

CITY OF VANCOUVER

BRITISH COLUMBIA

ANNUAL FINANCIAL REPORT

2021

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Vancouver City Council 2018 – 2022

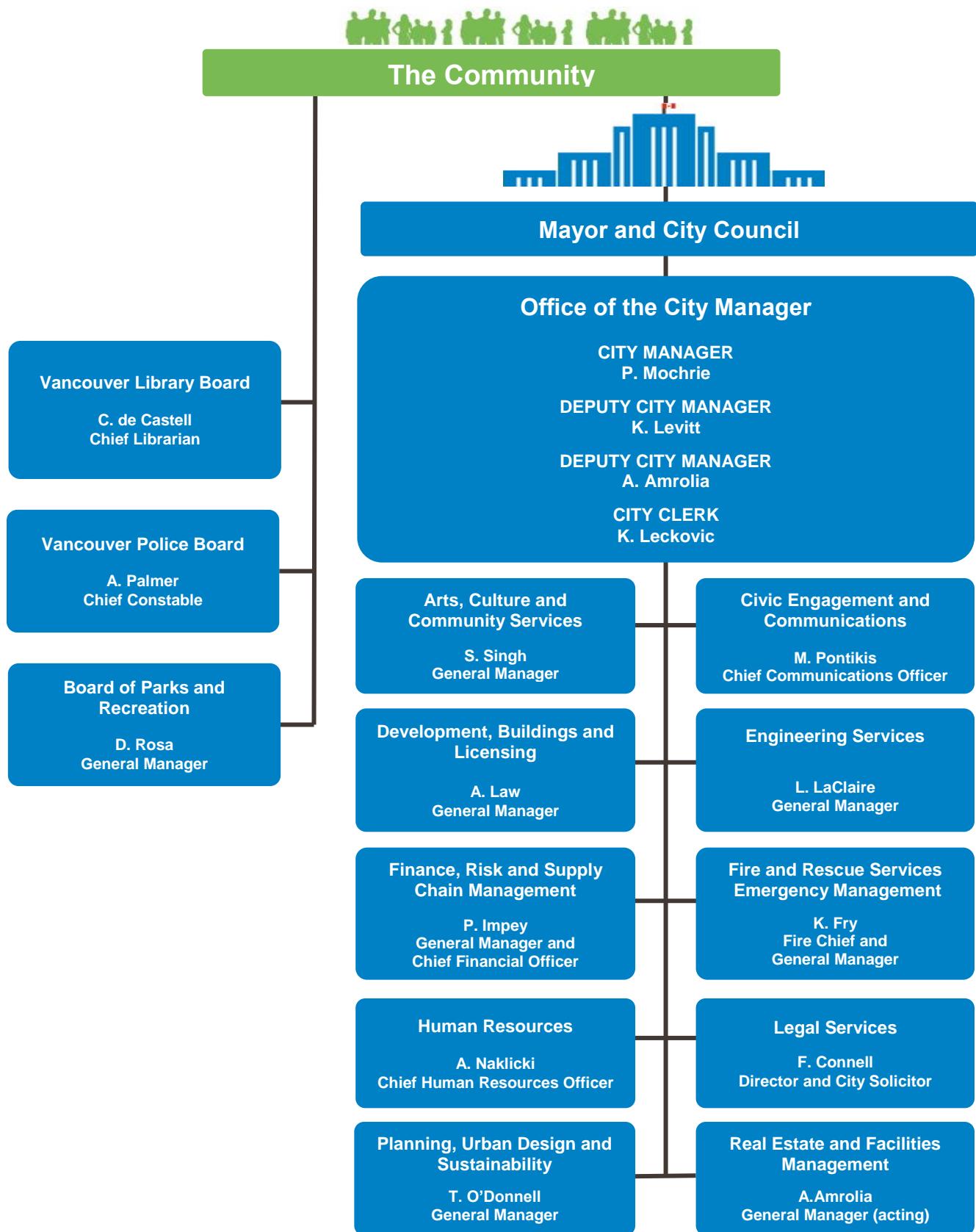
City Council is made up of the Mayor and ten councillors who are elected at large for a four-year term.



Councillor Rebecca Bligh	Councillor Christine Boyle	Councillor Colleen Hardwick	Councillor Pete Fry	Councillor Adriane Carr	Mayor Kennedy Stewart	Councillor Melissa De Genova	Councillor Jean Swanson	Councillor Michael Wiebe	Councillor Lisa Dominato	Councillor Sarah Kirby-Yung
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CITY OF VANCOUVER ORGANIZATIONAL CHART

The City of Vancouver's organizational structure supports the community.



March 8, 2022**Mayor K. Stewart and Members of Council**

It is our pleasure to submit the Consolidated Financial Statements for the City of Vancouver for the year ended December 31, 2021. These financial statements include the financial position and results of operations of the City including its Boards and City-controlled entities. The preparation of the Consolidated Financial Statements is the responsibility of management and they have been prepared in accordance with Canadian Generally Accepted Accounting Principles as prescribed by the Public Sector Accounting Board (PSAB) of the Chartered Professional Accountants of Canada.

To assist in meeting its responsibility, management maintains accounting, budget and other internal controls to provide reasonable assurance that transactions are appropriately authorized and accurately recorded, and that assets are properly accounted for and safeguarded.

The City's financial statements consist of:

- Consolidated Statement of Financial Position – summary of financial and non-financial assets, liabilities and accumulated surplus at year end.
- Consolidated Statement of Operations – summary of revenues, expenses and annual surplus for the year.
- Consolidated Statement of Change in Net Financial Assets – summary of changes in financial assets and liabilities.
- Consolidated Statement of Cash Flows – summary of the sources and uses of cash in the year.

The Consolidated Financial Statements have been audited by the independent firm of KPMG LLP and their report precedes the financial statements.

The City has shown signs of recovery from the negative impacts of the COVID-19 outbreak. Throughout 2021, as the number of COVID cases decreased, the province gradually eased restrictions by re-opening facilities and events. However, the nature of the pandemic proved to be unpredictable as the Omicron variant caused another lock-down in December. The City is optimistic of its ability to fully recover from the negative economic effects of the pandemic but remains cautious in its financial planning as the pandemic continues to evolve.

Consolidated Financial Position

(\$Millions)	2021	2020	Change
Financial assets	\$ 3,286.6	\$ 3,477.3	\$ (190.7)
Liabilities	2,346.6	2,739.3	(392.7)
Net financial assets	940.0	738.0	202.0
Non-financial assets	7,781.2	7,399.9	381.3
Accumulated Surplus	\$ 8,721.2	\$ 8,137.9	\$ 583.3

The City's consolidated financial position captures the total assets and liabilities of entities controlled by the City of Vancouver as at December 31 2021. The net financial assets, calculated as financial assets less liabilities, improved by \$202.0 million resulting in a net financial asset position of \$940.0 million (2020 - \$738.0 million) is primarily driven by revenue from developer contributions, empty homes tax revenue and government transfers received in advance of their intended use. A net financial asset position is an indicator of the funds available for future expenditures.

The City's non-financial assets increased in 2021 by \$381.3 million, bringing the total to \$7.8 billion. The increase is the net result of capital additions of physical assets in the year less disposals and amortization expense.

REPORT OF THE DIRECTOR OF FINANCE

The City's overall consolidated financial position, represented by accumulated surplus, improved by \$583.3 million in 2021 resulting in an ending balance of \$8.7 billion (2020 - \$8.1 billion). Accumulated surplus is primarily comprised of investment in tangible capital assets of \$6.8 billion (2020 - \$6.3 billion), as well as reserve balances set aside for specific purposes less obligations to be funded from future revenues of \$1.5 billion (2020 - \$1.6 billion) and fund balance of \$400.6 million (2020 - \$322.9 million).

Consolidated Results of Operations

(\$ Millions)	2021 Budget	2021		2020
Revenues	\$ 2,037.7	\$ 2,350.2	\$ 1,858.2	
Expenses	1,887.3	1,766.8	1,629.2	
Annual surplus	\$ 150.4	\$ 583.4	\$ 229.0	

The City of Vancouver's consolidated statement of operations shows evidence of the City's recovery from the negative impacts of the pandemic. This is reflected by increases in revenue from developer contributions, program fees, and license and development fees. The City also recognized significant funding from the federal and provincial levels of government in 2021. This includes \$62.0 million in grants from the Canadian Mortgage Housing Corporation (CMHC) for affordable housing. The City also received \$9.7 million from the Union of BC Municipalities (UBCM) as part of a \$19.4 million dollar grant for the Strengthening Communities Services Program with the remaining balance to be received in the future. This program is part of the federal and provincial COVID-19 Safe Restart Funding.

As part of the recovery, year over year expenses also increased by \$137.6 million as service and staffing levels increased from 2020 as a result of facilities and programs re-opening with reduced capacity and in addition the end of 2020 salary mitigation actions and collective bargaining settlements.

Year over Year Change

Consolidated revenues of \$2.4 billion increased by \$492.0 million over 2020 primarily due to developer contributions, re-opening of facilities and programs, property taxes and license and development fees revenue. Significant year over year changes in revenues include the following:

- \$259.1 million increase in contributed assets for land and buildings from developers for childcare and affordable housing.
- \$71.2 million increase in government transfers due to funding from the federal government for the purchase of hotels to be converted to affordable housing, and funding from Translink as public transit operations returns to pre-pandemic levels as well as COVID-19 Safe Restart funding.
- \$64.2 million increase in property taxes and utilities as part of annual rate increases.
- \$37.0 million increase in license and development fees collected due to increases in permit applications, large site rezoning applications as COVID restrictions were lifted.
- \$34.9 million increase in program fees as a result of the Pacific National Exhibition fair returning in 2021, increased attendance for golf, and the return of various other programs albeit at a reduced capacity due to COVID restrictions.
- \$26.6 million increase in cost recoveries and donations primarily resulting from greater recoveries for sewer and water connections resulting from new developments.

Consolidated expenses of \$1.8 billion increased by \$137.6 million over 2020 due primarily to the lifting of COVID-19 restrictions and facilities re-opening resulting in greater operational expenses. Significant year over year changes in expenses include the following:

- \$90.4 million increase in wages, salaries and benefits due to hires to support re-opening of facilities, merit increases, and new collective agreements with various unions.
- \$52.6 million increase in supplies, material and equipment to support facilities re-opening and increased costs for operations and utilities.

REPORT OF THE DIRECTOR OF FINANCE

The City's consolidated revenues exceeded expenses resulting in an annual surplus of \$583.4 million (2020-\$229.0 million). The surplus was primarily due to contributed tangible capital assets from developers totalling \$220.9 million, government transfers of \$88.1 million for capital related programs such as affordable housing and government operating program transfers in advance of their intended use. These amounts are restricted in their use.

Budget Variance

The Budget information presented in these consolidated financial statements is based upon the combined 2021 operating, capital and property endowment budgets as approved by Council on December 8, 2020 and adjusted to comply with Canadian public sector accounting standards for inclusion in the Consolidated Statement of Operations.

Consolidated revenues of \$2.4 billion were higher than budgeted revenues by \$312.5 million due primarily to contributed assets received from developers and senior government. Significant budget to actual variances include the following:

- \$77.2 million higher than budgeted developer contributions due to community amenity contributions and development cost levies, which are not budgeted, and held in reserve until utilized.
- \$40.1 million higher property tax revenues due to unbudgeted Empty Homes Tax to be used for affordable housing initiatives and lower than budgeted supplementary roll adjustments on property tax appeals.
- \$32.8 million higher than budgeted license and development fees due to increase in volume of permit applications and service and inspection fees. Revenue recognized from license and development permits that are not yet processed have an offset in reserve
- \$12.1 million higher than budgeted program fees due to increased golfing revenue and programs as COVID restrictions ease.

Consolidated expenses of \$1.8 billion were \$120.5 million lower than budgeted expenses due primarily to restricted operations and capacities of facilities due to COVID-19, and delays on capital projects. Significant budget to actual variances include the following:

- Community and Cultural Services - \$72.5 million lower than budgeted due to delays of market rental and social policy grant payments to non-for-profit organizations (NPO). The City requires NPOs to satisfy certain pre-requisites prior to payment which have not been met.
- General Government - \$37.1 million lower than budgeted due to lower transfers from reserves to reflect an improvement in the City's year-end position largely driven by improved revenue from eased COVID-19 restrictions.
- Engineering - \$16.4 million lower than budgeted due to delays in various projects because of scope redesign, and supply chain issues as a result of global challenges from the pandemic and from severe flooding.
- Parks and recreation - \$14.9 million lower than budgeted, as festivals and events have limited occupancy restrictions, resulting in fewer staff and operations expenses, as well as delays in land acquisitions.
- Police and Fire Protection - \$39.1 million higher than budgeted costs due to new collective agreements, and overtime.

In total, the City's annual consolidated surplus of \$583.4 million exceeded the budgeted annual surplus of \$150.4 million by \$433.0 million. The annual consolidated surplus will be utilized and transferred to various reserves for debt repayments, various priority initiatives including capital investments for affordable housing, and ensuring the City is resilient in a changing economic landscape.

REPORT OF THE DIRECTOR OF FINANCE

Tangible Capital Assets

Consolidated capital additions totalled \$585.4 million in 2021 and are comprised of the following:

(\$Millions)	2021
Land and improvements	\$ 136.6
Buildings and leasehold improvements	288.6
Vehicles and other equipment	19.7
Computer systems	25.5
Infrastructure	
Streets and structures	78.3
Water system	52.5
Sewer system	44.4
Assets under construction	<u>(60.2)</u>
	<u>\$ 585.4</u>

Infrastructure replacement and improvements of \$175.2 million were added in 2021. Land and improvements additions include \$20.4 million in road dedications, \$83.3 million in properties acquired for social housing and \$13.5 million in park improvements. Vehicle and other equipment additions consisted primarily of engineering heavy equipment. PNE rides and site improvements of \$0.3 million were also included in the equipment category. Building additions were primarily for capital maintenance of civic buildings and office renovations. Computer systems includes end of life replacement and additions of hardware of \$18.1 million and software applications of \$7.4 million.

Debt

In November 2021, the City issued its first sustainability bond of \$100.0 million, approved in the 2019-2022 Capital Plan maturing in 2031, with a coupon rate of 2.3%. The bond funds environmentally and socially sustainable initiatives and projects. During the year, the City repaid \$140.8 million of debt and amortized \$0.6 million of debt premium resulting in a total outstanding debt of \$1,013.2 million. At the end of 2021, the City has sinking fund debt reserves of \$423.2 million for future repayments.

(\$Millions)	2021	2020	Change
Long term debt	\$ 1,013.2	\$ 1,054.6	\$ (41.4)
Less: Sinking fund reserves	(423.2)	(458.8)	35.6
Net long term debt	<u>\$ 590.0</u>	<u>\$ 595.8</u>	<u>\$ (5.8)</u>

As part of the 2019-2022 Capital Plan, the City of Vancouver electorate had approved borrowing of up to \$495.0 million; \$300.0 million for the maintenance and replacement of existing and construction of new streets, parks and facilities infrastructure and \$195.0 million for sewer and neighborhood energy capital expenditures. The overall outstanding borrowing authority at the end of 2021 was \$188.8 million.

REPORT OF THE DIRECTOR OF FINANCE

Reserves

Under legislative or Council authority, the City has established a number of specific purpose reserves, in addition to the sinking fund debt repayment reserve. At the end of 2021, these specific purpose reserves totalled \$1,460.3 million, a net increase of \$117.9 million over 2020. These increases were driven primarily by an increase in the Capital reserve and the amounts are committed for future housing projects and community amenities.

The City reserves are grouped into five main categories reflecting the purpose of the reserve, and highlights of the major changes in the year are as follows:

Financial Stabilization – provides for mitigation of risks to the City's financial stability and a buffer for impacts of unplanned events, unforeseen emergencies and short-term relief from revenue fluctuations.

- The General Revenue Stabilization Reserve provides for operating contingency funds for events such as catastrophic events, environmental hazards, extraordinary public safety situations, economic downturns, unforeseen changes in revenues, and other risks and commitments. Over the last two years the City has utilized this reserve to offset the financial impact of the pandemic. At the end of 2021, the balance in the reserve is \$162.2 million of which \$84.8 million of permit revenue was set aside for backlog processing and another \$44.0 million in emerging risks and other commitments. This leaves the City with \$33.4 million available for general operating contingencies compared to a desired target balance of \$100-\$200 million.
- The Solid Waste Capital Reserve is being accumulated to fund closure and post-closure costs at the City's landfill. The present liability is calculated based on the ratio of utilization to the total capacity of the landfill site and the discounted value of future estimated cash flows associated with closure and post-closure activities. At year-end, the liability amounted to \$57.9 million, with the remaining capacity of 5.7 million tonnes (20.2% of total capacity) to be utilized by 2036. During the year the reserve increased by \$3.1 million to \$68.0 million as a result of operating surplus, interest revenue and recoveries from Metro Vancouver of \$12.6 million offset by closure and operating capital expenditures of \$9.6 million.

Asset Management – provides for renewal, replacement and major maintenance of tangible capital assets.

- The Plant and Equipment Reserves which fund the long-term equipment replacement plan increased by \$7.3 million to \$63.2 million. The reserves are primarily funded by internal equipment charges provided in the Operating and Capital Budgets and proceeds from equipment disposals, which amounted to \$32.2 million in 2021. Expenditures in 2021 were \$25.0 million of which \$22.5 million related to fleet and equipment purchases, \$1.4 million related to funding of Vancouver Civic Theatres for building improvements and sound system upgrades, and \$1.1 million related to parking meter purchases and upgrades.

Future Capital – provides for new capital asset additions to address City growth.

- The Affordable Housing Reserves increased by a net amount of \$33.6 million to \$232.0 million, due primarily to Empty Homes Tax revenues committed to planned affordable housing initiatives.
- Community Amenity contributions from developers totaled \$52.6 million (2020 - \$20.8 million). Transfers and expenditures of \$22.7 million (2020 - \$27.0 million) for capital projects brought the year-end Community Amenities Reserve balance to \$459.3 million.
- Capital Facilities and Infrastructure Reserves hold funds for future streets and transit infrastructure and building projects. The Capital Facilities and Infrastructure Reserves increased by \$2.9 million to \$95.4 million, due primarily to a transfer of \$14.0 million from Revenue Fund annual surplus.

Special Revenue and Programs – holds funds received from external sources or designated for specific purposes.

- A net transfer of \$1.9 million comprises of transfers for insurance, public art, and social and cultural including Hastings Park. The balance for Special Revenue and Programs increased to \$170.5 million.

Future Debt Repayment – for future debt repayments

- A net transfer of \$6.7 million to cover the Sinking Fund deficit and a net transfer of \$0.3 million to provide funding for future debt issues increased the Future Debt Repayment Reserves with a balance of \$26.9 million.

