for new or upgraded assets.

A Village between forest and sea

Funding Levels & Reserves

Funding for the replacement of the Village's assets is discussed in this section including a review of the Village's current reserve levels.

Annual Funding Levels

The Village's current annual funding for asset/infrastructure replacement is \$594,200 (see below) (does not include operating and surplus transfers), which represents the current level of capital reserve transfers. Only \$24,200 is generated from the Water Operating Fund and \$1,000 from the WARD Operating Fund, which means that the Water and WARD utilities are not meeting their annual sustainable funding levels which are \$189,320 and \$16,083 respectively. The majority of the Village's capital reserve transfers (\$570,000) are generated from General Operating Fund, i.e., general taxation and other revenues.

Table 23 – Funding Sources or Assets

Funding Sources	\$ Value
Transfers to Reserves: From General Fund Taxation	\$387,000
Transfer to Reserve: Community Building Fund	\$63,000
Annual Interest Revenue Allocated to Reserves	\$120,000
Subtotal General Reserves	\$570,000
Transfer to Reserve: Waste & Recycle Depot (WARD) Equipment	\$1,000
Transfers to Reserves: Water Utility	\$22,000
Annual Reserve Interest Revenue Water	\$1,200
Subtotal WARD & Water Reserve	\$24,200
Grand Total	\$594,200





Sustainable Annual Funding versus Actual Funding

Based on the asset management results, the Village's has excess funding of \$199,666 in the General Fund and funding shortfalls of \$15,083 and \$166,120 in the WARD and Water Funds, respectively, in term of setting aside funds for asset replacement. As noted above the sustainable annual funding levels are for the replacement of the Village's existing assets/infrastructure only at the end of their useful lives and these amounts do include the investment in new and/or upgraded assets/infrastructure.

Table 24 – Sustainable Annual Funding versus Actual Annual Funding for Assets

	Sustainable Annual	Actual Annual	Difference [Annual Funding - Gap
Assets Groups (Systems)	Funding	Funding	or Excess)
Land & Natural Assets	N/A	N/A	N/A
Buildings & Components	\$30,454	As per below	As per below
Equipment	\$7,720	As per below	As per below
Fleet	\$41,667	As per below	As per below
Information Systems	\$18,800	As per below	As per below
Multi-Use Pathways, Trails & Road Shoulder (MTRS)		As per below	As per below
Network	\$5,230		
Stormwater Collection	\$57,576	As per below	As per below
Transportation	\$208,887	As per below	As per below
Subtotal General Capital	\$370,334	\$570,000	\$199,666
Waste & Recycle Depot	\$16,083	\$1,000	-\$15,083
Water Treatment and			
Distribution	\$189,320	\$23,200	-\$166,120
Grand Totals	\$575,737	\$594,200	\$18,463

* Currently, the Village's Reserve Transfers are not dedicated by asset class as outlined above. Reserve Transfers are allocated according to available funding in General, WARD and Water. WARD currently does not have a dedicated reserve, but it contributes to the Vehicle & Equipment Replacement Reserve.

A Village between forest and sea

Summary of Reserves (Accumulated Funding)

The following capital reserves are currently in place in part to fund the renewal or replacement of the Village's existing assets or infrastructure, as well as new assets. These funding sources do not include the operating reserve (Financial Stabilization Reserve) and Unrestricted Surpluses in the General, Water and WARD Funds. The Village has a reserve & surplus policy which sets out the purpose of each of its reserves, and in some cases minimum and optimal reserve levels have been established.

Table 25 – Reserve Balances

Reserves	Projected 2023 Year-End Balances	Comments
BC Growing Communities Fund	\$770,000	One-time injection of funds from Province of BC
Community Building Reserve Fund	\$250,000	Agreement subject to renewal after 2024
General Capital Reserve Fund	\$1,126,000	
Vehicle & Equipment Capital Reserve Fund	\$105,000	
Transportation Infrastructure Reserve Fund	\$488,000	
Water Capital Reserve Fund	\$129,000	
Grand Total	\$2,868,000	







Accumulated Infrastructure Funding Gap

The Village's current Accumulated Infrastructure Funding Gap is estimated to be \$5.3 million (as shown in Table 27). \$2.3 million of this is attributable to Water Infrastructure. This estimate is based on taking the percentage consumed for each asset type times the replacement cost of the assets less actual reserve levels. The WARD has been considered as part of the General Reserves in this exercise as it contributes a small amount annually to the Village's Vehicle & Equipment Replacement Reserve.

The Accumulated Infrastructure Funding Gaps can be closed by moving to the annual sustainable annual funding for Water and WARD as soon as possible and by maintaining the current amount of General Fund reserve transfers.

To close the funding gaps in Water and WARD immediately would require the following user rate increases. These increases would be separate and apart from the increases required to maintain services in the Water and WARD utilities.

Table 26 – Funding Gaps for Water & WARD Utilities

Asset Groups (Systems)	Sustainable Annual Funding	Actual Annual Funding	Annual Funding Gap	\$'s Generated from Every 1% Increase in Utility Rates	% Increase Required to Eliminate Funding Gaps
Waste & Recycle Depot	\$16,083	\$1,000	\$15,083	\$1,710	8.82%
Water Treatment and Distribution	\$189,320	\$23,200	\$166,120	\$3,840	43.26%

Table 27 – Accumulated Funding Gap for Assets

Asset Groups (Systems)	Reserve Targets Based on % of Assets Consumed	Actual Reserve Balances ¹	Accumulated Infra. Funding Gap
Land & Natural Assets	N/A	N/A	N/A
Buildings and Components	\$615,780	As per below	As per below
Equipment	\$35,857	As per below	As per below
Fleet	\$40,000	As per below	As per below
Information Systems	\$37,600	As per below	As per below
Multi-Use Pathways, Trails & Road Shoulder (MTRS) Network	\$58,810	As per below	As per below
Stormwater Collection	\$1,772,871	As per below	As per below
Transportation	\$1,989,312	As per below	As per below
Waste Recycle Depot	\$49,950	As per below	As per below
Subtotal General Reserves	\$4,600,180	\$2,739,000	\$1,861,180
Water Treatment and Distribution	\$3,570,690	\$129,000	\$3,441,690
Grand Totals	\$8,170,870	\$2,868,000	\$5,302,870

The Village's Accumulated Infrastructure Funding gap is estimated to be about \$5.3 million based %s of assets consumed and current reserve levels. This a rough estimate as an average of the life all assets in each asset group has been used.





Funding Recommendations Asset Management (AM)

Recommendation #1 AM – That sustainable funding levels be achieved in the Water & WARD utilities by implementing minimum rate increases over the next three years.

Implementing the following minimum utility rate increases over the next 3 years will ensure the Water & WARD utilities can cover their operating costs in the future including infrastructure replacement costs:

Table 28 – Recommended WARD & Water Utility Rate Increases

Utilities	2024	2025	2026
Waste & Recycle Depot	20%	10%	10%
Water Treatment and Distribution	20%	15%	15%

Recommendation #2 AM – That the Village investigate removing the Water and WARD utility rates from tax notices to be billed on separate utility bills invoiced on a quarterly or semi-annual basis.

The above recommendation is aimed at separating the utility rates from property taxes and treating Water and WARD similar to other utilities. This would also allow rate payers to be more aware of the cost of these utility services and to budget for these costs throughout the year.

A Village between forest and sea

Recommendation #3 AM - That minimum & optimal reserve & surplus levels be established, based on the Asset Management plan and Long-Term Financial Plan results, and that Corporate Policy No. 211 – Reserve Funds and Surpluses, be updated.

The Village has Corporate Policy No. 211: Reserve Funds and Surpluses (Policy), which sets out the philosophy and principles behind the Village's reserve and surpluses as well as the purpose of each. This Policy which was adopted in 2020 did not define the minimum and optimal levels for many of the reserve and surplus accounts as there was limited infrastructure/asset replacement cost data and long-term financial plan information at that time.

Now that we have the Asset Management Plan and Long-Term Financial Plan results it is recommended that Corporate Policy No. 211: Reserve Funds and Surpluses, be updated including the establishment of minimum & optimal levels for all reserves & surpluses and that annual reports be provided to Council as to the progress towards meeting the optimal levels.

Recommendation #4 AM – That lifecycle costing be integrated into procurement decisions when updating Corporate Policy No. 203 – Procurement (including Disposal of Assets)

Council should be provided with full life-cycle information when making decisions related to Village infrastructure and assets.

Procurement decisions utilize evaluation scoring based on numerous factors. If a procurement decision only considers implementation or capital costs and fails to consider lifecycle costs, including ongoing operating impacts, a more expensive option may be selected. As an example, a hypothetical software purchase is shown below:







Table 29 – Life Cycle Costing

	Software #1	Software #2
Software Purchase	\$50,000	\$100,000
Implementation Costs	\$20,000	\$50,000
Total Acquisition Costs	\$70,000	\$150,000

At first glance, Software #2 appears to be more expensive and, therefore, would receive half the score of Software #1. However, when evaluated from a lifecycle costing perspective, Software #2 is much less expensive:

		Software #1	Software #2
	Software Purchase	\$50,000	\$100,000
	Implementation Costs	<u>\$20,000</u>	<u>\$50,000</u>
А	Total Acquisition Costs	\$70,000	\$150,000
В	Annual Licensing Costs	\$20,000	\$10,000
С	Expected Useful Life	10 years	15 years
D	Total Licensing Cost per Useful	\$200,000	\$150,000
	Life (BxC)		
Е	Total Lifecycle Costs (A+D)	\$270,000	\$300,000
F	Annualized Lifecycle Costs (E/C)	\$27,000 per	\$20,000 per
		year	year

Under the Acquisition Costing Procurement Method in table 1, Software #2 appears to be more than twice as expensive. However, Software #2 is found to be 25% less expensive when annual lifecycle costs are calculated.

The Village's Corporate Policy No. 203 – Procurement (including Disposal of Assets, is due to be update as part of Council's strategic work plan and it is recommended that the Policy be amended to encourage staff to consider lifecycle costs when scoring procurement processes.

Recommendation #5 AM – That the estimated operating cost impacts of capital projects be integrated into capital decision making and approval process.

The Village's capital budgets, and related decision making do not currently consider the ongoing operating impact of capital expenditures. In other words, capital budgets are approved without an assessment of the ongoing operating impacts which are often present. Operating costs are often incurred to operate or maintain capital.

When capital expenditure decisions are made during budget deliberations, it is important that Council consider the operating costs of the capital projects. This would include the initial capital outlay (construction and acquisition costs) and estimated and associated operating or maintenance costs.

Recommendation #6 AM – That long-term cash flows be aligned with the Village's long-term investment portfolio horizon to maximize investment returns

Aligning the Village's investment portfolio with long-term cash flow projections will allow the Village to generate higher investment returns. Investment returns can significantly reduce the Village's need to raise taxes and utility fees in order to fund infrastructure and asset replacement.

It is recommended that multi-year cash flow projections be established based on the Village's long-term operating and capital financial plans and the investment portfolio be aligned with the cash flow projections.







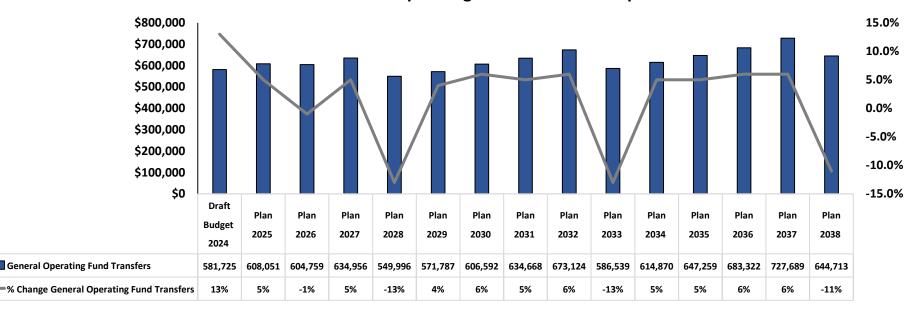
Integrated Long-Term (15-Year) Financial Plans

General Operating Fund

A base detailed long-term (15-year) financial plan for the General Operating Fund is provided in Appendix "C" and an overview of reserve and surplus transfers generated and revenues and expenses follows. The base plan reflects annual property tax increases of 4% including 2024.

Graph 25 – General Operating Fund Reserve & Surplus Transfers

The key to the plan is the net revenue/expenses that can be transferred to reserves/surpluses to provide for the Village's long-term sustainability including the ability to fund capital projects internally with minimal or no debt. This includes new assets as well as the replacement of the assets and infrastructure as identified in the Asset Management Plan (see attached). The overall reserve and surplus transfers generated via the long-term plan are shown below. The Village's progress in terms of meeting these reserve/surplus targets can be tracked over time.



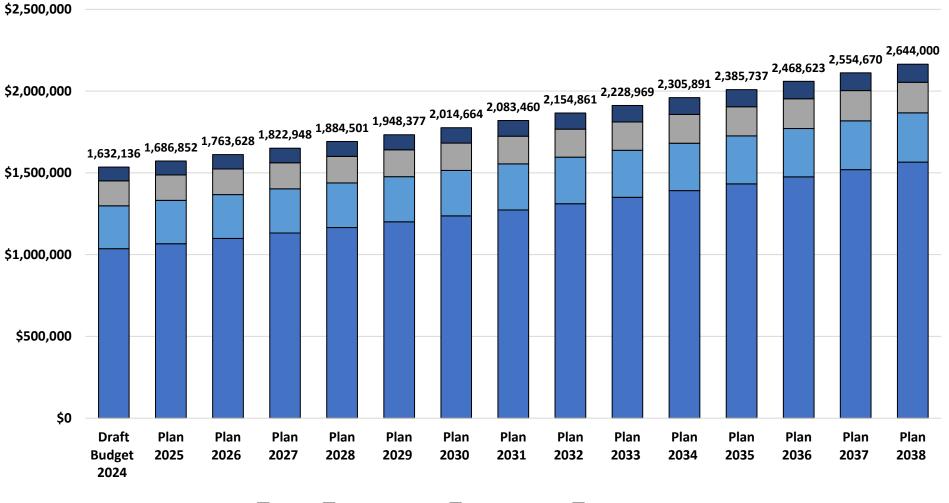
General Operating Fund Reserve & Surplus Transfers





Graph 26 – Regular General Operating Revenue 2024 - 2038

Regular General Operating Fund Revenue 2024 - 2038



Taxes Grant Transfers Fees & Charges

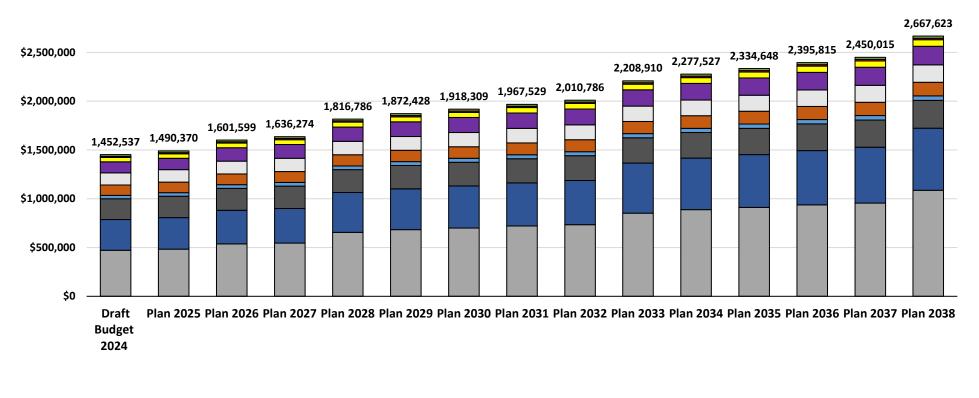
Interest Income





Graph 27 – Regular General Operating Expenses 2024 - 2038

Regular General Fund Operating Expenses 2024 - 2038



Administration, Human Resources & Information Systems
 Municipal Hall, Legal & Audit
 Planning
 Contracted Support Services (Finance, Engineering, Website & Other)
 Building & Plumbing Inspection
 Fire & Emergency Operations
 Interest, Bank Expenses, Bad Debts & Other





Water Operating Fund

A base detailed long-term (15-year) financial plan for the Water Operating Fund is provided in Appendix "D" and an overview of user rates increases, reserve and surplus transfers and revenues and expenses follows. The plan includes a 20% increase in 2024, 15% increases in each of 2025 & 2026, and 5% each year thereafter. As shown in the Asset Management Plan the Water Fund is not currently at a sustainable funding level in terms of setting aside funds for asset replacement.

As noted previously the main cost drivers for Water Operating Fund are water usage and Metro Vancouver water rates. Metro Vancouver has approved a 14.7% increase in peak water rates (applies to months June through to September) for 2024, with non-peak rates staying the same as 2023.

The water rate increases projected by Metro Vancouver for 2025 – 2028 are as follows:

2025 – 8.9%, (%'s apply to the 'blended', Peak, Off-peak) 2026 – 6.4%, (%'s apply to the 'blended', Peak, Off-peak) 2027 – 3.5%, (%'s apply to the 'blended', Peak, Off-peak) 2028 – 2.7%, (%'s apply to the 'blended', Peak, Off-peak)

The above highlights the importance of controlling water usage, particularly during the peak months from June through September.

		Water Rates & Increases Projected In Long-Term Financial Plan													
Years	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038
Water - Connected				-											
Total Water Fee (Connected)	1,852	2,130	2,450	2,573	2,702	2,837	2,979	3,128	3,284	3,448	3,620	3,801	3,991	4,191	4,401
Water Parcel Tax	1,110	1,110	1,110	1,110	1,110	1,110	1,110	1,110	1,110	1,110	1,110	1,110	1,110	1,110	1,110
Total Water Fee (Connected) & Parcel Tax	2,962	3,240	3,560	3,683	3,812	3,947	4,089	4,238	4,394	4,558	4,730	4,911	5,101	5,301	5,511
Total Water Fee (Not Connected)	1,298	1,493	1,717	1,803	1,893	1,988	2,087	2,191	2,301	2,416	2,537	2,664	2,797	2,937	3,084
Water Parcel Tax	1,110	1,110	1,110	1,110	1,110	1,110	1,110	1,110	1,110	1,110	1,110	1,110	1,110	1,110	1,110
Total Water Fee (Not Connected) & Parcel Tax	2,408	2,603	2,827	2,913	3,003	3,098	3,197	3,301	3,411	3,526	3,647	3,774	3,907	4,047	4,194
Water Connected Fee - % change (total)	20%	15%	15%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
Water Connected Fee - \$ change (total)	309	278	320	123	129	135	142	149	156	164	172	181	190	200	210
Water Not Connected Fee - % change (total) Water Not Connected Fee - \$ change	20%	15%	15%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
(total)	216	195	224	86	90	95	99	104	110	115	121	127	133	140	147

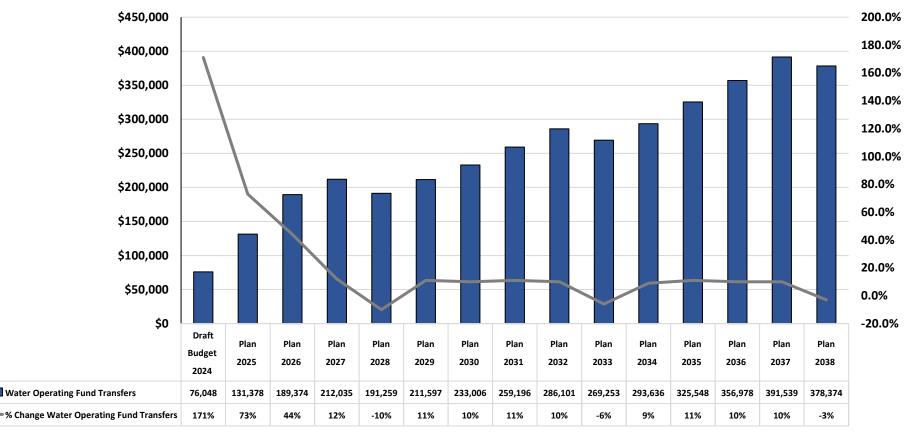
Table 31 – Water Rates & Increases in Draft Long-Term Financial Plan







Graph 28 – Water Operating Fund Reserve & Surplus Transfers



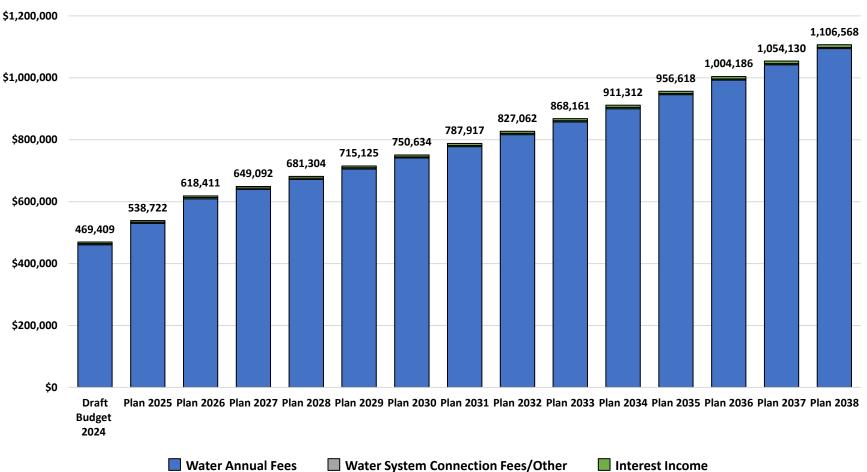
Water Operating Fund Reserve & Surplus Transfers







Graph 29 – Water Operating Fund Revenue 2024 - 2038



Water Operating Fund Revenue 2024 - 2038

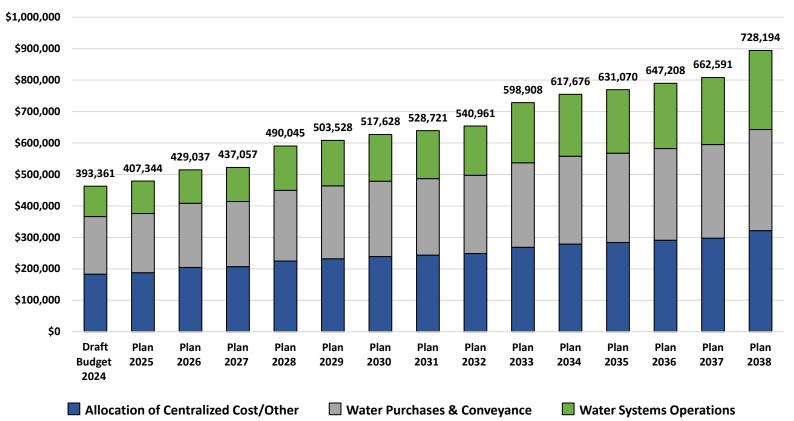
Village of Belcarra | Road Map to Financial Sustainability | January 2024 | Page 63







Graph 30 – Water Operating Fund Expenses 2024 - 2038



Water Operating Fund Expenses 2024 - 2038







WARD Operating Fund

A base detailed long-term (15-year) financial plan for the WARD Operating Fund is provided in Appendix "E" and an overview of user rate increases, reserve & surplus transfers and revenues and expenses follows. The plan includes 20% increase in 2024, 10% increases in each of 2025 and 2026, and 4% increases each year thereafter. As shown in the Asset Management Plan the WARD Fund is not currently at a sustainable funding level for the replacement of its infrastructure. The WARD Operating Fund also has as low surplus balance and cannot continue to fund operating deficits from surplus.

