



COMMITTEE OF THE WHOLE

12:00 pm, Wednesday, December 13, 2023
School Board Office

AGENDA

- 1. APPROVAL OF AGENDA**
 - 1.a) **MOTION:** "THAT the Committee of the Whole Meeting Agenda of December 13, 2023, be adopted as circulated."

- 2. STANDING COMMITTEES**
 - 2.a) Education & Strategic Planning Committee
 - 2.a.i) Confirmation of Superintendent & Board Evaluations - Discussion
 - 2.a.ii) Survey Data Related to Board Governance

 - 2.b) Finance & Facilities Committee
 - 2.b.i) Statement of Financial Information

 - 2.c) Policy Committee
 - 2.c.i) Policy 8 Board Committees – Prospective Amendments
 - 2.c.ii) Policy 9 Board Representatives – Prospective Amendments

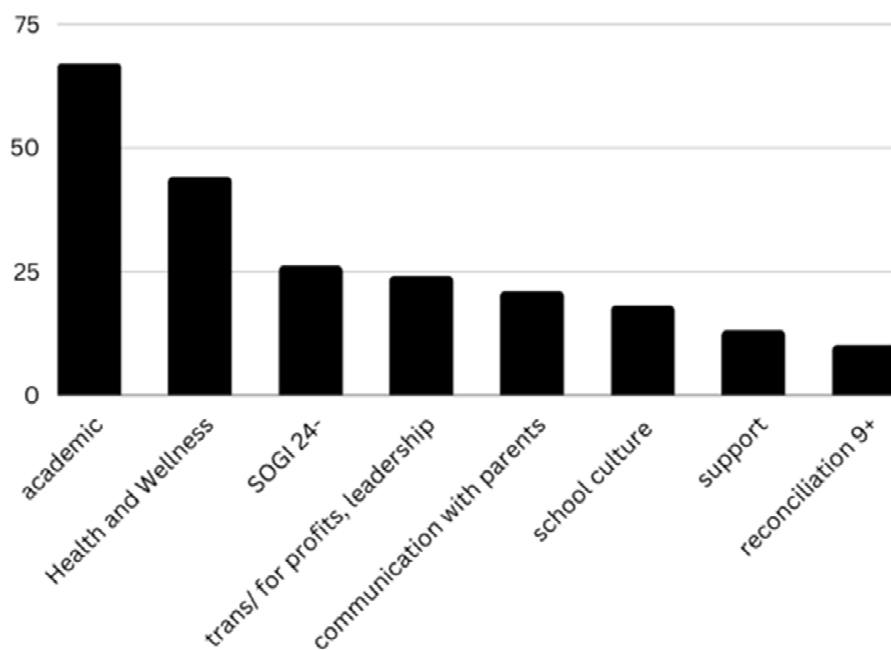
- 3. COMMITTEE REPORTS**
 - 3.a) Prospective Committee Structure & Trustee Appointments

- 4. OTHER INFORMATION**
 - 4.a) Parent correspondence regarding screen time for students
 - 4.b) BCSTA Climate Action Working Group
 - 4.c) Board Work Plan – For Information