REPORT OF THE DIRECTOR OF FINANCE

Climate-Related Financial Disclosures

The City is continuing its commitment to support the voluntary recommendations of the Task Force for Climate-Related Financial Disclosures (TCFD) by including climate-related financial disclosures in its annual financial report. This disclosure describes the City's governance, strategy, risk, management and metrics and targets related to climate adaptation and will evolve as both the field of climate-risk disclosure and the City's climate change planning and response matures. The disclosure can be found immediately following the audited financial statements.

Summary

The City's consolidated financial position improved in 2021 over 2020 as the City began to recover from the pandemic. The City had sufficient amounts in its General Revenue Stabilization to balance its 2021 operating budget. The City will have to continue to exercise prudent management and financial discipline to build the reserve towards the target balance.

The City's 2021 financial position remains healthy and is reflected in recent credit ratings updates. In February 2021, S&P Global Ratings, and in November 2021, Moody's Investors Service reaffirmed the City's credit rating of AAA and Aaa with stable outlooks, respectively. Both AAA and Aaa credit ratings reflects the agencies' assessments of the City's solid governance and experienced financial management team, consistent positive fiscal outcomes, high levels of liquidity, strong economy and budgetary performance, and strong debt affordability. Strong credit ratings provide the City with the opportunity to borrow at more favourable interest rates.

The pandemic continues to be a dynamic situation. Although there are signs of recovery, there is still uncertainty of the duration, and magnitude of impact on the economy and the City's finances. The City will continue to exercise fiscal responsibility to manage budgetary pressures.

Respectfully submitted,



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General Manager, Finance, Risk & Supply Chain Management
Chief Financial Officer
Director of Finance



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INDEPENDENT AUDITORS' REPORT

To the Mayor and Councilors of the City of Vancouver

Report on the Audit of Financial Statements

Opinion

We have audited the consolidated financial statements of the City of Vancouver (the "City"), which comprise:

- the consolidated statement of financial position as at December 31, 2021
- the consolidated statement of operations for the year then ended
- the consolidated statement of change in net financial assets for the year then ended
- the consolidated statement of cash flows for the year then ended
- and notes to the consolidated financial statements, including a summary of significant accounting policies (hereinafter referred to as the "financial statements").

In our opinion, the accompanying financial statements present fairly, in all material respects, the consolidated financial position of the City as at December 31, 2021, and its consolidated results of operations, its consolidated changes in net financial assets and its consolidated cash flows for the year then ended in accordance with Canadian public sector accounting standards.

Basis for Opinion

We conducted our audit in accordance with Canadian generally accepted auditing standards. Our responsibilities under those standards are further described in the "***Auditors' Responsibilities for the Audit of the Financial Statements***" section of our auditors' report.

We are independent of the City in accordance with the ethical requirements that are relevant to our audit of the financial statements in Canada and we have fulfilled our other ethical responsibilities in accordance with these requirements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Responsibilities of Management and Those Charged with Governance for the Financial Statements

Management is responsible for the preparation and fair presentation of the financial statements in accordance with Canadian public sector accounting standards, and for such internal control as management determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, management is responsible for assessing the City's ability to continue as a going concern, disclosing as applicable, matters related to going concern and using the going concern basis of accounting unless management either intends to liquidate the City or to cease operations, or has no realistic alternative but to do so.

Those charged with governance are responsible for overseeing the City's financial reporting process.



Auditors' Responsibilities for the Audit of the Financial Statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditors' report that includes our opinion.

Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with Canadian generally accepted auditing standards will always detect a material misstatement when it exists.

Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of the financial statements.

As part of an audit in accordance with Canadian generally accepted auditing standards, we exercise professional judgment and maintain professional skepticism throughout the audit.

We also:

- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion.
- The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the City's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
- Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the City's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditors' report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditors' report. However, future events or conditions may cause the City to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.
- Communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.
- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the group entity to express an opinion on the financial statements. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our audit opinion.

Report on Other Legal and Regulatory Requirements

As required by the Vancouver Charter, we report that, in our opinion, the accounting policies applied in preparing and presenting financial statements in accordance with Canadian public sector accounting standards have been applied on a basis consistent with that of the preceding period.

Chartered Professional Accountants

Vancouver, Canada
March 8, 2022

CITY OF VANCOUVER
Consolidated Statement of Financial Position
As at December 31
($\$000s$)

	2021	2020
FINANCIAL ASSETS		
Cash and cash equivalents (Note 2)	\$ 1,146,611	\$ 1,141,886
Investments (Note 3)	1,900,173	2,066,044
Accounts receivables (Note 4)	237,705	267,271
Lease agreement receivables (Note 5)	2,094	2,083
	3,286,583	3,477,284
LIABILITIES		
Accounts payable and accrued liabilities (Note 6)	558,885	838,239
Deferred liabilities (Note 7)	164,695	165,034
Mortgage and loan agreement (Note 8)	7,801	16,204
Debt (Note 9)	1,013,163	1,054,635
Deferred revenue (Note 10)	602,028	665,217
	2,346,572	2,739,329
NET FINANCIAL ASSETS		
	940,011	737,955
NON-FINANCIAL ASSETS		
Inventory and prepaids	29,024	25,376
Tangible capital assets (Note 11)	7,752,224	7,374,518
	7,781,248	7,399,894
ACCUMULATED SURPLUS (Note 12)		
	\$ 8,721,259	\$ 8,137,849

Contractual rights, contingencies and commitments (Note 13)
See accompanying Notes to Consolidated Financial Statements

CITY OF VANCOUVER
Consolidated Statement of Operations
Years ended December 31
(\$000s)

	2021 Budget	2021	2020
	(Note 15)		
REVENUES			
Property taxes, penalties and interest (Notes 13(e) and (g))	\$ 941,985	\$ 982,108	\$ 935,538
Utility fees	339,922	338,501	320,914
Program fees	68,282	80,359	45,426
License and development fees	78,031	110,806	73,791
Parking	85,109	80,383	67,391
Government transfers (Note 16)	48,005	130,607	59,402
Cost recoveries and donations	62,296	116,830	90,250
Investment income	27,019	31,454	40,471
Rental, lease and other	61,781	66,561	70,062
Bylaw fines	17,577	25,427	16,156
Developer contributions	307,721	384,949	125,829
Gain on sale of tangible capital assets	-	2,239	12,957
	2,037,728	2,350,224	1,858,187
EXPENSES			
Utilities	342,248	334,774	325,828
General government	241,152	204,029	184,018
Police protection	349,736	377,197	350,064
Fire protection	145,381	157,024	145,955
Engineering	234,549	218,158	213,130
Planning and development	90,461	78,909	70,816
Parks and recreation	210,701	195,790	163,625
Community and cultural services	214,004	141,495	124,165
Library	59,100	59,438	51,609
	1,887,332	1,766,814	1,629,210
ANNUAL SURPLUS	150,396	583,410	228,977
ACCUMULATED SURPLUS (Note 12)			
Beginning of year	8,137,849	8,137,849	7,908,872
End of year	\$ 8,288,245	\$ 8,721,259	\$ 8,137,849

See accompanying Notes to Consolidated Financial Statements

CITY OF VANCOUVER
Consolidated Statement of Change in Net Financial Assets
Years ended December 31
(\$000s)

	2021 Budget <small>(Note 15)</small>	2021	2020
Annual surplus	\$ 150,396	\$ 583,410	\$ 228,977
Acquisition of tangible capital assets	(567,825)	(364,498)	(328,078)
Contributed tangible capital assets	-	(220,901)	(26,899)
Amortization of tangible capital assets	208,245	205,326	197,786
Gain on sale of tangible capital assets	-	(2,239)	(12,957)
Proceeds on sale of tangible capital assets	-	4,606	30,429
	<hr style="border-top: 1px solid black;"/>	<hr style="border-top: 1px solid black;"/>	<hr style="border-top: 1px solid black;"/>
	(359,580)	(377,706)	(139,719)
Change in inventory and prepaids	-	(3,648)	(1,070)
CHANGE IN NET FINANCIAL ASSETS	(209,184)	202,056	88,188
NET FINANCIAL ASSETS			
Beginning of year	737,955	737,955	649,767
End of year	<hr style="border-top: 1px solid black;"/> <hr style="border-top: 1px solid black;"/> \$ 528,771	<hr style="border-top: 1px solid black;"/> <hr style="border-top: 1px solid black;"/> \$ 940,011	<hr style="border-top: 1px solid black;"/> <hr style="border-top: 1px solid black;"/> \$ 737,955

See accompanying Notes to Consolidated Financial Statements

CITY OF VANCOUVER
Consolidated Statement of Cash Flows
Years ended December 31
($\$000s$)

	2021	2020
CASH PROVIDED BY (USED IN):		
Operating Transactions		
Annual surplus	\$ 583,410	\$ 228,977
Items not involving cash		
Amortization	205,326	197,786
Amortization of debt premium	(721)	(721)
Contributed tangible capital assets	(220,901)	(26,899)
Gain on sale of tangible capital assets	(2,239)	(12,957)
Recognition of deferred revenue	(197,243)	(95,654)
Change in non-cash items		
Other financial assets and liabilities	(249,799)	412,456
Change in deferred liabilities	(339)	55
Change in inventory and prepaids	(3,648)	(1,070)
	113,846	701,973
Financing Transactions		
Debt, mortgage and loan issues	100,000	107,959
Debt, mortgage and loan repayments	(149,154)	(132,731)
Deferred revenue receipts	134,054	180,643
	84,900	155,871
Capital Transactions		
Acquisition of tangible capital assets	(364,498)	(328,078)
Proceeds of sale of tangible capital assets	4,606	30,429
	(359,892)	(297,649)
Investing Transactions		
Net sale of investments	165,871	196,046
	165,871	196,046
NET INCREASE IN CASH AND CASH EQUIVALENTS	4,725	756,241
CASH AND CASH EQUIVALENTS		
Beginning of year	1,141,886	385,645
End of year	\$ 1,146,611	\$ 1,141,886

See accompanying Notes to Consolidated Financial Statements.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Tabular amounts in \$000s)
Year Ended December 31, 2021

The City of Vancouver (the “City”) was incorporated in 1886 and is governed by the Vancouver Charter, a private bill consented to by the Legislative Assembly of the Province of British Columbia. On March 11, 2020, the COVID-19 outbreak was declared a pandemic by the World Health Organization. This resulted in governments worldwide, including the Canadian federal and provincial governments enacting emergency measures to combat the spread of the virus. The economic conditions and the City’s response to the pandemic had a material impact on the City’s operating results and financial position in 2021. The City has shown signs of economic recovery and financial improvements compared to prior year and budget. Although the COVID-19 situation remains dynamic, the City continues to monitor the financial impact and plans accordingly.

1. SIGNIFICANT ACCOUNTING POLICIES

(a) Basis of Presentation

The consolidated financial statements of the City have been prepared in accordance with Canadian public sector accounting standards.

(b) Reporting Entity

The consolidated financial statements reflect the assets, liabilities, revenues and expenses of the reporting entity. The reporting entity is comprised of all the organizations controlled by the City. Inter-fund and inter-corporate balances and transactions have been eliminated. The entities included are as follows:

Hastings Institute Inc.	Vancouver Civic Development Corporation
Harbour Park Development Ltd.	City of Vancouver Public Housing Corporation
Parking Corporation of Vancouver (EasyPark)	Pacific National Exhibition (PNE)
Vancouver Economic Commission	Vancouver Affordable Housing Agency

The resources and operations of the City are accounted for in the following funds:

- Capital Fund - Accounts for capital expenditures supporting civic infrastructure and holds all properties required for civic use and the related debt.
- Revenue Fund - Accounts for revenue and expenditures for the general operations of the City including sewer, solid waste, and water and neighbourhood energy utilities.
- Property Endowment Fund – Accounts for parkades and properties which are leased to third parties being developed or held for resale or lease.
- Sinking Fund - Accounts for the accumulation of instalments generated from tax levies in accordance with the actuarial requirements for the retirement of sinking fund debt at maturity.
- Capital Financing Fund - Accounts for funds designated for the financing of capital works, for the issuance of the City's debentures and for funds set aside for the City's solid waste disposal program.
- Vancouver Affordable Housing Endowment Fund – Accounts for City-owned, non-market housing assets.

(c) Revenues

Revenues are accounted for in the period in which the transactions or events occurred that gave rise to the revenues.

The Vancouver Charter provides the City with the ability to collect, enforce collection and to introduce penalties. Property taxes are calculated based on the British Columbia Assessment Authority (BCAA)'s assessment value and annually approved mill rates by Council. Tax revenues are recognized when they meet the definition of an asset, have been authorized, and the taxable event occurs. Annual property tax levies and payments-in-lieu of taxes are recorded as taxes for municipal services in the year which they are levied. The City establishes a provision annually based on estimates for properties that have appealed their assessed value. The BCAA's appeal process may affect current year property assessments by supplementary roll adjustments. Adjustments on taxes are recognized in the year when the appeals are settled. The Empty Home tax was introduced in 2017. Properties deemed, determined, or declared empty are subject to a tax of 3.00% (2020 – 1.25%) based on the property's assessed value. Revenue is recognized within the fiscal year when collectability is assured.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Tabular amounts in \$000s)
Year Ended December 31, 2021

1. SIGNIFICANT ACCOUNTING POLICIES – Continued

(d) Deferred Revenue

(i) Development cost levies (DCL's):

The City collects development cost levies in accordance with Council-approved bylaws to finance growth-related projects including parks, childcare facilities, replacement housing, and engineering infrastructure. DCL's must be spent on projects within defined area boundaries and are recognized as revenue as Council approved expenditures are incurred.

(ii) Prepaid leases

The City has land leases with terms ranging from 3 to 99 years, some of which have been prepaid. These amounts are recognized as revenue on a straight-line basis over the lease term.

(iii) Capital contributions, government transfers, and other

Contributions for capital and other are recognized as the expenditures are incurred. Government transfers are recognized as revenue once stipulations are met.

(e) Cash, Cash Equivalents, and Investments

Cash and cash equivalents include short-term investments with maturity dates within 90 days of acquisition. Investments are comprised of money market instruments, term deposits, banker acceptances and corporate, federal and provincial bonds with maturity dates greater than 90 days after acquisition. Investments are recorded at cost and adjusted for amortization of premiums or discounts. Investment income is recognized as revenue the period it is earned.

(f) Non-financial Assets

Non-financial assets are not available to discharge existing liabilities and are held for use in the provision of services. They may have useful lives extending beyond the current year and are not intended for sale in the ordinary course of operations.

(i) Tangible capital assets

Tangible capital assets are recorded at cost which includes amounts that are directly attributable to acquisition, construction, development or betterment of the assets. The cost, less residual value of the tangible capital assets, is amortized on a straight-line basis over their estimated useful lives as follows:

	Years
Landfill and land improvements	15 to 60
Buildings and building improvements	25 to 100
Leasehold improvements	5 to 20
Vehicles, equipment and furniture	3 to 25
Computer systems	5 to 10
Library books and materials	10
Infrastructure	
Streets and structures	25 to 80
Water system	20 to 100
Sewer system	40 to 100

Annual amortization is charged commencing when the asset is acquired or available for use. Assets under construction are not amortized until the asset is available for productive use. The City does not capitalize interest associated with the acquisition or construction of a tangible capital asset. Tangible capital assets received as contributions are recorded at their fair value at the date of receipt and also recorded as revenue. Works of art, artifacts, cultural and historic assets are not recorded as assets in the consolidated financial statements.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Tabular amounts in \$000s)
Year Ended December 31, 2021

1. SIGNIFICANT ACCOUNTING POLICIES – Continued

(f) Non-financial Assets - Continued

(ii) Inventory and prepaids

Inventory and prepaid expenses held for consumption are recorded at the lower of cost and replacement cost.

(g) Pension Plan and Deferred Employee Benefit Liabilities

The City and its employees participate in the Municipal Pension Plan. The Municipal Pension Plan is a multi-employer contributory defined benefit pension plan. Payments in the year are expensed.

Employees are entitled to earned benefits related to non-vesting accumulating sick leave, sick leave gratuity and full vacation entitlement at retirement. Employees may also defer current vacation entitlements. The cost of post-employment benefits is actuarially determined based on service provided, a best estimate of retirement ages, and expected future salary and wage increases. The liability under these benefit plans is accrued based on projected benefits as the employees render service necessary to earn the future benefits.

Certain employees are entitled to income continuation benefits under long term disability plans. The City recognizes a liability and expense for these post-employment benefits in the period when the event occurs that obligates the City to provide the benefit.

(h) Landfill Closure and Post-Closure Costs

The Ministry of Environment and Climate Change Strategy establishes certain requirements in order for the City to obtain an Operating Certificate for its landfill site. Those obligations include closure and post-closure activities. The present value of the City's estimated future liability for these expenditures is recognized as the landfill site's capacity is used. This liability and annual expense is calculated based on the ratio of utilization to total capacity of the site.

(i) Liabilities for Contaminated Sites

The City recognizes a liability for remediation of a contaminated site when the site is no longer in productive use or an unexpected event resulting in contamination has occurred and the following criteria are satisfied: contamination exceeds an environmental standard, the City is either directly responsible or has accepted responsibility for remediation, it is expected future economic benefits will be given up and a reasonable estimate of the amount can be made. Future economic benefits are expected to be given up if the City has an external obligation to remediate a site or has commenced remediation on its own accord.

(j) Use of Estimates

Preparation of the consolidated financial statements requires management to make estimates and assumptions that affect the reported consolidated amounts of assets and liabilities, the disclosure of contingent assets and liabilities at the date of the financial statements, and the reported amounts of revenues and expenses during the reporting period.

Significant estimates include assumptions used in estimating provisions for accrued liabilities, legal claims, assessment appeals, landfill liability and contaminated sites liabilities and in performing actuarial valuations of employee future benefits. The amounts recorded for tangible capital assets are based on management's estimates of historical cost, useful lives and valuation for contributed assets.

Actual results could differ from the estimates and adjustments, if any, will be reflected in the period of settlement or upon a change in the estimate.

(k) Comparative Figures

Certain comparative figures have been reclassified to conform with the presentation adopted in the current year. These changes did not have an impact on the annual surplus.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Tabular amounts in \$000s)
Year Ended December 31, 2021

2. CASH AND CASH EQUIVALENTS

	2021	2020
Cash	\$ 1,146,611	\$ 873,761
Cash equivalents	-	268,125
	<u>\$ 1,146,611</u>	<u>\$ 1,141,886</u>

Cash and cash equivalents includes short term deposits, bonds, and treasury bills. As at December 31, 2021, the City had no cash equivalents. The 2020 cash equivalents yielded an annual return of 0.09% to 0.50%.