Table 32 - WARD Rates & Increases in Draft Long-Term Financial Plan

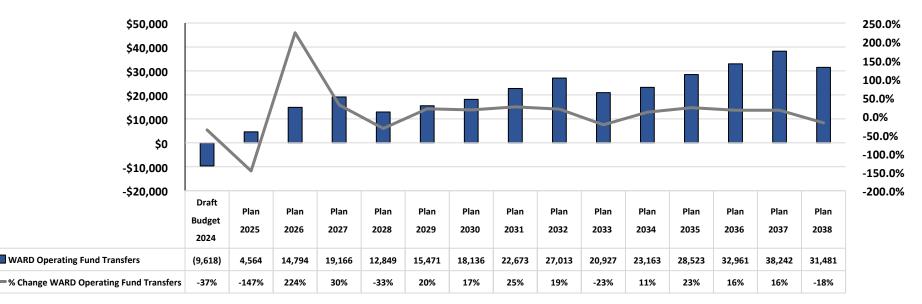
	WARD Rates & Increases Projected In Long-Term Financial Plan														
Years	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038
WARD Fee	560	616	678	705	733	762	792	824	857	891	927	964	1,003	1,043	1,085
Refuse & Recycling Fee - % change	20%	10%	10%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%
Refuse & Recycling Fee - \$ change	93	56	62	27	28	29	30	32	33	34	36	37	39	40	42







Graph 31 – WARD Operating Fund Reserve & Surplus Transfers



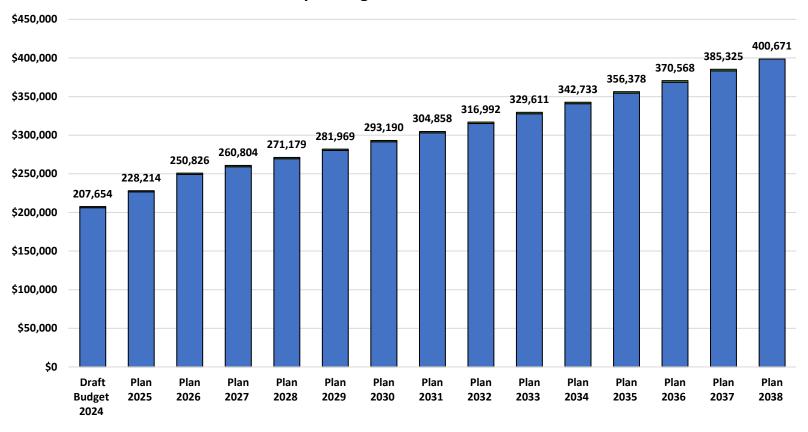
WARD Operating Fund Reserve & Surplus Transfers







Graph 32 – WARD Operating Fund Revenue 2024 - 2038



WARD Operating Fund Revenue 2024 - 2038

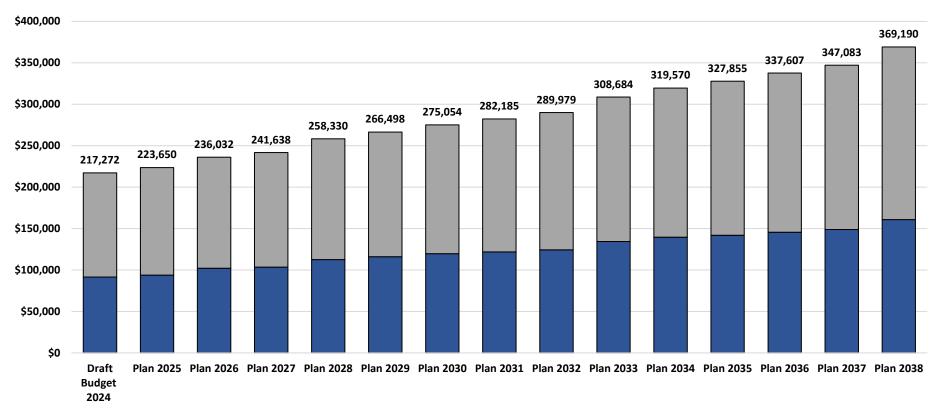
Fees & Charges Interest Income







Graph 33 - WARD Operating Fund Expenses 2024 - 2038



WARD Operating Fund Expenses 2024 - 2038

Allocation of Centralized Support

WARD Operations





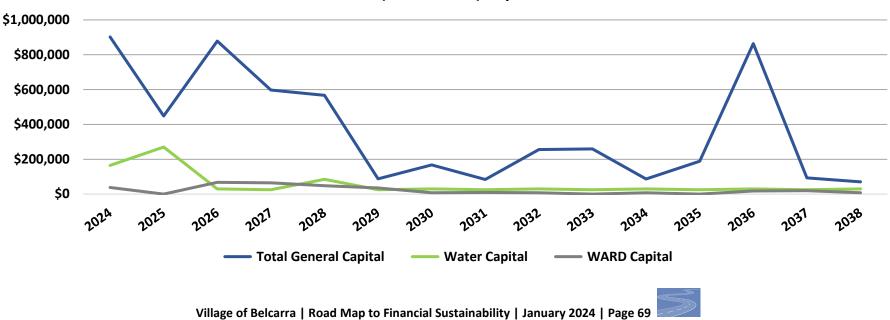


Long-Term (15-year) Capital Plans Overview

Detailed long-term (15-year) capital plans for all of the Village's Funds (General, Water & WARD) are provided in Appendix "F" and an overview of planned capital spending over the next 15 years, for General, Water and WARD Capital, follows, together with the major projects planned for over the next 5 years (to 2028). The projects listed represent new capital projects and well as the replacement of existing assets or infrastructure that will reach the end of their useful lives as per the Asset Management Plan. Before assets are replaced condition assessments will be undertaken to see if service lives can be extended.

This means that the capital plan represents a worst-case scenario in terms of asset and infrastructure replacement. The cost estimates in the capital plan represent "order of magnitude" pricing and contingency factors have been built into most of the capital project cost estimates. The Village's capital projects will be subject to ongoing inflationary cost pressures within the construction industry. According to the BC Construction Industry "The industry is experiencing a 79% increase in the value of current projects from five years ago, and a 17% increase from pre-pandemic levels, even as labour shortages continue, and cost of goods are at all-time high.

Graph 34 – 15-Year (2024 – 2038) Capital Plan



15-Year (2024 - 2038) Capital Plan



General Capital Plan

The long-term General Capital Plan includes about \$5.5 million of spending over the next 15 years and \$3.4 million over the next 5 years. A summary of the General Capital Plan is shown in Graph 35 below and the higher value projects are shown in Table 33 below (2 pages).

The major projects over the next 5 years include: Shelter of Public Works Machinery in 2026 for \$100,000; Replacement of the Holland Tractor in 2024 for \$160,000; Marine Ave - Mill & Fill in 2024 for \$165,000; Belcarra Bay Rd (from stop sign to Turtlehead Rd) in 2026 at \$287,500; Belcarra Bay Rd (from Turtlehead Rd to Whiskey Cove Lane) in 2028 at \$200,000; the Bedwell Bay Rd. Upgrade Project for (BBUP) (from 2024 to 2027) (total cost of \$1.310 million – mostly funded with a TransLink Grant and Growing Communities Reserve); Gabion wall Main Ave (intersection Bedwell Bay Rd) (per Asset Management) (total cost of \$250,000).

Table 33 – General Major Capital Projects over the Next 5 Years

		Major Projects over Next 5 Years (with program value greater than or equal to \$20,000)						
Page 1 of 2	Funding Sources	Draft Budget 2024	Plan 2025	Plan 2026	Plan 2027	Plan 2028	Total Capital 2024 - 2038	
GENERAL CAPITAL								
General & Information Technology								
Computers/Hardware	General Capital Reserve	23,000	1,800	10,100	12,600	2,000	49,500	
Subtotal General		\$23,000	\$1,800	\$10,100	\$12,600	\$2,000	49,500	
Public Works & Municipal Hall								
New Generator (for Municipal Hall & Public Works)	Vehicle & Equipment Reserve			40,000			40,000	
Permanent Shelter For Public Works Machinery	General Capital Reserve			100,000			100,000	
Public Works Driveway	General Capital Reserve			50,000			50,000	
Public Works Fuel Station (above ground fuel tank, pump & catchment) (per Asset Management)	General Capital Reserve				40,000		40,000	
Public Works Equipment	Vehicle & Equipment Reserve	8,500	5,000	5,000	5,000	5,000	28,500	
Municipal Hall Septic Systems (per Asset Management)	General Capital Reserve		75,000				75,000	
Subtotal Public Works		\$8,500	\$80,000	\$195,000	\$45,000	\$5,000	\$333,500	
Vehicles & Equipment								
Chipper (per Asset Management)	Vehicle & Equipment Reserve				20,000		20,000	
Holland TN70DA Tractor, Deluxe Cab 4x4 with bucket/New Backhoe, JD 310	General Capital Reserve	160,000			20,000		160,000	
Subtotal Vehicle & Attachments	·	\$160,000	\$0	\$0	\$20,000	\$0	\$180,000	
Non-MRN Roads including Access								
Marine Ave - Mill & Fill (Marine)	Canada Community-Building Fund Reserve	165,000					165,000	
Turn around area 4000 block Marine ave (per Asset Management)	Transportation Infrastructure Reserve				60,000		60,000	
Belcarra Bay Rd (from stop sign to Turtlehead Rd) + possible drainage design	Transportation Infrastructure Reserve			287,500			287,500	
Belcarra Bay Rd (from Turtlehead Rd to Whiskey Cove Lane)	Transportation Infrastructure Reserve					200,000	200,000	
Senkler Bridge Wing Wall Repair (per Council motion)	Transportation Infrastructure Reserve	20,000					20,000	
Tatlow Station Access Rd.	Transportation Infrastructure Reserve				70,000		70,000	
Road Rehabilitation (including pothole repairs)	Transportation Infrastructure Reserve		30,000		30,000		60,000	
Shouldering Boulevards	Transportation Infrastructure Reserve		15,000		15,000	15,000	45,000	
Subtotal Non-MRN Roads		\$185,000	\$45,000	\$287,500	\$175,000	\$215,000	\$907,500	







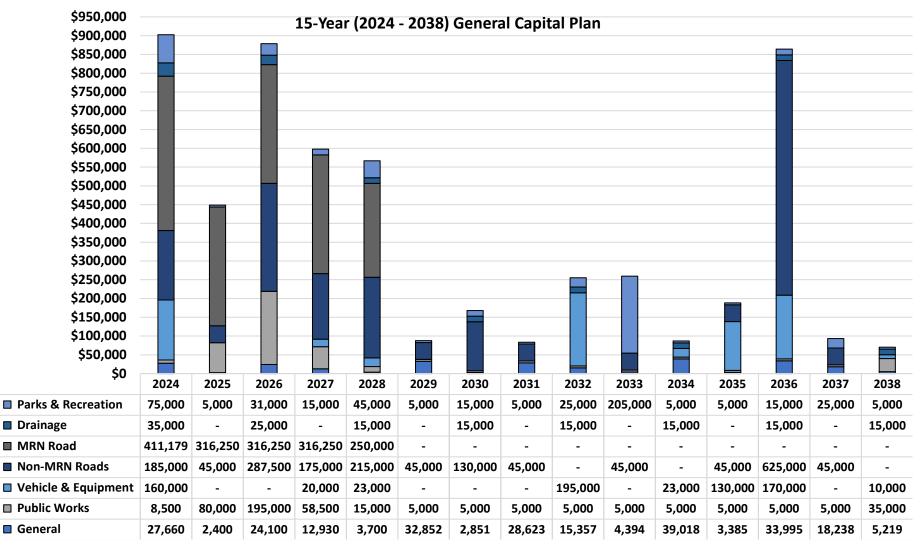
		Major Projects over Next 5 Years (with program value greater than or equal to \$20,000)					
Page 2 of 2	Funding Sources	Draft Budget 2024	Plan 2025	Plan 2026	Plan 2027	Plan 2028	Total Capital 2024 - 2038
MRN Roads							
Bedwell Bay Upgrade Project (BBUP) (Design)	Canada Community-Building Fund Reserve	45,000					45,000
Bedwell Bay Upgrade Project (BBUP) (Construction)	Grant TransLink	207,000	207,000	207,000	207,000		828,000
Bedwell Bay Upgrade Project (BBUP) (Construction)	Growing Communities Fund Reserve	109,250	109,250	109,250	109,250		437,000
Gabion wall Main Ave (intersection Bedwell Bay Rd) (per Asset Management)	Grant TransLink					187,500	187,500
Gabion wall Main Ave (intersection Bedwell Bay Rd) (per Asset Management)	Canada Community-Building Fund Reserve					62,500	62,500
Bedwell Bay Road Safety Barriers	Grant TransLink	37,447					37,447
Bedwell Bay Road Safety Barriers	Canada Community-Building Fund Reserve	12,482					12,482
Subtotal MRN Roads		\$411,179	\$316,250	\$316,250	\$316,250	\$250,000	\$1,609,929
Drainage							
Creek Surveys (assess riparian areas)	General Capital Reserve	20,000					20,000
Storm Sewer & Catch Basin Replacements	General Capital Reserve			15,000		15,000	30,000
Subtotal Storm Sewer		\$20,000	\$0	\$15,000	\$0	\$15,000	\$50,000
Parks & Recreation Trail System Rehabilitation & Improvements	Transportation Infrastructure Reserve	5.000	5.000	5.000	5.000	5.000	25,000
Concrete stairs with wooden railing - Marine Ave (per Asset Manag	Transportation Infrastructure Reserve	3,000	3,000	5,000	3,000	20,000	20,000
Senkler Bridge Inspections, Repair & Renewal	General Capital Reserve	20,000			10,000		30,000
Salish Foreshore Bridge	Transportation Infrastructure Reserve			20,000			20,000
Three (3) Trails from Marine Avenue to Beach (3400 block) Marine – wooden stairs down to beach; 3700 block – divers' trail; 3900 block Marine – cement staircase	Transportation Infrastructure Reserve	50,000				20,000	70,000
Subtotal Parks & Recreation		\$75,000	\$5,000	\$25,000	\$15,000	\$45,000	\$165,000
TOTAL GENERAL CAPITAL		\$882,679	\$448,050	\$848,850	\$583,850	\$532,000	\$3,295,429







Graph 35 – 15-Year (2024 – 2038) General Capital Plan









Water Capital Plan

The Long-Term Water Capital Plan includes \$850,000 of spending over the next 15 years and \$575,000 over the next 5 years. A summary of the Water Capital Plan is shown in Graph 36 below. The higher value or major projects are: Universal Water Meters in 2025 and 2026 for \$50,000 (subject to a business case analysis); Water Chlorination System Design and Construction in 2024 & 2025 at a cost of \$221,000.

Community & Expect

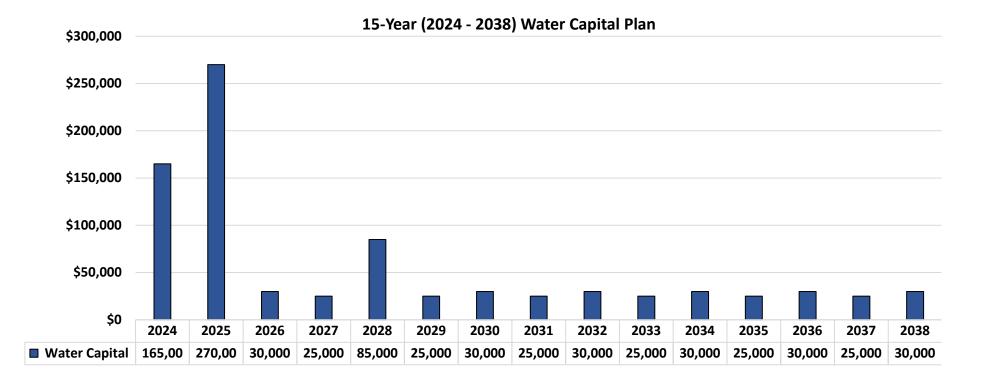
Table 34 – Water Major Capital Projects over the Next 5 Years

		Major Projects over Next 5 Years								
	r	(with program value greater than or equal to \$20,000)								
	Funding Sources	Draft Budget	Plan	Plan	Plan	Plan	Total Capital			
WATER CAPITAL		2024	2025	2026	2027	2028	2024 - 2038			
Universal Water Meters (radio read/pit antennae)	Water Capital Reserve		40,000	10,000			50,000			
New Water Meters	Water Capital Reserve	1 0,000				10,000	20,000			
New Water Meter for Leak Detection (Tatlow)	Water Capital Reserve		30,000				30,000			
Tatlow/Dutchman Reservoir Repairs	Water Capital Reserve	30,000					30,000			
Options for Addressing Water System Deficiencies	Water Capital Reserve	30,000					30,000			
Water Meters (per Asset Management)	Water Capital Reserve	5,000	5,000	5, <mark>000</mark>	5,000	5,000	25,000			
Water Equipment	Water Capital Reserve	<mark>1</mark> 5,000	15,000	15,000	<mark>1</mark> 5,000	15,000	75,000			
Water Chlorination System Class B Design	Growing Communities Fund Reserve	46,000					46,000			
Water Chlorination System Construction	Growing Communities Fund Reserve		175,000				175,000			
Pipeline Inspection (see Sept. 11th, 2023 Council agenda)	Water Capital Reserve	29,000					29,000			
Tatlow Reservoir Water Pump	Water Capital Reserve					55,000	55,000			
TOTAL WATER CAPITAL		\$165,000	\$265,000	\$30,000	\$20,000	\$85,000	\$565,000			





Graph 36 – 15-Year (2024 – 2038) Water Capital Plan





WARD Capital Plan

The Long-Term WARD Capital Plan includes \$332,500 of spending over the next 15 years and \$218,500 over the next 5 years. A summary of the WARD Capital Plan is shown in Graph 37 below. The higher value or major projects are highlighted in the below table and include: Wasteline Porta Pak compactor and container in 2027 for \$50,000; Universal compactor and container in 2028 for \$40,000; a Mobile Office in 2024 for \$30,000; Repaving the Tarmac Area in 2026 for \$50,000.

Table 35 – WARD Major Capital Projects over the Next 5 Years

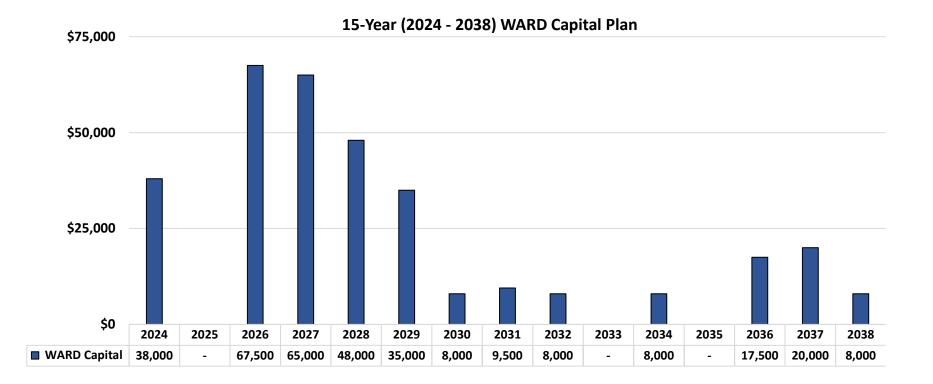
		Major Projects over Next 5 Years (with program value greater than or equal to \$20,000)						
WASTE & RECYCLE DEPOT (WARD) CAPITAL	Funding Sources	Draft Budget 2024	Plan 2025	Plan 2026	Plan 2027	Plan 2028	Total Capital 2024 - 2038	
Minor WARD Equipment	General Capital Reserve	<mark>8,000</mark>		<mark>8,000</mark>		8,000	24,000	
Wasteline porta Pak 3032 compactor and container - Bin A (per Asset Management)	Vehicle & Equipment Reserve				50,000		50,000	
Universal UP200 compactor and container - Bin C (per Asset Management)	Vehicle & Equipment Reserve					40,000	40,000	
Mobile Office	General Capital Reserve	30,000					30,000	
Repaving Tarmac Area	General Capital Reserve			50,000			50,000	
TOTAL WARD CAPITAL		\$38,000	\$0	\$58,000	\$50,000	\$48,000	\$194,000	







Graph 37 – 15-Year (2024 – 2038) WARD Capital Plan









Budget/Financial Plan Scenarios

General Operating Fund

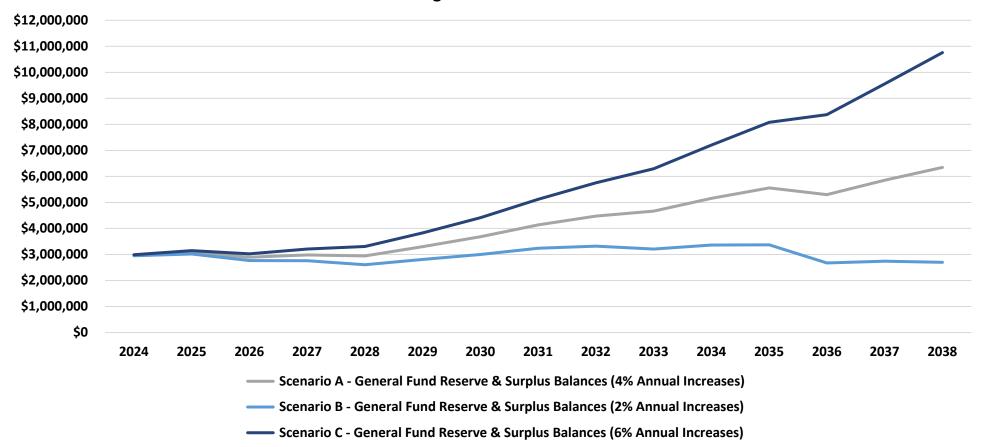
Table 36 – General Operating Fund Budget/Financial Plan Scenarios