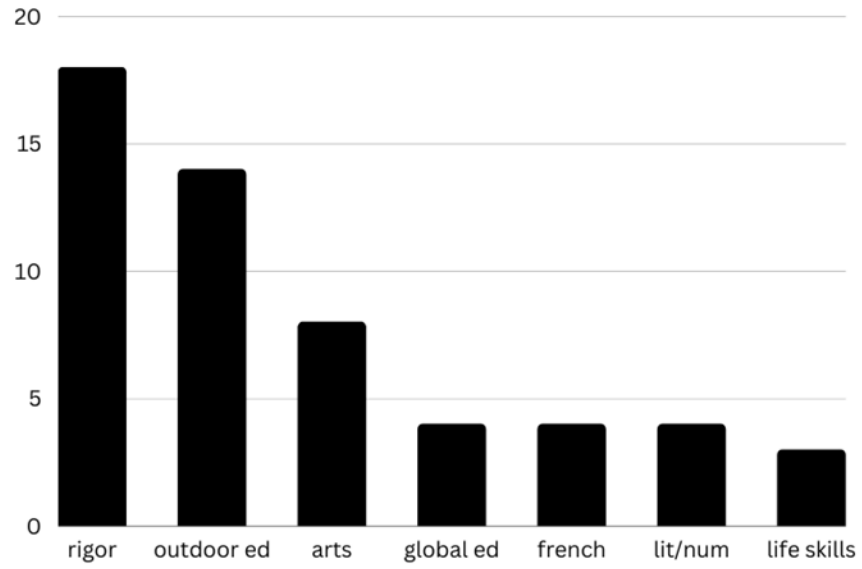
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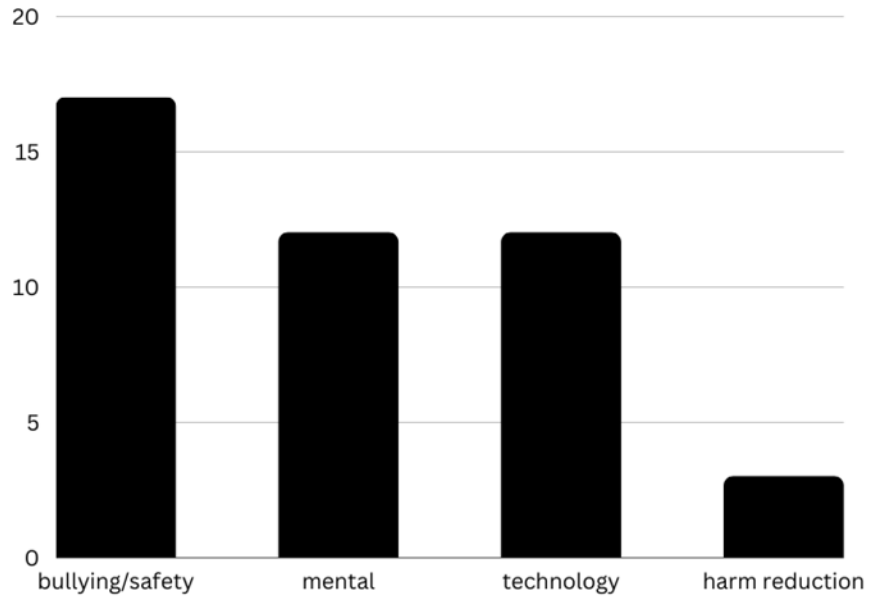
Additional Comments



Academics



Health and Wellness



Board Related



**School District
Statement of Financial Information (SOFI)**

qathet School District

Fiscal Year Ended June 30, 2023

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Documents are arranged in the following order:

1. Approval of Statement of Financial Information
2. Financial Information Act Submission Checklist
3. Management Report
4. Audited Financial Statements
5. Schedule of Debt
6. Schedule of Guarantee and Indemnity Agreements
7. Schedule of Remuneration and Expenses including:
 - Statement of Severance Agreements
 - Reconciliation or explanation of differences to Audited Financial Statements
8. Schedule of Payments for the Provision of Goods and Services including:
 - Reconciliation or explanation of differences to Audited Financial Statements

**SCHOOL DISTRICT
STATEMENT OF FINANCIAL INFORMATION
(SOFI)**

NUMBER 47	NAME qathet	YEAR	2022/2023
OFFICE LOCATION(S)	4351 Ontario Avenue	TELEPHONE	(604) 485-6271
MAILING ADDRESS	4351 Ontario Avenue		
CITY Powell River	PROVINCE BC	POSTAL CODE	V8A 1V3
SUPERINTENDENT	Jay Yule	TELEPHONE	(604) 414-2600
SECRETARY TREASURER	Steve Hopkins	TELEPHONE	(604) 414-2604

DECLARATION AND SIGNATURES

*We, the undersigned, certify that the attached is a correct and true copy of the Statement of Financial Information for the year ended **June 30, 2023** for School District No.47 as required under Section 2 of the Financial Information Act.*

SIGNATURE OF CHAIRPERSON OF THE BOARD OF SCHOOL TRUSTEES

DATE SIGNED

SIGNATURE OF SECRETARY TREASURER

DATE SIGNED

SIGNATURE OF SUPERINTENDENT

DATE SIGNED

Statement of Financial Information for Year Ended June 30, 2023
Financial Information Act-Submission Checklist