3. INVESTMENTS

The Vancouver Charter enables the City to invest money that is not immediately required. Section 201(1) of the Charter limits the types of securities the City may purchase. The following is a summary of the City's current holdings:

2021:

	Cost	Fair Market Value	Asset Mix	Interest Rates	Maturity
Bonds	\$ 1,109,532	\$ 1,104,754	58%	0.65% - 3.25%	0 - 29 years
Treasury Bills and Term Deposits	790,641	790,641	42%	0.62% - 1.50%	0 - 1 year
Total	<u>\$ 1,900,173</u>	<u>\$ 1,895,395</u>	<u>100%</u>		

2020:

	Cost	Fair Market Value	Asset Mix	Interest Rates	Maturity
Bonds	\$ 853,319	\$ 878,754	41%	0.85% - 3.25%	0 - 27 years
Treasury Bills and Term Deposits	1,212,725	1,214,377	59%	0.09% - 2.00%	0 - 1 year
Total	<u>\$ 2,066,044</u>	<u>\$ 2,093,131</u>	<u>100%</u>		

4. ACCOUNTS RECEIVABLES

	2021	2020
Accrued interest	\$ 7,584	\$ 9,769
Employee advances	372	1,044
Local improvement receivables	1,512	1,644
Property taxes receivables	71,399	95,844
Rental and lease receivables	5,489	5,889
Trade and other receivables	111,811	116,351
Utility receivables	39,538	36,730
	<u>\$ 237,705</u>	<u>\$ 267,271</u>

5. LEASE AGREEMENT RECEIVABLES

In 2013, the City provided a 10-year interest-free loan of \$1.95 million to S.U.C.C.E.S.S. Affordable Housing Society, in support of an affordable rental housing project. The loan, secured by a mortgage agreement, is due on December 1, 2023.

The remaining balance of \$0.15 million relates to lease agreement receivables for affordable housing.

6. ACCOUNTS PAYABLE AND ACCRUED LIABILITIES

	2021	2020
Payroll liabilities	\$ 99,368	\$ 76,285
Property tax advance deposits and receipts	130,323	105,702
Other advance deposits and receipts	77,262	66,670
Trade and other liabilities	251,932	589,582
	<u>\$ 558,885</u>	<u>\$ 838,239</u>

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Tabular amounts in \$000s)
Year Ended December 31, 2021

7. DEFERRED LIABILITIES

	2021	2020
Deferred employee benefit liabilities (a)	\$ 94,831	\$ 95,343
Landfill closure and post-closure costs (b)	57,887	58,155
Contaminated sites	6,788	6,326
Accrued interest on long term debt	5,189	5,210
	<hr/>	<hr/>
	\$ 164,695	\$ 165,034

(a) Deferred Employee Benefit Liabilities

The City has accumulated \$62.6 million (2020 - \$58.6 million) in a reserve for the funding of post-retirement and post-employment benefits (note 12(a)). An actuarial valuation is completed once every three years. The last actuarial valuation was completed as at December 31, 2020. An extrapolation of the valuation for results as at December 31, 2021 uses the following valuation assumptions:

	2021	2020
Discount rate	2.90%	3.03%
Inflation rate	2.50%	2.50%
Rate of compensation increase (including inflation)	2.58% to 4.63%	2.58% to 4.63%
Amortization period of actuarial loss in years	12	12

	2021	2020
Sick leave gratuity	\$ 35,226	\$ 35,091
Deferred vacation	13,375	13,853
Non-vested accumulating sick leave	25,592	25,275
Long term disability	19,820	19,643
Other post-employment benefits	23,006	23,131
	<hr/>	<hr/>
Unamortized actuarial loss	117,019	116,993
	<hr/>	<hr/>
	(22,188)	(21,650)
	<hr/>	<hr/>
	\$ 94,831	\$ 95,343

Reconciliation of deferred employee benefit liabilities:

	2021	2020
Accrued benefit obligation, beginning of the year	\$ 116,993	\$ 96,848
Current service cost	9,592	11,666
Interest cost	3,560	3,375
Actual benefits paid	(15,361)	(9,800)
Actuarial loss	2,235	14,904
	<hr/>	<hr/>
Accrued benefit Obligation, end of the year	117,019	116,993
Unamortized actuarial loss	(22,188)	(21,650)
	<hr/>	<hr/>
Deferred employee benefit liabilities, end of the year	\$ 94,831	\$ 95,343

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Tabular amounts in \$000s)
Year Ended December 31, 2021

7. DEFERRED LIABILITIES - Continued

(b) Landfill Closure and Post-Closure Costs

The City has accumulated \$68.0 million (2020 - \$64.9 million) in a Solid Waste Capital reserve for the funding of landfill liabilities (note 12(a)).

The landfill liabilities reported are based on the following assumptions:

	2021	2020
Closure date	2036	2036
Years of post-closure maintenance	30	30
Total capacity (million tonnes)	28.2	28.0
Future costs (million)	\$197.2	\$203.8
Present value of future costs (million)	\$112.7	\$113.6
Deposited to date (million tonnes)	22.5	21.8
Utilization of total capacity to date	79.8%	77.9%
City's share of liability	64.3%	65.7%
Discount rate	2.90%	3.03%
Inflation rate	2.00%	2.00%

In accordance with an agreement between the City and the Greater Vancouver Sewerage and Drainage District, the City is responsible for its share of the overall liability for closure and post-closure costs based on tonnage deposited by parties to the agreement.

8. MORTGAGE AND LOAN AGREEMENT

- (a) The mortgage agreement for \$2.1 million (2020 - \$2.4 million) payable to Canada Mortgage and Housing Corporation for a non-market housing project has interest payable at 2.09% and matures on June 1, 2023. The interest paid in 2021 was \$0.1 million (2020 - \$0.1 million).
- (b) The loan agreement is the revolving facility for the PNE with a Canadian chartered bank providing for borrowing of up to \$34.9 million (2020 - \$34.9 million). The facility bears interest at the bank prime rate minus 0.25% and is due on demand. As at December 31, 2021, \$5.7 million (2020 - \$13.8 million) has been drawn on this facility.

Principal payments on the mortgage and the loan agreement over the next 5 years and thereafter, assuming the loan agreement is not called, are as follows:

2022	\$ 369
2023	377
2024	384
2025	392
2026	401
Thereafter	139
	2,062
Loan agreement	5,739
Total	<u>\$ 7,801</u>

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Tabular amounts in \$000s)
Year Ended December 31, 2021

9. DEBT

Debenture debt is shown at its face amount.

Maturing in	Total
2022	\$ 754
2023	110,760
2024	105,764
2025	90,769
2026	90,773
Thereafter	<u>592,141</u>
Subtotal Debt Issue	990,961
Unamortized Premium	22,202
Total	<u>\$ 1,013,163</u>

Interest rates payable on the principal amount of the debentures range from 1.40% to 4.07% per annum (2020 - 1.40% to 4.07%). The weighted average interest rate on total external debt to maturity is 3.08% (2020 - 3.10%). Total interest paid in 2021 on externally held debt amounted to \$32.0 million (2020 - \$33.4 million). Reserve for debt retirement at December 31, 2021 amounted to \$423.2 million (2020 - \$458.8 million) (note 12) resulting in an unfunded external debt balance of \$590.0 million (2020 - \$595.8 million).

10. DEFERRED REVENUE

Deferred revenue is comprised of the following:

	2020	Contributions and Interest	Recognized as Revenue	2021
Development cost levies				
City-wide	\$ 324,920	\$ 74,140	\$ (98,570)	\$ 300,490
Area-specific	109,952	1,142	(13,605)	97,489
	<u>434,872</u>	<u>75,282</u>	<u>(112,175)</u>	<u>397,979</u>
Prepaid leases	177,204	3,070	(5,454)	174,820
Other	53,141	55,702	(79,614)	29,229
	<u>\$ 665,217</u>	<u>\$ 134,054</u>	<u>\$ (197,243)</u>	<u>\$ 602,028</u>

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Tabular amounts in \$000s)
Year Ended December 31, 2021

11. TANGIBLE CAPITAL ASSETS

	Balance beginning of year	Additions net of transfers	Disposals	Balance end of year
Cost				
Land	\$ 2,359,759	\$ 125,969	\$ (1)	\$ 2,485,727
Landfill and land improvements	343,298	10,651	(37)	353,912
Buildings and building improvements	1,733,448	258,079	-	1,991,527
Leasehold improvements	70,829	30,502	-	101,331
Vehicles, equipment and furniture	423,218	19,663	(2,387)	440,494
Computer systems	273,083	22,951	-	296,034
Library books and materials	39,195	2,591	-	41,786
Infrastructure				
Streets and structures	3,491,041	78,326	(1,439)	3,567,928
Water system	840,750	52,497	(2,518)	890,729
Sewer system	1,663,245	44,409	(1,080)	1,706,574
Assets under construction	145,990	(60,239)	-	85,751
Total Cost	11,383,856	585,399	(7,462)	11,961,793
Accumulated amortization				
Landfill and land improvements	199,345	10,037	(2)	209,380
Buildings and building improvements	589,319	41,634	-	630,953
Leasehold improvements	29,848	5,241	-	35,089
Vehicles, equipment and furniture	263,498	24,801	(1,945)	286,354
Computer systems	217,108	20,205	-	237,313
Library books and materials	27,539	2,206	-	29,745
Infrastructure				
Streets and structures	1,993,168	72,180	(1,048)	2,064,300
Water system	231,119	10,743	(1,441)	240,421
Sewer system	458,394	18,279	(659)	476,014
Accumulated amortization	4,009,338	205,326	(5,095)	4,209,569
Net book value				
Land *	2,359,759	125,969	(1)	2,485,727
Landfill and land improvements	143,953	614	(35)	144,532
Buildings and building improvements	1,144,129	216,445	-	1,360,574
Leasehold improvements	40,981	25,261	-	66,242
Vehicles, equipment and furniture	159,720	(5,138)	(442)	154,140
Computer systems	55,975	2,746	-	58,721
Library books and materials	11,656	385	-	12,041
Infrastructure				
Streets and structures	1,497,873	6,146	(391)	1,503,628
Water system	609,631	41,754	(1,077)	650,308
Sewer system	1,204,851	26,130	(421)	1,230,560
Assets under construction	145,990	(60,239)	-	85,751
Net Book Value	\$ 7,374,518	\$ 380,073	\$ (2,367)	\$ 7,752,224
Net Book Value (2020)	\$ 7,234,799	\$ 157,191	\$ (17,472)	\$ 7,374,518

*The Assessed Value of land is \$24.5 billion (2020 - \$24.9 billion)

Additions include contributed tangible capital assets - buildings \$145.7 million, land \$69.2 million, Streets and structures \$3.5million, Sewer systems \$1.1million, Vechicles, equipment and furniture \$1.0 million and Water systems \$0.4 million.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Tabular amounts in \$000s)
Year Ended December 31, 2021

12. ACCUMULATED SURPLUS

	2021	2020
Investment in tangible capital assets	\$ 6,753,462	\$ 6,333,388
Prepaid lease revenue not yet recognized	(151,689)	\$ (154,551)
Reserve for Sinking Fund debt retirement - statutory	314,166	369,542
Reserve for Sinking Fund debt retirement - non-statutory	109,078	89,212
Reserves (a)	1,460,330	1,342,419
Fund balances (b)	400,607	322,873
Obligations to be funded from future revenues (Note 7)	(164,695)	(165,034)
	<hr/>	<hr/>
	\$ 8,721,259	\$ 8,137,849

(a) The following reserve amounts are set aside for specific purposes:

	2020	Transfer To	Transfer From	Change During Year	2021
Financial Stabilization					
Deferred Payroll Obligation	\$ 58,570	\$ 4,000	\$ -	\$ 4,000	\$ 62,570
General Revenue Stabilization	146,714	41,716	(26,243)	15,473	162,187
Solid Waste Capital	64,935	12,628	(9,596)	3,032	67,967
Utility Rate Stabilization	26,880	5,027	(561)	4,466	31,346
Other	7,139	-	-	-	7,139
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
	304,238	63,371	(36,400)	26,971	331,209
Asset Management					
Golf Course and Artificial Turf	3,655	500	(984)	(484)	3,171
Plant and Equipment	55,740	32,316	(24,904)	7,412	63,152
Streets Capital Maintenance	19,463	1,329	(3,334)	(2,005)	17,458
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
	78,858	34,145	(29,222)	4,923	83,781
Future Capital					
Affordable Housing	198,387	37,722	(4,092)	33,630	232,017
Capital Facilities and Infrastructure	92,519	16,342	(13,486)	2,856	95,375
Community Amenities	429,402	52,571	(22,696)	29,875	459,277
Parking Sites	43,836	18,325	(7,907)	10,418	54,254
Pedestrian and Cycling	6,715	400	(91)	309	7,024
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
	770,859	125,360	(48,272)	77,088	847,947
Special Revenue and Programs					
Childcare Endowment	18,086	273	(636)	(363)	17,723
Community Amenity Operations	11,553	309	(491)	(182)	11,371
Donations	16,266	2,083	(1,223)	860	17,126
Emerging Neighbourhood	10,000	-	-	-	10,000
Insurance	27,822	3,035	(5,166)	(2,131)	25,691
Outstanding Commitments	17,781	7,837	(6,845)	992	18,773
Public Art	17,391	2,169	(921)	1,248	18,639
Social and Cultural	27,608	2,077	(1,475)	602	28,210
Other	22,054	5,195	(4,293)	902	22,956
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
	168,561	22,978	(21,050)	1,928	170,489
Future Debt Repayment					
	19,903	7,154	(153)	7,001	26,904
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
	\$ 1,342,419	\$ 253,008	\$ (135,097)	\$ 117,911	\$ 1,460,330

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Tabular amounts in \$000s)
Year Ended December 31, 2021

12. ACCUMULATED SURPLUS - Continued

(b) Fund balances are comprised of:

	2020	Change During Year	2021
Revenue Fund	\$ 26,239	\$ -	\$ 26,239
Capital Fund	(24,716)	32,451	7,735
Capital Financing Fund	181,862	10,333	192,195
Property Endowment Fund	120,862	36,765	157,627
Vancouver Affordable Housing Endowment Fund	-	(8,091)	(8,091)
Harbour Park Development Ltd.	(7)	(4)	(11)
Vancouver Civic Development Corp.	11,940	17	11,957
Hastings Institute Inc.	258	6	264
Pacific National Exhibition	(10,903)	3,629	(7,274)
City of Vancouver Public Housing Corporation	(542)	271	(271)
Vancouver Economic Commission	1,110	312	1,422
Parking Corporation of Vancouver	342	(20)	322
	<u>306,445</u>	<u>75,669</u>	<u>382,114</u>
Eliminations on consolidation	16,428	2,065	18,493
	<u>\$ 322,873</u>	<u>\$ 77,734</u>	<u>\$ 400,607</u>

13. CONTRACTUAL RIGHTS, CONTINGENCIES AND COMMITMENTS

(a) Contractual Rights

The City's contractual rights arise from rights to receive payments under shared cost agreements and leases.

The City has entered into cost sharing agreements with senior governments and other agencies for projects in four priority areas, totalling \$220.8 million. Cumulative revenues of \$87.3 million have been recognized from the time that the agreements were entered, leaving \$133.5 million in contractual rights. Revenues under these contractual rights are expected to be recognized over the next four years as part of the City's capital plan activity.

Infrastructure Priority Area:

	Shared Cost Revenue
Affordable Housing	\$ 11,055
Green Infrastructure & Climate Change	39,454
Rapid Transit & Transportation Infrastructure	50,100
Social & Community Infrastructure	32,877
	<u>\$ 133,486</u>

The City leases real property to commercial, affordable housing and non-profit organizations with terms ranging from 1 to 116 years. The City has contractual rights to receive the following amounts of lease revenue in the next 5 years.

Year	Lease Revenue
2022	\$ 32,355
2023	20,184
2024	16,843
2025	14,182
2026	12,304
	<u>\$ 95,868</u>

13. CONTRACTUAL RIGHTS, CONTINGENCIES AND COMMITMENTS – Continued

(b) Contingent Liability and Commitment

The City is contingently liable in respect of debentures of the Greater Vancouver Water District, the Greater Vancouver Sewerage and Drainage District and the Greater Vancouver Regional District.

The City is a shareholder and member of E-Comm Emergency Communications for British Columbia Incorporated (E-Comm), whose services include: regional 911 call centre for the Greater Vancouver Regional District, Area Wide Radio emergency communications network, dispatch operations and records management. The City holds 2 Class A shares and 1 Class B share (of a total 36 Class A and 19 Class B shares issued and outstanding at December 31, 2021). As a Class A shareholder, the City is committed to paying levies for services received under a cost-sharing formula to fund operating and capital costs of the E-Comm operations. In addition, the City is contingently liable to cover its proportionate share of such costs should any member be unable to fulfill its funding obligations. Annual levy amounts fluctuate based on various factors under the cost-sharing formula, and amounted to \$22.4 million during the year (2020 - \$21.5 million).

(c) Municipal Pension Plan

The City and its employees contribute to the Municipal Pension Plan (a jointly trustee pension plan). The board of trustees, representing plan members and employers, is responsible for administering the plan, including investment of assets and administration of benefits. The plan is a multi-employer defined benefit pension plan. Basic pension benefits are based on a formula. As at December 31, 2021, the plan has about 220,000 active members and approximately 112,000 retired members. Active members include approximately 42,000 contributors from local governments.

Every three years, an actuarial valuation is performed to assess the financial position of the plan and adequacy of plan funding. The actuary determines an appropriate combined employer and member contribution rate to fund the plan. The actuary's calculated contribution rate is based on the entry age normal cost method, which produces the long-term rate of member and employer contributions sufficient to provide benefits for average future entrants to the plan. This rate may be adjusted for the amortization of any actuarial funding surplus and will be adjusted for the amortization of any unfunded actuarial liability.

The most recent actuarial valuation for the Municipal Pension Plan as at December 31, 2018, indicated a \$2,866.0 million funding surplus for basic pension benefits on a going concern basis.

The City paid \$84.4 million (2020 - \$80.5 million) for employer contributions while employees contributed \$68.2 million (2020 - \$64.8 million) to the plan in 2021.

The next valuation will be as at December 31, 2021, with results available in 2022.

Employers participating in the plan record their pension expense as the amount of employer contributions made during the fiscal year (defined contribution pension plan accounting). This is because the plan records accrued liabilities and accrued assets for the plan in aggregate, resulting in no consistent and reliable basis for allocating the obligation, assets and cost to individual employers participating in the plan.

(d) Contingent Legal Liabilities

As at December 31, 2021, there were various legal claims pending against the City arising in the ordinary course of its operations. The City has recorded a liability for certain uninsured claims, but has made no specific provision for those where the outcome is presently indeterminable. The City also has an insurance reserve of \$25.7 million (2020 - \$27.8 million) for potential claims (note 12(a)).