Scenario A - Base Budget or Financial Plan	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038
General Property Tax Increases	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%
Transfers to General Fund Reserves & Surplus	\$581,725	\$608,051	\$604,759	\$634,956	\$549,996	\$571,787	\$606,592	\$634,668	\$673,124	\$586,539	\$614,870	\$647,259	\$683,322	\$727,689	\$644,713
Scenario A - General Fund Reserve & Surplus Balances (4% Annual Increases)	\$2.971M	\$3.082M	\$2.895M	\$2.982M	\$2.948M	\$3.301M	\$3.68M	\$4.14M	\$4.475M	\$4.664M	\$5.159M	\$5.559M	\$5.3M	\$5.854M	\$6.347M
General Sustainable Annual Funding (Reserve Transfers) to Replace Existing Assets	\$370,334	\$370,334	\$370,334	\$370,334	\$370,334	\$370,334	\$370,334	\$370,334	\$370,334	\$370,334	\$370,334	\$370,334	\$370,334	\$370,334	\$370,334
Scenario B - Low Budget or Financial Plan	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038
General Property Tax Increases	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
Transfers to General Fund Reserves & Surplus	\$561,812	\$566,951	\$541,132	\$547,402	\$437,047	\$431,898	\$438,152	\$435,988	\$442,428	\$321,975	\$314,493	\$309,035	\$305,121	\$307,278	\$179,763
Scenario B - General Fund Reserve & Surplus Balances (2% Annual Increases)	\$2.95M	\$3.019M	\$2.766M	\$2.76M	\$2.606M	\$2.807M	\$3.003M	\$3.243M	\$3.32M	\$3.21M	\$3.361M	\$3.371M	\$2.674M	\$2.745M	\$2.698M
General Sustainable Annual Funding (Reserve Transfers) to Replace Existing Assets	\$370,334	\$370,334	\$370,334	\$370,334	\$370,334	\$370,334	\$370,334	\$370,334	\$370,334	\$370,334	\$370,334	\$370,334	\$370,334	\$370,334	\$370,334
Scenario C - High Budget or Financial Plan	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038
General Property Tax Increases	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%
Transfers to General Fund Reserves & Surplus	\$601,638	\$649,949	\$670,873	\$727,691	\$671,942	\$725,727	\$795,521	\$861,808	\$941,932	\$900,734	\$978,437	\$1,064,479	\$1,158,789	\$1,266,329	\$1,251,805
Scenario C - General Fund Reserve & Surplus Balances (6% Annual Increases)	\$2.991M	\$3.145M	\$3.028M	\$3.212M	\$3.309M	\$3.828M	\$4.413M	\$5.122M	\$5.756M	\$6.298M	\$7.205M	\$8.083M	\$8.373M	\$9.554M	\$10.76M
General Sustainable Annual Funding (Reserve Transfers) to Replace Existing Assets	\$370,334	\$370,334	\$370,334	\$370,334	\$370,334	\$370,334	\$370,334	\$370,334	\$370,334	\$370,334	\$370,334	\$370,334	\$370,334	\$370,334	\$370,334



Graph 38 – General Operating Fund Reserve & Surplus Balance Resulting From Scenarios





Resulting From Scenarios







Water Operating Fund

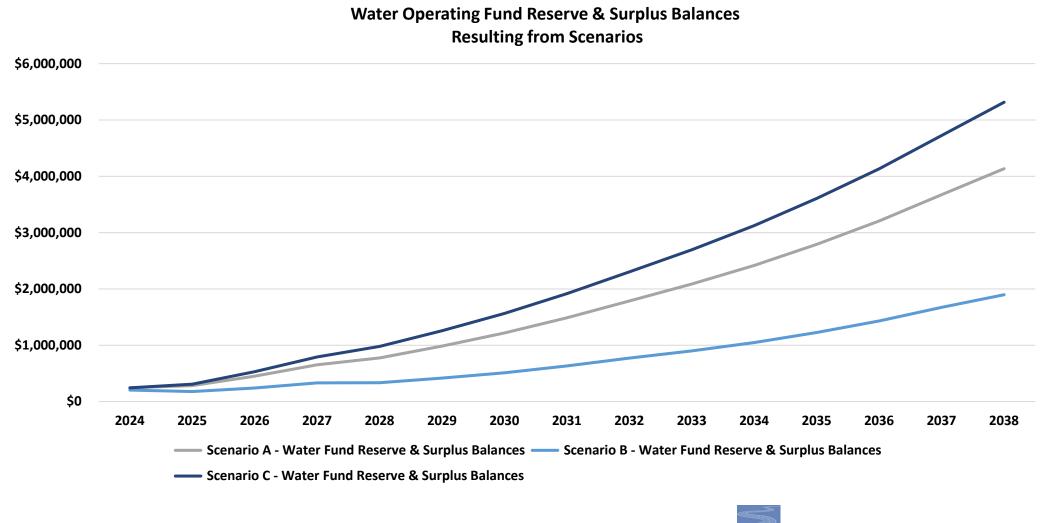
Table 37 – Water Operating Fund Budget/Financial Plan Scenarios

Scenario A - Base Budget or Financial Plan	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038
Water Rate Increases	20.0%	15.0%	15.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%
Transfers to Water Fund Reserves & Surplus	\$76,048	\$131,378	\$189,374	\$212,035	\$191,259	\$211,597	\$233,006	\$259,196	\$286,101	\$269,253	\$293,636	\$325,548	\$356,978	\$391,539	\$378,374
Scenario A - Water Fund Reserve & Surplus Balances	\$.244M	\$.285M	\$.452M	\$.652M	\$.776M	\$.985M	\$1.217M	\$1.488M	\$1.787M	\$2.087M	\$2.416M	\$2.792M	\$3.206M	\$3.672M	\$4.135M
Water Sustainable Annual Funding (Reserve Transfers) to Replace Existing Assets	\$189,320	\$189,320	\$189,320	\$189,320	\$189,320	\$189,320	\$189,320	\$189,320	\$189,320	\$189,320	\$189,320	\$189,320	\$189,320	\$189,320	\$189,320
Scenario B - Low Budget or Financial Plan	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038
Water Rate Increases	10.0%	10.0%	10.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%
Transfers to Water Fund Reserves & Surplus	\$37,649	\$66,100	\$91,073	\$108,818	\$82,881	\$97,800	\$113,519	\$133,735	\$154,367	\$130,932	\$148,399	\$173,050	\$196,855	\$223,410	\$201,839
Scenario B - Water Fund Reserve & Surplus Balances	\$.205M	\$.178M	\$.242M	\$.331M	\$.336M	\$.416M	\$.51M	\$.633M	\$.772M	\$.901M	\$1.047M	\$1.227M	\$1.432M	\$1.674M	\$1.897M
Water Sustainable Annual Funding (Reserve Transfers) to Replace Existing Assets	\$189,320	\$189,320	\$189,320	\$189,320	\$189,320	\$189,320	\$189,320	\$189,320	\$189,320	\$189,320	\$189,320	\$189,320	\$189,320	\$189,320	\$189,320
Scenario C - High Budget or Financial Plan	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038
Water Rate Increases	20.0%	20.0%	20.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%
Transfers to Water Fund Reserves & Surplus	\$76,048	\$154,417	\$243,516	\$268,884	\$250,950	\$274,272	\$298,815	\$328,295	\$358,655	\$345,435	\$373,627	\$409,539	\$445,169	\$484,139	\$475,604
Scenario C - Water Fund Reserve & Surplus Balances	\$.244M	\$.308M	\$.531M	\$.791M	\$.98M	\$1.259M	\$1.566M	\$1.918M	\$2.303M	\$2.695M	\$3.124M	\$3.606M	\$4.134M	\$4.723M	\$5.315M
Water Sustainable Annual Funding (Reserve Transfers) to Replace Existing Assets	\$189,320	\$189,320	\$189,320	\$189,320	\$189,320	\$189,320	\$189,320	\$189,320	\$189,320	\$189,320	\$189,320	\$189,320	\$189,320	\$189,320	\$189,320





Graph 39 – Water Operating Fund Reserve & Surplus Balance Resulting From Scenarios



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WARD Operating Fund

Table 38 – WARD Operating Fund Budget/Financial Plan Scenarios

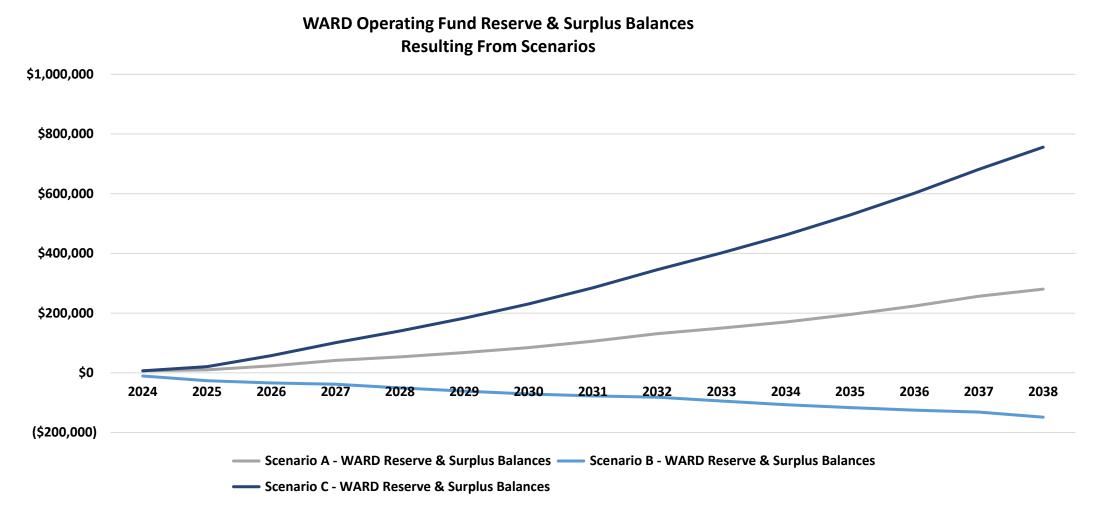
Scenario A - Base Budget or Financial															
Plan	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038
Waste & Recycle Depot Rate Increases	20.0%	10.0%	10.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%
Transfers to (from) WARD Surplus &	(\$9,618)	\$4,564	\$14,794	\$19,166	\$12,849	\$15,471	\$18,136	\$22,673	\$27,013	\$20,927	\$23,163	\$28 <i>,</i> 523	\$32,961	\$38,242	\$31,481
Reserves															
Scenario A - WARD Reserve & Surplus Balances	\$6,705	\$10,077	\$23,641	\$41,699	\$53,465	\$67,740	\$84,542	\$105,726	\$131,078	\$149,965	\$170,431	\$195,443	\$223,899	\$256,397	\$280,401
Waste & Recycle Depot Sustainable															
Annual Funding (Reserve Transfers) to	\$16,083	\$16,083	\$16,083	\$16,083	\$16,083	\$16,083	\$16,083	\$16,083	\$16,083	\$16,083	\$16,083	\$16,083	\$16,083	\$16,083	\$16,083
Replace Existing Assets															
Scenario B - Low Budget or Financial															
Plan	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038
Waste & Recycle Depot Rate Increases	10.0%	10.0%	10.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%
Transfers to (from) WARD Surplus & Reserves	(\$26,710)	(\$14,238)	(\$5,888)	(\$2,343)	(\$9,520)	(\$7,793)	(\$6,059)	(\$2,489)	\$844	(\$6,289)	(\$5,141)	(\$913)	\$2,348	\$6,404	(\$1,630)
Scenario B - WARD Reserve & Surplus Balances	(\$10,644)	(\$26,322)	(\$33,938)	(\$38,355)	(\$50,364)	(\$61,144)	(\$70,787)	(\$77,577)	(\$81,894)	(\$94,376)	(\$106,949)	(\$116,780)	(\$125,134)	(\$131,572)	(\$148,612)
Waste & Recycle Depot Sustainable Annual Funding (Reserve Transfers) to Replace Existing Assets	\$16,083	\$16,083	\$16,083	\$16,083	\$16,083	\$16,083	\$16,083	\$16,083	\$16,083	\$16,083	\$16,083	\$16,083	\$16,083	\$16,083	\$16,083
Scenario C - High Budget or Financial															
Plan	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038
Waste & Recycle Depot Rate Increases	20.0%	15.0%	15.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%
Transfers to (from) WARD Surplus & Reserves	(\$9,618)	\$14,819	\$37,868	\$43,163	\$37,806	\$41,426	\$45,129	\$50,746	\$56,209	\$51,291	\$54,742	\$61,365	\$67,117	\$73,764	\$68,424
Scenario C - WARD Reserve & Surplus Balances	\$6,705	\$20 <i>,</i> 486	\$57,783	\$101,222	\$140,105	\$183,324	\$230,992	\$285,063	\$345,429	\$401,566	\$461,633	\$528,716	\$601,839	\$681,730	\$755,991
Waste & Recycle Depot Sustainable Annual Funding (Reserve Transfers) to Replace Existing Assets	\$16,083	\$16,083	\$16,083	\$16,083	\$16,083	\$16,083	\$16,083	\$16,083	\$16,083	\$16,083	\$16,083	\$16,083	\$16,083	\$16,083	\$16,083





Graph 40 – WARD Operating Fund Reserve & Surplus Balance Resulting From Scenarios

VILLAGE OF BELCARRA







Road Map to Financial Sustainability

Financial Policies & Practices

During the course of this review the following finance policies were examined and other policies were reviewed for applicability to Belcarra. In addition, local government financial best practices were reviewed. This section provides the results of the review and the related recommendations which followed. The intent is not to create policies for the sake of having policies, but to improve the Village's long-term financial stability and sustainability.

Table 39 – Financial Policies & Practices

Finance Policies	Name of Policy	Comments
Policy 195	Financial Plan – Amendment, Monitoring and Control	Policy is out of date; not current
Policy 201	Travel Expense	Still relevant
Policy 203	Procurement - Administrative Guideline to Procurement	Out of date; due to be reviewed as part of strategic workplan
Policy 211	Reserve Funds and Surpluses	Recommendation provided in this Report
Policy 217	Internal Cost Allocations	Still relevant
Policy 219	Asset Management Policy	Still relevant
Policy 220	Bill Payment Policy	Still relevant
Policy 222	Grant-in-aid application form	Still relevant
Policy 222	Grants in Aid	Still relevant

Based on this review the following recommendations are made with respect to existing and new policies:

Recommendation Policies & Practices (PP) #1

That Village of Belcarra Policy 195 (Financial Plan – Amendment, Monitoring and Control) be updated

Recommendation Policies & Practices (PP) #2

That the following new policies be brought forward for Council's consideration:

- 1. Financial Plan Amendments
- 2. Investing Municipal Funds

Rationale #1: There is need to clarify when financial plan amendments need to occur and the process around these amendments.

Rationale #2: The Village's investment portfolio has increased, and the funds should be invested in a diversified manner with a balance







Interest earnings on growing surplus and reserve balances can become a key factor in increasing the Village's overall financial resiliency. Consider the example below, which illustrates the compounding effect of interest earnings after 4 years.

Effect of Compounding Interest							
			Total				
		Principal &	Interest				
	Annual	Interest	Earnings				
Dollars	Interest @	Balance After	Over 4				
Invested	4%	4 years	Years				
\$3,000,000	\$120,000	\$3,509,576	\$509,576				

The Village of Belcarra buys many goods and services which are common to other local governments. To take advantage of bulk pricing many communities have joined cooperative purchasing groups. Participating in these groups can assist in lowering costs.

Recommendation Policies & Practices (PP) #3

That the Village join a cooperative purchasing group to obtain bulk pricing on goods & services and to take advantage of economies of scale.

A Village between forest and sea

The practice of securing goods and services, including capital project work, within local government is important for controlling costs and obtaining the best terms possible.

Many projects can be subject to scope creep and unapproved change orders, which results in cost overruns, unless controls are in place. Many local governments have put formal project management policies and practices in place to control these risks.

The Village of Belcarra's strategic work plan includes an initiative to update the Village's procurement policy. This policy has many implications and is integral to controlling costs and risks, and for obtaining the best value for Village of Belcarra residents, rate payers and taxpayers.

Recommendation Policies & Practices (PP) #4

That the Village implement formal project management policies and practices to ensure the best outcomes for projects.







Summarized Recommendations for Financial Sustainability

Table 40 – Recommendations Arising from Financial Planning (FP)

	Recommendations Arising from Financial Planning (FP)
Recommendation #1 FP	That the Village implement automated solutions such as electronic bill payments and e-commerce services to assist staff and to supplement limited staff resources.Rationale & CommentsThe Village needs to utilize technology to keep up with demand for services with limited staff resources.
Recommendation #2 FP	That the Village's performance bonds, and refundable deposits be reviewed to determined whether the funds should be returned, continue to be held by the Village or taken into revenue. <u>Rationale & Comments</u> These funds on the Village's statement of financial position or balance sheet have been held for some time and need to be resolved.
Recommendation #3 FP	That the Village continue to track its financial indicators annually based on year-end results with the results being reported to Council and the community. <u>Rationale & Comments</u> By tracking its financial indicators annually, the Village will be able to gauge its progress toward financial sustainability.
Recommendation #4 FP	That a comprehensive review of the Village's fees & charges be undertaken with the goal of increasing non- property tax-based revenue, and that these fees be reviewed annually to keep up with the Village's increased cost of providing services which includes the impact of inflation. <u>Rationale & Comments</u> The Village's fees and charges are not reviewed annually and have not kept pace with inflation.
Recommendation #5 FP	That Operating Spending Packages be completed as a means of approving all new expenditures that are related to new or expanded services or increased service levels.Rationale & CommentsThe Village's finances are sensitive to operating cost increases and by completing and approving Operating Spending Packages there will be a thorough review of the impact of specific spending initiatives.







Table 40 – Recommendations Arising from Financial Planning (FP) cont'd

	Recommendations Arising from Financial Planning (FP) cont'd
Recommendation #6 FP	That the Village create additional operating reserves for the Water & WARD utilities to stabilize operations and to offset unanticipated expenditure increases and/or losses of revenue.
	Rationale & Comments
	The Water & WARD utilities are subject to uncontrollable cost increases and having reserve "safety nets" in place to offset unexpected expenditure increases and/or revenue would help to stabilize these utility funds.

Table 41 – Recommendations Arising from Asset Management (AM)

	Recommendations Arising from Asset Management (AM)
Recommendation #1 AM	That sustainable funding levels be achieved in the Water & WARD utilities by implementing minimum rate increases over the next three years, as follows:
	Water – 2024 20%, 2025 15%, 2026 15%
	WARD – 2024 20%, 2025 10%, 2027 10%
	Rationale & Comments The Asset Management Plan results show the Water and WARD utilities are not generating enough net revenue to replace their assets/infrastructure and the WARD utility is in a deficit operating position with a low accumulated surplus balance.
Recommendation #2 AM	That the Village investigate removing the Water and WARD utility charges from tax notices to be billed on separate utility bills invoiced on a quarterly or semi-annual basis.
	Rationale & Comments Separating the utility rates from property taxes would treat the Water and WARD utilities similar to other utilities. This would allow rate payers to be more aware of the cost of these utility services and to budget throughout the year for these costs.







Table 41 – Recommendations Arising from Asset Management (AM) cont'd

	Recommendations Arising from Asset Management (AM) cont'd
Recommendation #3 AM	That minimum & optimal reserve and surplus levels be established, based on the Asset Management Plan and Long-Term Financial Plan results, & that Corporate Policy No. 211 – Reserve Funds and Surpluses, be updated.
	<u>Rationale & Comments</u> The Village's Corporate Policy No. 211 does not provide minimum and optimal levels for all of the Village's reserves and surpluses. Now that the Asset Management Plan and Long-Term Financial Plan results are available they can be used to determine reserve & surplus levels.
Recommendation #4 AM	That lifecycle costing be integrated into procurement decisions when updating Corporate Policy No. 203 – Procurement (including Disposal of Assets).
	Rationale & Comments Procurement decisions should take into account total lifecycle costs, including ongoing operating impacts, or a more expensive option may be selected.
Recommendation #5 AM	That the estimated operating cost impacts of capital projects be integrated into the capital decision making and approval process.
	Rationale & Comments When capital expenditure decisions are made during budget deliberations, it is important that Council consider the estimated operating costs of the capital projects. This would include the initial capital outlay (construction and acquisition costs) and the estimated and associated operating or maintenance costs.
Recommendation #6 AM	That long-term cash flows be aligned with the Village's long-term investment portfolio horizon to maximize investment returns.
	Rationale & Comments Aligning the Village's investment portfolio with long-term cash flow projections will allow the Village to generate higher investment returns. Investment returns can significantly reduce the Village's need to raise taxes and utility fees in order to fund infrastructure replacement.







Table 42 – Recommendations Arising From Policy Review (P)

	Recommendations Arising from Policy & Practice Review (PP)
Recommendation #1 PP	That Policy 195 (Financial Plan – Amendment, Monitoring and Control) be updated. <u>Rationale & Comments</u> The above policy is dated and the actual practice has changed.
Recommendation #2 PP	 That the following new policies be brought forward for Council's consideration: Financial Plan Amendments Investing Municipal Funds Rationale & Comments Rationale #1: There is need to clarify when financial plan amendments need to occur and the process around these amendments. Rationale #2: The Village's investment portfolio has increased, and the funds should be invested in a diversified manner with a balance of security and investment returns.
Recommendation #3 PP	That the Village join a cooperative purchasing group to obtain bulk pricing on goods & services and to take advantage of economies of scale. <u>Rationale & Comments</u> The Village can take advantage of bulk pricing to acquire certain goods and services including those related to capital to save money. An example of a coop purchasing group is the Canoe Procurement Group which many local governments participate in.
Recommendation #4 PP	That the Village implement formal project management policies and practices to ensure the best outcomes for projects. <u>Rationale & Comments</u> Many projects can be subject to scope creep and unapproved change orders, which results in cost overruns, unless controls are in place. Formal project management policies and practices can be put in place to control these risks.





Appendix "A" - Financial Planning Assumptions & Sensitivities

Benefits: Health benefits annual increase of 3% and statutory benefits annual increases of 2%.

Canada Community-Building Funds (formerly Gas Tax Funds):

Contributions from the Federal Government are expected to continue after 2024 at which time a new agreement is expected to be signed.

Costing: the most relevant and accurate unit rates that were available have been used to prepare estimates. Further refining of unit rates and resulting forecasts should be conducted on a regular basis. Market conditions and expenditure timing can greatly impact forecasted expenditures.

Class D Construction Cost Estimates – This level of estimating project **costs** provides an indication of the cost of the work, based on the Village's functional requirements to the degree known. It is based on historical cost data for similar work, suitably adjusted for such factors as the effect of inflation, location, risk, quality, size, and time. These estimates provide an indication of the order of magnitude of cost of the work. The Village's capital projects include class D estimates the final cost could vary from that shown in the capital plan.

Human Resources: Additional 0.5 full-time equivalent (FTE) time starting in 2026 to supplement staff administration resources, additional 0.2 FTE time starting in 2026 for building inspection (increased cost offset by more building permit revenue) and additional 1.0 FTE each for administration and public works in 2028, 2033 & 2038.