Due Date

- | | | |
|----|---|---------------------|
| a) | A statement of assets and liabilities (audited financial statements). | <i>September 30</i> |
| b) | An operational statement including, i) a Statement of Income and ii) a Statement of Changes in Financial Position, or, if omitted, an explanation in the Notes to Financial Statements (audited financial statements) | <i>September 30</i> |
| c) | A schedule of debts (audited financial statements). | <i>September 30</i> |
| d) | A schedule of guarantee and indemnity agreements including the names of the entities involved and the amount of money involved. (Note: Nil schedules can be submitted December 31). | <i>September 30</i> |
| e) | A schedule of remuneration and expenses, including:

i) an alphabetical list of employees earning over \$75,000, the total amount of expenses paid to or on behalf of each employee for the year reported and a consolidated total for employees earning under \$75,000. If the total wages and expenses differs from the audited financial statements, an explanation is required.

ii) a list by name and position of Board Members with the amount of any salary and expenses paid to or on behalf of the member

iii) the number of severance agreements started during the fiscal year and the range of months' pay covered by the agreement, in respect of excluded employees. If there are no agreements to report, an explanation is required | <i>December 31</i> |
| f) | An alphabetical list of suppliers receiving over \$25,000 and a consolidated total for those suppliers receiving less than \$25,000. If the total differs from the Audited Financial Statements, an explanation is required. | <i>December 31</i> |
| g) | Approval of Statement of Financial Information. | <i>December 31</i> |
| h) | A management report approved by the Chief Financial Officer
School District Number & Name | <i>December 31</i> |

Statement of Financial Information (SOFI)
qathet School District
Fiscal Year Ended June 30, 2023

MANAGEMENT REPORT

The Financial Statements contained in this Statement of Financial Information under the *Financial Information Act* have been prepared by management in accordance with accounting principles generally accepted for British Columbia school districts as prescribed or permitted by the Ministry of Education and the integrity and objectivity of these statements are management's responsibility.

Management is also responsible for all other schedules of financial information and for ensuring this information is consistent, where appropriate, with the information contained in the financial statements and for implementing and maintaining a system of internal controls to provide reasonable assurance that reliable financial information is produced.

The Board of School Trustees is responsible for ensuring that management fulfils its responsibilities for financial reporting and internal control and for approving the financial information included in the Statement of Financial Information.

The external auditors, Meyers, Norris, Penney, conduct an independent examination, in accordance with generally accepted auditing standards, and express their opinion on the financial statements as required by the *School Act*. Their examination does not relate to the other schedules of financial information required by the *Financial Information Act*. Their examination includes a review and evaluation of the board's system of internal control and appropriate tests and procedures to provide reasonable assurance that the financial statements are presented fairly.

On behalf of School District

Jay Yule, Superintendent
Date:

Steve Hopkins, Secretary Treasurer
Date:

Audited Financial Statements of

School District No. 47 (Powell River)

And Independent Auditors' Report thereon

June 30, 2023

School District No. 47 (Powell River)

June 30, 2023

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School District No. 47 (Powell River)

MANAGEMENT REPORT

Version: 5977-5231-3249

Management's Responsibility for the Financial Statements.

The accompanying financial statements of School District No. 47 (Powell River) have been prepared by management in accordance with the accounting requirements of Section 23.1 of the Budget Transparency and Accountability Act of British Columbia, supplemented by Regulations 257/2010 and 198/2011 issued by the Province of British Columbia Treasury Board, and the integrity and objectivity of these statements are management's responsibility. Management is also responsible for all of the notes to the financial statements and schedules, and for ensuring that this information is consistent, where appropriate, with the information contained in the financial statements.


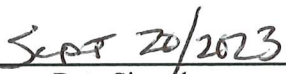
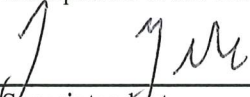
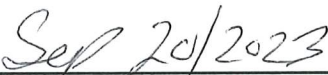
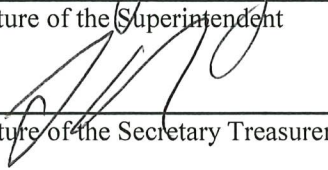
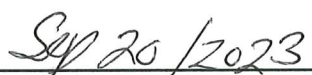
The preparation of financial statements necessarily involves the use of estimates based on management's judgment particularly when transactions affecting the current accounting period cannot be finalized with certainty until future periods.

Management is also responsible for implementing and maintaining a system of internal controls to provide reasonable assurance that assets are safeguarded, transactions are properly authorized and reliable financial information is produced.