(e) Property Assessment Appeals

As at December 31, 2021, there were various assessment appeals pending with respect to properties. The outcome of those appeals may result in adjustments to property taxes receivable for the current and prior years. The City has estimated a liability for certain appeals and makes an annual provision against property taxes receivable for the impact of appeals.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Tabular amounts in \$000s)
Year Ended December 31, 2021

13. CONTRACTUAL RIGHTS, CONTINGENCIES AND COMMITMENTS – Continued

(f) Loan Guarantees

The City has entered into 60 year prepaid leases and operating agreements with respect to two affordable rental housing complexes in Southeast False Creek. Under the agreements, the City has guaranteed the operators' loan obligations with respect to their mortgages to finance the pre-paid rent. The outstanding balances of the mortgages as reported in their most recent audited financial statements are:

First Avenue Athletes Village Housing Co-operative as at September 30, 2021	\$17,169
S.U.C.C.E.S.S. Affordable Housing Society as at March 31, 2021	\$19,979

(g) Collection of Taxes on Behalf of Other Taxing Authorities

	2021	2020
Taxes collected by the City:		
Property and business taxes	\$ 1,840,433	\$ 1,576,899
Payment in lieu of taxes	31,754	29,186
Local improvement levies	519	620
	<hr/> 1,872,706	<hr/> 1,606,705
Less taxes remitted to:		
Province of British Columbia - School Taxes	690,272	476,004
Translink	150,622	147,826
B.C. Assessment Authority	22,173	22,322
Metro Vancouver	27,428	24,913
Municipal Finance Authority	103	102
	<hr/> 890,598	<hr/> 671,167
Net Taxes for Municipal Purposes	<hr/> <u>\$ 982,108</u>	<hr/> <u>\$ 935,538</u>

14. TRUST FUNDS

Certain assets have been conveyed or assigned to the City to be administered as directed by agreement or statute. The City holds the assets for the benefit of, and stands in fiduciary relationship to, the beneficiary. The following trust funds and assets are excluded from the City's consolidated financial statements:

	2021	2020
Vancouver Agreement	\$ 1,495	\$ 1,846
Cemetery Perpetual Care	9,015	8,201
General	466	462
	<hr/> <u>\$ 10,976</u>	<hr/> <u>\$ 10,509</u>

The Vancouver Agreement is an urban development agreement between the Federal and Provincial Governments and the City to facilitate sustainable economic, social and community development in the City.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Tabular amounts in \$000s)
Year Ended December 31, 2021

15. BUDGET

The Budget information presented in these consolidated financial statements is based upon the 2021 operating, capital and property endowment budgets as approved by Council on December 8, 2020 and adjusted to comply with Canadian public sector accounting standards for inclusion in the Consolidated Statement of Operations and Consolidated Statement of Change in Net Financial Assets.

Revenues	2021
Approved Budgeted Revenues	
Operating Budget	\$ 1,597,313
Capital Budget	352,975
Property Endowment Operating Budget	52,390
Other City of Vancouver funds	16,614
Vancouver Public Housing Corporation	4,154
Pacific National Exhibition (1)	27,464
Other City of Vancouver Reporting Entities	185
	2,051,095
PSAB Revenue Adjustments	
Interfund revenue eliminated	(13,367)
Budgeted Revenues as presented in financial statements	\$ 2,037,728
Expenses	
Approved Budgeted Expenditures	
Operating Budget	\$ 1,597,313
Capital Budget	352,975
Property Endowment Operating Budget	52,390
Other City of Vancouver funds	16,614
Vancouver Public Housing Corporation	4,154
Pacific National Exhibition (1)	33,306
Other City of Vancouver Reporting Entities	185
	2,056,937
PSAB Expenses Adjustments	
Operating Budget PSAB expense adjustments (2)	203,342
Capital asset expenditures	(567,825)
Amortization of tangible capital assets	208,245
Interfund expense eliminated	(13,367)
	(169,605)
Budgeted Expenses as presented in financial statements	\$ 1,887,332
Annual Surplus	\$ 150,396

Note:

- (1) Revised from Vancouver Budget 2021 amounts to align PNE's budget with the City's reporting period ending December 31, 2021. The PNE board approved budget information required for alignment was not available at the time of the City budget preparation.
- (2) Debt issue receipts, debt principal payments and transfers

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Tabular amounts in \$000s)
Year Ended December 31, 2021

16. GOVERNMENT TRANSFERS

	Budget Program	2021	2020
By Source			
Federal			
Canadian Mortgage Housing Corporation Rapid Housing Initiative	Capital	\$ 62,041	\$ -
Canada Infrastructure	Capital	3,990	-
Mountain View Cemetery Field of Honour	Capital	1,115	-
Zero Emission Vehicle Infrastructure Program	Capital	315	360
Other capital	Capital	372	1,148
Other operating	Operating	360	-
		<u>68,193</u>	<u>1,508</u>
Provincial			
Revenue Sharing	Operating	18,088	16,187
Climate Action Revenue Incentive Program	Operating	72	1,114
COVID Safe Restart Grant	Operating	9,676	16,371
Federal Gas Tax Fund	Capital	3,978	1,945
COVID emergency response	Operating	3,359	7,476
BC Housing non-market housing operating subsidies	Operating	5,161	5,160
BC Housing capital	Capital	-	5,843
Library	Operating	1,240	1,287
Other capital	Capital	2,056	-
Other operating	Operating	1,044	94
		<u>44,674</u>	<u>55,477</u>
South Coast British Columbia Transportation Authority			
Operations and maintenance	Operating	3,487	1,407
Major Road Network and Bike	Capital	5,304	319
Major Road Rehabilitation	Capital	6,625	-
Street signal and lighting rehabilitation	Capital	2,324	441
		<u>17,740</u>	<u>2,167</u>
Other			
	Operating	-	250
		<u>\$ 130,607</u>	<u>\$ 59,402</u>
By Budget Program			
Capital		\$ 88,120	\$ 10,056
Operating		<u>42,487</u>	<u>49,346</u>
		<u>\$ 130,607</u>	<u>\$ 59,402</u>

17. SEGMENTED INFORMATION AND EXPENSES BY OBJECT

City services are provided by departments and their activities are reported in the City's Funds as described in Note 1(b). The accounting policies used in these segments are consistent with those followed in the preparation of the consolidated financial statements as disclosed in Note 1.

Revenues not directly attributable to a specific segment are shown in General Government.

Amounts shown for wages, contract services, supplies and debt charges are the gross amounts incurred by departments for all segmented activity. Allocated costs include services performed by departments for other segments or for work related to capital construction activity.

The segments include:

- **General Government** which provides internal support services to Council and other departments who provide direct services to its citizens. These internal departments include the City Manager's Office, City Clerk, Financial Services, Real Estate and Facilities Management, Legal and Human Resources, Technology Services, Risk and Supply Chain Management.
- **Police Protection** which provides operational and investigation services to maintain public order, uphold the rule of law and prevent crime.
- **Fire Protection** which provides emergency and prevention services related to firefighting and medical services.
- **Engineering** which provides planning, design, construction and maintenance of the City's streets, street lighting, traffic control, parking enforcement, transportation planning and utility and communication corridors.
- **Utilities** which are managed by the Engineering department and provide planning, design, construction and maintenance related to the water distribution, sewerage collection, drainage, neighbourhood energy utilities and refuse removal services.
- **Planning and Development** which creates plans, programs and policies required for City-wide and community planning, zoning and subdivision, building by-law administration and inspection, various licensing and animal control services.
- **Parks and Recreation** which provides recreation services through its parks, community centres, swimming pools and ice rinks.
- **Arts, Culture, and Community Services** which includes the civic theatres and the Britannia Community Centre and other programs to create sustainable, creative and inclusive communities for living and working.
- **Library** which provides access to reading and information needs, and a free place for everyone to discover, create, and share ideas.

NOTE 17 CONTINUED – SEGMENTED INFORMATION AND EXPENSES BY OBJECT (Tabular amounts in \$000s)

Year Ended December 31, 2021

	General Government	Police Protection	Fire Protection	Engineering	Utilities	Planning & Development	Parks & Recreation	Community Services	Arts, Culture & Recreation	2021 Consolidated	2020 Consolidated
Revenues											
Property taxes, penalties and interest	\$ 982,108	\$ -	\$ -	\$ -	\$ 338,481	\$ -	\$ -	\$ -	\$ -	\$ 982,108	\$ 935,538
Utility fees	8	-	-	-	338,481	-	12	-	-	338,501	320,914
Program fees	880	1,877	867	40	197	-	67,184	8,565	749	80,359	45,426
License and development fees	110,401	-	-	(3)	409	-	-	(1)	-	110,806	73,791
Parking	49,765	31	-	20,670	-	-	9,487	430	-	80,383	67,391
Government transfers	36,511	40	89	16,920	4,040	72	166	71,454	1,315	130,607	59,402
Cost recoveries and donations	7,140	32,818	12,757	16,101	37,390	2,048	4,411	2,732	1,433	116,830	90,250
Investment income	31,283	-	-	-	-	-	-	171	-	31,454	40,471
Rental, lease and other	34,221	64	20	9,874	764	1	7,079	13,358	1,180	66,561	70,062
Bylaw fines	25,430	(1)	-	-	-	-	(7)	5	-	25,427	16,156
Developer contributions	56,716	-	-	37,032	7,563	-	66,563	217,075	-	384,949	125,829
Gain (loss) on sale of tangible capital assets	(442)	-	-	4,213	(1,497)	-	(35)	-	-	2,239	12,957
	1,334,021	34,829	13,733	104,847	387,347	2,121	154,860	313,789	4,677	2,350,224	1,858,187
Operating Expenses											
Wages, salaries and benefits	113,471	313,823	137,874	94,942	60,852	68,595	111,106	41,710	42,308	984,681	894,298
Contract services	13,389	25,058	5,351	10,880	21,445	6,018	9,943	7,026	2,545	101,655	112,622
Supplies, material and equipment	49,816	25,704	7,353	25,230	203,715	4,295	44,472	74,722	7,658	442,965	390,348
Debt charges	1,286	859	889	5,698	14,270	-	5,469	3,366	350	32,187	34,156
	177,962	365,444	151,467	136,750	300,282	78,908	170,990	126,824	52,861	1,561,488	1,431,424
Amortization											
	26,067	11,753	5,557	81,408	34,492	1	24,800	14,671	6,577	205,326	197,786
	204,029	377,197	157,024	218,158	334,774	78,909	195,790	141,495	59,438	1,766,814	1,629,210
Annual Surplus (Deficit)											
	\$ 1,129,992	\$ (342,368)	\$ (143,291)	\$ (113,311)	\$ 52,573	\$ (76,788)	\$ (40,930)	\$ 172,294	\$ (54,761)	\$ 583,410	\$ 228,977

**SUPPLEMENTARY
FINANCIAL
INFORMATION**

UNAUDITED

COVID-19 SAFE RESTART GRANT UNAUDITED (Tabular amounts in \$000s)
Year Ended December 31, 2021

In 2021, The City of Vancouver received approval for funding from the Union of BC municipalities (UBCM) for the Strengthening Communities' Services Program totalling \$19,351,572. This program is part of the federally and provincially funded Safe Restart program and is meant to address costs related to supporting unsheltered homeless populations and addressing the related community impacts as a result of COVID-19. Of the total approved funding, the City has received \$9,675,786. The remaining payment is to be provided when the city satisfies the terms and conditions as set forth by the agreement.

The schedule below summarizes the total funding approved for the City:

	2021	2020
COVID-19 Safe Restart Grants approved:	\$ 19,352	\$ 16,371
Revenue recognized:	(9,676)	(16,371)
Balance, end of year	<hr/> \$ 9,676	<hr/> \$ -

FIVE YEAR - CONSOLIDATED STATEMENT OF FINANCIAL POSITION UNAUDITED (Tabular amounts in \$000s)
Years Ended December 31

	2021	2020	2019	2018	2017
FINANCIAL ASSETS					
Cash and cash equivalents	\$ 1,146,611	\$ 1,141,886	\$ 385,645	\$ 320,400	\$ 184,694
Investments	1,900,173	2,066,044	2,262,090	2,060,045	1,900,806
Accounts receivables	237,705	267,271	265,411	281,310	209,907
Lease agreement receivable	2,094	2,083	2,161	8,290	13,861
	<u>3,286,583</u>	<u>3,477,284</u>	<u>2,915,307</u>	<u>2,670,045</u>	<u>2,309,268</u>
LIABILITIES					
Accounts payable and accrued liabilities	558,885	838,239	424,001	378,175	388,638
Deferred liabilities	164,695	165,034	164,979	164,272	168,824
Mortgages and loan agreement	7,801	16,204	15,229	21,625	30,408
Debt	1,013,163	1,054,635	1,081,103	1,083,202	993,440
Deferred revenue	602,028	665,217	580,228	525,820	476,049
	<u>2,346,572</u>	<u>2,739,329</u>	<u>2,265,540</u>	<u>2,173,094</u>	<u>2,057,359</u>
NET FINANCIAL ASSETS					
	<u>940,011</u>	<u>737,955</u>	<u>649,767</u>	<u>496,951</u>	<u>251,909</u>
NON-FINANCIAL ASSETS					
Inventory and prepaids	29,024	25,376	24,306	24,539	28,713
Tangible capital assets	7,752,224	7,374,518	7,234,709	7,086,656	6,935,837
	<u>7,781,248</u>	<u>7,399,894</u>	<u>7,259,015</u>	<u>7,111,195</u>	<u>6,964,550</u>
ACCUMULATED SURPLUS					
	<u>\$ 8,721,259</u>	<u>\$ 8,137,849</u>	<u>\$ 7,908,782</u>	<u>\$ 7,608,146</u>	<u>\$ 7,216,459</u>

FIVE YEAR - CONSOLIDATED STATEMENT OF OPERATIONS UNAUDITED (Tabular amounts in \$000s)
Years Ended December 31

	2021	2020	2019	2018	2017
REVENUES					
Property taxes, penalties and interest	\$ 982,108	\$ 935,538	\$ 873,498	\$ 833,414	\$ 753,152
Utility fees	338,501	320,914	299,411	277,143	260,786
Program fees	80,359	45,426	127,059	123,888	116,664
License and development fees	110,806	73,791	95,910	94,828	74,458
Parking	80,383	67,391	102,906	98,063	93,010
Government Transfers	130,607	59,402	51,545	67,784	51,780
Cost Recoveries and Donations	116,830	90,250	141,658	107,258	93,579
Investment income	31,454	40,471	49,070	37,681	28,497
Rental, lease and other	66,561	70,062	77,989	66,813	69,567
Bylaw fines	25,427	16,156	22,152	22,352	20,490
Developer contributions	384,949	125,829	132,695	256,763	331,587
Gain (loss) on sale of tangible capital assets	2,239	12,957	(7,057)	(7,094)	(6,973)
	2,350,224	1,858,187	1,966,836	1,978,893	1,886,597
EXPENSES					
Utilities	334,774	325,828	320,907	300,504	277,607
General Government	204,029	184,018	178,088	175,712	175,071
Police Protection	377,197	350,064	340,780	324,602	314,348
Fire Protection	157,024	145,955	140,368	136,046	131,425
Engineering	218,158	213,130	226,529	212,454	222,415
Planning and development	78,909	70,816	67,614	59,805	55,089
Parks and recreation	195,790	163,625	222,470	206,028	198,810
Community and cultural services	141,495	124,165	110,860	116,947	106,051
Library	59,438	51,609	58,497	55,105	53,763
	1,766,814	1,629,210	1,666,113	1,587,203	1,534,579
ANNUAL SURPLUS	\$ 583,410	\$ 228,977	\$ 300,723	\$ 391,690	\$ 352,018

FIVE YEAR – RESERVES UNAUDITED (Tabular amounts in \$000s)
Years Ended December 31

	2021	2020	2019	2018	2017
Financial Stabilization					
Deferred Payroll Obligation	\$ 62,570	\$ 58,570	\$ 54,974	\$ 54,974	\$ 54,974
General Revenue Stabilization	162,187	146,714	134,956	121,754	84,443
Solid Waste Capital	67,967	64,935	70,689	64,863	76,576
Utility Rate Stabilization	31,346	26,880	24,830	17,578	17,270
Other	7,139	7,139	6,939		
	<u>331,209</u>	<u>304,238</u>	<u>292,388</u>	<u>259,169</u>	<u>233,263</u>
Asset Management					
Golf Course and Artificial Turf	3,171	3,655	4,316	5,148	5,045
Plant and Equipment	63,152	55,740	51,922	53,936	50,542
Streets Capital Maintenance	17,458	19,463	19,047	16,526	15,855
	<u>83,781</u>	<u>78,858</u>	<u>75,285</u>	<u>75,610</u>	<u>71,442</u>
Future Capital					
Affordable Housing	232,017	198,387	162,871	123,733	73,109
Capital Facilities and Infrastructure	95,375	92,519	83,645	75,283	54,147
Community Amenities	459,277	429,402	435,586	415,252	342,390
Parking Sites	54,254	43,836	44,818	41,971	36,848
Pedestrian and Cycling	7,024	6,715	6,816	6,619	6,544
	<u>847,947</u>	<u>770,859</u>	<u>733,736</u>	<u>662,858</u>	<u>513,038</u>
Special Revenue and Programs					
Childcare Endowment	17,723	18,086	18,588	19,034	19,476
Community Amenity Operations	11,371	11,553	11,518	7,630	7,602
Donations	17,126	16,266	14,831	14,055	13,273
Emerging Neighbourhood	10,000	10,000	10,000	10,000	10,000
Insurance	25,691	27,822	28,381	25,401	28,069
Outstanding Commitments	18,773	17,781	26,523	22,078	19,842
Public Art	18,639	17,391	16,106	14,693	13,329
Social and Cultural	28,210	27,608	25,630	24,756	22,417
Other	22,956	22,054	9,365	9,976	13,980
	<u>170,489</u>	<u>168,561</u>	<u>160,942</u>	<u>147,623</u>	<u>147,988</u>
Future Debt Repayment					
	26,904	19,903	22,215	29,530	29,530
	<u>\$ 1,460,330</u>	<u>\$ 1,342,419</u>	<u>\$ 1,284,566</u>	<u>\$ 1,174,790</u>	<u>\$ 995,261</u>

REVENUE FUND – SCHEDULE OF FINANCIAL ACTIVITIES UNAUDITED (Tabular amounts in \$000s)
Year Ended December 31, 2021