Inflation: Inflationary impacts have been built into long-term operating expenditure projections with different inflationary impacts used for different types of expenditures. Inflation has not been built into the capital plans; however, the capital cost estimates do contain contingency amounts.

Information Systems: Accounting software support annual increase of 4% and other system support as per long-term plan from service provider (SeatoSky).

Infrastructure Grants: It is assumed that senior level infrastructure grants will not be available to refurbish or replace existing assets or infrastructure (with the exception of Canada Community-Building Funds).

Insurance Costs: Property and liability insurance annual increases of 3%. **Investment Revenue:** Interest earnings are expected to grow by about 120% in the draft 2024 over the 2023 budget, due to higher investment returns and an increased investment portfolio. The 2023 budget did not forecast the current high interest rate environment. After 2024 interest earnings are projected to grow by 2% annually. About 90% of interest earnings are transferred to reserves based on projected reserve balances.

Material, Supplies & Equipment: Increases of between 1% and 3% Non-Property Tax Based Revenues: Non-property tax-based revenues in the General Operating Fund are projected to grow by about 2% annually with the assumption that there will be annual reviews of fees and charges.

Official Community Plan (OCP): Provision for review and update costs every 5 years starting in 2028 with funding from Financial Stabilization Reserve.

Strategic Planning: Provision for costs every 4 years starting in 2026 and with funding from Financial Stabilization Reserve.

Timeframe: The financial plan timeframe for this report is a 15-year time horizon from 2024- 2038 and the asset management time frame is over a 50-year period to 2073.

Undedicated Reserves: The Village has not dedicated accumulated reserve balances and annual funding levels by all asset classes. Therefore, to estimate the Village's accumulated infrastructure funding gaps and surpluses, funding has been shown by Fund or operating function, those being the General Fund, the Waste & Recycle Depot (WARD) Fund and the Water Fund.





Appendix "B" – Glossary of Terms

Accumulated Surplus: The accumulated excess of revenues over expenditures from prior years.

Annual Surplus: The excess of actual revenue over operating expenditures incurred during a budget period or fiscal year.

Budgeting or Budget: A financial forecast which focuses on the first year of a longer-term Financial Plan and which typically contains more details around revenues and expenses than the longer-term Financial Plan.

Capital or Capital Budget: Those capital assets or expenditure which meet the PSAB accounting definition of tangible capital assets (TCA) and which meet the Village's asset capitalization thresholds, as well other capital expenditures which are not capitalized (not above capitalization threshold) and which are above a minimum dollar threshold established by the Village.

Cash-based Budget or Financial Plan: A Budget or Financial Plan which is based on revenues which will generate cash and expenses which will be paid out in cash. A cash-based Budget is different than an accrual-based Budget. A cash-based Budget is approved by the elected Council to ensure that an organization's services and programs can be funded.

Core or Base Budget: The cash-based Budget that is required to maintain existing services and programs at previously approved service levels.

Debt Servicing Costs: The annual principal and interest payments associated with incurring debt or borrowing.

Deferred Revenue: Revenue received for services or goods to be delivered in the future. Deferred Revenue is recorded as a short-term liability on an organization's statement of financial position or balance sheet. Also referred to as Restricted Revenue. **External Debt:** Short-term capital borrowing or long-term borrowing undertaken through the Municipal Finance Authority (MFA) or another external lending party.

Financial Forecasting or Forecasts: The process of projecting or estimating revenues, expenditures, and reserve/surplus transfers, over a period of time using known future factors, assumptions about economic conditions, future spending scenarios, historical revenues and expenses, and other variables.

Full-Time Equivalent (FTE): A measure of an employee's work hours as ratio of full-time hours with 1.0 being a full-time position.

Funding Sources: Those revenues and reserve/surplus transfers that are utilized to fund or pay for the Village's operating and capital expenditures within the Village's Financial Plan/Budget.

Internal Debt: Funds borrowed internally from one reserve fund (lending reserve fund) to another (borrowing reserve fund) to complete a project that is allowed for under the terms of the borrowing reserve fund establishing bylaw. This inter-reserve fund borrowing is allowable under the *Community Charter* if the lending reserve fund is paid back foregone interest, and the funds are paid back by the time the lending reserve needs the funds.

Long-Term Financial Planning: A combination of financial forecasting and strategizing. Long-Term Financial Planning is a highly collaborative process that aligns long-term financial with long-term service objectives by considering and determining future scenarios and challenges.







Municipal Finance Authority (MFA): The Municipal Finance Authority of British Columbia (MFA) was created in 1970 to contribute to the financial well-being of local governments throughout BC. The MFA pools the borrowing and investment needs of BC communities through a collective structure and is able to provide a range of low cost and flexible financial services to our clients equally, regardless of the size of the community. The MFA is independent from the Province of British Columbia and operates under the governance of a Board of Members appointed from the various Regional Districts within the province.

New Construction Tax Revenue: This refers to the tax revenue generated from properties that have been recently constructed and not previously included in the City's assessment tax base.

Operating or Operating Budget: Those expenditures which are not defined as capital. Generally, expenditures for items which are not held for use in the production or supply of goods and services, and which are normally consumed as part of day-to-day activities.

Operating Spending Packages: Formal process of submitting costs for approval for new services or programs or increased service levels so that the cost impacts are clear and understood.

Parcels Taxes: Local government taxes levied on the unit, frontage or area of a property. Parcel taxes are distinct and separate from the property value taxes, which are levied on the assessed value of a property.

Property Taxes: Revenue generated through the collection of taxes levied on real property assessments.

A Village between forest and sea

Public Sector Accounting Board (PSAB): the body of the Chartered Professional Accountants of Canada (CPA) that issues recommendations and guidance with respect to matters of accounting in the public sector. Its aim is to improve the financial and performance information reported by governments and other public-sector entities for the benefit of decision makers and other users of the information.

Reserve Fund: An allocation of accumulated net revenue. There are two types of reserve funds: statutory reserve funds are required under Provincial statute and non-statutory reserve funds are established at the discretion of Council. Reserve funds are created by bylaws and are used for the specified future purposes set out in the bylaws.

Restricted Revenue: Moneys collected whose use is restricted by virtue of legislation, or by an agreement with the external party that provided the funds. Also referred to as Deferred Revenue.

Restricted Surplus: Funds set aside from Accumulated Surplus to complete specific budgeted projects that could not be completed in a particular fiscal year and that are expected to be completed in the following fiscal year. Bylaws are not required or needed for Restricted Surplus funds as these monies are expected to be used in the short term for their original budgeted purpose.

Self-Funded or Self-Balancing Utilities: An operating function like a water utility that is set up so that the users of the utility pay for all of the associated costs.

Sensitivity Analysis: Determining how different values of an independent variable affect a particular dependent variable under a given set of assumptions.





Tax Rate: A percentage rate that is used to determine the property tax levy to be paid by a particular taxpayer within the Village. The rate for a property depends on its tax class. Tax rates are multiplied by the property assessment to provide the tax levy. In the context of the property tax calculation, one mill is one thousandth of the assessment value. Tax rates are established by a Council bylaw.

Tangible Capital Asset: non-financial assets which have physical substance that meet all the following criteria:

- Are held for use in the production of supply of goods and/or services, for rental to others, for administrative purposes of for the development, construction, maintenance, or repair of other tangible capital assets.
- Have useful economic lives extending beyond an accounting period.
- Have been acquired to be used on a continuing basis.
- Are not intended for sale in the ordinary course of business.

A Village between forest and sea

Unrestricted Accumulated Surplus: The accumulated surplus amounts built up in the Village's various operating funds that have not been designated for specific uses or purposes like a restricted surplus.

User Fees and Charges: Fees paid by individuals or organizations to the Village for the use of Village facilities or for the provision of municipal services.



Appendix "C" – Detailed Long-Term (15-Year) General Operating Fund Financial Plan

VILLAGE OF BELCARRA GENERAL OPERATING FUND
15-YEAR (2024 - 2038) FINANCIAL PLAN

							13-	TEAN (202-	4 - 2038) FIN										
		Estimated		Draft	% change														
Page 1 of 2		Year-End		Budget	from 2023														
Regular Operating Revenues	2023	2023	% change	2024	Budget	Plan 2025	Plan 2026	Plan 2027	Plan 2028	Plan 2029	Plan 2030	Plan 2031	Plan 2032	Plan 2033	Plan 2034	Plan 2035	Plan 2036	Plan 2037	Plan 2038
Taxes																			
Municipal Taxes	995,669	995,667	0.0%	1,039,494	4.4%	1,085,154	1,132,722	1,182,276	1,233,897	1,287,670	1,343,682	1,402,024	1,462,792	1,526,085	1,592,005	1,660,660	1,732,161	1,806,624	1,884,170
1% Utility Taxes	10.628	13,439	26.4%	13,439	26.4%	13,708	13,982	14,262	14,547	14,838	15,135	15,438	15,747	16,062	16,383	16,711	17,045	17,386	17,734
Taxes	1,006,297	1,009,106	0.3%	1,052,933	4.6%	1,098,862	1,146,704	1,196,538	1,248,444	1,302,508	1,358,817	1,417,462	1,478,539	1,542,147	1,608,388	1,677,371	1,749,206	1,824,010	1,901,904
Fees & Charges																			
Leases	2,100	2,100	0.0%	2,100	0.0%	2,100	2,100	2,100	2,100	2,100	2,100	2,100	2,100	2,100	2,100	2,100	2,100	2,100	2,100
Penalties & interest (on taxes)	10,190	14,677	44.0%	12,766	25.3%	12,894	13,023	13,154	13,286	13,419	13,553	13,689	13,826	13,964	14,104	14,245	14,388	14,532	14,677
Permits and Licences	103,008	127,844	24.1%	130,299	26.5%	132,905	155,563	158,675	161,849	165,087	168,389	171,757	175,192	178,695	182,268	185,913	189,631	193,425	197,294
Miscellaneous Fees & Charges	11,516 126,814	36,370 180,991	215.8% 42.7%	17,746 162.911	54.1% 28.5%	18,101 166,000	18,463 189,149	18,832 192,761	19,208 196,443	19,592 200,198	19,983 204,025	20,383 207,929	20,791 211,909	21,207 215,966	21,631 220,103	22,063 224,321	22,504 228,623	22,954 233,011	23,413 237,484
Grant Transfers	120,014	100,001	-12.17	102,011	20.070	100,000	100,140	102,701	100,440	200,100	204,020	201,020	211,000	210,000	220,100	224,021	220,020	200,011	201,404
COVID-19 Restart Grant & Transfers	0	0	0.0%	0	0.0%	0	0	0	0	0	0	0	0	0	0	0	0	0	0
School Tax Administration & Climate Change	3,449	48,540	1307.4%	3,458	0.3%	3,489	3,520	3,551	3,583	3,615	3,647	3,680	3,713	3,746	3,780	3,814	3,848	3,883	3,918
Small Communities Investment Fund (SCIF)	257,000	259,000	0.8%	259,000	0.8%	261,590	264,206	266,848	269,516	272,211	274,933	277,682	280,459	283,264	286,097	288,958	291,848	294,766	297,714
Grant Transfers	260,449	307,540	18.1%	262,458	0.8%	265,079	267,726	270,399	273,099	275,826	278,580	281,362	284,172	287,010	289,877	292,772	295,696	298,649	301,632
Other Revenue Interest Income	51,507	177,225	244.1%	153,834	198.7%	156,911	160,049	163,250	166,515	169,845	173,242	176,707	180,241	183,846	187,523	191,273	195,098	199,000	202,980
Interest Income	51,507	177,225	244.1%	153,634	196.7%	106,911	160,049	163,250	166,515	169,645	173,242	176,707	160,241	103,040	167,523	191,273	195,098	199,000	202,980
Total Regular Operating Revenues	1,445,067	1,674,862	15.9%	1,632,136	12.9%	1,686,852	1,763,628	1,822,948	1,884,501	1,948,377	2,014,664	2,083,460	2,154,861	2,228,969	2,305,891	2,385,737	2,468,623	2,554,670	2,644,000
Regular Operating Expenses																			
Council, Grants & Meetings	75,320	94,495	25.5%	94,668	25.7%	97,473	100,361	103,335	106,397	109,551	112,798	116,142	119,585	123,132	106 700	130,542	134,415	138,402	142,508
Indemnities & Benefits Council Other	8,430	94,495 11,621	25.5% 37.9%	12,826	25.7% 52.1%	12,954	13,084	13,215	13,347	13,480	13,615	13,752	13,890	123,132	126,783 14,167	14,309	14,452	138,402	142,508
Grants	5,483	2,898	-47.1%	4,130	-24.7%	4,171	4,212	4,254	4,296	4,339	4,383	4,427	4,472	4,517	4,562	4,608	4,654	4,700	4,747
Meetings, Events & Appreciation	13,703	17.608	28.5%	13,840	1.0%	13,977	14,117	14,260	14,403	14,547	14.693	14 840	14,988	15,137	15,288	15,441	15,596	15,752	15,910
Council, Grants & Meetings	102,936	126,622	23.0%	125,464	21.9%	128,575	131,774	135,064	138,443	141,917	145,489	149,161	152,935	156,814	160,800	164,900	169,117	173,450	177,907
Administration, Human Resources & Information		, i i i i i i i i i i i i i i i i i i i																	
Systems																			
General Administration	342,859	346,935	1.2%	386,931	12.9%	397,197	449,111	461,188	568,615	584,250	600,342	616,900	633,942	751,479	772,528	794,193	816,492	839,446	968,072
Human Resources	16,499	13,401	-18.8%	15,053	-8.8%	15,244	15,438	15,633	15,832	16,034	16,237	16,445	16,656	16,870	17,087	17,306	17,529	17,756	17,986
Information Systems	54,508	65,437	20.1%	69,418	27.4%	70,307	72,975	69,572	70,717	82,729	83,800	86,988	82,965	84,344	98,631	99,926	103,733	98,979	100,642
Administration, Human Resources & Information																			
Systems	413,866	425,773	2.9%	471,402	13.9%	482,748	537,524	546,393	655,164	683,013	700,379	720,333	733,563	852,693	888,246	911,425	937,754	956,181	1,086,700
Municipal Hall, Legal & Audit	186,000	191,632	3.0%	213,409	14.7%	220,917	225,827	230,744	235,067	239,500	244,046	248,710	253,493	258,403	263,437	268,605	273,905	279,344	284,922
Planning	40,000	30,672	-23.3%	35,000	-12.5%	35,700	36,414	37,142	37,885	38,643	39,416	40,204	41,008	41,828	42,665	43,518	44,388	45,276	46,182
				,						,	,	,						,	
Contracted Support Services (Finance, Engineering, Website & Other)	106,191	105,881	-0.3%	105,565	-0.6%	107,661	109,799	111,980	114,204	116,472	118,785	121,145	123,552	126,006	128,508	131,060	133,663	136,319	139,028
Website & Other)	106,191	105,661	-0.3%	105,565	-0.6%	107,661	109,799	111,960	114,204	116,472	116,765	121,145	123,552	126,006	128,508	131,060	133,663	136,319	139,028
Building & Plumbing Inspection	96,627	120,303	24.5%	112,725	16.7%	115,668	138,695	142,405	146,223	150,150	154,188	158,342	162,615	167,013	171,535	176,187	180,972	185,899	190,965
Bylaw Enforcement	20,521	24,567	19.7%	44,823	118.4%	46,104	47,420	48,776	50,173	51,610	53,089	54,610	56,174	57,784	59,442	61,148	62,903	64,711	66,571
Public Works																			
Public Works General	208,045	217,299	4.4%	223,130	7.3%	229,776	236,604	243,622	296,823	305,615	314,650	323,941	333,495	391,494	403,039	414,911	427,122	439,683	502,973
Vehicles, Equipment & Supplies	56,363	58,403	3.6%	54,657	-3.0%	55,560	56,557	57,571	58,607	59,658	60,732	61,827	62,942	64,077	65,234	66,412	67,613	68,837	70,086
Roads, bridges, storm sewers etc. (Non-MRN)	35,394	23,935	-32.4%	26,262	-25.8%	26,788	39,324	40,112	40,913	41,731	42,565	43,417	44,285	45,171	46,074	46,996	47,935	48,894	49,872
Trails & Public Spaces	9,170	8,725	-4.9%	11,000	20.0%	11,220	11,444	11,673	11,906	12,144	12,387	12,635	12,887	13,145	13,408	13,676	13,950	14,229	14,514
Public Works	308,972	308,362	-0.2%	315,049	2.0%	323,344	343,929	352,978	408,249	419,148	430,334	441,820	453,609	513,887	527,755	541,995	556,620	571,643	637,445
Fire & Emergency Operations																			
Fire Protection	5,000	4,356	-12.9%	5,000	0.0%	5,100	5,202	5,306	5,412	5,520	5,630	5,743	5,858	5,975	6,095	6,217	6,341	6,468	6,597
Emergency Preparedness	5,000 10,000	4,115 8,471	-17.7% -15.3%	7,000 12,000	40.0% 20.0%	7,140 12,240	7,283 12,485	7,429 12,735	7,578 12,990	7,730 13,250	7,885 13,515	8,043 13,786	8,204 14,062	8,368 14,343	8,535 14,630	8,706 14,923	8,880 15,221	9,058 15,526	9,239 15,836
Fire & Emergency Operations																			
Interest, Bank Expenses, Bad Debts & Other	5,783	15,053	160.3%	17,100	195.7%	17,413	17,732	18,057	18,388	18,725	19,068	19,418	19,775	20,139	20,509	20,887	21,272	21,666	22,067
Total Regular Operating Expenses	1,290,896	1,357,336	5.1%	1,452,537	12.5%	1,490,370	1,601,599	1,636,274	1,816,786	1,872,428	1,918,309	1,967,529	2,010,786	2,208,910	2,277,527	2,334,648	2,395,815	2,450,015	2,667,623
Allocation of Centralized Support Costs to MRN,																			
Water & WARD	(299,739)	(318,424)	6.2%	(339,152)	13.1%	(347,965)	(378,490)	(383,400)	(416,750)	(429,652)	(443,389)	(451,221)	(460,858)	(497,607)	(516,944)	(525,912)	(539,553)	(551,363)	(595,948)
Surplus Before Other Revenue/Expenses & Transfers	453,910	635,950	40.1%	518,751	14.3%	544,447	540,519	570,074	484,465	505,601	539,744	567,152	604,933	517,666	545,308	577,001	612,361	656,018	572,325



VILLAGE OF BELCARRA GENERAL OPERATING FUND 15-YEAR (2024 - 2038) FINANCIAL PLAN

Page 2 of 2		Estimated Year-End		Draft Budget	% change from 2023														
-	2023		% change	2024	Budget	Plan 2025	Plan 2026	Plan 2027	Plan 2028	Plan 2029	Plan 2030	Plan 2031	Plan 2032	Plan 2033	Plan 2034	Plan 2035	Plan 2036	Plan 2037	Plan 2038
<u> Major Road Network (MRN) - TransLink Funded</u>																			
Conditional Operating Transfers (MRN)	(168,196)		-24.6%	(139,169)	-17.3%	(142,879)	(150,795)	(153,875)	(188,698)		(199,976)	(204,703)		(247,801)	(255,834)	(262,012)	(269,211)	(276,192)	
Allocation of Centralilzed Support to MRN	57,239	60,807	6.2%	64,778	13.2%	66,461	72,292	73,229	79,599	82,064	84,687	86,183	88,024	95,043	98,736	100,449	103,055	105,310	113,826
MRN Operating Costs	110,957	65,955	-40.6%	74,391	-33.0%	76,418	78,503	80,646	109,099	112,151	115,289	118,520	121,843	152,758	157,098	161,563	166,156	170,882	204,495
Net MRN	0	0	0.0%	0	0.0%	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Community Building Fund Grant Revenue & Transfer																			
Community Building Fund Grant	(62,974)	(62,974)	0.0%	(62,974)	0.0%	(63,604)	(64,240)	(64,882)	(65,531)	(66,186)	(66,848)	(67,516)	(68,191)	(68,873)	(69,562)	(70,258)	(70,961)	(71,671)	(72,388)
Transfer to Community Building Fund Reserve	62,974	62,974	0.0%	62,974	0.0%	63,604	64,240	64,882	65,531	66,186	66,848	67,516	68,191	68,873	69,562	70,258	70,961	71,671	72,388
Growing Communities Fund Grant	02,014	(759,000)	>100.0%	02,014	0.0%	00,004	01,210	04,002	00,001	00,100	0,040	07,510	00,101	00,070	00,002	10,200	10,001	0	12,000
Transfer to Community Building Fund Reserve	0	759,000	>100.0%	0	0.0%	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		100,000				,	,				Ĵ		<u> </u>			, , , , , , , , , , , , , , , , , , ,	,	Ū	, , , , , , , , , , , , , , , , , , ,
Net Community Builidng Fund	0	0	0.0%	0	0.0%	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Non-Reoccurring & Special Operating Expenses & Funding																			
Community Wildfire Protection Plan Expenses	0	3,375	>100.0%	0	0.0%	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UBCM Community Resiliency Investment Grant	0	(27,406)	>100.0%	0	0.0%	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UBCM Community Resiliency Program Expenses	0	24,031	>100.0%	0	0.0%	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Transfer from Stabilization Reserve	0	0	0.0%	(6,000)	>100.0%	0	(34,338)	0	0	0	(37,772)	0	0	0	(41,549)	0	0	0	(45,704)
Strategic Planning	0	0	0.0%	0	0.0%	0	12,000	0	0	0	13,200	0	0	0	14,520	0	0	0	15,972
Election Expenses	0	0	0.0%	0	0.0%	0	22,338	0	0	0	24,572	0	0	0	27,029	0	0	0	29,732
Transfer from Community Works Gas Tax Reserve	(70,000)	(100,434)	43.5%	(44,538)	-36.4%	(28,040)	(28,601)	(29,173)	(89,756)	(30,351)	(30,958)	(31,577)	(32,209)	(97,853)	(33,510)	(34,180)	(34,864)	(35,561)	(106,272)
Integrated Long-Term Financial & Asset Management Grant	0	(25,000)	>100.0%	(3,110)	>100.0%	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Natural Asset Planning Project Grant	0	(10,000)	>100.0%	(1,682)	>100.0%	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Climate Action Plan Deferred Revenue (Active Transportation Plan)	0	0	0.0%	(37,500)	>100.0%	>100.0%	0	0	0	0	0	0	0	0	0	0	0	0	0
Active Transportation Plan Grant	0	0	0.0%	(37,500)	>100.0%	>100.0%	0	0	0	0	0	0	0	0	0	0	0	0	0
Asset Management & Long-Term Financial Planning	50,000	78,430	56.9%	36,820	-26.4%	28,040	28,601	29,173	29,756	30,351	30,958	31,577	32,209	32,853	33,510	34,180	34,864	35,561	36,272
Natural Asset Planning Project	0	15,000	>100.0%	2,510	>100.0%	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Privacy Management Program (PMP)	0	0	0.0%	6,000															
Active Transportation Plan	0	0	0.0%	75,000	>100.0%	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OCP Review & Update	20,000	42,004	110.0%	10,000	-50.0%	0	0	0	60,000	0	0	0	0	65,000	0	0	0	0	70,000
Net Non-Reoccurring & Special Projects	0	0	0.0%	0	0.0%	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Transfers to Reserves & Surplus																			
General Capital Reserve Fund	257,300	301,044	17.0%	126,064	-51.0%	134,130	131,767	141,103	110,110	83,185	90,957	97,030	105,679	83,051	89,135	96,213	104,194	114,229	92,411
Vehicle & Equipment Capital Reserve Fund	10,404	10,404	0.0%	72,037	592.4%	76,645	75,295	80,630	62,920	66,548	72,765	97,029	105,679	83,051	89,134	96,214	104,193	114,230	92,411
Transportation Infrastructure Reserve Fund	120,000	120,000	0.0%	108,055	-10.0%	114,968	112,942	120,944	94,381	149,733	163,722	174,652	190,222	149,492	160,442	173,185	187,547	205,613	166,339
Financial Stabilization Reserve Fund	5,000	25,000	400.0%	54,028	980.6%	57,484	56,471	60,472	47,190	33,274	36,382	19,405	21,136	16,611	17,826	19,243	20,839	22,846	18,482
Transfer of Interest to Reserves/Surplus	41,206	159,502	287.1%	138,567	236.3%	141,220	144,044	146,925	149,864	152,861	155,918	159,036	162,217	165,461	168,771	172,146	175,588	179,100	182,682
Transfer to General Fund Surplus	20,000	20,000	0.0%	20,000	0.0%	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000
Total Transfers to Reserves & Surplus	453,910	635,950	40.1%	518,751	14.3%	544,447	540,519	570,074	484,465	505,601	539,744	567,152	604,933	517,666	545,308	577,001	612,361	656,018	572,325
FINANCIAL PLAN BALANCE	0	0	0.0%	0	0.0%	0	0	0	0	0	0	0	0	0	0	0	0	0	0