The Board of Education of School District No. 47 (Powell River) (called the "Board") is responsible for ensuring that management fulfills its responsibilities for financial reporting and internal control and exercises these responsibilities through the Board. The Board reviews internal financial statements on a monthly basis and externally audited financial statements yearly.

The external auditors, MNP, conduct an independent examination, in accordance with Canadian generally accepted auditing standards, and express their opinion on the financial statements. The external auditors have full and free access to financial management of School District No. 47 (Powell River) and meet when required. The accompanying Independent Auditors' Report outlines their responsibilities, the scope of their examination and their opinion on the School District's financial statements.

On behalf of School District No. 47 (Powell River)

	
Signature of the Chairperson of the Board of Education	Date Signed
	
Signature of the Superintendent	Date Signed
	
Signature of the Secretary Treasurer	Date Signed

Independent Auditor's Report

To the Board of Education of School District No. 47 (Powell River) and the Minister of Education:

Opinion

We have audited the financial statements of School District No. 47 (Powell River) (the "School District"), which comprise the statement of financial position as at June 30, 2023, and the statements of operations, statement of changes in net debt and cash flows for the year then ended, and notes to the financial statements, including a summary of significant accounting policies.

In our opinion, the financial statements present the financial position of the School District as at June 30, 2023 and the results of its operations, remeasurement gains and losses, changes in net debt and its cash flows for the year then ended in compliance with, in all material respects, the financial reporting framework based on Section 23.1 of the Budget Transparency and Accountability Act and the Province of British Columbia's Treasury Board Regulations 257/2010 and 198/2011.

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 Auditor's Responsibilities for the Audit of the financial statements section of our report. We are independent of the School District 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 opinion.

Emphasis of Matter

We draw attention to Note 2 which describes the financial reporting framework being followed by School District No. 47 (Powell River).

Other Information

Management is responsible for the other information. The other information obtained at the date of this auditor's report comprises of Unaudited Schedules 1-4 attached to the audited financial statements and Financial Statement Discussion and Analysis but does not include the financial statements and our auditor's report thereon.

Our opinion on the financial statements does not cover the other information and we will not express any form of assurance conclusion thereon.

In connection with our audit of the financial statements, our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the financial statements or our knowledge obtained in the audit or otherwise appears to be materially misstated.

If, based on the work we have performed on the other information obtained prior to the date of this auditor's report, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report in this regard.

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

Management is responsible for the preparation and presentation of these financial statements in accordance with the financial reporting framework based on Section 23.1 of the Budget Transparency and Accountability Act and the Province of British Columbia's Treasury Board Regulations 257/2010 and 198/2011, 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 School District'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 intends to liquidate the School District or to cease operations, or has no realistic alternative but to do so.

Those charged with governance are responsible for overseeing the School District'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 auditor's 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 these financial statements.

As part of an audit in accordance with Canadian generally accepted auditing standards, we exercise professional judgement 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 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 School District'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 School District's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's 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 auditor's report. However, future events or conditions may cause the School District 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.

We 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.

Campbell River, BC

September 20, 2023

MNP LLP

Chartered Professional Accountants

School District No. 47 (Powell River)

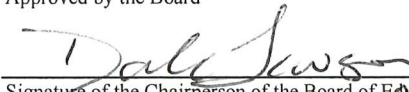

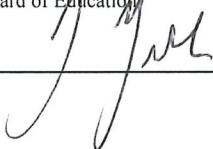
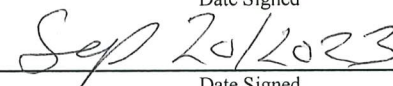
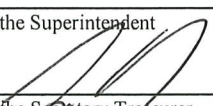
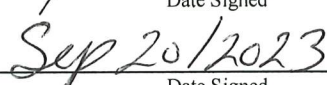
Statement of Financial Position