	2021 Budget	2021	2020
REVENUES			
Property taxes, penalties and interest	\$ 942,198	\$ 982,108	\$ 935,532
Utility fees	339,922	338,803	321,052
Programs fees	39,979	45,536	31,098
License and development fees	78,031	110,787	73,831
Parking	63,516	59,928	49,033
Government Transfers	19,126	42,487	49,436
Cost recoveries and donations	45,725	68,678	59,015
Investment income	12,087	14,240	18,795
Rental, lease and other	39,152	44,098	40,442
Bylaw fines	17,577	25,427	16,156
	<u>1,597,313</u>	<u>1,732,092</u>	<u>1,594,390</u>
EXPENDITURES			
Utilities	279,015	274,114	277,607
General government	187,384	144,760	104,911
Police protection	338,350	365,534	338,853
Fire protection	138,384	150,014	138,216
Engineering	105,157	107,687	101,320
Planning and development	74,275	75,638	69,183
Parks and recreation	138,567	132,538	110,220
Community and cultural services	111,077	112,374	105,438
Library	52,458	52,221	43,985
	<u>1,424,667</u>	<u>1,414,880</u>	<u>1,289,733</u>
ANNUAL SURPLUS	<u>172,646</u>	<u>317,212</u>	<u>304,657</u>
DEBT, TRANSFERS AND OTHER			
Debt principal repayments	(1,320)	(1,198)	(1,318)
Transfers			
Net transfers to other funds	(220,642)	(254,685)	(244,881)
Net transfers to reserves	49,316	(60,529)	(56,922)
Change in obligations to be funded from			
Future revenue	-	(800)	(1,536)
	<u>(172,646)</u>	<u>(317,212)</u>	<u>(304,657)</u>
CHANGE IN FUND BALANCE			
FUND BALANCE			
Beginning of year	26,239	26,239	26,239
Change in year	-	-	-
End of year	<u>\$ 26,239</u>	<u>\$ 26,239</u>	<u>\$ 26,239</u>

REVENUE FUND – FEES AND RECOVERIES UNAUDITED (Tabular amounts in \$000s)
Year Ended December 31, 2021

	2021 Budget	2021	2020
Program fees			
Parks and recreation	\$ 24,501	\$ 32,032	\$ 19,614
Community and cultural services	11,101	8,903	7,394
Library	1,096	749	522
Police	2,081	1,877	1,865
Fire	736	867	723
Other	464	1,108	980
	\$ 39,979	\$ 45,536	\$ 31,098
License and development fees			
License fees	\$ 20,694	\$ 21,804	\$ 21,290
Engineering fees	9,420	11,518	10,391
Trade permits	14,735	15,550	14,011
Development and building permits	27,293	53,909	21,826
Rezoning fees	5,175	5,489	4,928
Other fees	714	2,517	1,385
	\$ 78,031	\$ 110,787	\$ 73,831
Parking			
On street parking	\$ 54,503	\$ 47,913	\$ 40,903
Parks	7,443	8,447	5,285
Civic Theatre	388	393	376
Other	1,181	3,175	2,469
	\$ 63,515	\$ 59,928	\$ 49,033
Government Transfers			
Police	\$ 1,225	\$ 40	\$ 30
Fire	637	89	-
General government	10,128	32,533	34,400
Parks and recreation	970	166	176
Community and cultural services	4,430	8,297	12,330
Engineering services	87	-	-
Library	270	1,240	1,287
Planning and development	1,300	72	1,213
Utilities	80	50	-
	\$ 19,127	\$ 42,487	\$ 49,436
Cost recoveries & donations			
Police	\$ 20,854	\$ 32,940	\$ 25,150
Fire	8,051	11,865	10,812
General government	2,921	4,781	2,959
Parks and recreation	4,464	3,801	2,776
Community and cultural services	(158)	2,884	3,908
Engineering services	5,668	8,440	7,929
Library	2,218	1,434	1,714
Planning and development	693	2,048	2,487
Utilities	1,014	485	1,280
	\$ 45,725	\$ 68,678	\$ 59,015
Rental, lease and other			
Property rentals and leases	22,676	19,832	19,303
Street use	1,420	1,807	1,234
False alarm reduction program	1,000	957	929
Other	14,056	21,502	18,976
	\$ 39,152	\$ 44,098	\$ 40,442

PROPERTY ENDOWMENT FUND – STATEMENT OF OPERATIONS UNAUDITED (Tabular amounts in \$000s)
Year Ended December 31, 2021

	2021	2020
OPERATIONS		
Rental and leases		
Revenue	\$ 23,044	\$ 27,190
Expenses	11,002	14,239
	<hr/> 12,042	<hr/> 12,951
Parking		
Revenue	19,542	18,026
Expenses	16,748	19,372
	<hr/> 2,794	<hr/> (1,346)
Water moorage		
Revenue	1,494	1,532
Expenses	743	770
	<hr/> 751	<hr/> 762
NET REVENUES FROM OPERATIONS	15,587	12,367
Other Revenue		
Other income	584	978
Investment Income	1,470	1,910
Gain in sale of tangible capital assets	35,391	18,022
	<hr/> 37,445	<hr/> 20,910
Administration and operating	9,052	6,533
NET REVENUES	\$ 43,980	\$ 26,744

FIVE YEAR STATISTICAL REVIEW - TAXATION UNAUDITED (Tabular amounts in \$000s)
Years Ended December 31

	2021	2020	2019	2018	2017
Property Assessment (\$000s)					
Rateable property general purposes	\$ 448,644,058	\$ 439,911,668	\$ 478,299,759	\$ 466,900,439	\$ 428,738,649
Tax Rates – Rate per \$1,000 of Assessment					
Residential - class 1					
Municipal purposes	1.60152	1.58076	1.33572	1.24393	1.26093
Education	0.96661	0.99877	0.91773	0.92146	0.98007
Other taxing authorities	0.35437	0.34615	0.30771	0.30287	0.31389
Total Residential	2.92250	2.92568	2.56116	2.46826	2.55489
Business/other - class 6					
Municipal purposes	4.91463	4.47887	4.27116	5.03019	5.79744
Education	3.92342	1.13968	3.94555	4.56143	5.21946
Other taxing authorities	1.13169	1.11228	1.11260	1.26257	1.42795
Total Business/Other	9.96974	6.73083	9.32931	10.85419	12.44485
Major industrial - class 4					
Municipal purposes	33.31879	30.98898	30.39510	34.25325	34.51349
Education	3.86000	0.00010	3.70000	4.20000	4.80000
Other taxing authorities	2.18289	2.15009	2.18658	2.35169	2.51911
Total Major Industrial	39.36168	33.13917	36.28168	40.80494	41.83260
Light industrial - class 5					
Municipal purposes	4.91463	4.47887	4.27116	5.03019	5.79744
Education	4.04384	1.21966	4.74286	5.29083	6.16093
Other taxing authorities	1.28758	1.40367	1.59483	1.76900	2.04973
Total Light Industrial	10.24605	7.10220	10.60885	12.09002	14.00810
Total Utilities - Class 2	44.21992	42.43394	40.36626	43.00812	44.93083
Total Supportive Housing - Class 3	0.15423	0.14990	0.14184	0.14373	0.14276
Total Recreational/Non-Profit - Class 8	4.21332	2.62917	3.86290	3.97858	4.21729
Total Farm – All Purposes - Class 9	8.96082	9.06227	8.84050	8.63580	8.55989
Property Tax Revenue by Property Class (%)					
Residential - class 1	56.9	56.6	55.7	54.5	54.1
Business - class 6	40.0	40.3	41.1	42.3	42.8
Major industrial - class 4	1.0	1.0	1.0	1.0	1.0
Light industrial - class 5	1.1	1.0	1.1	1.1	1.0
Other utilities, rec/non-profit and farm	1.0	1.1	1.1	1.1	1.1
Total	100.0	100.0	100.0	100.0	100.0

FIVE-YEAR STATISTICAL REVIEW - DEBT UNAUDITED (Tabular amounts in \$000s)
Years Ended December 31

	2021	2020	2019	2018	2017
Population *	693,235	697,266	685,885	672,963	656,164
Long Term Debt (\$000s)					
Debenture debt outstanding	\$ 1,014,570	\$ 1,056,454	\$ 1,083,368	\$ 1,086,101	\$ 997,109
Less: Internally held debt	(1,407)	(1,819)	(2,265)	(2,899)	(3,669)
Externally held debt	1,013,163	1,054,635	1,081,103	1,083,202	993,440
Less: Sinking Fund reserves	423,244	458,755	476,419	494,182	395,407
Net externally held debt	<u>\$ 589,919</u>	<u>\$ 595,880</u>	<u>\$ 604,684</u>	<u>\$ 589,020</u>	<u>\$ 598,033</u>
Gross debt per capita (externally held)	\$ 1,462	\$ 1,513	\$ 1,576	\$ 1,610	\$ 1,514
Net debt per capita (externally held)	\$ 851	\$ 855	\$ 882	\$ 875	\$ 911

* Source: Population Section, B.C. Stats

Ministry of Labour Citizens' Services, Government of British Columbia

Long Term Debt Continuity

	Externally	Internally		Total
	Held	Held		
Balance, beginning of year	\$ 1,054,635	\$ 1,819	\$ 1,056,454	
Add: Debentures issued	100,000	-	100,000	
Local improvements	-	36	36	
	<u>1,154,635</u>	<u>1,855</u>	<u>1,156,490</u>	
Less: Premium amortization	(721)	-	(721)	
Less: Maturities				
General and water	140,751	-	140,751	
Local improvements	-	448	448	
	<u>140,751</u>	<u>448</u>	<u>141,199</u>	
Balance, end of year	<u>\$ 1,013,163</u>	<u>\$ 1,407</u>	<u>\$ 1,014,570</u>	

OUTSTANDING BORROWING AUTHORITY AND SCHEDULE OF GENERAL DEBT UNAUDITED
(Tabular amounts in \$000s)
Year Ended December 31, 2021

	Capital Plan Borrowing Authority*	Council-approved Debenture Funding**	Debentures Issued to end of 2021	Outstanding Borrowing Authority
General				
2015-2018	\$ 235,000	\$ 231,428	\$ 229,428	\$ 2,000
2019-2022	300,000	207,526	61,188	146,338
	<u>535,000</u>	<u>438,954</u>	<u>290,616</u>	<u>148,338</u>
Sewer, Water and NEU				
2015-2018	147,500	144,850	144,850	-
2019-2022	195,000	149,226	108,784	40,442
	<u>342,500</u>	<u>294,076</u>	<u>253,634</u>	<u>40,442</u>
Total General, Sewer, Water and NEU				
2015-2018	382,500	376,278	374,278	2,000
2019-2022	495,000	356,752	169,972	186,780
	<u>\$ 877,500</u>	<u>\$ 733,030</u>	<u>\$ 544,250</u>	<u>\$ 188,780</u>

* Borrowing authorities are established as part of the Capital Plan. General borrowing authorities for each Capital Plan are approved by the electors. Sewer, Water and NEU borrowing authorities are approved by Council.

** Debenture funding is approved by Council as part of Annual Budget.

SCHEDULE OF GENERAL DEBT

Bylaw	Maturity Date & Purpose	Rate %	Term (Years)	Debenture Outstanding	Sinking Fund Reserve Balance
10117	September 30, 2021 - 2030	1.71%	20	\$ 2,712	\$ -
10393	December 02, 2021	3.45%	10	140,000	123,218
10565	October 18, 2052	3.70%	40	120,000	9,582
10797	October 24, 2023	3.75%	10	110,000	71,867
11080	October 16, 2024	3.05%	10	105,000	57,372
11362	November 20, 2025	2.90%	10	90,000	39,760
11673	December 15, 2026	2.70%	10	90,000	30,908
11941	November 03, 2027	2.85%	10	85,000	21,474
12203	September 21, 2028	3.10%	10	85,000	14,045
12307	November 20, 2021 - 2028	4.07%	10	4,000	-
12561	October 18, 2052	3.70%	33	100,000	1,262
12814	November 06, 2030	1.40%	10	100,000	-
				1,031,712	369,488
				22,923	-
				-	54
			Total	\$ 1,054,635	\$ 369,542

FUTURE PRINCIPAL AND INTEREST PAYMENTS ON DEBT UNAUDITED (Tabular amounts in \$000s)
Year Ended December 31, 2021

	General			Waterworks			Local Improvements			Total General, Waterworks and Local Improvements		
	Principal	Interest	Total	Principal	Interest	Total	Principal	Interest	Total	Principal	Interest	Total
2022	755	27,561	28,316	-	1,883	1,883	413	84	497	1,168	29,528	30,696
2023	97,760	27,536	125,296	13,000	1,883	14,883	300	60	360	111,060	29,479	140,539
2024	97,764	23,874	121,638	8,000	1,395	9,395	258	42	300	106,022	25,311	131,333
2025	84,769	20,890	105,659	6,000	1,151	7,151	164	26	190	90,933	22,067	113,000
2026	85,773	18,429	104,202	5,000	977	5,977	81	16	97	90,854	19,422	110,276
2027 - 2031	366,175	62,005	428,180	5,966	3,583	9,549	137	39	176	372,278	65,627	437,905
Thereafter	202,000	156,954	358,954	18,000	13,986	31,986	54	6	60	220,054	170,946	391,000
	\$ 934,996	\$ 337,249	\$ 1,272,245	\$ 55,966	\$ 24,858	\$ 80,824	\$ 1,407	\$ 273	\$ 1,680	\$ 992,369	\$ 362,380	\$ 1,354,749

External Debt Only

	General			Waterworks			Total General & Waterworks		
	Principal	Interest	Total	Principal	Interest	Total	Principal	Interest	Total
2022	755	27,561	28,316	-	1,883	1,883	755	29,444	30,199
2023	97,760	27,536	125,296	13,000	1,883	14,883	110,760	29,419	140,179
2024	97,764	23,874	121,638	8,000	1,395	9,395	105,764	25,269	131,033
2025	84,769	20,890	105,659	6,000	1,151	7,151	90,769	22,041	112,810
2026	85,773	18,429	104,202	5,000	977	5,977	90,773	19,406	110,179
2027 - 2030	366,175	62,005	428,180	5,966	3,583	9,549	372,141	65,588	437,729
Thereafter	202,000	156,954	358,954	18,000	13,986	31,986	220,000	170,940	390,940
	\$ 934,996	\$ 337,249	\$ 1,272,245	\$ 55,966	\$ 24,858	\$ 80,824	\$ 990,962	\$ 362,107	\$ 1,353,069

**TASK FORCE
FOR CLIMATE-RELATED
FINANCIAL DISCLOSURES (TCFD)**

UNAUDITED

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INTRODUCTION

The City of Vancouver is committed to sustainability as it seeks to fulfill its mission and long-term strategic goals related to our people, the environment and the city's prosperity. The report contains information for Council, taxpayers, citizens, lenders, insurance underwriters and other stakeholders about our plans, activities and results related to key climate-related risks and opportunities.

Vancouver was one of the first cities in the world to recognize the significance of climate change. In 1990, the groundbreaking Clouds of Change Task Force recommended that Vancouver begin to reduce its greenhouse gas emissions. The City of Vancouver is committed to taking action to mitigate and adapt to the emerging and anticipated impacts of climate change. This commitment began with the adoption of our Greenest City Action Plan in 2011, followed by our Climate Change Adaptation Strategy (CCAS) in 2012 and 2018 and more recently the Climate Emergency Action Plan in 2020 (CEAP).

The February, 2022 Intergovernmental Panel on Climate Change (IPCC) report identifies with very high confidence that the magnitude and rate of climate change and associated risks depend strongly on near-term mitigation and adaptation actions, and projected adverse impacts and related losses and damages escalate with every increment of global warming. The City is addressing both carbon emissions that cause climate change (through CEAP) and enhancing resilience to climate-related shocks and stresses (through CCAS).

Since publishing the first CCAS in 2012, the city has experienced a variety of climate-related events.

- In December 2012, a one in 50-year return period storm coincided with one of the highest tides of the year (king tide). Rare flooding occurred along the coastline including seawater inundating Kitsilano Pool and the Jericho Sailing Centre.
- In July 2015, very high levels of fine particles were measured in Metro Vancouver air due to smoke from wildfires outside the region. Fine particulate matter reached 300 ug/m³. Normal levels are less than 15 ug/m³. In total, wildfire smoke degraded air quality for 8 days during the summer of 2015, an unprecedented total of 19 days in 2017 and 22 days in 2018. Since 2015 there have been 60 days of degraded air quality due to smoke from wildfires.

In 2021 and early 2022, the City experienced several climate change related events including:

- A province-wide heat dome in the summer during which the weather station at the Vancouver Harbour¹ measured maximum daily temperatures over 33°C between June 26th and June 28th inclusive. Nearly 600 people died Province wide due to extreme temperatures with Vancouver and our neighbours in Surrey and Burnaby seeing the highest numbers of deaths by town, with 99, 67 and 63, respectively.
- Provincial wide flooding incidences in September where the Insurance Bureau of Canada estimates the insured damage caused by flooding in British Columbia was \$450 million, calling it the "most costly severe weather event in the province's history." Although Vancouver did not directly experience impacts near the level of others in the region such as Abbotsford's Sumas Prairie, supply chain issues and disaster response assistance significantly impacted the City for several weeks.
- In January 2022, a king tide resulted in significant damage to the City's seawall, an important and highly utilized regional recreational asset.

Events such as those described above strengthen our commitment to both responding to and preparing for climate change.

¹ Environment and Climate Change Canada monitored station with historical data available.

TCFD Reporting as Means to Action on Climate Change in Vancouver

In 2017, our CFO signed an Accounting for Sustainability (A4S) statement, supporting climate-related financial disclosure and committing the City to “affirm our commitment to support the voluntary recommendations” of the Taskforce for Climate-related Financial Disclosure (TCFD). Starting in 2018, the City began including unaudited climate-related financial disclosures in its annual financial report. Recommended disclosure includes four core elements: governance, strategy, risk management and metrics and targets.

Although support for the TCFD reporting framework is growing, disclosure standards are still evolving out of this voluntary guidance. In November 2021, the International Financial Reporting Standards Foundation (IFRS) announced the formation of an International Sustainability Standards Board (ISSB) and published prototype climate and general disclosure requirements developed by the Technical Readiness Working Group (TRWG), a group formed by the IFRS Foundation Trustees to undertake preparatory work for the ISSB. Based on TCFD recommendations, this *Climate-Related Disclosures Prototype* includes more specific disclosures. The formation of the ISSB also includes the commitment from three other organization with similar global reporting framework initiatives to consolidate with the ISSB. Along with these developments, financial regulators and governments across the globe (including Canada) are moving towards mandatory TCFD-type reporting.

The City is supportive of these developments in climate-related reporting guidance. For the purposes of this year’s report, we have taken into consideration both the TCFD recommendations and the TRWG prototype disclosures.

City of Vancouver’s TCFD Reporting Capability Status

In 2020, CPA Canada published [*Enhancing Climate-related Disclosure by Cities*](#), an overview of how cities can benefit from alignment with the TCFD recommendations, and a guide for implementation. Vancouver provided input and direction as part of a working group of Canadian cities and supporting organizations. This guide contains a Maturity Assessment Framework to help cities self-assess their alignment with the TCFD recommendations.