Appendix "D" – Detailed Long-Term (15-Year) Water Operating Fund Financial Plan

VILLAGE OF BELCARRA WATER OPERATING FUND 15-YEAR (2024 - 2038) FINANCIAL PLAN

		Estimated		Draft	% change														
	•	Year-End		Budget	from 2023														
	2023	2023	% change	2024	Budget	Plan 2025	Plan 2026	Plan 2027	Plan 2028	Plan 2029	Plan 2030	Plan 2031	Plan 2032	Plan 2033	Plan 2034	Plan 2035	Plan 2036	Plan 2037	Plan 2038
Regular Operating Revenues																			1
User Fees, Charges & Interest																			1
Water Annual Fees	383,988	382,656	-0.3%	460,786	20.0%	529,904	609,390	639,860	671,853	705,446	740,718	777,754	816,642	857,474	900,348	945,365	992,633	1,042,265	1,094,378
Water System Connection Fees/Other	3,750	3,130	-16.5%	3,750	0.0%	3,750	3,750	3,750	3,750	3,750	3,750	3,750	3,750	3,750	3,750	3,750	3,750	3,750	3,750
Interest Income	4,686	10,633	126.9%	4,873	4.0%	5,068	5,271	5,482	5,701	5,929	6,166	6,413	6,670	6,937	7,214	7,503	7,803	8,115	8,440
User Fees, Charges & Interest	392,424	396,419	1.0%	469,409	19.6%	538,722	618,411	649,092	681,304	715,125	750,634	787,917	827,062	868,161	911,312	956,618	1,004,186	1,054,130	1,106,568
Total Banular Operating Bayanyas	392,424	396,419	1.0%	469,409	19.6%	538,722	618.411	649,092	681,304	715,125	750,634	787,917	827,062	868,161	911,312	956,618	1,004,186	1,054,130	1,106,568
Total Regular Operating Revenues	392,424	390,419	1.0%	409,409	19.0%	536,722	010,411	049,092	001,304	/ 10,120	750,034	101,911	027,002	000,101	911,312	950,018	1,004,180	1,054,150	1,100,000
Regular Operating Expenses																			
Administration																			1
Allocation of Centralized Support	161,470	171,535	6.2%	182,803	13.2%	187,553	204,006	206,653	224,628	231,582	238,987	243,208	248,402	268,210	278,633	283,467	290,819	297,185	
Other (Environmental Monitoring & Lease)	777	277	-64.4%	277	-64.4%	277	277	277	277	277	277	277	277	277	277	277	277	277	277
Allocation of Centralized Cost/Other	162,247	171,812	5.9%	183,080	12.8%	187,830	204,283	206,930	224,905	231,859	239,264	243,485	248,679	268,487	278,910	283,744	291,096	297,462	321,493
Water Purchases & Conveyance	107,926	106,048	-1.7%	113,605	5.3%	116,157	118,768	121,440	124,175	126,973	129,837	132,768	135,768	138,838	141,980	145,196	148,488	151,857	155,306
Water Systems Operations																			
Public Works	55,301	57,537	4.0%	60,686	9.7%	62,460	64,285	66,166	97,607	100,486	103,448	106,501	109,643	143,788	148,049	152,434	156,949	161,599	198,704
Utilities & Scada	12,992	9,652	-25.7%	10,350	-20.3%	10,544	10,742	10,943	11,149	11,357	11,569	11,787	12,007	143,788	12,463	12,698	12,937	13,180	138,704
Water Mains Repair & Maintenance	5,152	9,052 0	-100.0%	5,255	-20.3%	5,360	5,467	5,576	5,688	5,802	5,918	6,036	6,157	6,280	6,406	6,534	6,665	6,798	6,934
		8,082		5,255 14,160	2.0%	5,300 14,443	14,731	· · · ·	15,326	15,632	15,945	16,264		16,922	17,260	17,605	17,957	18,316	18,682
Station Repair & Maintenance Reservoir Repair & Maintenance	14,000	· · · · ·	-42.3%	· · · · ·		· ·		15,026 5,564	5,675		· · ·	· · · ·	16,589	· · ·		· · ·	· · · ·	· · · ·	· · ·
Materials & Equipment	1,125 5,618	1,125 1,614	0.0% -71.3%	1,125 5,100	0.0% -9.2%	5,348 5,202	5,455 5,306	5,564	5,675	5,788 5.631	5,904 5,743	6,022 5,858	6,143 5,975	6,266 6,095	6,391 6,217	6,518 6,341	6,648 6,468	6,781 6,598	6,917 6,730
	,	,		,			,	,	· · · ·	,	, í	,	, i	,		,		-,	
Water Systems Operations	94,188	78,010	-17.2%	96,676	2.6%	103,357	105,986	108,687	140,965	144,696	148,527	152,468	156,514	191,583	196,786	202,130	207,624	213,272	251,395
Total Regular Operating Expenses	364.361	355.870	-2.3%	393,361	8.0%	407,344	429.037	437.057	490.045	503,528	517,628	528,721	540,961	598,908	617.676	631.070	647,208	662.591	728,194
Expenses	304,301	333,870	-2.370	333,301	0.070	407,544	423,037	437,037	430,043	303,320	517,020	520,721	540,501	536,300	017,070	001,070	047,200	002,001	120,134
Surplus Before Debt & Transfers	(28,063)	(40,549)	44.5%	(76,048)	171.0%	(131,378)	(189,374)	(212,035)	(191,259)	(211,597)	(233,006)	(259,196)	(286,101)	(269,253)	(293,636)	(325,548)	(356,978)	(391,539)	(378,374)
- · ·																			
Long-Terms Debt Payments/Transfers (Funded by Parcel Taxes & Transfer)																			
Long-Term Debt Interest Expense	150.561	150,561	0.0%	150,561	0.0%	150,561	150,561	150,561	150,561	150,561	150,561	150,561	150,561	150,561	150,561	150,561	150,561	150,561	150,561
Debt Principle Payment	119,002	119,002	0.0%	119,002	0.0%	119,002	119,002	119,002	119,002	119,002	119,002	119,002	119,002	119,002	119,002	119,002	119,002	119,002	119,002
Parcel tax	(267,617)	(266,506)	-0.4%	(267,617)	0.0%	(267,617)	(267,617)	(267,617)	(267,617)	(267,617)	(267,617)	(267,617)	(267,617)	(267,617)	(267,617)	(267,617)	(267,617)	(267,617)	· · · · ·
Transfer from Water Debt Repayment Reserve	(1,946)	(1,946)	0.0%	(1,946)	0.0%	(1,946)	(1,946)	(1.946)	(1,946)	(1,946)	(1,946)	(1,946)	(1,946)	(1,946)	(1.946)	(1,946)	(1,946)	(1,946)	
Total Net Long-Term Debt	0		>100.0%	0	0.0%	0	0	0	0	0	0	0	0	0	(1,010)	0	0	0	(1,010)
Total Net Long-Term Debt	0	1,111	2100.076	U	0.076	U	U	U	U	0	U	U	0	U	0	U	0	0	U U
Transfers to Reserve Funds & Surplus																			
Transfer To Water Capital Reserve	20,316	31,691	56.0%	68,638	237.9%	123,920	176,867	199,478	168,651	188,937	210,293	236,429	263,278	246,374	270,699	302,552	333,922	368,422	355,195
Transfer to Vehicle & Equipment Reserve	1,561	1,561	0.0%	1,200	-23.1%	1,224	1,248	1,273	1,298	1,324	1,350	1,377	1,405	1,433	1,462	1,491	1,521	1,551	1,582
Transfer of Interest to Reserve	1,186	1,186	0.0%	1,210	2.0%		1,259	1,284	1,310	1,336	1,363	1,390	1,418	1,446	1,475	1,505	1,535	1,566	1,597
Transfer to Water Operating Fund Surplus	5,000	5,000	0.0%	5,000	0.0%		10,000	10,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000
Transfers to Reserve Funds &																			
Surplus	28,063	39,438	40.5%	76,048	171.0%	131,378	189,374	212,035	191,259	211,597	233,006	259,196	286,101	269,253	293,636	325,548	356,978	391,539	378,374
			0.004		0.004					-									
FINANCIAL PLAN BALANCE	0	0	0.0%	0	0.0%	0	0	0	0	0	0	0	0	0	0	0	0	0	0



Appendix "E" – Detailed Long-Term (15-Year) WARD Operating Fund Financial Plan

VILLAGE OF BELCARRA WASTE & RECYCLE DEPOT (WARD) OPERATING FUND 15-YEAR (2024 - 2038) FINANCIAL PLAN

		Estimated Year-End 2023	% change	Draft Budget	% change from 2023	Plan 2025	Plan 2026	Plan 2027	Plan 2028	Plan 2029	Plan 2030	Plan 2031	Plan 2032	Plan 2033	Plan 2034	Diam 2025	Plan 2036	Diam 2027	Plan 2038
REGULAR OPERATING REVENUES	2023	2023	cnange	2024	Budget	Plan 2020	Plan 2020	Plan 2027	Plan 2020	Plan 2029	Plan 2030	Plan 2031	Pian 2032	Plan 2000	Plan 2034	Pian 2035	Pian 2030	Plan 2037	Plan 2030
FEES & CHARGES																			
Waste & Recycling Annual Fee & Tags	171,047	171,897	0.5%	206,024	20.4%	226,553	249,134	259,080	269,423	280,180	291,367	303,001	315,100	327,683	340,768	354,376	368,528	383,246	398,552
Permits & Licences	100	50	-50.0%	100	0.0%	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Fees & Charges	171,147	171,947	0.5%	206,124	20.4%	226,653	249,234	259,180	269,523	280,280	291,467	303,101	315,200	327,783	340,868	354,476	368,628	383,346	398,652
Interest Income	1,500	1,583	5.5%	1,530	2.0%	1,561	1,592	1,624	1,656	1,689	1,723	1,757	1,792	1,828	1,865	1,902	1,940	1,979	2,019
Total Regular Operating Revenues	172,647	173,530	0.5%	207,654	20.3%	228,214	250,826	260,804	271,179	281,969	293,190	304,858	316,992	329,611	342,733	356,378	370,568	385,325	400,671
REGULAR OPERATING EXPENSES																			
Allocation of Centralized Support	81,030	86,080	6.2%	91,571	13.0%	93,951	102,192	103,518	112,523	116,006	119,715	121,830	124,432	134,354	139,575	141,996	145,679	148,868	160,906
OPERATIONS & MAINTENANCE																			
Public Works	6,101	6,393	4.8%	6,695	9.7%	6,890	7,093	7,299	10,767	11,085	11,413	11,749	12,096	15,863	16,333	16,816	17,314	17,828	21,921
Utilities	1,082	318	-70.6%	500	-53.8%	520	541	563	586	609	633	658	684	711	739	769	800	832	865
Depot Operations	25,051	26,315	5.0%	41,179	64.4%	42,002	42,842	43,698	44,573	45,465	46,374	47,303	48,249	49,213	50,197	51,201	52,225	53,271	54,335
Materials & Equipment	5,857	4,749	-18.9%	5,841	-0.3%	5,958	6,078	<mark>6,19</mark> 9	6,323	6,450	6,579	6,710	6,844	6,981	7,121	7,264	7,409	7,558	7,710
Processing & Hauling Expense	68,752	60,998	-11.3%	71,486	4.0%	74,329	77,286	80,361	83,558	86,883	90,340	93,935	97,674	101,562	105,605	109,809	114,180	118,726	123,453
WARD Operations	106,843	98,773	-7.6%	125,701	17.7%	129,699	133,840	138,120	145,807	150,492	155,339	160,355	165,547	174,330	179,995	185,859	191,928	198,215	208,284
Total Regular Operating Expenses	187,873	184,853	-1.6%	217,272	15.6%	223,650	236,032	241,638	258,330	266,498	275,054	282,185	289,979	308,684	319,570	327,855	337,607	347,083	369,190
(SURPLUS) DEFICIT BEFORE OTHER REVENUE/EXPENSES & TRANSFERS	15,226	11,323	-25.6%	9,618	-36.8%	(4,564)	(14,794)	(19,166)	(12,849)	(15,471)	(18,136)	(22,673)	(27,013)	(20,927)	(23,163)	(28,523)	(32,961)	(38,242)	(31,481)
TRANSFERS TO (FROM) RESERVES & SURPLUS Transfer to Vehicle & Equipment Reserve	1,000	1,000	0.0%	1,200	20.0%	1,440	1,728	2,074	2,489	2,987	3,584	4,301	5, <mark>1</mark> 61	6,193	7,432	<mark>8</mark> ,918	10,702	12,842	15,410
Transfer of Interest to WARD Surplus	1,500	1,500	0.0%	1,530	2.0%	1,561	1,592	1,624	1,656	1,689	1,723	1,757	1,792	1,828	1,865	1,902	1,940	1,979	2,019
Transfer (from) WARD Surplus to Offset Operating Deficits & Transfer to Reserve	(17,726)	(13,823)	-22.0%	(12,348)	-30.3%	1,563	11,474	15,468	8,704	10,795	12,829	16,615	20,060	12,906	13,866	17,703	20,319	23,421	14,052
TOTAL TRANSFERS TO (FROM) RESERVES & SURPLUS	(15,226)	(11,323)	-25.6%	(9,618)	-36.8%	4,564	14,794	19,166	12,849	15,471	18,136	22,673	27,013	20,927	23,163	28,523	32,961	38,242	31,481
FINANCIAL PLAN BALANCE	0	0	0.0%	0	0.0%	0	0	0	0	0	0	0	0	0	0	0	0	0	0



Appendix "F" – Detailed Long-Term (15-Year) Capital Plans

•••••••••••••••••••••••••••••••••••••••																
		5-Y	ear Financia	al Plan						Long	-Term Financ	cial Plan				
	Draft Budget	Plan	Plan	Plan	Plan	Plan	Plan	Plan	Plan	Plan	Plan	Plan	Plan	Plan	Plan	
Page 1 of 2	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	Total Capital 2024 - 2038
GENERAL CAPITAL General & Information Technology																
Computers	23,000	1,800	10,100	12,600	2,000	27,317	2,138	11,996	14,965	2,375	32,444	2,539	14,247	17,773	2,821	178,115
Servers Peripherals	2,800	- 600	12,000 1,710	- 330	-	3,326	713	14,252 2,031	- 392	-	3,950 2,624	- 846	16,927 2,412	- 465	-	53,255 16,192
Power & UPS	-	-	290	-	1,700	-	-	344	-	2,019	-	-	409	-	2,398	7,160
Subtotal General Public Works & Municipal Hall	\$27,660	\$2,400	\$24,100	\$12,930	\$3,700	\$32,852	\$2,851	\$28,623	\$15,357	\$4,394	\$39,018	\$3,385	\$33,995	\$18,238	\$5,219	254,722
New Generator (for Municipal Hall & Public Works)			40,000													40,000
Permanent Shelter For Public Works Machinery Crack Filling Machine			100,000													100,000
Public Works Driveway			50,000													50,000
Public Works Fuel Station (above ground fuel tank, pump & catchment) (per Asset Management)				40,000												40,000
Public Works Equipment	8,500	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	78,500
Municipal Hall Septic Systems (per Asset Management)		75,000														75,000
Municipal Computer Room (per Asset Management) Municipal Hall Furnace (per Asset Management)				7,500	10,000											10,000
Municipal Hall Furnace (per Asset Management) Municipal Hall Appliances (per Asset Management)				7,500											5,000	5,000
Emergency Power Generator (for Public Works & Municipal Hall) (per Asset																
Management(Portable Generator (small one for Public Works)				6.000											25,000	25,000 6,000
Subtotal Public Works	\$8,500	\$80,000	\$195,000	\$58,500	\$15,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$35,000	\$437,000
Vehicles & Equipment																
2023 Chevy Silverado (replacement) 2023 Kubota (replacement)									45,000			130,000				130,000 45,000
2023 Rubbla (replacement) 2018 Ford F550 (replacement)									150,000							45,000
Plows (per Asset Management)					8,000						8,000					16,000
Salt Spreaders (per Asset Management) (one hydraulic one electric)					15,000						15,000					30,000
Chipper (per Asset Management)				20,000												20,000
Pavement Crack Sealer (per Asset Management)															10,000	10,000
Holland TN70DA Tractor, Deluxe Cab 4x4 with bucket/New Backhoe, JD 310 Subtotal Vehicle & Attachments	160,000 \$160,000	\$0	\$0	\$20,000	\$23,000	\$0	\$0	\$0	\$195,000	\$0	\$23,000	\$130,000	170,000 \$170,000	\$0	\$10,000	330,000 \$731,000
Non-MRN Roads including Access	•100,000	•••		\$20,000	\$20,000		•••	•••	•100,000	•••	\$20,000	\$100,000	•170,000	•••	\$10,000	\$701,000
Marine Ave - Mill & Fill (Marine)	165,000															165,000
Turn around area 4000 block Marine ave (per Asset Management)				60,000												60,000
Belcarra Bay Rd (from stop sign to Turtlehead Rd) + possible drainage desig	n		287,500													287,500
Belcarra Bay Rd (from Turtlehead Rd to Whiskey Cove Lane)					200,000											200,000
Young Rd (per Asset Management)							130,000									130,000
Senkler Bridge Wing Wall Repair (per Council motion) Senkler Road Bridge Replacement	20,000												625,000			20,000 625,000
Tatlow Station Access Rd.				70,000									025,000			70,000
Road Rehabilitation (including pothole repairs)		30,000		30,000		30,000		30,000		30,000		30,000		30,000		210,000
Shouldering Boulevards		15,000		15,000	15,000	15,000		15,000		15,000		15,000		15,000		120,000
Subtotal Non-MRN Roads	\$185,000	\$45,000	\$287,500	\$175,000	\$215,000	\$45,000	\$130,000	\$45,000	\$0	\$45,000	\$0	\$45,000	\$625,000	\$45,000	\$0	\$1,887,500
MRN Roads Bedwell Bay Upgrade Project (BBUP) (Design)	45,000															45,000
Bedwell Bay Upgrade Project (BBUP) (Construction)	207,000	207,000	207,000	207,000												828,000
Bedwell Bay Upgrade Project (BBUP) (Construction)	109,250	109,250	109,250	109,250												437,000
	109,250	109,250	109,250	109,250												
Gabion wall Main Ave (intersection Bedwell Bay Rd) (per Asset Management)				187,500											187,500
Gabion wall Main Ave (intersection Bedwell Bay Rd) (per Asset Management					62,500											62,500
Bedwell Bay Road Safety Barriers (Grant Application submitted)	37,447															37,447
Bedwell Bay Road Safety Barriers (Grant Application submitted) Subtotal MRN Roads	12,482 411,179	316,250	316,250	316,250	250,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	12,482 1,609,929
Drainage	411,179	310,230	516,250	516,230	230,000	\$U	φU	φU	96	06	\$ 0	\$U	0 ¢	\$ U	\$ 0	1,609,929
Culvert Camera	15,000															15,000
Creek Surveys (assess riparian areas) Culvert Replacement (under Turtlehead Rd west of Belcarra Bay and	20,000															20,000
Turtlehead Rd intersection) (per Asset Management)			10,000													10,000
Storm Sewer & Catch Basin Replacements			15,000		15,000		15,000		15,000		15,000		15,000		15,000	105,000
Subtotal Storm Sewer	\$35,000	\$0	\$25,000	\$0	\$15,000	\$0	\$15,000	\$0	\$15,000	\$0	\$15,000	\$0	\$15,000	\$0	\$15,000	\$150,000
Parks & Recreation	000,000			5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	75,000
Parks & Recreation Trail System Rehabilitation & Improvements	5,000	5,000	5,000	5,000												6,000
		5,000	5,000 6,000	5,000												6,000
Trail System Rehabilitation & Improvements		5,000		5,000	20,000											20,000
Trail System Rehabilitation & Improvements Small bridge on trail at end of Salish Rd (per Asset Management)		5,000		10,000			10,000			200,000			10,000			
Trail System Rehabilitation & Improvements Small bridge on trail at end of Salish Rd (per Asset Management) Concrete stairs with wooden railing - Marine Ave (per Asset Management) Senkler Bridge Inspections, Repair & Renewal Salish Foreshore Bridge	5,000	5,000					10,000			200,000			10,000			20,000
Trail System Rehabilitation & Improvements Small bridge on trail at end of Salish Rd (per Asset Management) Concrete stairs with wooden railing - Marine Ave (per Asset Management) Senkler Bridge Inspections, Repair & Renewal Salish Foreshore Bridge Three (3) Trails from Marine Avenue to Beach (3400 block) Marine – wooden stairs down to beach; 3700 block – divers' trail; 3900 block Marine – cement	20.000	5,000	6,000		20,000		10,000			200,000			10,000			20,000 250,000 20,000
Trail System Rehabilitation & Improvements Small bridge on trail at end of Salish Rd (per Asset Management) Concrete stairs with wooden railing - Marine Ave (per Asset Management) Senkler Bridge Inspections, Repair & Renewal Salish Foreshore Bridge Three (3) Trails from Marine Avenue to Beach (3400 block) Marine – wooden stairs down to beach; 3700 block – divers' trail; 3900 block Marine – cement staircase	5.000 20,000 50,000		6,000	10,000	20,000	\$5.000		000 32	20,000		\$5.000	\$5.000		20,000	\$5.000	20,000 250,000 20,000 110,000
Trail System Rehabilitation & Improvements Small bridge on trail at end of Salish Rd (per Asset Management) Concrete stairs with wooden railing - Marine Ave (per Asset Management) Senkler Bridge Inspections, Repair & Renewal Salish Foreshore Bridge Three (3) Trails from Marine Avenue to Beach (3400 block) Marine – wooden stairs down to beach; 3700 block – divers' trail; 3900 block Marine – cement	5,000 20,000 50,000 \$75,000	5,000 \$5,000 \$448,650	6,000 20,000 \$31,000		20,000 20,000 \$45,000	\$5,000	10,000 \$15,000 \$167,851	\$5,000	20,000 \$25,000 \$255,357	\$205,000	\$5,000	\$5,000 \$188,385	\$15,000	20,000 \$25,000 \$93,238	\$5,000	20,000 250,000 20,000