As at June 30, 2023

	2023 Actual	2022 Actual (Restated - Note 20)
	\$	\$
Financial Assets		
Cash and Cash Equivalents	7,715,098	9,247,733
Accounts Receivable		
Due from Province - Ministry of Education and Child Care	129,182	50,000
Other (Note 3)	347,045	200,505
Total Financial Assets	<u>8,191,325</u>	<u>9,498,238</u>
Liabilities		
Accounts Payable and Accrued Liabilities		
Other (Note 4)	3,361,089	2,468,354
Unearned Revenue (Note 9)	371,494	472,429
Deferred Revenue (Note 6)	602,775	832,713
Deferred Capital Revenue (Note 7)	37,962,163	38,025,548
Employee Future Benefits (Note 8)	791,702	817,819
Asset Retirement Obligation (Note 16 & 20)	1,382,777	1,394,540
Total Liabilities	<u>44,472,000</u>	<u>44,011,403</u>
Net Debt	<u>(36,280,675)</u>	<u>(34,513,165)</u>
Non-Financial Assets		
Tangible Capital Assets (Note 10)	47,116,095	46,874,255
Prepaid Expenses	117,626	113,505
Total Non-Financial Assets	<u>47,233,721</u>	<u>46,987,760</u>
Accumulated Surplus (Deficit) (Note 18)	<u>10,953,046</u>	<u>12,474,595</u>
Accumulated Surplus (Deficit) is comprised of:		
Accumulated Surplus (Deficit) from Operations	10,953,046	12,474,595
Accumulated Remeasurement Gains (Losses)	<u>10,953,046</u>	<u>12,474,595</u>

Contingent Liabilities (Note 11)

Approved by the Board

	
Signature of the Chairperson of the Board of Education	Date Signed
	
Signature of the Superintendent	Date Signed
	
Signature of the Secretary Treasurer	Date Signed

School District No. 47 (Powell River)

Statement of Operations
Year Ended June 30, 2023

	2023 Budget (Note 17) \$	2023 Actual \$	2022 Actual (Restated - Note 20) \$
Revenues			
Provincial Grants			
Ministry of Education and Child Care	41,372,480	42,715,709	38,390,011
Other	100,000	115,554	145,872
Tuition	874,182	887,702	1,192,761
Other Revenue	2,087,439	3,684,066	2,438,827
Rentals and Leases	125,900	176,367	143,648
Investment Income	107,500	276,481	53,391
Amortization of Deferred Capital Revenue	1,663,578	1,755,075	1,712,193
Total Revenue	<u>46,331,079</u>	<u>49,610,954</u>	<u>44,076,703</u>
Expenses			
Instruction	38,369,569	40,736,499	34,346,233
District Administration	1,999,981	1,954,617	1,647,672
Operations and Maintenance	5,996,168	7,029,617	6,248,869
Transportation and Housing	1,203,775	1,411,770	1,188,111
Total Expense	<u>47,569,493</u>	<u>51,132,503</u>	<u>43,430,885</u>
Surplus (Deficit) for the year	<u>(1,238,414)</u>	<u>(1,521,549)</u>	<u>645,818</u>
Accumulated Surplus (Deficit) from Operations, beginning of year		12,474,595	11,828,777
Accumulated Surplus (Deficit) from Operations, end of year		<u>10,953,046</u>	<u>12,474,595</u>

School District No. 47 (Powell River)

Statement of Changes in Net Debt

Year Ended June 30, 2023

	2023 Budget (Note 17) \$	2023 Actual \$	2022 Actual (Restated - Note 20) \$
Surplus (Deficit) for the year	(1,238,414)	(1,521,549)	645,818
Effect of change in Tangible Capital Assets			
Acquisition of Tangible Capital Assets		(2,336,872)	(2,864,734)
Amortization of Tangible Capital Assets	1,929,649	2,095,032	2,025,492
Total Effect of change in Tangible Capital Assets	1,929,649	(241,840)	(839,242)
Acquisition of Prepaid Expenses		(4,121)	(23,216)
Total Effect of change in Other Non-Financial Assets	-	(4,121)	(23,216)
(Increase) Decrease in Net Debt, before Net Remeasurement Gains (Losses)	<u>691,235</u>	(1,767,510)	(216,640)
Net Remeasurement Gains (Losses)			
(Increase) Decrease in Net Debt		(1,767,510)	(216,640)
Net Debt, beginning of year		(34,513,165)	(34,296,525)
Net Debt, end of year		(36,280,675)	(34,513,165)

School District No. 47 (Powell River)