The City aspires to reach what the guide refers to as a *Phase 3 High Integration* level of reporting: one where we routinely integrate climate change into our decision-making processes and the awareness and collaboration across departments and functions is high. As such, we are working towards:

- proactively developing plans to adapt to climate change and mitigate climate risks and seize opportunities
- integrating climate risks, opportunities and impacts into our decision-making processes
- using qualitative and quantitative climate information and scenarios to inform decisions
- putting controls in place to ensure appropriate selection and calculation methods are used for relevant metrics and targets
- subjecting metrics and targets to internal procedures and, where appropriate, obtain independent assurance by an external auditor
- aligning disclosures closely with the four TCFD recommendation areas

The guide also describes the governance, strategy, risk management, and metrics and target activities required to reach a high integration level of TCFD reporting.



TASK FORCE FOR CLIMATE-RELATED FINANCIAL DISCLOSURES (TCFD) UNAUDITED

With respect to the City's reporting capability, the goals, objectives and actions contained in the City's CCAS and CEAP provide a strong planning foundation to move forward on climate change. We also have a good foundation for GHG reporting as we have been reporting through initiatives such as CDP and C40 Cities. Through our TCFD reporting over the last several years we have become very familiar with the requirements and challenges of this reporting framework.

However, further development is required to meet the comprehensiveness and complexity challenges of TCFD reporting. The table to the right notes several enabling actions the City must implement in order to be able to meet our reporting aspirations.

In addition, being a public-sector entity adds a layer of complexity to the reporting. TCFD recommendations are primarily aimed at the private sector, with the scope of reporting limited to the individual reporting entity. Therefore as a public sector entity, TCFD concepts like the influence of "investors" and the risks and opportunities of "markets" are not directly transferable. Another example is the scope of reporting. As a local government entity, we look at climate change impact to our community as a whole, crossing public and private domains. The absence of a public-sector disclosure standard means we have relied on our own interpretation of TCFD guidance.

The TCFD 2021 Status Report provided information on the reporting capability and key reporting challenges of 1,700 entities worldwide in the process of implementing the reporting. The status of the City of Vancouver's TCFD reporting and related challenges are very similar to global disclosure trends described in the report. The actions the City plans to take to further develop our reporting capability in each for the four TCFD Core Elements is provided in each section of the report.

Improving Climate-Risk Management and Disclosure

Several Enabling Actions within the *Climate Change Adaptation Strategy (2018)* focus on mainstreaming climate-related disclosure and risk considerations into City processes:

1. Begin incorporating climate-related financial disclosure in City financial planning in 2019. Work with partners like the City of Toronto and CPA Canada in their TCFD Guidance for Cities project.
2. After several years of climate-related financial disclosure, explore adding a specific climate assessment to large capital plan projects.
3. Incorporate a scan of major projects against hazard and risk mapping to identify where staff risk experts should be involved early in the project.
4. Add climate change considerations to the Sustainability addendum of the Engineering Asset Management framework.
5. Support application of the Envision climate-risk section to the two Envision pilot projects, and propose any improvements to the scope/deployment of Envision.
6. Add climate projections and information to multi-hazards risk assessment in the new Engineering Asset Management framework.

GOVERNANCE

Structure

The City of Vancouver considers climate change to be a top risk to the city. The overall risk governance structure of the City comprises the following roles and responsibilities. See also the Risk Management section for more information.

City Council approves all the City's long-term service strategic plans, including climate-related strategies, and prioritizes the implementation of those plans through budget funding approval. Progress against targets and implementation is reported annually to Council or at stated intervals.

The **Chief Risk Officer** and the Risk Management Team lead the **Enterprise Risk Management** (ERM) program, under direction of the Risk Management Committee. They are responsible for monitoring and facilitating the implementation through operational management of ERM processes, tools and reporting to achieve effective risk treatment. The Risk team also sits on key steering committees related to climate risk.

The **Risk Management Committee**, made up of the City Manager, Chief Legal Counsel, Chief Financial Officer, and the Chief Risk Officer, oversees risk governance and the general risk framework. The Risk Management Committee sets limits within which risks should be managed.

Department General Managers (GMs) are responsible for ensuring appropriate risk management practices are in place and operating effectively for their area of responsibility. GMs retain the ultimate responsibility for effective risk management in their departments, which includes identifying, treating, and reporting risks following the ERM process and timeline, assisted by the Risk team. Implementation updates are given regularly to senior management through steering and oversight committees.

Developing Climate-Risk Governance

The City has been considering climate-related risks at a comprehensive strategic level for several years, with incremental improvements to prioritization and funding processes made along the way. Climate-related responsibility is assigned to specific managers or committees.

Increasing the effectiveness of our governance related to TCFD reporting will require the development of a corporate framework that incorporates more financial and other quantitative information to support our decision-making processes than we currently have in place. The strategic planning horizon will have to be extended to cover 50-100 years to incorporate climate related issues with a framework incorporating impacts on climate goals, risk factors and financial resources to guide our decision-making processes.

In addition, opportunities to streamline climate-related management responsibilities and the potential of benefit of increased reporting frequency will also be assessed.

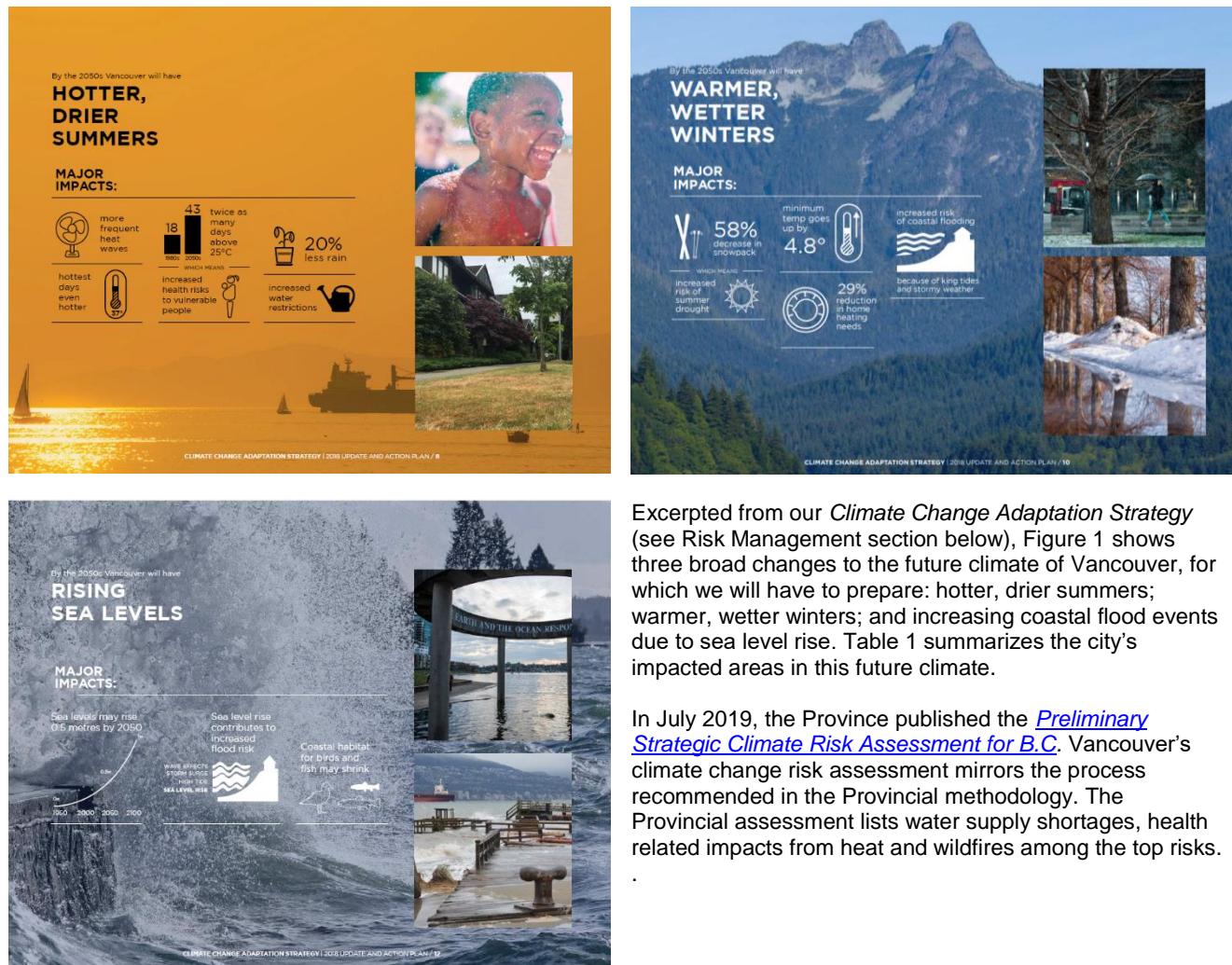
STRATEGY

Climate Risk Assessment

Through two separate rounds of climate adaptation planning in 2011 and 2018, staff from across the organization were engaged in prioritizing climate-related hazards and impacts for action, by identifying where systems and service-delivery areas were the most vulnerable, and where the greatest risk (likelihood of impact and magnitude of consequences) lay.

The City's ERM Group identified climate change as a top risk to the community and the organization. The inclusion of climate change in our enterprise risk process provides a basis for further discussing and identifying the impacts of climate risk on our operations and services provided to the public. Potential climate-related risks and hazards present our city with threats to health and safety, to assets and infrastructure, and to the economy that must be addressed and prepared for.

Figure 1 – Climate-related Impacts to Vancouver



Excerpted from our *Climate Change Adaptation Strategy* (see Risk Management section below), Figure 1 shows three broad changes to the future climate of Vancouver, for which we will have to prepare: hotter, drier summers; warmer, wetter winters; and increasing coastal flood events due to sea level rise. Table 1 summarizes the city's impacted areas in this future climate.

In July 2019, the Province published the [Preliminary Strategic Climate Risk Assessment for B.C.](#) Vancouver's climate change risk assessment mirrors the process recommended in the Provincial methodology. The Provincial assessment lists water supply shortages, health related impacts from heat and wildfires among the top risks.

Table 1 – Examples of Projected Climate Impacts to Vancouver

Impacted Area	Impacts	Timeframe	Impacted assets/services
Human Systems (Community)	Increased health and safety risks for frontline communities including those in lower quality housing, homeless population and seniors	Short- to medium-term	Public health; emergency management
	Increases in private property sewer back-ups in combined sewer areas due to high rainfall volume in sewer system and increased costs for response actions and clean-up after heavy rain events	Short-term	Residential, commercial, industrial, institutional premises; water supply and sanitation; public health
	Water supply shortages felt in late summer due to a decreased spring snow pack and higher summer temps could result in increased costs for water and imperative conservation measures	Medium-term	Water supply and sanitation; public health
Natural Systems	Increase in impacts to urban forests, green spaces and trees from temperature extremes and wind storms resulting in increased maintenance and replacement costs and changes to aesthetics and use	Medium-term	Public health, urban forest and biodiversity
Built Environment (Buildings and Infrastructure)	New and existing buildings may be maladapted as the climate changes in terms of thermal comfort, water ingress, wind durability, rain and snow loads and require additional investment or early retirement	Short- to medium-term	Residential, commercial, institutional premises; public health; emergency management; transportation
	Increased volume of third-party liability claims against the city from major rain events	Medium-term	Public and private assets; water supply and sanitation; public health

Climate-related hazards will be considered further through a hazard, risk and vulnerability assessment (HRVA), a legislated requirement of local governments through the Emergency Programs Act. Phase one of the HRVA was completed in 2021 with Phase 2 to be underway by the end of 2022. The HRVA considers current and future risks of human caused and natural hazards including many that are climate-related. The HRVA will also focus on vulnerable conditions that influence the adaptive capacity of individuals and predispose them to adverse impacts. Risk mitigation actions developed during Phase 2 will focus on who and what is disproportionately impacted by the hazards assessed.

Coastal Flood Risk Assessment

As an example of the risk assessment approach taken, the City conducted a Coastal Flood Risk Assessment (CFRA) in three phases between 2012 and 2018. This assessment took a fulsome, rigorous look at current and future flood risk given sea level rise around the coastline.

CFRA Phase I confirmed that Vancouver is most vulnerable to flooding caused by the combined effect of a coastal storm surge and a king tide (exceptionally high tides that typically occur in December and January). In addition to mapping the areas vulnerable to flooding, Phase I also identified the community assets, infrastructure and buildings at risk to flooding over time.

In January 2022, an onshore storm caused powerful winds and a storm surge. This coincided with a seasonal king tide and caused significant damage to coastal infrastructure in the City of Vancouver. Waterfront parks and facilities were flooded, shorelines were eroded, a pier was heavily damaged, and portions of the Stanley Park seawall were washed away completely.

November Rain: Impacts of Climate-Related Floods

In November 2021, the Lower Mainland and Fraser Valley regions of British Columbia experienced an atmospheric river event. This 1:100 year event hit the eastern parts of Metro Vancouver and the Fraser Valley hardest. There were multiple direct and knock-on impacts.

- Landslides cut off main provincial transportation corridors and effectively severed transportation links between Metro Vancouver and the Port of Vancouver from the rest of British Columbia and Canada.
- Power outages effected at least 60,000 customers across BC.
- In Vancouver, houses, roads and parks in the Southlands area of Vancouver were flooded, while severe flooding in the Fraser Valley forced almost 15,000 people from their homes.
- Flood damage caused a shutdown of the main fuel pipeline supplying the region. Gasoline purchases were rationed for nearly a month. This further intensified existing supply-chain issues caused by the COVID pandemic.
- A nearly 200-foot barge came unmoored during the event and ran aground on the seawall. Months later, after attempts to refloat it, the barge will have to be disassembled and removed in spring 2022.
- Early findings suggest that damage caused by the January 2022 king tide flooding event was exacerbated by the high volume of ocean debris, due in part to the November rainstorm.

The Insurance Bureau of Canada estimated the insured damage caused by the flooding at \$450 million, calling it the “most costly severe weather event in the province’s history”.

Climate Mitigation and Adaptation Plans

A number of related strategies at the City of Vancouver capture and manage climate-related risks and hazards. The City's climate actions fall into two broad categories: mitigation and adaptation.

Climate change **mitigation** relates to the reduction of greenhouse gas (GHG) emissions. The 2018 Intergovernmental Panel on Climate Change (IPCC) *Special Report* reaffirmed that global GHG emissions must be cut by 45% by 2030 if we are to avoid global warming above 1.5°C, which would have widespread and unforeseeable impacts. Mitigating climate change through emissions reductions plays a vital role managing the amount we potentially have to adapt, by keeping risk levels within predictable scales.

Climate Emergency Action Plan (CEAP)

Approved November 2020

Description: The *Climate Emergency Action Plan* is mitigation-focused, and contains 31 action recommendations (organized into six “Big Moves”) in line with efforts to limit global warming to 1.5°C. CEAP sets a target of 50% reduction in community-wide greenhouse gas emissions reduction by 2030. CEAP adopts an existing goal of deriving 100% of energy used in Vancouver from renewable sources before 2050. It expands the 2050 target, by committing to achieving carbon neutrality in our community-wide greenhouse gas emissions before 2050. CEAP supersedes the previous Renewable City Action Plan (2017), and the greenhouse-gas related goals in the Greenest City Action Plan (2011).

Priority Action Areas (“Big Moves”):	1. Complete, Walkable Communities 2. Active Transportation and Transit 3. Zero Emission Vehicles	4. Zero Emission Space and Hot Water Heating 5. Low-Carbon Construction Materials 6. Carbon Sequestration
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Governance: The Climate Emergency Directors Forum provides oversight at a working level, while the Climate Emergency Steering Committee provides oversight at a program level. The Sustainability Group tracks progress and reports to Council annually. Executive reports are also prepared as required. Staff will update CEAP for approval by Council at the halfway mark of implementation (2025).

Link: [Full report / Summary](#)

**TASK FORCE FOR CLIMATE-RELATED FINANCIAL DISCLOSURES
(TCFD) UNAUDITED**

Climate change **adaptation** relates to preparing City operations and the community for the impacts of climate change. Due to GHGs already emitted into the atmosphere from human activity, some level of climate impact is already locked-in, and many have already been observed.

Climate Change Adaptation Strategy (CCAS)

Approved July 2012; updated December 2018

Description: Among the first of its kind in Canada, the Climate Change Adaptation Strategy is the City's strategy in addressing climate-related risks and hazards in the community. Its priorities include addressing urban drainage flooding and coastal flooding and inundation, and heat and air quality-related impacts to community and City services and infrastructure. It contains 84 core actions in five core areas, and 17 enabling actions to help integrate an adaptation lens as standard practice into all City work.

Core Action Areas:	Climate Robust Infrastructure	Coastal Preparedness
	Climate Resilient Buildings	Healthy and Vigorous Natural Assets
	Connected and Prepared Communities	

Governance: The Adaptation Steering Committee provides oversight to implementation. This committee comprises senior managers, many of whom are also in the Corporate Leadership Team. The Sustainability Group tracks progress and reports to Council annually. Executive reports are also prepared as required. Staff will update the Adaptation Strategy every five years, which includes updating climate information, reviewing the status of adaptation actions, and identifying new or revised actions. The next update will be in 2023.

Link: [Strategy](#)

Resilient Vancouver Strategy (RVS)

Approved June 2019

Description: The Resilient Vancouver Strategy builds City capacity to understand and proactively address current and future shocks and stresses, including those related to climate change. It leverages global and local knowledge to build the resilience of organizational, community, and infrastructure systems, and works in unison with the Climate Change Adaptation Strategy to build resilience to priority shocks and stresses in Vancouver. Objectives aligned with the "Proactive and Collaborative City" priority include strengthening organizational capacity to manage risk and recover from shocks and stresses and advancing collaborative disaster risk reduction and recovery planning. An associated action taking shape currently is to bring various City governance structures that deal with risk together into one disaster-risk reduction group. The group would oversee risk posed by various shocks and stresses, whether climate-related or not.

- Priority Areas:**
1. Thriving and Prepared Neighbourhoods
 2. Proactive and Collaborative City
 3. Safe and Adaptive Buildings and Infrastructure

Governance: Staff in the Vancouver Emergency Management Agency (VEMA), and staff working on seismic policy in other departments, manage RVS implementation.

Link: [Strategy](#)

Both climate mitigation and adaptation are foundational in the forthcoming Vancouver Plan. Under development, *Vancouver Plan* will be a strategic, long-range plan guiding Vancouver to 2050 and beyond, with the aims of creating a more sustainable, inclusive, and affordable city. The plan will address issues such as long-term land use and transportation directions, housing affordability, environmental and social health, and the need to better leverage long-term public investments. With a core focus on resilience, Vancouver Plan will draw from CEAP, CCAS, and RVS.