		5-Ye	ar Financia	l Plan						Long	-Term Finan	cial Plan				
Page 2 of 2	Draft Budget 2024	Plan 2025	Plan 2026	Plan 2027	Plan 2028	Plan 2029	Plan 2030	Plan 2031	Plan 2032	Plan 2033	Plan 2034	Plan 2035	Plan 2036	Plan 2037	Plan 2038	Total Capital 2024 - 2038
VATER CAPITAL																
Universal Water Meters (radio read/pit antennae)		40,000	10,000													50.00
New Water Meters	10,000	,	,		10.000		10.000		10,000		10,000		10,000		10.000	70,00
New Water Meter for Leak Detection (Tatlow)		30,000									,					30,00
Tatlow/Dutchman Reservoir Repairs	30,000															30,00
Options for Addressing Water System Deficiencies	30,000															30,0
Water Meters (per Asset Management)	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	75,0
Water Equipment	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	225,0
Water Chlorination System Class B Design	46,000													-		46,0
Water Chlorination System Construction		175,000														175,0
Pipeline Inspection (see Sept. 11th, 2023 Council agenda)	29,000															29,0
Tatlow Reservoir Water Pump					55,000											55,0
SCADA System		5,000		5,000		5,000		5,000		5,000		5,000		5,000		35.0
TOTAL WATER CAPITAL	\$165,000	\$270,000	\$30,000	\$25,000	\$85,000	\$25,000	\$30,000	\$25,000	\$30,000	\$25,000	\$30,000	\$25,000	\$30,000	\$25,000	\$30,000	850,00
ASTE & RECYCLE DEPOT (WARD) CAPITAL			0.000													
Minor WARD Equipment	8,000		8,000		8,000		8,000		8,000		8,000		8,000		8,000	64,0
Recycle center security system (per Asset Management)				15,000		45.000								20,000		35,0
Recycle depot electric gate and components (per Asset Management)						15,000										15,0
Wasteline porta Pak 3032 compactor and container - Bin A (per Asset Management)				50,000												50,0
Universal UP200 compactor and container - Bin C (per Asset Management)					40.000											40.0
Wasteline Storage container - Bin B (per Asset Management)					40,000	20.000										20.0
Mobile Office	30,000					20,000										20,0
Gate & Access Control	30,000		9,500					9,500					9,500			28.5
Bin Lids			5,500					5,500					3,300			20,3
Repaving Tarmac Area			50.000													50,0
TOTAL WARD CAPITAL	\$38,000	\$0	\$67,500	\$65,000	\$48,000	\$35,000	\$8,000	\$9,500	\$8,000	\$0	\$8,000	\$0	\$17,500	\$20.000	\$8,000	332,50
	000,000		001,000	000,000	040,000	\$00,000	00,000	\$0,000	\$0,000	<u>v</u> v	\$0,000	ψŪ	011,000	QE0,000	00,000	001,00
DTAL CAPITAL EXPENDITURES - ALL FUNDS	\$1,105,339	\$719.650	¢076 350	\$687,680	\$699,700	\$147,852	\$205,851	\$118,123	\$293,357	\$284,394	\$125,018	\$213,385	\$911,495	\$138,238	\$108,219	\$6,733,65

	5-Year Capital Plan Long-Term Capital Plan															
CAPITAL FUNDING SOURCES	Draft Budget 2024	Plan 2025	Plan 2026	Plan 2027	Plan 2028	Plan 2029	Plan 2030	Plan 2031	Plan 2032	Plan 2033	Plan 2034	Plan 2035	Plan 2036	Plan 2037	Plan 2038	Total Capital 2024 - 2038
Canada Community-Building Fund Reserve	298,482	-	-	-	62,500	-	-	-	-	-	-	-	-	-	-	360,982
General Capital Reserve	280,660	77,400	266,600	70,430	36,700	32,852	35,851	38,123	233,357	204,394	62,018	133,385	246,495	18,238	33,219	1,769,722
Vehicle & Equipment Capital Reserve	8,500	5,000	45,000	96,000	68,000	40,000	5,000	5,000	5,000	5,000	28,000	5,000	5,000	25,000	40,000	385,500
Transportation Infrastructure Reserve	75,000	50,000	318,500	180,000	260,000	50,000	135,000	50,000	25,000	50,000	5,000	50,000	630,000	70,000	5,000	1,953,500
Growing Communities Fund Reserve	109,250	284,250	109,250	109,250	-	-	-	-	-	-	-	-	-	-	-	612,000
Water Capital Reserve	89,000	95,000	30,000	25,000	85,000	25,000	30,000	25,000	30,000	25,000	30,000	25,000	30,000	25,000	30,000	599,000
Grants TransLink	244,447	207,000	207,000	207,000	187,500	-	-	-	-	-	-	-	-	-	-	1,052,947
TOTAL FUNDING SOURCES	\$1,105,339	\$718,650	\$976,350	\$687,680	\$699,700	\$147,852	\$205,851	\$118,123	\$293,357	\$284,394	\$125,018	\$213,385	\$911,495	\$138,238	\$108,219	\$6,733,651





Appendix "G" – Graph, Map and Table Index

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Asset Management Plan Introduction & Background

Introduction to Asset Management

Legislative Prerogative

A municipality's asset management responsibilities are imbedded in the Community Charter:

"The purposes of a municipality include.... (c) providing for stewardship of the public assets of its community"

This responsibility was found in the Municipal Act, which preceded the *Community Charter* and is found in sister legislation, *the Local Government Act*. Providing for the stewardship of public assets includes planning for and funding the maintenance, repair, and eventual replacement of such assets.

Asset Management BC Framework

In 2019, Asset Management BC developed a BC Framework for a municipal approach to Asset Management. This Framework recommends three-part and cyclical approach to asset management for BC municipalities:

- 1. Assess asset management practices and the state of assets,
- 2. Plan what needs to be done to improve asset management, and
- 3. **Implement** the plans.

The Village of Belcarra as a result of this asset management project has made considerable progress in its Asset Management journey.

Purpose of Asset Management Plan – Alignment of Long-Term Funding

This Asset Management Plan (Plan) was primarily developed to support sustainable service delivery for the Village of Belcarra's capital services. For the Village's capital services to remain sustainable, appropriate funding must be dedicated to asset and infrastructure replacement. The Plan estimates sustainable funding levels by modelling estimated replacement costs over a 50-year timeframe.

Asset Management Scope of Work

The Village engaged LandInfo Technologies, through a request for proposals (RFP) process, to complete an Asset Inventory/Replacement Plan & Condition Assessment Framework (Asset Management Plan) for the Village of Belcarra. This entailed a detailed asset inventory & replacement plan which could be input into the Village's graphic information system (GIS) and be used in the Village's long-term (15-year) financial planning model, as well as a condition assessment framework that could be used for determining the timing of all-important asset assessments.





The Village also engaged LandInfo Technologies, through an RFP, to identify its natural assets and their associated attributes (part of Asset Management Plan). This included parks, environmentally sensitive areas, green spaces, stormwater management facilities, water courses, registered springs, tree canopies, and other such assets.

Once natural capital assets were identified and inventoried (including information on the type, location [mapping], size, condition, and management practices of each asset), they were to be captured in a format that is transferable to GIS. The goal was to give the Village the ability to visualize and analyze the spatial distribution and connectivity of its natural capital assets, and to track changes over time.

LandInfo Technologies is an independent consulting firm that has provided asset management consulting services to public and private sector clients since 1995. Their primary goal is to address the unique asset management needs of Canada's smaller communities utilizing geographical information systems.

The summarized results of LandInfo Technologies Asset Management Plan work are included in this Appendix.

Key Assumptions for Asset Management

Capital Grants: Forecasts do not include any potential conditional grants awarded by senior levels of government. However, forecasts do include ongoing unconditional Canada Community- Building Fund payments (formerly Federal Gas Tax payments).

Capital Service Continuity: For modelling, it was assumed that the Village of Belcarra would want to continue with the current capital services and capital service levels. The Village may choose not to replace some of its capital or reduce / increase capital services. Such decisions could materially impact modelling.

Climate change: The Plan did not examine the risk or impact of climate change on the Village of Belcarra's infrastructure or private property. Further review, funding, and staff capacity would be required should Council or the community wish to understand the broader implications of climate change risk on the community.

Existing Capital Only: The Plan does not model anticipated growth in infrastructure requirements. Forecasts are based on the replacement of existing municipal infrastructure only. For instance, these forecasts have not contemplated the increased capacity required to support future densification or development. The Plan has not anticipated potential future decisions to increase capital service levels.

Inflation: Modelling has been prepared using 2023 values. No inflationary factors have been applied to forecasted replacement costs. As unit costs are likely to escalate, the Village could consider applying an annual forced growth increase to recommended investment levels. Interest earnings on reserves, in part, offset some inflation.





Infrastructure Replacement Standards: Forecasts are prepared with the assumption that infrastructure will be replaced at the same standard that currently exists. However, if some of the Village's infrastructure does not meet existing standards the infrastructure investment would have to increase.

Replacement Cost Accuracy: Unit rates were developed to estimate overall replacement costs and to develop a long-term sustainable funding model. No Class-D or above construction estimates have been prepared. Therefore, none of the spending forecasts were utilized to prepare the Village's capital plans. Spending forecasts demonstrate an overall funding level likely needed to support the ongoing replacement of existing infrastructure. Replacement cost accuracy will differ between asset classes and subclasses.

Unit Pricing Inclusion: Unit prices were current as at October 2023.

Useful lives: The Plan utilizes a modified National Asset Management Standards (NAMS) approach to useful lives. Useful lives were generally estimated to be near the midway point of the NAMS recommended useful life range, with some exceptions based on recent condition assessments.





Glossary of Asset Management Terms

Annual Lifecycle Costs: Annual lifecycle costs include the cost to acquire or construct a Tangible Capital Asset, plus all operating and maintenance costs incurred over the life of the asset.

Grey Infrastructure: Built infrastructure that relates to stormwater, drainage, or flood mitigation.

Pavement Surface Evaluation and Rating Asphalt PASER Manual: Since surface condition is the most vital element in any pavement management system, local governments use the simplified rating system presented in this Asphalt PASER Manual to evaluate their roads. The PASER ratings combined with other inventory data (width, length, shoulder, pavement type, etc.) from the roads inventory are very helpful in budgeting for future road replacement.

Probability of Failure (PoF): PoF ratings calculate estimated remaining lives by using a combination of condition values, age values, and expected lifespan values. PoF ratings are a measure of overall condition.

Request for Proposals (RFP): A formal procurement document that outlines an organization's intent to purchase a good or service. The buyer issues the RFP to provide background information to potential vendors and invites them to submit a proposal to meet the requirements.

Sustainable Annual Funding: The annual dollar amounts that should be set aside on a yearly basis in order to have enough funds to replace assets/infrastructure at the end of their useful lives.

Tangible Capital Asset (TCA): Tangible capital assets are non-financial assets having physical substance that:

- I. are held for use in the production or supply of goods and services, for rental to others, for administrative purposes or for the development, construction, maintenance, or repair of other tangible capital assets,
- II. have useful economic lives extending beyond an accounting period,
- III. are to be used on a continuing basis, and
- IV. are not for sale in the ordinary course of operations.



Inputs into Asset Management Plan

The following inputs have been used to complete the Village's Asset Management Plan:







Overview of Assets/Infrastructure

Inventory Valuation

The total estimated replacement cost of the Village's capital assets/infrastructure is approximately \$21.5 million. In comparison, the total historical cost of the Village's assets at the end of 2022 was approximately \$14.5 million and the net book value or depreciated cost was \$10.5 million. The breakdown in the Village's asset/infrastructure inventory follows including quantities, replacement values, average life spans, average remaining years, and percentages of useful life consumed.

Table 2: Asset/Infrastructure Inventory	
---	--

Asset Groups (Systems)	Quantity	Replacement Value (2023 CAD)	Average Lifespan	Average Remaining Years	% of Useful Life Consumed
Land & Natural Assets	N/A	N/A	N/A	N/A	N/A
Buildings, Structures and Components	5	\$1,399,500	44	24	44%
Equipment	N/A	\$155,900	18	14	23%
Fleet	4 Units	\$500,000	12	11	8%
Information Systems	N/A	\$94,000	5	3	40%
Multi-Use Path, Trail & Road Shoulder Network	1.1 km	\$136,767	26	15	43%
Stormwater Collection	9.1 km	\$4,029,252	72	40	44%
Transportation	8.8 km	\$4,521,164	23	13	44%
Waste & Recycle Depot	N/A	\$185,000	15	11	27%
Water Treatment and Distribution	17.5 km	\$10,502,029	66	44	34%
Grand Total		\$21,523,612			





Sustainable Annual Funding

The total sustainable annual funding (in 2023 dollars) for all of the Village's assets is approximately \$533,000 (see Table 3 next page) of which \$341,000 is for General Fund assets, \$10,000 for WARD Fund assets and \$182,000 for Water Fund assets. These are the amounts that need to be transferred to capital reserves annually to replace the assets/infrastructure at the end of their respective useful lives.

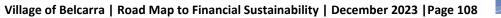
Table 3: Sustainable Annual Funding

	Annual	
Asset Groups (Systems)	Reserve	%
Land and Natural Assets	N/A	N/A
Buildings, Structures and Components	\$30,454	5.3%
Equipment	\$7,720	1.3%
Fleet	\$41,667	7.3%
Information Systems	\$18,800	3.2%
Multi-Use Path, Trail & Road Shoulder Network	\$5,230	0.9%
Stormwater Collection	\$57,576	10%
Transportation	\$208,887	36.2%
Subtotal General Fund Assets	\$370,334	64.0%
Waste & Recycle Depot	\$16,083	2.8%
Water Treatment and Distribution	\$189,320	32.8%
Grand Total	\$575,737	100.0%

Probability of Failure (PoF) of Assets

Probability of Failure (PoF) ratings are a common tool used in asset management planning to assess the likelihood of future failures and estimating the remaining useful life of assets. PoF ratings were assigned based on the asset's condition or age.

- **Condition**: Where a visual inspection was possible e.g., roads, buildings, fleet, equipment, the current condition of the assets were assessed visually. Assets in good condition are less likely to fail in the near future, while those with signs of deterioration or issues will have a higher PoF rating.
- Age: Where a visual condition assessment was not possible (example underground assets), the PoF of the assets were determined by taking into account the age and design life of the assets. Newer assets often have a lower PoF rating since they are expected to have a longer remaining useful life. Conversely, older assets may be more likely to fail and, therefore, have a higher PoF rating.





Using condition and age, a PoF value with an associated estimated lifespan were calculated for each asset in Village's asset inventory, as set out in the summary table below:

PoF Ratings	PoF Description	Estimated Remaining Life
1	Rare	More than 30 years
2	Unlikely	Between 15 and 30 years
3	Possible	Between 5 and 15 years
4	Likely	Between 0 and 5 years
5	Almost Certain	Less than 0 years

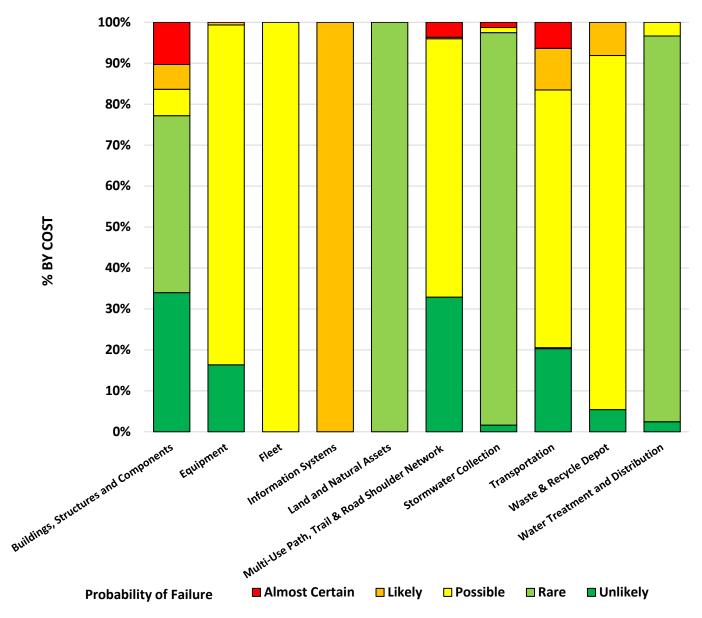
By categorizing assets into PoF ratings, the Village is able to prioritize their maintenance and replacement efforts. It's important to regularly assess and update PoF ratings to adapt to changing conditions and extend the life of assets while minimizing downtime and risk.

The graph below highlights the PoF ratings for all the Village's asset groupings. The Buildings, Structures & Components, the Multi-Use Path, Trail & Road Should Network, the Stormwater Collection and the transportation asset groupings have some Almost Certain PoF ratings.













The estimated asset replacement costs for all of the Village's asset groupings, broken down into 5-year segments or ranges, over a 50-year period (to 2073), are shown in the table below. The information is also shown in a graph format below to further illustrate when major replacement dollars for assets will come due. The <2024 Year category indicates that certain assets are now at the end of their design lives.

Mult-Use Buildings, Path, Trail Water **Structures** & Road Waste & Treatment and Info. Shoulder Stormwater Recycle & Fleet Network Collection Distribution **Grand Total** Years Components Equip. Systems Transport. Depot <2024 \$144,000 \$5,000 \$51,789 \$286,679 \$487,468 \$459,185 2024-2028 \$85,000 \$1,000 \$94,000 \$470 \$15,000 \$654,654 2029-2033 \$5,000 \$55,900 \$140,000 \$94,000 \$56,225 \$1,109,139 \$175,000 \$303,500 \$1,938,764 2034-2038 \$74,500 \$360,000 \$30,072 \$50,000 \$1,736,885 \$48,250 \$85,000 \$94,000 \$15,000 \$2,493,706 \$1,189,956 \$1,503,878 2039-2043 \$25,000 \$5,500 \$94,000 \$8,000 \$30,000 \$151,422 \$1,695,654 2044-2048 \$458,000 \$21,000 \$500,000 \$94,000 \$4,470 \$473,185 \$145,000 2049-2053 \$2,500 \$52,400 \$94,000 \$59,225 \$594,139 \$483,500 \$1,406,389 \$65,625 \$55,000 \$140,000 2054-2058 \$85,000 \$78,000 \$94,000 \$30,072 \$1,936,736 \$1,361,885 \$135,000 \$32,950 \$3,893,642 \$1,177,956 \$4,800,956 2059-2063 \$405,000 \$5,500 \$360,000 \$94,000 \$20,000 \$30,000 \$2,708,500 2064-2068 \$100,000 \$37,500 \$140,000 \$94,000 \$470 \$878,125 \$1,084,185 \$135,000 \$1,208,902 \$3,678,182 2069-2073 \$94,000 \$15,900 \$360,000 \$94,000 \$41,225 \$1,046,978 \$609,139 \$55,000 \$340,375 \$2,656,616 Total \$'s \$1,488,500 \$347,200 \$2,000,000 \$940,000 \$255,228 \$4,029,252 \$10,082,329 \$790,000 \$5,277,399 \$25,209,908 1.4% 3.7% 1.0% 16.0% 20.9% Total %'s 5.9% 7.9% 40.0% 3.1% 100.0%

Table 4: Long Term Renewal Cost Projections







\$5,000,000 \$4,500,000 \$4,000,000 \$3,500,000 ESTIMATED RENEWAL COST \$3,000,000 \$2,500,000 \$2,000,000 \$1,500,000 \$1,000,000 \$500,000 \$0 <2024 2024-2028 2029-2033 2034-2038 2039-2043 2044-2048 2049-2053 2054-2058 2059-2063 2064-2068 2069-2073 Water Treatment and Distribution \$303,500 \$48,250 \$151,422 \$483,500 \$32,950 \$2,708,500 \$1,208,902 \$340,375 Waste & Recycle Depot \$15,000 \$175,000 \$15,000 \$145,000 \$55,000 \$135,000 \$30,000 \$135,000 \$55,000 \$30,000 \$286,679 \$459,185 \$1,736,885 \$1,189,956 \$473,185 \$594,139 \$1,361,885 \$1,177,956 \$1,084,185 \$609,139 ■ Transportation \$1,109,139 Stormwater Collection \$51,789 \$50,000 \$65,625 \$1,936,736 \$878,125 \$1,046,978 Multi-Use Path, Trail & Road Shoulder Network \$5,000 \$470 \$56,225 \$30,072 \$8,000 \$4,470 \$59,225 \$30,072 \$20,000 \$470 \$41,225 \$94,000 \$94,000 \$94,000 \$94,000 \$94,000 \$94,000 \$94,000 \$94,000 \$94,000 \$94,000 Information Systems \$140,000 \$360,000 \$500,000 \$140,000 \$360,000 \$140,000 \$360,000 Equipment \$1,000 \$55,900 \$74,500 \$5,500 \$21,000 \$52,400 \$78,000 \$5,500 \$37,500 \$15,900 Buildings, Structures and Components \$458,000 \$144,000 \$85,000 \$5,000 \$85,000 \$25,000 \$2,500 \$85,000 \$405,000 \$100,000 \$94,000

LONG-TERM RENEWAL COST PROJECTIONS - ALL ASSETS

Village of Belcarra | Road Map to Financial Sustainability | December 2023 | Page 112

Fleet





Detailed Inventory of Assets/Infrastructure

Land & Natural Assets

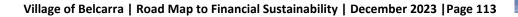
There is currently no universally accepted definition of a Natural Assets. Generally speaking, Natural Assets can include parks, environmentally sensitive areas, green spaces, natural drainage areas, water courses, registered springs, tree canopies, and other such assets. The Village owns very little Land & Natural Assets with its boundaries; therefore the Land & Natural Assets inventory has been categorized as follows:

- Land & Natural Assets within Village of Belcarra Boundaries (Owned and Controlled by Village)
- Land & Natural Assets within Village of Belcarra Boundaries (On Private Property and in part Regulated by Village)
- Land & Natural Assets within Village of Belcarra Boundaries (on Federal, Provincial or Metro Vancouver land)

Maps of the above Land & Natural Assets classifications can be viewed by clicking on the below link.