Statement 5

Statement of Cash Flows
Year Ended June 30, 2023

	2023 Actual	2022 Actual
		(Restated - Note 20)
	\$	\$
Operating Transactions		
Surplus (Deficit) for the year	(1,521,549)	645,818
Changes in Non-Cash Working Capital		
Decrease (Increase)		
Accounts Receivable	(225,722)	78,146
Prepaid Expenses	(4,121)	(23,216)
Increase (Decrease)		
Accounts Payable and Accrued Liabilities	892,735	271,623
Unearned Revenue	(100,935)	(43,089)
Deferred Revenue	(229,938)	264,513
Employee Future Benefits	(26,117)	29,700
Other Liabilities	(11,763)	
Amortization of Tangible Capital Assets	2,095,032	2,025,492
Amortization of Deferred Capital Revenue	(1,755,075)	(1,712,193)
Total Operating Transactions	<u>(887,453)</u>	<u>1,536,794</u>
Capital Transactions		
Tangible Capital Assets Purchased	(2,336,872)	(2,864,734)
Total Capital Transactions	<u>(2,336,872)</u>	<u>(2,864,734)</u>
Financing Transactions		
Capital Revenue Received	1,691,690	3,157,274
Total Financing Transactions	<u>1,691,690</u>	<u>3,157,274</u>
Net Increase (Decrease) in Cash and Cash Equivalents	(1,532,635)	1,829,334
Cash and Cash Equivalents, beginning of year	<u>9,247,733</u>	7,418,399
Cash and Cash Equivalents, end of year	<u><u>7,715,098</u></u>	<u>9,247,733</u>
Cash and Cash Equivalents, end of year, is made up of:		
Cash	<u>7,715,098</u>	9,247,733
	<u><u>7,715,098</u></u>	<u>9,247,733</u>



POWELL RIVER BOARD OF EDUCATION SCHOOL DISTRICT NO. 47

FINANCIAL STATEMENT NOTES *YEAR ENDED JUNE 30, 2023*

NOTE 1 AUTHORITY AND PURPOSE

The School District, operates under authority of the *School Act* of British Columbia as a corporation under the name of "The Board of Education of School District No. 47 (Powell River)", and operates as "School District No. 47 (Powell River)." A board of education ("Board") elected for a four-year term governs the School District. The School District provides educational programs to students enrolled in schools in the district, and is principally funded by the Province of British Columbia through the Ministry of Education and Child Care. School District No. 47 (Powell River) is exempt from federal and provincial corporate income taxes.

The COVID-19 outbreak was declared a pandemic by the World Health Organization in March 2020 and has had a significant financial, market and social dislocating impact worldwide. The ongoing impact of the pandemic presents uncertainty over future cash flows, may have a significant impact on future operations including decreases in revenue, impairment of receivables, reduction in investment income and delays in completing capital project work. As the situation is dynamic and the ultimate duration and magnitude of the impact are not known, an estimate of the future financial effect on the District is not practicable at this time.

NOTE 2 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

a) Basis of Accounting

These financial statements have been prepared in accordance with Section 23.1 of the *Budget Transparency and Accountability Act of the Province of British Columbia*. This Section requires that the financial statements be prepared in accordance with Canadian public sector accounting standards except in regard to the accounting for government transfers as set out in Notes 2(e) and 2(l).

In November 2011, Treasury Board provided a directive through Restricted Contributions Regulation 198/2011 providing direction for the reporting of restricted contributions whether they are received or receivable by the School District before or after this regulation was in effect.

As noted in notes 2(e) and 2(l), Section 23.1 of the *Budget Transparency and Accountability Act* and its related regulations require the School District to recognize government transfers for the acquisition of capital assets into revenue on the same basis as the related amortization expense.



**POWELL RIVER BOARD OF EDUCATION
SCHOOL DISTRICT NO. 47**

***FINANCIAL STATEMENT NOTES
YEAR ENDED JUNE 30, 2023***

NOTE 2 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)

a) Basis of Accounting (cont'd)

As these transfers do not contain stipulations that create a liability, Canadian public sector accounting standards would require that:

- government transfers, which do not contain a stipulation that creates a liability, be recognized as revenue by the recipient when approved by the transferor and the eligibility criteria have been met in accordance with public sector accounting standard PS3410; and
- externally restricted contributions be recognized as revenue in the period in which the resources are used for the purpose or purposes specified in accordance with public sector accounting standard PS3100.