Note there is often overlap between climate mitigation and adaptation actions. For example, CCAS and CEAP come together in CEAP's Big Move 6, an action area focused on natural climate solutions, which have the potential to sequester

carbon emissions at the same time as improving flood management, biodiversity and reducing urban heat island effect mitigation in the city.

The Sea2City Design Challenge

Vancouver's CFRA highlighted the need to plan for future sea level rise and improve resilience to current and future coastal flooding in flood-vulnerable shoreline neighbourhoods, communities, and businesses.

Currently underway, the Sea2City Design Challenge (Sea2City) will help inform a framework and vision to guide urban development and ecological revitalization in the False Creek floodplain, a highly valued and constrained urban waterway in the heart of the city.

The design challenge has engaged two multidisciplinary teams to work co-operatively with the City and project partners to:

- Explore coastal adaptation approaches that respond to the social equity, economic, and ecological challenges posed by sea level rise and coastal flooding
- Investigate coastal adaptation approaches for sea level rise beyond one metre
- Expand the City's toolbox of coastal flood management approaches
- Increase public awareness of climate change and sea level rise

The City will further refine Sea2City outcomes, working with project partners, Indigenous governments, stakeholders, the public, and coastal regulators. The outcomes will inform the next phase of the City's overarching Coastal Adaptation Plan.

Conceptual designs, created as part of Sea2City, will not be built immediately, but will inform next steps (including more detailed design development and planning). The City will start to take those next steps after the completion of Sea2City and will likely continue for several years recognizing the additional research, planning, technical design, and engagement that will be required to move coastal adaption forward in a constrained urban waterway like False Creek.

Natural Assets

Vancouver's natural asset—from street trees to wetlands—sequester carbon and play an important role in adapting to climate change. Natural assets on the coastline buffer wave energy; green space and wetlands can manage flood risk; and our urban forest and vegetation help cool the city. A recent BC Centre for Disease Control (BCCDC) study of the mortality during the June 2021 heat dome event identified being within 100m of 'greenness' as a protective factor. Natural assets also bring many other co-benefits with them, including enhanced biodiversity and mental health support.

In 2020, the City assessed baseline carbon sequestration by natural assets in the city at approximately 16,000 tCO₂e/year. CEAP Big Move 6 set a target to increase sequestration in the city by an additional 5,000 tCO₂e/year by 2050. We will also explore opportunities with regional partners to sequester carbon outside city boundaries. A focus of Big Move 6 and the upcoming Vancouver Plan is to increase natural assets in historically underserved communities that are also disproportionately impacted by climate change. Adding to city natural assets and improving their management provides a host of benefits and begins to address long standing structural inequities in the city.

Scenario Analysis

Climate projections for the 2050s and 2080s, from downscaled Global Climate Models (GCM), form the inputs to the City's climate adaptation planning processes. To date the City has been employing the IPCC AR5 RCP8.5 scenario following best practices to ensure we are considering outcomes that best track the current pace of global action on reducing emissions. This approach also ensures that we will be prepared ahead of time if a more favourable scenario prevails.

As of January 2022, the IPCC's Sixth Assessment Report (AR6) is underway, with reports available now. Environment and Climate Change Canada is currently updating the climate change models that drive local projections. AR6 also includes the introduction of Shared Socioeconomic Pathways (SSPs) that are designed to complement the RCPs. The SSPs model how factors such as economic growth, technological development and education will change over time. They are based on five narratives, describing trends that could shape a range of plausible futures.

The City plans to begin updating the Adaptation Strategy at the end of 2022 and plans to incorporate updated climate science, ensuring the use of multiple scenarios including business-as-usual and 2°C scenarios.

Coastal Flood Risk Assessment: Scenario Analysis

Vancouver's CFRA employed specific scenario analysis. A technical advisory team of academics, practitioners in the field and stakeholders advised on five scenarios to use for flood hazard mapping, with the following ranges to help understand the varying levels of risk possible:

- year flooding is mapped for (base case 2013 out to 2200)
- severity/frequency of storm events (1:200 to 1:500 (0.2% Annual Exceedance Probability or AEP) storm surge)
- amount of sea level rise (0 to 2.0 meters).

This information highlighted the importance of planning now for sea level rise and of prioritizing our efforts, such that critical infrastructure and vulnerable populations are protected first.

Integration into Financial Planning

The City's current capital planning framework includes sustainability and resilience benefits as considerations to guide capital investments and assist with prioritization. However, the advent of TCFD disclosure has brought greater institutional awareness to the need for more formalized, overarching frameworks for incorporating climate mitigation and adaptation priorities into capital planning and asset management systems. Work is underway within the Finance and Sustainability departments to create and integrate these frameworks. This work will continue over several years, and will help inform the preparation of the upcoming 2023-2026 Capital Plan and future Annual Capital Budget allocations.

Funding Climate Mitigation: the Climate Emergency Action Plan (CEAP) Financial Framework

The CEAP financial framework is a roadmap, projecting capital and operating funding requirements for CEAP initiatives, both on-going (e.g., improving our walking and cycling infrastructure, expanding electric vehicle charging) and new initiatives (e.g., Metro Core transport-pricing system, Zero Emission Building Retrofit Strategy). This estimate is periodically refined based on project reprioritization, improved costing estimates and emerging timeline challenges or implementation opportunities.

In 2020, the CEAP estimated an approximate \$500M investment required from 2021-2025 to meet the 2030 climate goal (Table 2). Note this estimate does not include funding for Big Move 6 (Restored Coasts and Forests), which was unknown at the time pending development of a roadmap of Big Move 6 actions (approved by Council in late 2021).

Table 2 – CEAP Five-Year Financial Framework

Six Big Moves	\$M
1. 90% of people live within easy walk/roll of their daily needs	70.0
2. Two thirds of all trips in Vancouver will be made by foot, bike or transit	288.4
3. 50% of the kilometres driven on Vancouver's roads will be zero emissions vehicles	77.9
4. Carbon pollution from buildings in Vancouver will be reduced by 50% below 2007 levels	56.6
5. Embodied emissions from new buildings will be reduced by 40% compared to 2018 baseline	3.2
6. Develop "negative emissions" targets that can be achieved by restoring forest and coastal ecosystems.	<i>not yet identified</i>
Total	\$ 496.1

TASK FORCE FOR CLIMATE-RELATED FINANCIAL DISCLOSURES (TCFD) UNAUDITED

Approximately \$270M of that was identified as “baseline spend” – business-as-usual funding already identified within the 2019-2022 Capital Plan and allocated to programs that further CEAP objectives. This left an estimated funding gap of \$230M (Figure 2).

Figure 2:

CEAP Financial Framework: 2021-2025



Staff have been pursuing four strategies to address this funding gap:

Using cost-effective approaches	Leveraging funding from senior governments and other partners	New charges and fees	Prioritizing bold climate actions in the next capital plan
Given the significant funding gap, it will be critical for the City to deploy more cost-effective approaches to achieve low-carbon outcomes, wherever feasible.	While the City's financial investment is critical to the success of the Climate Emergency Action Plan, other levels of government and partner organizations will need to play a role as well.	CEAP contains a number of new pricing actions that will generate additional revenue to fund the work needed (pending Council decisions). These may include transport pricing, and building performance standards.	Using more cost-effective approaches, generating new revenue and leveraging external funding are all important funding tools, but are likely insufficient to fully close the funding gap. The 2023–2027 Capital Plan presents an opportunity to scale up CEAP actions.

Funding Climate Adaptation: the Climate Change Adaptation Strategy

Historically, adaptation work at the City has relied primarily on existing departmental budgets and where successful, grants from other levels of government in matching funds. Work is underway to better incorporate climate-related risks into the Enterprise Risk Management System, which will help identify funding needs where the risk is highest. The City is improving its tracking of climate-related capital and operating budgets; we also need to begin monitoring the impact of climate change on available capital and operational budgets themselves. The refresh to the Adaptation Strategy in 2023 will include a financial strategy similar to CEAP.

Coastal Flood Risk Assessment: Community Vulnerability Estimates

Vancouver's CFRA estimated that with one metre of sea level rise and a major storm surge event (1:500 (0.2% AEP) storm surge event), **approximately 13 sq. km of land and buildings valued at CAD \$7B (2013 land value assessment) are vulnerable to flooding in Vancouver**. Included in this is City infrastructure such as waterfront parks and seawalls, as well as a number of the City's facilities currently located in low-lying areas (e.g., City service yards located by the Fraser River and in the False Creek Flats). To protect vulnerable areas, the CFRA estimated \$1 billion of flood management infrastructure would be needed in Vancouver by 2100.

Internal Carbon Price

Although the social, environmental, and economic impacts of climate change are well established, they are often under-represented in decision-making processes. Setting a corporate carbon price is one approach that organizations can use to better account for those costs. Integrating a carbon price into decision-making processes provides a consistent shift towards lower carbon outcomes such as renewable energy and energy efficiency.

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The City of Vancouver approved a Corporate Carbon Pricing Policy in 2018, concentrating on decisions impacting corporate operations. The Policy includes guidance to link decisions to the progress the City is making to its corporate climate targets. In essence, the Policy serves as an enabler of additional actions if the City is falling short of its climate targets. If the City is on track for those targets, the guidance allows for corporate resources to be directed to other priorities.

Price per tonne CO₂e started at \$150 in 2018 to be in alignment with the Metro Vancouver Regional District (which developed a similar policy in 2017). The price then escalates at the same rate as BC's carbon tax until 2021, after which it will escalate at 6% per year (\$10 per tonne in 2022). This approach allows the Policy to align with Metro Vancouver initially and then gradually increase over time to reach levels in 2030 that align with those needed to achieve BC and Canada's climate targets.

Table 3 – Vancouver Internal Carbon Price Schedule

Year	Carbon Price, \$ per tonne CO ₂ e
2018	\$150
2019	\$155
2020	\$160
2021	\$165
2022 and beyond	previous year price x 1.06

For 2022, the City's internal carbon price is set at **\$175 per tonne CO₂-equivalent**.

The Corporate Carbon Pricing Policy applies to all options analyses that use life cycle cost analysis for the following City of Vancouver projects, initiatives, programs, bylaws or policies:

- Procuring vehicles and other mobile equipment, procuring fuels for City of Vancouver vehicles and other mobile equipment, and the use of telematics to improve the utilization of City of Vancouver vehicles.
- Procuring new City of Vancouver buildings, upgrades to the energy efficiency of existing City of Vancouver buildings, upgrades to energy using equipment at City of Vancouver buildings, upgrades to equipment with process emissions at City of Vancouver buildings, and procuring energy sources for City of Vancouver buildings.
- Managing methane emissions from the Vancouver Landfill.

2022 Capital Deployment

In the [Vancouver Budget 2022](#), the City defined “Accelerating Action on Climate Change” as one of four Council priorities to assist staff in making decisions about which projects, initiatives and service improvements will most advance our work to address our city’s key issues. These include all actions contained within the Climate Emergency Action Plan and the Climate Change Adaptation Strategy, as well as related zero waste, healthy ecosystems and biodiversity projects. **In 2022, investments will total \$119.2M.**

Accelerating Action on Climate Change	\$M
Capital investments (transportation improvements, zero emission building retrofits, biodiversity and climate adaptation)	77.1
Operational activities (existing and ongoing)	42.0
Operational activities (new)	0.1
2022 Total	\$ 119.2

RISK MANAGEMENT

Identifying, Assessing and Managing Climate-related Risks

The City of Vancouver's Enterprise Risk Management (ERM) program ensures major risks to the City are identified, assessed, and mitigated. The Risk Management Committee (RMC) oversees this work to ensure the risks are evaluated in a standard manner and the treatments meet the risk tolerance for the City (see the Governance section). The City has multiple goals to create a socially and economical vibrant City. The ERM program looks at the risks to meeting those goals.

The ERM identification process includes discussions with management, workshops, review of recent incidents, and examination of incidents and news outside the city. Once identified the risks are evaluated using a standard risk evaluation matrix of likelihood and impact. Major risks to the City that score high on the evaluation matrix are named Key Risks. Risk Owners are assigned Key Risks, and are responsible for developing and executing a treatment plan to address the risk. Climate risks are included in the same ERM process.

RMC oversight includes the City's management of both acute physical risks that relate to storm events, flood damage, heat impacts or wind damage and chronic physical risks from warmer-wetter winters, hotter-drier summers and sea level rise.

The strategies and actions to manage the climate-related risks identified through the risk management process are contained in the Strategy section of this report.

METRICS AND TARGETS

Targets and metrics communicate the City's performance in managing the risks and opportunities that arise from climate change. The new *Climate-related Disclosure Prototype* prepared by the IFRS Technical Readiness Working Group specifies the following measures:

- cross-industry metrics: greenhouse gas emissions, physical and transition risks, opportunities, capital deployment, internal carbon prices, and remuneration of executive management
- industry-based metrics
- targets set by management to mitigate or adapt to climate-related risks or maximise climate-related opportunities; and
- other key performance indicators used by the board or management to measure progress towards identified targets

Some of the recommended metrics are not directly applicable to public-sector organizations (e.g., board remuneration). The City looks to future municipal government-specific guidance and will continue to evolve this disclosure as needed.

Canopy Cover

Vancouver's urban forest provides a multitude of benefits for the community, especially for climate resilience. The urban forest attenuates stormwater, helps keep ambient and building temperature down during hot summers, aids in cleaning the air and provides health and wellness benefits. Neighbourhood heat mapping illustrates that areas with greater canopy cover tend to be much cooler on hot days.

With many municipalities are establishing ambitious canopy cover targets (example targets in other North American cities with similar levels of urbanization: Toronto 40%; Portland 33%; Seattle 30%), the Park Board also re-established a more ambitious canopy cover target of 30% canopy cover by 2050. Achieving this target will require efforts beyond planting trees in parks. It will require ongoing stewardship of existing trees to ensure robust and healthy canopy growth, continuing advocacy and expansion of the urban forest in canopy-deficient areas. See the Park Board's [Urban Forest Strategy Update](#) report for more information.

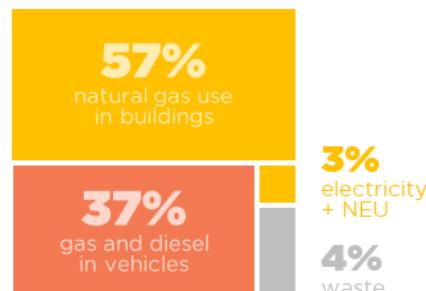
Vancouver's Greenhouse Gas Emissions

Community

The City compiles annual inventories of community greenhouse gas (GHG) emissions², as part of the CEAP indicators framework³. CEAP sets a target of 50% reduction in community-wide greenhouse gas emissions reduction by 2030, and carbon neutrality before 2050.

As of 2020 (the latest year data are available), Vancouver's emissions have decreased 15% from 2007 levels. Scope 1 emission sources dominate Vancouver's emissions: natural gas use in buildings, followed by gas and diesel use in vehicles. Electricity (scope 2) is a smaller component due to a largely hydroelectrically powered grid. Scope 3 emissions from landfilled, incinerated and composted waste make up the remainder⁴.

Vancouver's Carbon Pollution, 2020



² Community emissions are measured according to the *Global Protocol for Community-Scale Greenhouse Gas Emission Inventories* (GPC). Methods are consistent from 2007 to present. Note the GHG emission figures reported here do not align with figures published in past annual *Greenest City Implementation Updates*, which were compiled to the *International Local Government Greenhouse Gas Emissions Analysis Protocol* (community section) published by ICLEI in 2009. While the City maintained both inventories until 2020, this protocol has since been superseded by the GPC.

³ See Appendix M of the *Climate Emergency Action Plan* for the Indicators Framework (<https://vancouver.ca/climateemergency>).

⁴ The City compiled community-wide ecological footprint reports—which included additional community Scope 3 emission sources—as part of the Greenest City Action Plan. The most recent inventory is from 2015. These inventories were based on national-level Census data (particularly food and goods consumption). The City does not consider these inventories sufficiently illustrative of the impact of local policies to improve resilience and reduce exposure to transition risks. In the next iteration of the City's environmental sustainability plan (as directed by the forthcoming Vancouver Plan), methodologies may be revisited to determine whether more localized, disaggregated consumption data is available.

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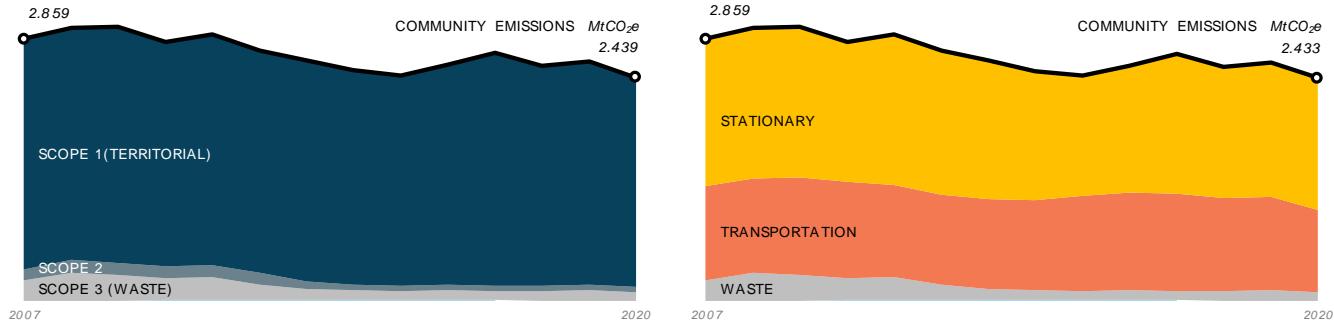
Table 4: Community GHG Emissions

VANCOUVER COMMUNITY GREENHOUSE GAS EMISSIONS million tonnes CO₂e

By Source	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Stationary	1.610	1.654	1.651	1.535	1.653	1.570	1.516	1.409	1.318	1.396	1.538	1.439	1.472	1.443
Transportation	1.033	1.030	1.067	1.050	1.005	0.985	0.977	0.988	1.036	1.066	1.060	1.018	1.021	0.899
Waste	0.216	0.302	0.277	0.244	0.250	0.170	0.128	0.113	0.104	0.108	0.101	0.098	0.108	0.091
Total (GPC BASIC)	2.859	2.985	2.995	2.829	2.908	2.725	2.621	2.510	2.458	2.570	2.699	2.555	2.601	2.433
% change from 2007 baseline	4%	5%	-1%	2%	-5%	-8%	-12%	-14%	-10%	-6%	-11%	-9%	-15%	
By Scope	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
1 (Territorial)	2.525	2.542	2.589	2.457	2.526	2.426	2.421	2.347	2.304	2.408	2.543	2.403	2.437	2.288
2	0.117	0.142	0.129	0.129	0.132	0.130	0.073	0.053	0.053	0.058	0.060	0.058	0.065	0.061
3 (Waste)	0.216	0.302	0.277	0.244	0.250	0.170	0.128	0.113	0.104	0.108	0.101	0.098	0.108	0.091
Total (Scopes Framework)	2.859	2.985	2.995	2.830	2.908	2.726	2.623	2.512	2.462	2.574	2.704	2.560	2.610	2.439
% change from 2007 baseline	4%	5%	-1%	2%	-5%	-8%	-12%	-14%	-10%	-5%	-10%	-9%	-15%	

"BASIC" GHG emissions inventory compiled according to the Global Protocol for Community-Scale Greenhouse Gas Emission Inventories (GPC). Totalling emissions by scope provides a slightly different inventory total than a BASIC inventory. Scope 1 includes emissions from energy generation supplied to the grid (in Vancouver's case, the Neighbourhood Energy Utility). These emissions do not contribute to BASIC inventories.