Maps of Land & Natural Assets

It is recognized that Land & Natural Assets provide a valuable service to the community, one that citizens enjoy and depend on, and they can often offset the cost of constructing and maintaining grey infrastructure. For example, creeks and rivers provide valuable drainage services, while foreshore and trees provide recreational value. Values have not been assigned to the Village's land assets as it has been assumed that the land assets are not being held for resale.





Land & Natural Assets Inventory

Table 5: Land & Natural Assets Inventory

Land & Natural Assets	Quantity & Description of Land & Natural Assets	Explanation
Land & Natural Assets within Village of Belcarra Boundaries & owned and controlled by the Village	2 Aquifers 36,000 sq. m. of forested land 54,000 sq. m. structured engineered land	Consists of both natural undeveloped land and developed engineered land used for trail network and foreshore areas. Assets captured mainly on Belcarra's Road ends.
Land & Natural Assets within Village of Belcarra Boundaries on Private Property and in part Regulated by Village	6 Aquifers 330 m. of waterways	Natural assets captured on private land.
Land & Natural Assets owned by Federal Gov't., Provincial Gov't. or Metro Vancouver and within Belcarra's municipal boundaries	13 Aquifers 4,345,000 sq. m. of forested land 3,941 m. of waterways 40,800 sq. m. wetlands	Large portion of land within Belcarra municipal area but not owned, maintained, or regulated by the village.







Buildings, Structures & Components

The Village utilizes and maintains a small portfolio of Buildings & Structures for its municipal operations. Various Components, such as HVAC systems, electrical & furnishing, are contained within the Buildings & Structures. The listed septic system services Municipal Hall and Recreational Structure is the Tennis Court site. The full list below includes Buildings, Structures & Components owned and maintained by the Village of Belcarra. Buildings, Structures & Components as a group are approximately 44% through their useful lives on average.

Buildings, Structures & Components Inventory

Table 6: Building, Structures & Components Inventory

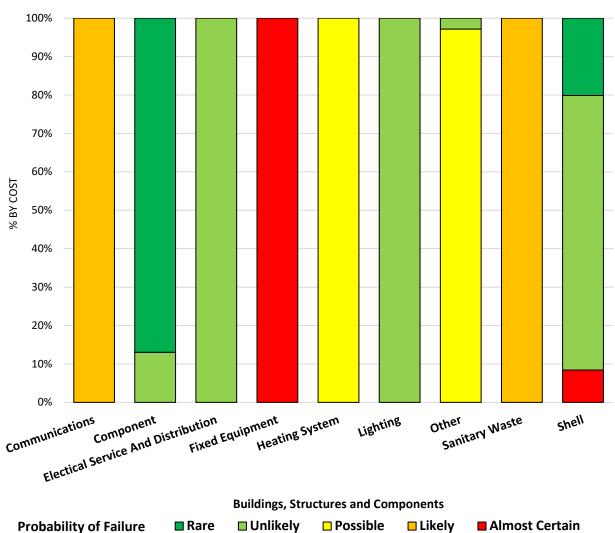
Asset Group/Types	Replacement Value (2023 CAD)	Average Lifespan	Average Remaining Years	Area (sqm)	% Useful Life Consumed
Buildings, Structures and					
Components	\$1,399,500	44	25	1,109	44%
Equipment	\$202,500	34	15		56%
Electrical					
Communications *Municipal Hall computer room	\$10,000	20	5		75%
Electrical Service and Distribution					
*Municipal Hall wiring	\$15,000	75	19		75%
Lighting	\$10,000	25	19		24%
Other *Appliances, hot water tank, general office contents	\$7,500	30	23		25%
Furnishing					
Other *Municipal Hall furniture	\$80,000	20	15		25%
HVAC					
Heating System	\$5,000	35	9		74%
Plumbing					
Sanitary Waste / Septic	\$75,000	40	2		95%
Structures	\$1,197,000	50	31	1,109	38%
Building					
Component	\$575,000	53	46	57	14%
Shell *Building shell without components	\$522,000	50	25	519	50%
Recreational Structure *Tennis court					
Fixed Equipment *Tennis Court	\$100,000	40	-5	533	100%







PoF Buildings, Structures & Components



PROBABILITY OF FAILURE - BUILDINGS, STRUCTURES & COMPONENTS

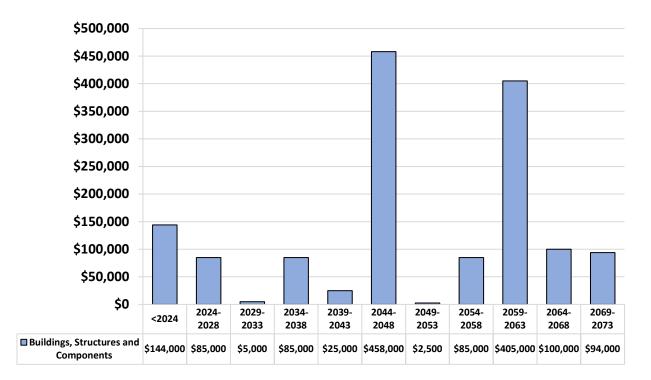




Noted in the graph above with a high probability of failure are Fixed Equipment recreational structure consisting of the tennis court. Also noted in poor condition is the Public Works buildings covered parking/storage area, the structure has been compromised due to movement of the foundation. The municipal hall was noted in overall fair condition, although lack of wheelchair accessibility and safety concern with the computer room were noted.

Buildings, Structures & Components Spending Forecast

Forecasted Spending Buildings, Structures & Components to 2073	\$1.49 Million
Sustainable Annual Funding	\$30,454



LONG-TERM RENEWAL COST PROJECTIONS - BUILDINGS, STRUCTURES & COMPONENTS





Equipment

The Village's Equipment consists of both large and small equipment, most of which is in Public Works, as well as attachments for the Village's vehicles. Examples of equipment captured are as follows: weed eaters, blowers, air compressor, generator, mics tools, pavement crack sealer, and ground compactor. Equipment as a group is approximately 24% through its useful life on average. Some of this Equipment is mobile and some is immobile.

Equipment Inventory

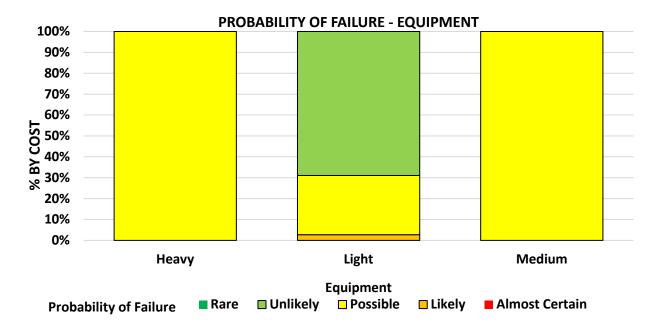
Table 7: Equipment Inventory

Asset Group/Types	Replacement Value (2023 CAD)	Average Lifespan	Average Remaining Years	% Useful Life Consumed
Equipment	\$155,900	19	14	24%
Equipment	\$155,900	19	14	24%
Tools And Machinery				
Heavy *Fuel storage	\$40,000	25	6	76%
Light *Tools, welder, air compressor etc	\$37,000	18	16	11%
Medium *Chipper, Snowplow, and salting attachments	\$78,900	18	13	27%





PoF Equipment



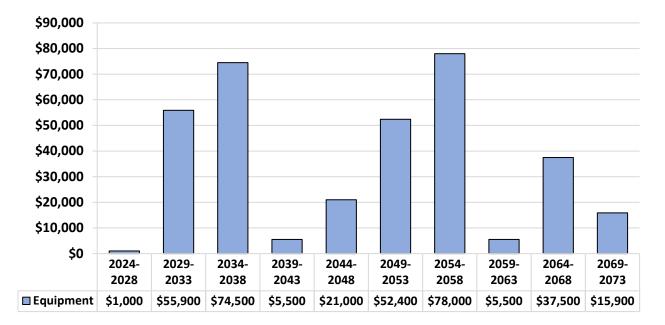
Overall, most of the equipment captured is in fair or good condition and well maintained by staff, due to the short lifespan of most equipment captured, the graph above is showing probability of failure to be possible or between 5 to 15 years life remaining. Noted in the graph above in poor condition is the Public Works fuel storage unit, no spill guard in place and the unit is not up to modern safety standards.





Equipment Spending Forecast

Forecasted Spending Equipment to 2073	\$347,200
Sustainable Annual Funding	\$7,720



LONG-TERM RENEWAL COST PROJECTIONS - EQUIPMENT





Fleet Vehicles

The Village maintains a vehicle fleet of 4 units which are used by the Public Works Department. The current undersized New Holland TN70DA tractor is in very poor condition; it was budgeted and due for replacement in 2023. Due to mechanical issues with the previous utility truck and its ultimate replacement, this did not occur this year. This report assumes the tractor to be replaced as budgeted for 2024. The remaining 3 vehicles have all been replaced in the last 5 years and are in good condition. The replacement value of the fleet is estimated at \$500,000. On average the fleet Vehicles as a group are approximately 6% through their useful lives, assuming the tractor to be replaced.

Fleet Vehicles Inventory

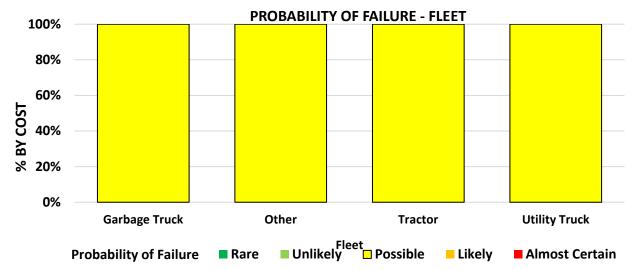
Table 8: Fleet Vehicles Inventory

Asset Group/Types	Replacement Value (2023 CAD)	Average Lifespan	Average Remaining Years	% Useful Life Consumed
Fleet	\$500,000	12	11	6%
Fleet	\$500,000	12	11	6%
Construction	\$195,000	12	12	0%
Tractor *New Holland TN70DA With Flail Mower (replacement assumed)	\$195,000	12	12	0%
Heavy-Duty	\$140,000	12	9	25%
Garbage Truck *Ford F 550 Dump Truck	\$140,000	12	9	25%
Light-Duty	\$35,000	12	12	0%
Other *Kubota 1100 Diesel	\$35,000	12	12	0%
Medium-Duty	\$130,000	12	12	0%
Utility Truck *Chevy Silverado 3500 truck	\$130,000	12	12	0%





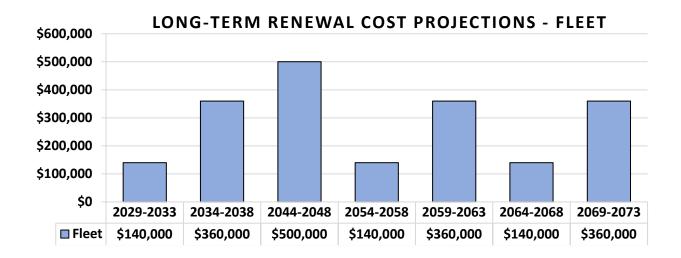
PoF Fleet Vehicles



With the tractor replacement assumed the overall condition of Belcarra's fleet is very good. The graph above shows the probability of failure to be possible or 5 to 15 years. This is due to the short, assumed lifespan averaging 12 years.

Fleet Vehicles Spending Forecast

Forecasted Spending Fleet Vehicles to 2073	\$2,000,000
Sustainable Annual Funding	\$41,667







Information Systems

The Village's Information Systems are comprised of hardware, software, and security & communication systems. Information Systems as a group is approximately 35% through its useful life on average.

Information Systems Inventory

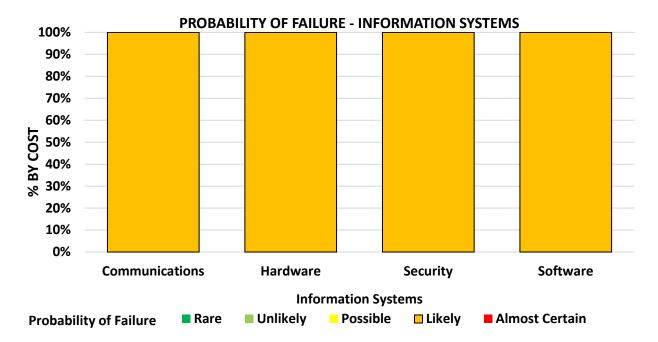
Table 9: Information Systems Inventory

Asset Group/Types	Replacement Value (2023 CAD)	Average Lifespan	Average Remaining Years	% Useful Life Consumed
Information Systems	\$94,000	5	3	35%
Equipment	\$94,000	5	3	35%
Electrical	\$17,000	5	3	40%
Communications *Radios, phones, misc.	\$10,000	5	3	40%
Security *Municipal Hall system	\$7,000	5	3	40%
Office	\$77,000	5	4	30%
Hardware	\$72,000	5	3	40%
Software	\$5,000	5	4	20%





PoF Information Systems



Due to the short, assumed lifespan the above graph shows average probability of failure to be likely or between 0-5 years. This is normal due to the short turnover of most information systems captured. Overall due to recent upgrades the municipal hall hardware and software is in good condition.

Information Systems Spending Forecast

Forecasted Spending Information Systems to 2073	\$940,000
Sustainable Annual Funding	\$18,800



\$100,000 \$90,000 \$80,000 \$70,000 \$60,000 \$50,000 \$40,000 \$30,000 \$20,000 \$10,000 \$0 2024-2029-2059-2034-2039-2044-2049-2054-2064-2069-2028 2033 2038 2043 2048 2053 2058 2063 2068 2073 Information Systems \$94,000 \$94,000 \$94,000 \$94,000 \$94,000 \$94,000 \$94,000 \$94,000 \$94,000 \$94,000 \$94,000

LONG-TERM RENEWAL COST PROJECTIONS - INFORMATION SYSTEMS







Multi-Use Path, Trail & Road Shoulder (MTRS) Network

The Village's MTRN consists of various paths, trails and road shoulders which serve as the Village's active transportation network for pedestrians, bicycles (where appropriate), etc. The MTRS Network as a group is approximately 40% through its useful life on average. The Village has applied for a grant under the BC Active Transportation Program to create a plan for its MTRN.

A map of the MTRS Network can be viewed by clicking on the below link.

MTRS Network

MTRS Network Inventory

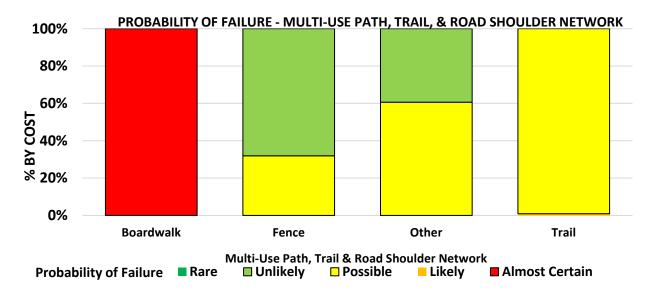
Table 10: MTRN Inventory

Asset Group/Types	Replacement Value (2023 CAD)	Average Lifespan	Average Remaining Years	Lengt h (m)	% Useful Life Consumed
Multi-Use Path, Trail & Road Shoulder Network	\$131,767	27	16	1,055	40%
Transportation Network					
Barrier Or Fence	\$80,000	34	22	277	37%
Fence	\$47,000	30	23	230	24%
Other *Stairways	\$33,000	40	20	47	50%
Pedestrian Walkway	\$51,767	20	11	779	44%
Boardwalk	\$5,000	20	0	5	100%
Trail	\$51,767	20	11	779	44%





PoF Condition of MTRS Network



Showing as poor condition as a boardwalk and budgeted to be replaced in 2024 is the small bridge on the Salish trail. Also noted in poor condition is the cement stairs located on the foreshore trail at approximately 4152 Marine Ave.

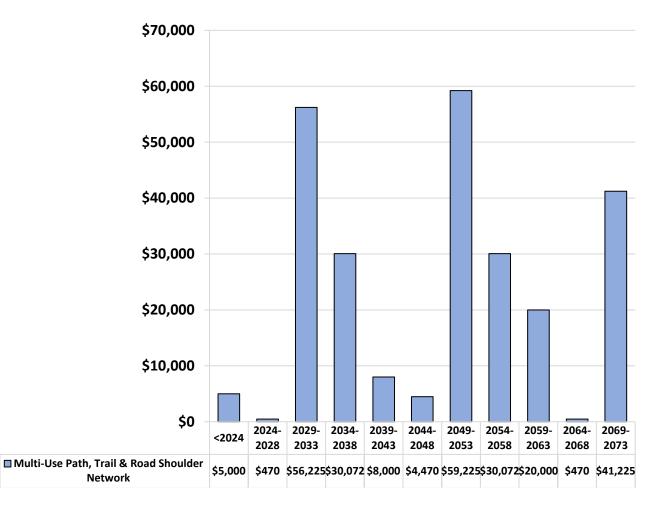
MTRS Network Spending Forecast

Forecasted Spending MTRS Network to 2073	\$255,228
Sustainable Annual Funding	\$5,230





LONG-TERM RENEWAL COST PROJECTIONS - MULTI-USE PATH, TRAIL & ROAD SHOULDER NETWORK







Stormwater Collection

The Village of Belcarra's Stormwater Collection or drainage area is situated on steep terrains, typical of areas located on the side of a hill/mountain. Runoff originates in the Woodhaven, Ray and Macbee watersheds and area drainage is provided by way of surface drainage, roadside ditches (4.2 kms), culverts (2.6 kms), local creeks, and a limited number of stormwater sewers in the developed areas which includes 58 catch basins and 24 manholes. The stormwater runoffs in the area can be broken down into the following sources/types: developed rural residential lots (280 of them), the Village Hall, road surfaces, and the forested areas in the uplands (part of the Belcarra Regional Park) that contribute runoffs to the area. Runoffs from the roads and developed lots are captured and conveyed by the network of ditches and culverts, and stormwater pipes (2.2 kms) to the numerous outfalls into either Bedwell Bay or Belcarra Bay. Some parts of the study area (east) discharges to Sasamat Creek, which also conveys water from Sasamat Lake to Bedwell Bay. Runoffs originating from the uplands are intercepted by the Village's road network and local creeks before being conveyed by the open channel system in the developed areas to the outfalls. Runoffs from the uplands south of the developed area (Woodhaven) are intercepted by Bedwell Bay Road and Main Avenue, and Rae Creek. Runoffs from the uplands east of the Coombe area are intercepted mainly by Belcarra Bay Road and Dutchman Creek. Stormwater Collection as a group is approximately 44% through its useful life on average. A map of the Stormwater system can be viewed by clicking on the below link.

Stormwater System

Stormwater Collection Inventory

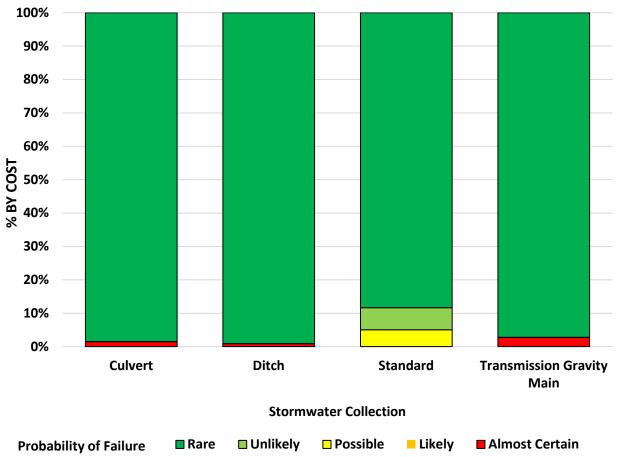
Table 11: Stormwater Collection Inventory

Asset Group/Types	Replacement Value (2023 CAD)	Average Lifespan	Average Remaining Years	Length (m)	% Useful Life Consumed
Stormwater Collection	\$4,029,252	72	40	9,123	44%
Stormwater Collection					
Catch Basin					
Standard	\$543,750	60	43		28%
Channel					
Drainage Ditch	\$1,056,100	100	50	4,224	50%
Manhole Cover					
Standard	\$150,000	60	45		25%
Manhole Trunk					
Standard	\$300,000	60	40		33%
Pipe					
Culvert	\$983 <i>,</i> 411	65	33	2,622	50%
Transmission Gravity Main	\$995,991	65	32	2,277	51%





PoF Stormwater Collection



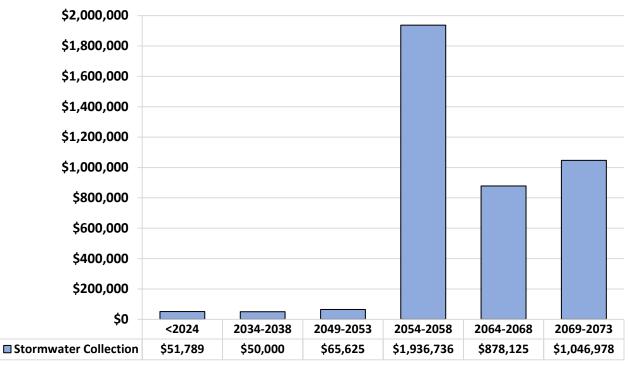
PROBABILITY OF FAILURE - STORMWATER COLLECTION

The stormwater network was found to be in overall good condition. A few issues shown in red having a probability of failure almost certain are a drainage ditch and culvert at 4563 Belcarra Bay Rd. Also noted as a current issue is a main pipe at 4695 Belcarra Bay Rd and a culvert running under Turtlehead Rd were found to be in poor condition.



Stormwater Collection Spending Forecast

Forecasted Spending Stormwater Collection to 2073	\$4 Million
Sustainable Annual Funding	\$57,576



LONG-TERM RENEWAL COST PROJECTIONS - STORMWATER COLLECTION





Transportation Infrastructure

The Village maintains a road network which includes approximately 8.8 km of asphalt. Bedwell Bay Rd. is termed the Major Road Network (MRN) as its operating and maintenance costs are funded via an annual contribution from TransLink. The MRN is 2.4 km in length which is approximately 27% of Belcarra's total road surface. The Transportation Infrastructure as a group is approximately 42% through its useful life on average.

A map of Transportation network, including the condition of roads, can be viewed by clicking on the below link.