Vancouver's community emissions are dominated by Scope 1 combustion of natural gas in buildings and gasoline/diesel in vehicles.



Vancouver's emissions profile illustrates a continued reliance on fossil fuels (mobile fuels and natural gas). The COVID-19 pandemic and annual weather fluctuations help to highlight this dependency. Pandemic restrictions significantly curtailed vehicle activity and therefore transportation emissions (the main contributor to overall emissions reductions in 2020). Meanwhile, winter heating demand continues to influence year-over-year fluctuations in building emissions. These sensitivities will diminish over the long term as the City implements CEAP and the community transitions to zero emission buildings and vehicles, and active transportation modes.

Corporate

The City compiles annual inventories of corporate GHG emissions⁵. As of 2020 (the latest year data are available), the City's corporate emissions have decreased 54% from 2008 levels.

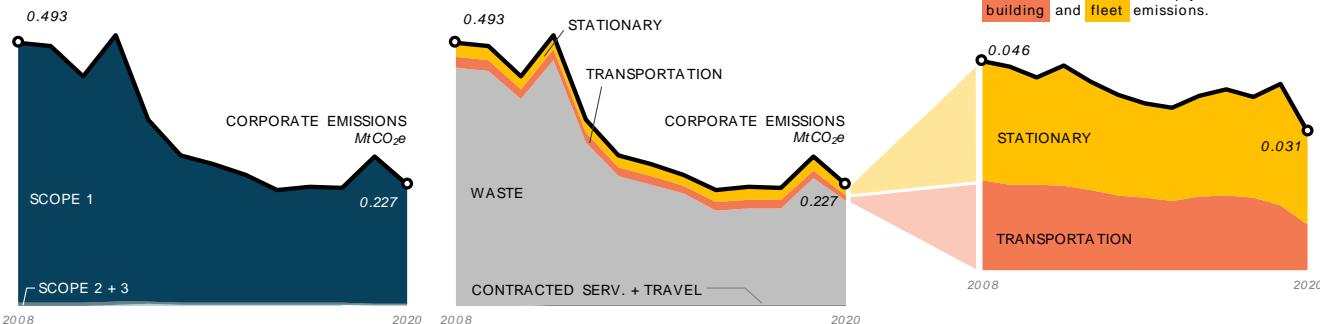
Table 5: Corporate GHG Emissions

VANCOUVER CORPORATE GREENHOUSE GAS EMISSIONS million tonnes CO₂e

By Source	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Stationary	0.026	0.026	0.024	0.027	0.024	0.023	0.021	0.021	0.022	0.024	0.022	0.027	0.021
Transportation	0.020	0.019	0.019	0.019	0.018	0.016	0.016	0.015	0.016	0.017	0.016	0.014	0.010
Waste	0.446	0.441	0.387	0.460	0.305	0.241	0.226	0.209	0.178	0.180	0.181	0.237	0.195
Contracted Services, Business Travel	0.0	0.0	0.0	0.001									
Total (GPC Basic, Scopes Framework)	0.493	0.486	0.430	0.506	0.348	0.281	0.264	0.246	0.217	0.221	0.220	0.280	0.227
% change from 2008 baseline	-1%	-13%	3%	-29%	-43%	-46%	-50%	-56%	-55%	-55%	-43%	-54%	

"BASIC" GHG emissions inventory compiled according to the Global Protocol for Community-Scale Greenhouse Gas Emission Inventories (GPC). In the case of City-corporate inventories, Scope 1 includes all emissions sources with the City's operational control; therefore, emissions from energy generation supplied to the grid (in Vancouver's case, the Neighbourhood Energy Utility) and facilities outside our geographic boundaries but under our control (e.g., the Vancouver Landfill) are within Scope 1.

Vancouver's corporate emissions are dominated by **Scope 1** landfill emissions, which have decreased greatly due to improvements in landfill-gas capture efficiency.



Methane emissions from decomposition of waste at the Vancouver Landfill are a potent emissions source for Vancouver. An extensive landfill gas capture system, which collects 75% for beneficial reuse (as biomethane) and destruction (through flaring), significantly reduces these emissions. Emission trends from the City's buildings and vehicle fleet illustrate the City's opportunities and ongoing work to reduce corporate exposure to transition risk:

- A priority action with the City's Green Operations Plan is for all new heating and hot water systems in city-owned facilities to be zero emissions, and all capital replacement and maintenance systems to be zero emissions where feasible.
- Another Green Operations priority is for all non-emergency light-duty passenger vehicle purchases to be electric, and for electric or low-carbon options considered for all other fleet and equipment purchases. Fleet fuel purchases are also shifting to renewable natural gas (RNG) and renewable diesel (R100)⁶: in 2021, 50% of the fuel used by the City was either RNG, R100, or Electricity.

A small portion due to Scope 3 emissions (namely contracted services, flights, and the City's use of an external passenger-vehicle carshare service for City business) has largely remained flat.

⁵ Corporate emissions are measured according to the International Local Government GHG Emissions Analysis Protocol (IEAP), as referenced in the Global Protocol for Community-Scale Greenhouse Gas Emission Inventories (GPC). Methods are consistent from 2008 to present. Corporate inventories include facilities under the City's operational control, so while corporate inventories are typically a subset of community inventories, exceptions can occur, such as in the case of Vancouver. Vancouver's landfill is located outside of our geography and used by multiple municipalities, but because we own and operate it, the entirety of its emissions fall within scope for the City.

⁶ Renewable diesel is similar to biodiesel but has some significant differences. Both biodiesel and renewable diesel can be produced from waste organic feedstock such as waste fats and used vegetable oils. However, renewable diesel refines the organic feedstock into an end product that is certified to the same standard as petroleum diesel, allowing renewable diesel to be used in blends of up to 100% without any issues.

False Creek Energy Centre

The City's largest single-facility emitter in 2020 was the False Creek Energy Centre (FCEC). The FCEC generates energy to distribute via the City's neighbourhood energy utility (NEU). The NEU provides low carbon thermal energy (space heating and hot water) to 43 residential, commercial and institutional ratepayer customers, equating to 603,000 square metres (6,491,000 square feet) of floor area. The NEU currently targets 70% production from renewable sources such as sewage waste heat and renewable natural gas (RNG). This results in substantial emission reductions compared to traditional methods of providing heat and hot water to buildings.

However, two events in recent years resulted in a significant temporary reduction in NEU environmental performance as a result of the need for additional conventional natural gas to generate energy at the False Creek Energy Centre.

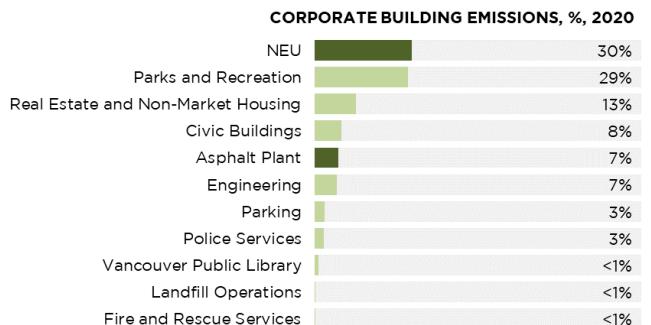
1. On October 28, 2018, flooding triggered by a 1-in-25-year rainfall event caused a prolonged outage of the sewage heat recovery system at the False Creek Energy Centre. Although this event did not disrupt service to customers, it did cause the NEU's forecast renewable energy supply to drop to 33%. The sewage heat recovery system was repaired in 2020.
2. On August 1, 2019, the City received notice from FortisBC that the supply of RNG would be halted for the remainder of the year because of production shortages. RNG supply in 2020 was limited to 40% of the volume of the supply agreement.

In 2020, the NEU successfully implemented its first application of heat recovery from a building and this successful pilot continued in 2021 in which the NEU is forecasting to recover 700 MWh of energy, which accounts for 1% of total energy. In 2021, with the heat pump back in full operation and the RNG curtailment lifted, the NEU achieved 73% renewable energy.

As part of the City's Climate Emergency Action Plan, staff have been tasked with evaluating options to transition the NEU's energy supply from its current target of 70% to a new target of 100% renewable energy sources by 2030. A Roadmap to 100% renewable energy will be presented to Council in 2023.

For more information, see the [2022 False Creek Neighbourhood Energy Utility \("NEU"\) Customer Rates](#) report to City Council.

The NEU and asphalt plant are the largest single users. Parks facilities are the largest energy users in aggregate.



Physical and Transition Risk Metrics

TCFD recommends disclosure of the amount or percentage of assets and service delivery vulnerable to physical and transition risks. The City does not have these figures at this time.

The City has historically used explanatory metrics as part of its *Adaptation Strategy* reporting (see Table 6). These monitor the rate of climate change and its impacts on Vancouver, acting as a proxy for changes in overall climate risk, to support why the City is doing this work.

Completed in 2021, Phase 1 of the Hazards, Risks and Vulnerability Assessment (HRVA) included effort to compile and integrate spatial data on climate-related hazard exposure, intensity and social and physical vulnerability. This information is being used currently to plan for heat before summer 2022. Areas that are hot (surface temperature) and have higher vulnerability (e.g., social and material deprivation) and fewer heat response interventions (e.g., cooling centres, spray parks, lower tree canopy) are being targeted for prioritization.

In addition to spatial information, the first phase of the HRVA brought together staff and external practitioners to inventory a wide range of impacts from the climate-related hazard events and discuss consequences. According to those findings, the risk of climate-related hazards (likelihood and consequence) increases significantly over time, overtaking non-climate related hazards to become the top hazards of concern over time.

Table 6 – Selected Explanatory Metrics

Source	# of Heat Warnings	Days Under Air Quality Advisory ¹
	Environment Canada	Metro Vancouver
2014	0	1
2015	0	8
2016	0	0
2017	1	18
2018	4	22
2019*	0	0
2020	0	12
2021	3	TBD

Climate-related opportunities

The City has long recognized the opportunities from climate policy and action that is targeted, consistent and reliable. The Greenest City Action Plan identified in 2011 that developing Vancouver's green economy is not only necessary for creating a healthy and sustainable city, it is also an incredible opportunity for generating wealth, improving social equity, and building resiliency in the face of uncertain futures. From a City-corporate perspective, a diverse, green, future-proof economy reduces ratepayer risk in the face of climate unknowns. For our residents and businesses, some of the broader community economic benefits can already been seen.

Vancouver's Brand Value

The City of Vancouver's Brand Value [was valued](#) at US\$31 billion as at January 31, 2015.

The City contracted Brand Finance in 2015 to conduct an independent, ISO-recognized Brand Strength Index (BSI) assessment of the Brand Value of Vancouver. The BSI is a balanced scorecard framework to determine the overall strength of the brand of a municipality relative to its five other competitor municipalities on the following components of brand strength:

- Municipal investment in infrastructure and other municipal assets, programs and services
- Perceptual and behavioural equity based on independent market research
- Economic performance of the municipality including, for example, GRDP per capita, crime rate and energy consumption

Brand Finance applied the BSI score for the City of Vancouver to the forecast GRDP using a Royalty Rate Methodology and calculated the Brand Value of the City of Vancouver on this basis.

The study showed how sustainability and existing in harmony with nature are integral to Vancouver's success. Vancouver is recognized globally for its reputation in sustainability, green technology, and environmental protection. This brand value encourages businesses to move and invest here, attracts talented workers, encourages outstanding students and researchers to study here and underpins our long-term economic stability.

Green Jobs Growth

In the City of Vancouver, the [number of green and local food jobs](#) has increased 87% in the period 2010-2020 (approximately 17,400 new jobs). The top three sectors for growth were:

1. Green Building Design & Construction - tied largely to increased market penetration of green building programs, residential industry growth, and updates to the Vancouver Building By-Law
2. Materials Management & Recycling - largely within materials recovery facilities and waste-to-resources
3. Land / Water Remediation & Environmental Consulting

The Vancouver Economic Commission produces [research](#) on the growth of Vancouver's green and local food jobs. A green job is defined as an occupation that has a focus on activities that restore or preserve environmental quality, reduce energy, materials and water consumption, decarbonize the economy, and minimize or altogether avoid the generation of all forms of waste and pollution. A local food job is defined as a job involved in the production, retailing, or processing in Vancouver of food that originated in British Columbia.

Opportunities in the Green Buildings sector

Addressing the global climate crisis has the potential to create huge new market opportunities, and Metro Vancouver is well positioned to capitalize on them. Vancouver Economic Commission [studied the economic opportunity](#) created in the green building sector by local and provincial policies. The *Green Building Market Forecast (2019-2032)* showed that policies such as Vancouver's *Zero Emissions Building Plan* and BC's *Energy Step Code* have created a phased but clear signal to local industry about future building energy use and greenhouse gas requirements. This has helped jumpstart a \$3.3 billion market opportunity for local manufacturers, installers, and suppliers of green building materials in six product categories: fenestration, insulation, heat recovery ventilators (HRVs), HVACs, including heat pumps, domestic hot water systems, and drain water heat recovery systems. The potential economic impact of these policies also include creating 925 well-paying, sustainable manufacturing jobs throughout B.C., and 770 ongoing installation jobs in Metro Vancouver.

Targets, Indicators and Progress

Climate Emergency Action Plan (CEAP)

The [CEAP indicators framework](#) tracks:

- how CEAP implementation will reduce Vancouver's carbon pollution commensurate with limiting global warming to 1.5°C
- what beneficial community-level economic and equity outcomes are achieved through the Big Move actions
- the investments, programs and policies needed to achieve our objectives

The framework comprises the full set of actions, Action and Equity Milestones, Outcome Indicators, and Headline Indicators. Along with projected carbon pollution reductions and the CEAP financial framework, CEAP indicators form a carbon budgeting and accountability framework to track progress transparently and accurately.

The CEAP indicators framework has three levels—each one contributing to the next. Each action ties to its specific milestone(s) and indicator(s), the responsible City department, and projected/actual Big Move carbon reduction. The City produces a CEAP Annual Report for Council.

- See the full set of actions, outcomes, and indicators [here](#).
- The 2021 Report presentation can be found [here](#).
- The 2021 Dashboard containing progress on milestones and indicators can be found [here](#).

Climate Change Adaptation Strategy (CCAS)

Measurement of adaptation work is a nascent discipline still under development. Complications arise due to the long time-horizons involved in adaptation outcomes; the prioritization and selection of process, outcome, and contextual indicators; and appropriate methods for quantifying counterfactual indicators (i.e., avoided climate impacts due to adaptation interventions).

CCAS contains an action to finalize measurement indicators. Some of these derive from existing City of Vancouver and Park Board plans and strategy implementation (see Canopy Cover below). Others are pending completion of related plans and strategies under development at this time (e.g., *Vancouver Plan*, *Rain City Strategy*). Also included within CCAS are Enabling Action indicators looking at the mainstreaming of climate change considerations in to City operations, decisions, and investments. Explanatory metrics monitor the rate of climate change and its impacts on Vancouver (see Table 6 above). Regular reporting against these metrics is in development. For the preliminary Measurement Indicators and for more information, see the full CCAS.

CCAS implementation is underway with regular updates to the Adaptation Steering Committee on progress (see Table 7). All actions have timelines for completion; three years into a five-year implementation, over 70% are currently underway or completed. Several actions have become redundant (for instance, as of 2020, the *Vancouver Plan* process will now address the creation of a Living Systems Strategy).

Table 7 – CCAS Core Actions and Focus

	Completed	In Progress	Carry Forward to 2023 plan	Redundant	Total
Core Actions	31	29	18	6	84
Climate Robust Infrastructure	8	8	1	1	18
Climate Resilient Buildings	5	5	5	3	18
Connected and Prepared Communities	10	4	3	1	18
Coastal Preparedness	5	4	8		17
Healthy and Vigorous Natural Assets	3	8	1	1	13
Enabling Actions	7	4	3	3	17
Total	38	33	21	9	101
% Actions	38%	33%	21%	10%	100%

Developing Climate-Risk Metrics and Targets

The City will continue to develop data sources, metrics, and related analysis to measure and communicate our performance in climate mitigation and adaptation. In many cases, the baseline measurement or data collection method is not in place for adaptation monitoring. For instance, work continues on inventorying and mapping the City's assets, generating a 10-year outlook and cost projections for maintenance and renewal. City staff are involved with several national projects beginning to explore methods of assessing return on investment of adaptation interventions. The City's climate metrics have tended to be descriptive and contextual, and do not include a risk dimension or analysis (e.g., total community GHGs without commentary on risk-exposure profile that this figure represents). Similar to many organizations, the City has physical risks well identified and assessed but more work is required to better identify and quantify transition risks.

As mentioned previously, the standards around TCFD disclosure are still in development, and are particularly nascent with respect to public-sector organizations. Appendix B in the *Climate-related Disclosure Prototype* gives industry-specific disclosure requirements and metrics, which may broadly correspond to a municipality's asset classes and service delivery categories. The City has begun mapping these⁷ and may include relevant metrics in future disclosures.

Key considerations remain: Should measures capture not just the resilience of the City's service delivery and owned assets, but also preparedness in the larger community, and impacts to services, infrastructure and land owned and managed by external stakeholders within the City's geography? What metrics are then best suited for measuring municipal government performance, given the differences in fiduciary duty, duty of care, and scope of concern compared to private-sector entities? And given city typologies vary greatly (geography, demography, jurisdictional boundaries and powers), how might readers interpret relative performance between cities.

One approach may be to look at our assets and service delivery from a value-chain perspective (particularly relevant when we eventually examine our Scope 3 emissions) and find similarities with the TCFD's private-sector focus, to develop an approach tailored to municipalities.

⁷ For instance, two industries correspond broadly to major emitters within the City's services: "Electric Utilities & Power Generators" (i.e., the City's neighbourhood energy utility), and "Construction Materials" (i.e., the City's asphalt plant). Discussion around the NEU's emissions in 2020 are included below.