Transportation Network

Transportation Infrastructure Inventory

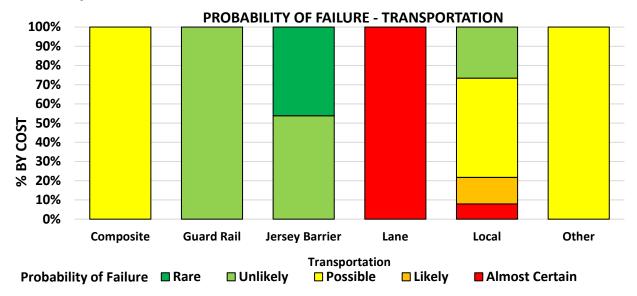
Asset Types	Replacement Value (2023 CAD)	Average Lifespan	Average Remaining Years	Lengt h (m)	% Useful Life Consumed
Transportation	\$4,097,261	22	13	8,793	42%
Structures	\$625,000	30	15	8	50%
Bridge	\$625,000	30	15	8	50%
Transportation Network	\$3,472,261	22	13	8,784	42%
Barrier Or Fence	\$165,000	44	24	197	46%
Guard Rail	\$24,000	40	20	36	50%
Jersey Barrier	\$41,000	50	30	98	41%
Other *Embankments (Kelly and Main)	\$500,000	25	6	63	76%
Road Overlay	\$3,307,261	20	12	8 <i>,</i> 588	41%
Lane *Gravel roadway to Tatlow station	\$25,295	20	0	72	100%
Local Roadway	\$3,281,966	20	12	8,515	41%

Table 12: Transportation Infrastructure Inventory





PoF Transportation Infrastructure



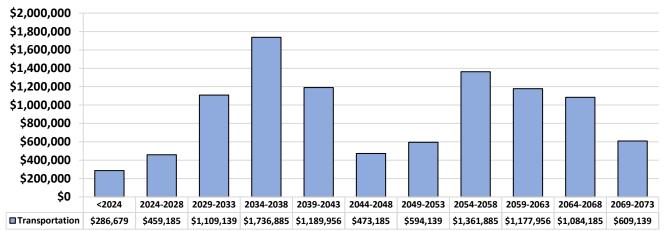
Showing in red and having a probability of failure of almost certain classified as a local roadway is the public works paved area, erosion has caused holes to form underneath the asphalt. Also shown in red classified as a local roadway are sections of Marine Ave, Young Rd, and Belcarra Bay Rd before Whiskey Cove Lane. Classified as a Lane and showing in very poor condition is the access road to the Tatlow pump house.

Transportation Infrastructure Spending Forecast

Forecasted Spending Transportation Infrastructure to 2073	\$10.1 Million
Sustainable Annual Funding	\$208,887







LONG-TERM RENEWAL COST PROJECTIONS - TRANSPORTATION





Waste & Recycle Depot (WARD) Infrastructure

The Village operates a separate utility for the drop-off, sorting and hauling of waste, organics and recyclables. A contractor picks up these items from the Village's transfer facility and delivers the items to the applicable center for further processing or disposal. The WARD Infrastructure as a group is approximately 27% through its useful life on average.

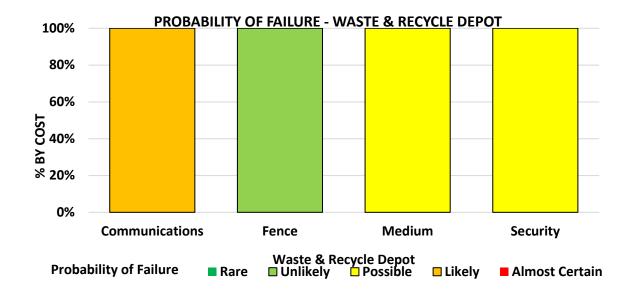
WARD Inventory

Table 13: WARD Inventory

Asset Group/Types	Replacement Value (2023 CAD)	Average Lifespan	Average Remaining Years	Lengt h (m)	% Useful Life Consumed
Waste & Recycle Depot	\$185,000	15	11		27%
Equipment					
Electrical	\$30,000	8	6		20%
Communications *Security camera system	\$15,000	5	4		20%
Security *Electric gate and components	\$15,000	10	8		20%
Tools And Machinery					
Medium *Bins A, B, C	\$145,000	15	9		40%
Transportation Network					
Barrier Or Fence					
Fence	\$10,000	30	23	101	23%







PoF WARD

Overall, the Waste and Recycling depot was found to be in good condition. No issues were currently noted, due to overall short lifespans of equipment some of the WARD has a probability of failure of possible or 5 to 15 years life remaining. Also note communication equipment associated with the WARD again is in good condition but having a short lifespan is shown with a probability of failure of likely.

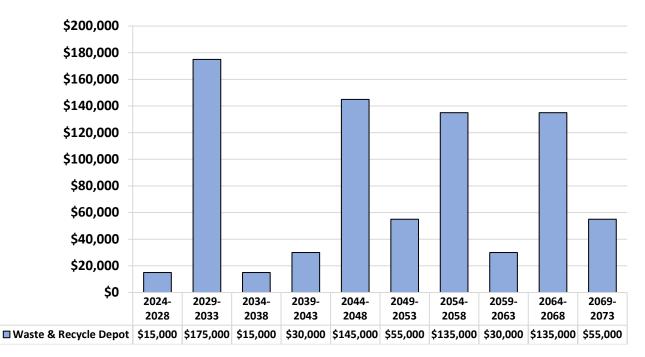
WARD Spending Forecast

Forecasted Spending WARD to 2073	\$790,000
Sustainable Annual Funding	\$16 <i>,</i> 083





LONG-TERM RENEWAL COST PROJECTIONS - WASTE & RECYCLE DEPOT







Water Distribution & Treatment

The District of North Vancouver (DNV) has been the primary supplier of potable water for the Village since 2011. Water is supplied from the DNV via two 200 mm High Density Polyethylene (HDPE) marine pipelines which are currently located at the bottom of the waterway between the Deep Cove area and Belcarra Pier. These watermains are approximately 1,400 m in length and feed potable water from the DNV at Strathcona Road to the Village at the intersection of Midden Road and Belcarra Bay Road. The water is supplied at a maximum instantaneous flow and is then transported to the Tatlow Road Reservoir through a Ductile Iron (DI) watermain. Potable water is then supplied to the two pressure zones within the Village from the Tatlow Road Reservoir. The system consists of approximately 10.5km of distribution, 5.2km of transmission and 1.8km of service pipes. Three Buildings were captured as part of the water system the Strathcona station vault, Midden water receiving and Tatlow pump house. 39 fire hydrants, 179 distribution side valves, 2 reservoirs, and various controls, sensor and communication equipment and 261 residential water boxes with meters and shut off valves were captured.

The Village also has the Dutchman Reservoir that is meant to be used as a supplemental water source for firefighting purposes. The Water Infrastructure as a group is approximately 25% through its useful life on average.

A map of the Water system can be viewed by clicking on the below link.

Water System

Water Distribution & Treatment Inventory

Table 14: Water Distribution & Treatment Inventory

Asset Group/Types	Replacement Value (2023 CAD)	Average Lifespan	Average Remaining Years	Length (m)	% Useful Life Consumed
Water Treatment and Distribution	\$10,502,029	53	40	17,463	25%
Equipment					
Tools And Machinery					
Light *Fuel storage	\$4,000	50	38		24%
Medium *Generator	\$25,000	20	15		75%
Structures					
Building	\$1,160,000	50	38		24%
Composite	\$1,050,000	50	38		24%
Substructure	\$110,000	50	38		24%
Water Supply					
Вох					
Other *Box housing meters and valves	\$527,000	50	39		22%
Controls					
Control Box	\$50,000	10	8		20%
Sensor	\$6,250	10	8		20%





Water Distribution & Treatment Inventory

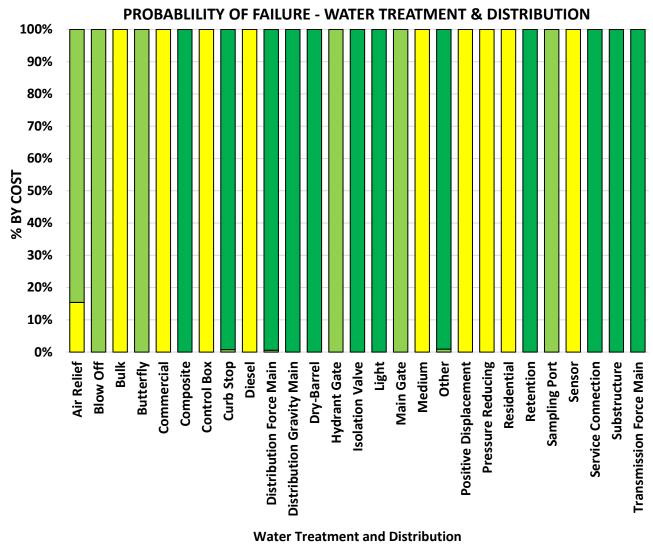
Table 14: Water Distribution & Treatment Inventory – cont'd

Asset Group/Types	Replacement Value (2023 CAD)	Average Lifespan	Average Remaining Years	Lengt h (m)	% Useful Life Consumed
Water Supply					
Hydrant					
Dry-Barrel	\$243,750	75	58		23%
Meter					
Bulk	\$105,000	20	9		55%
Commercial	\$1,500	20	12		40%
Residential	\$119,000	20	9		55%
Motor					
Diesel *Backup fire pump	\$12,500	15	11		27%
Ріре					
Distribution Force Main	\$3,255,689	65	49	10,418	24%
Distribution Gravity Main	\$4,343	65	54	12	17%
Service Connection	\$225,918	65	50	1,807	23%
Transmission Force Main	\$2,613,005	65	54	5,226	17%
Pump					
Positive Displacement	\$18,750	15	11		27%
Reservoir					
Retention	\$900,000	75	52		31%
Tank					
Other	\$5,000	50	38		24%
Valve					
Air Relief	\$24,375	30	17		43%
Blow Off	\$38,750	40	28		29%
Butterfly	\$5,000	40	29		28%
Curb Stop	\$975,000	50	39		22%
Hydrant Gate	\$46,250	40	24		40%
Isolation Valve	\$7,200	45	34		24%
Main Gate	\$100,000	40	26		36%
Other	\$5,000	30	19		37%
Pressure Reducing	\$18,750	20	9		55%
Sampling Port	\$13,750	40	29		27%





PoF of Water Distribution & Treatment



Probability of Failure Rare Unlikely Possible Likely Almost Certain

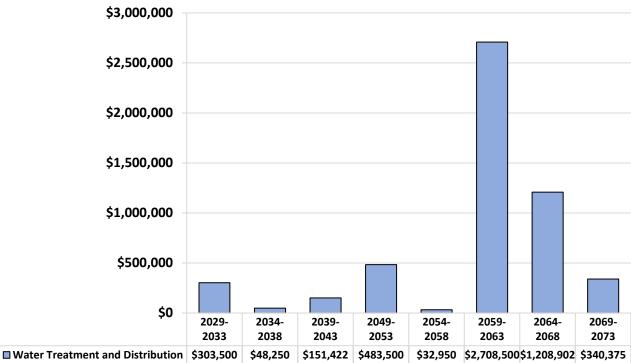




Being mostly constructed in the years 2000 and 2012, the water distribution system is in good condition. No issues are currently noted as can be seen in the graph above. Continued inspections and maintenance will be carried out by public works staff to keep the water system in good working order.

Water Distribution & Treatment Spending Forecast

Forecasted Spending Water Distribution & Treatment to 2073	\$5.3 Million
Sustainable Annual Funding	\$189,320



LONG-TERM RENEWAL COST PROJECTIONS - WATER TREATMENT & DISTRIBUTION





Asset Condition Assessment Schedule Report

This assessment schedule summary (see table below) was generated using calculated probability of failure and expected remaining life values. Which was guided by condition and general information provided by staff for each asset or feature. This is a proposed schedule to be used as a guide for future capital planning. Each asset group is summarized below highlighting assets that will require assessment over the next 6 years.

Buildings, Structures & Components:

The Public Works Parking & Storage Structure serves as a storage facility for essential equipment and materials used by the Public Works department. It was deemed to be in very poor condition assessment of the structure and bench cut land is recommended in the coming year. An inspection of the Municipal Hall's aging septic system is recommended for 2025 which will provide a more accurate condition and life expectancy data.

Equipment:

The Public works fuel storage unit was deemed to be in poor condition and potentially situated on unstable land. Like the Public works storage area an assessment of the bench cut land needs to be performed along with a more accurate condition evaluation to determine potential life expectancy. Currently the fuel unit is not up to modern safety standards as it has no spill guard in place. The assessment is recommended by or before 2027 as the current life expectancy is assumed to have only 6 years remaining.

Multi-Use Path, Trail & Road Shoulder Network:

Replacement of a small bridge in poor condition on the Salish Rd end trail is assumed for 2024. Other Trails noted that may require attention are the foreshore access trail at 4152 Marine Ave, the concrete stairway structure requires decommissioning, replacement, or repair. Assessment recommended by 2027. Also noted is the fencing on the trail from the 3600 block of Main Ave down to Bedwell Bay Rd. Potential hazards exist since it is constructed on a steep embankment, recommended to be assessed by 2029.

Storm Water Network:

Overall, Belcarra's storm network was found to be in good or fair condition, a general collection of data will be carried out in 2024 to update specifications and conditions of the network. Inspections will be done in-house using scoping equipment. Four features were identified as current issues and require assessment; a culvert into drainage ditch at 4653 Belcarra Bay Rd, in heavy rainfall flow is inadequate. A main at 4695 Belcarra Bay Rd and a Culvert under Turtlehead Rd west of Belcarra Bay Rd is degrading. Assessment of these features is recommended in 2024.





Transportation Network:

Along with information from the 2017 road study a visual inspection of Belcarra's road surfaces was carried out. Budget to be paved in 2024, is 3700 – 3900 blocks of Marine Ave. The public works area in very poor condition is recommended for repair or repaving in 2024. Recommended for assessment in 2025: the gabion wall at the intersection of Kelly Rd and Bedwell Bay Rd. Then in 2026 the gabion wall at Main Ave and Bedwell Bay. In 2027 cul-de-sac at 4000 Marine Ave and the Tatlow Pump Station. In 2028 at approximately 4700 block of Belcarra Bay Rd and south of Turtle head Rd. Also, in 2028 assessment is recommended on the 3600 block of Marine Ave and the bottom of Kelly Rd. In 2029 sections on Belcarra Bay Rd north of Turtlehead Rd and the end of Coombe Lane. In 2030 lower traffic roadways such as the 4000 block of Marine Ave, Young Rd and Robson Rd are recommended for assessment. Also noted continued inspection of the Senkler bridge is recommended for approximately 2029 to ensure longevity of this high value asset.

Water Distribution Network:

Overall, the water network is in good condition. Noted for upcoming assessment and part of standard 5 years inspections in 2024 are assessment of the dual water supply pipes coming from the District of North Vancouver and their adjoining valving and controls. A distribution pipe of unknown material and condition was identified on the gravity feed side below Main Ave and Tatlow reservoir, assessment is recommended by 2028.





Table 15: Proposed asset condition assessment schedule

Asset group	Asset description	Inspection procedures	Schedule	Resource
Buildings, Structures & Components	Public works parking & storage structure	Assessment of bench cut land and structure condition	2024	Contracted
Buildings, Structures & Components	Municipal Hall septic system	Septic system inspection	2025	Contracted
Buildings, Structures & Components	Municipal Hall computer room	Potential safety hazard to be addressed	2025	In house
Equipment	Fuel storage unit at public works	Assessment of bench cut area, and fuel tank until replacement	2027	Contracted
Fleet	New Holland Tractor	Continued maintenance until assumed replacement	2024	In house
Multi-use path, trail & shoulder network	Small bridge on Salish Rd trail	Replacement budgeted for 2024	2024	Contracted
Multi-use path, trail & shoulder network	Stairway to foreshore at 4152 Marine Ave	Options for replacement or repair to be reviewed	2027	In house
Multi-use path, trail & shoulder network	Fence on trail between 3600 block Main Ave down to Bedwell Bay Rd	Assessment of trail and fence for repairs or replacement	2029	In house
Storm Water Network	Catch basins at 3600 block of Kelly Rd	Deterioration of concrete known, continued inspections to monitor	2024	In house
Storm Water Network	General data collection and inspection of storm network	On going data collection using scope to be purchased	2024	In house
Storm Water Network	Gravity Main approximately 4695 Belcarra Bay Rd	Current drainage issue, assessment in conjunction with road surface	2028	Contracted





Table 15: Proposed asset condition assessment schedule – cont'd

Asset group	Asset description	Inspection procedures	Schedule	Resource
Storm Water Network	Culvert Under Turtlehead Rd west of Belcarra Bay Rd	Known issue and condition, bottom of culvert rusting out	2026	In house
Storm Water Network	Ditch approximately 4653 Belcarra Bay Rd	Current drainage issue, assessment in conjunction with road surface	2028	Contracted
Storm Water Network	Culvert approximately 4653 Belcarra Bay Rd	Current drainage issue, assessment in conjunction with road surface	2028	Contracted
Transportation Network	Approx 3700 - 3900 Marine Ave	Repaving to be performed in 2024	2024	Contracted
Transportation Network	Public Works paved area	Options for repair or replacement to be reviewed	2024	In house
Transportation Network	Bedwell Bay at Kelly intersection	Road surface and base condition assessment	2025	Contracted
Transportation Network	Gabion wall at intersection of Bedwell Bay Rd and Kelly Rd	Gabion wall and adjoining land assessment	2025	Contracted
Transportation Network	Gabion wall at intersection of Bedwell Bay Rd and Main Ave	Gabion wall and adjoining land assessment	2026	Contracted
Transportation Network	Turn around area, 4000 block Marine Ave	Road surface and base condition assessment	2027	Contracted
Transportation Network	Access road to Tatlow pump station	Assessment of gravel roadway for paving	2027	Contracted





Table 15: Proposed asset condition assessment schedule -cont'd

Asset group	Asset description	Inspection procedures	Schedule	Resource
Transportation Network	Bedwell bay Rd from Midden to Belcarra Bay Rd	Road surface and base condition assessment	2028	Contracted
Transportation Network	Belcarra bay Rd south of Turtlehead	Road surface and base condition assessment	2028	Contracted
Transportation Network	4700 block Belcarra Bay Rd	Road surface and base condition assessment	2028	Contracted
Transportation Network	Bottom of Kelly Rd	Road surface and base condition assessment	2028	Contracted
Transportation Network	Belcarra Bay Rd before Whiskey Cove Lane	Road surface and base condition assessment	2029	Contracted
Transportation Network	Bedwell bay Rd from Midden to Belcarra Bay Rd	Road surface and base condition assessment	2028	Contracted
Transportation Network	Belcarra Bay Rd between turtlehead and Salish	Road surface and base condition assessment	2029	Contracted
Transportation Network	Belcarra Bay Rd north of Salish	Road surface and base condition assessment	2029	Contracted
Transportation Network	End of Coombe Lane	Road surface and base condition assessment	2029	Contracted
Transportation Network	Senkler Road Bridge	Continued inspection to ensure longevity of high value asset	2029	In house





Table 15: Proposed asset condition assessment schedule -cont'd

Asset group	Asset description	Inspection procedures	Schedule	Resource
Transportation Network	4000 Marine Ave	Road surface and base condition assessment	2030	Contracted
Transportation Network	Approx 4900 Robson Rd	Road surface and base condition assessment	2030	Contracted
Transportation Network	All Young Rd	Road surface and base condition assessment	2030	Contracted
Water Distribution Network	Water supply pipe across Burrard Inlet (1)	To be completed as part of standard 5 year inspection term	2024	Contracted
Water Distribution Network	Water supply pipe across Burrard Inlet (2)	To be completed as part of standard 5 year inspection term	2024	Contracted
Water Distribution Network	Isolation valve on Transmission pipe from DNV	To be completed as part of standard 5 year inspection term	2024	Contracted
Water Distribution Network	Isolation valve on Transmission pipe from DNV	To be completed as part of standard 5 year inspection term	2024	Contracted
Water Distribution Network	PVC pipe old gravity side below main Ave and Tatlow reservoir	Inspection and scope of piping to determine condition and material	2028	In house





Cost Estimates

It should be noted that the replacement cost of assets as shown in the Asset Management Plan are rough projections of asset value in 2023 dollars. Typically, a default per unit replacement value was applied. For example, a set dollar amount per meter of water pipe or set dollar amount per square meter of roads surface. These values are generated as a base line and evolve with input from all users of the Civitas data schema. For high value assets such as buildings and water reservoir tanks, a more detailed assessment is done, values are based on available external sources such as insurance reports, previous assessments and then confirmed with staff. These estimates provide an indication of the order of magnitude of cost for planning purposes. As such the costs should be evaluated and updated annually to check for reasonability. Essentially these estimates are intended to provide a comparative, broad basis for decision-making and do not reflect the true, accurate costs of undertaking the projects.

Asset Management Next Steps

Currently all data captured is stored in Landinfo's Civitas data schema, which can be viewed on the Myciviatas web viewer and edited using QGIS open-source software. The data can be made available in various forms which in turn can be integrated into ArcGIS.

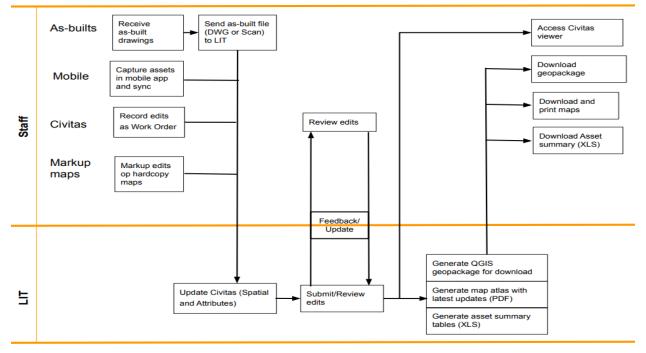
Data maintenance is a key component of the integrity of the Asset Management information within GIS. The availability of accurate and timely information ensures the success of Asset Management Planning. Moving forward, a primary focus will be on the maintenance of the data and a procedure will be put in place to ensure that data is updated on a regular basis. The diagram below shows the proposed workflow to be implemented.





Civitas Data Maintenance Workflow





Staff will be responsible for identifying and collecting new and updated asset and infrastructure information. As-built drawings, if available, are typically the starting point. However, as-built drawings are not always available and do not always reflect the situation on the ground. Also, information such as the condition of infrastructure cannot be extracted from as-built drawings.

The capture of data in the field using a mobile application is the most effective method if data is not available from as-built drawings. Mergin Maps, an open-source mobile application, is the recommended software to use. It is proposed that Operations staff install Mergin Maps on their mobile phones and capture (or verify) data while onsite. The data capture is then uploaded to a hosted server. Landinfo will review data to ensure accuracy and then make the required changes to the master data set (see diagram below).