The impact of this difference on the financial statements of the School District is as follows:

Year-ended June 30, 2022 – increase in annual surplus by \$1,445,081

June 30, 2022 – increase in accumulated surplus and increase in deferred contributions by \$38,025,548

Year-ended June 30, 2023 – decrease in annual surplus by \$63,385

June 30, 2023 – increase in accumulated surplus and increase in deferred contributions by \$37,962,163

b) Cash and Cash Equivalents

Cash and cash equivalents include cash and highly liquid securities that are readily convertible to known amounts of cash and that are subject to an insignificant risk of change in value. These cash equivalents generally have a maturity of three months or less at acquisition and are held for the purpose of meeting short-term cash commitments rather than for investing.

c) Accounts Receivable

Accounts receivables are measured at amortized cost and shown net of allowance for doubtful accounts.



**POWELL RIVER BOARD OF EDUCATION
SCHOOL DISTRICT NO. 47**

***FINANCIAL STATEMENT NOTES
YEAR ENDED JUNE 30, 2023***

NOTE 2 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES *(Continued)*

d) Unearned Revenue

Unearned revenue includes tuition fees received for courses to be delivered in future periods and receipt of proceeds for services or products to be delivered in a future period. Revenue will be recognized in that future period when the courses, services, or products are provided.

e) Deferred Revenue and Deferred Capital Revenue

Deferred revenue includes contributions received with stipulations that meet the description of restricted contributions in the Restricted Contributions Regulation 198/2011 issued by Treasury Board. When restrictions are met, deferred revenue is recognized as revenue in the fiscal year in a manner consistent with the circumstances and evidence used to support the initial recognition of the contributions received as a liability as detailed in Note 2 (l).

Funding received for the acquisition of depreciable tangible capital assets is recorded as deferred capital revenue and amortized over the life of the asset acquired as revenue in the statement of operations. This accounting treatment is not consistent with the requirements of Canadian public sector accounting standards which require that government transfers be recognized as revenue when approved by the transferor and eligibility criteria have been met unless the transfer contains a stipulation that creates a liability in which case the transfer is recognized as revenue over the period that the liability is extinguished. See note 2 (a) for the impact of this policy on these financial statements.

f) Prepaid Expenses

Insurance premiums, and software licensing and support, are included as a prepaid expense and stated at acquisition cost and are charged to expense over the periods expected to benefit from it.

g) Funds and Reserves

Certain amounts, as approved by the Board are set aside in accumulated surplus for future operating and capital purposes. Transfers to and from funds and reserves are an adjustment to the respective fund when approved (see Notes 13 – Interfund Transfers and Note 18 – Accumulated Surplus).



**POWELL RIVER BOARD OF EDUCATION
SCHOOL DISTRICT NO. 47**

***FINANCIAL STATEMENT NOTES
YEAR ENDED JUNE 30, 2023***

NOTE 2 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES *(Continued)*

h) Employee Future Benefits

The School District provides certain post-employment benefits including vested and non-vested benefits for certain employees pursuant to certain contracts and union agreements. The School District accrues its obligations and related costs including both vested and non-vested benefits under employee future benefit plans. Benefits include vested sick leave, accumulating non-vested sick leave, early retirement, retirement/severance, vacation, overtime and death benefits. The benefits cost is actuarially determined using the projected unit credit method pro-rated on service and using management's best estimate of expected salary escalation, termination rates, retirement rates and mortality. The discount rate used to measure obligations is based on the cost of borrowing. The cumulative unrecognized actuarial gains and losses are amortized over the expected average remaining service lifetime of active employees covered under the plan.

The most recent valuation of the obligation was performed at March 31, 2022 and projected to March 31, 2025. The next valuation will be performed at March 31, 2025 for use at June 30, 2025. For the purposes of determining the financial position of the plans and the employee future benefit costs, a measurement date of March 31 was adopted for all periods subsequent to July 1, 2004.

The School district and its employees make contributions to the Teachers' Pension Plan and Municipal Pension Plan. The plans are multi-employer plans where assets and obligations are not separated. The costs are expensed as incurred.

i) Liability for Contaminated Sites

Contaminated sites are a result of contamination being introduced into air, soil, water or sediment of a chemical, organic or radioactive material or live organism that exceeds an environmental standard. The liability is recorded net of any expected recoveries. A liability for remediation of contaminated sites is recognized when a site is not in productive use and all the following criteria are met:

- an environmental standard exists;
- contamination exceeds the environmental standard;
- the School District:
 - is directly responsible; or
 - accepts responsibility;
- it is expected that future economic benefits will be given up; and
- a reasonable estimate of the amount can be made.



**POWELL RIVER BOARD OF EDUCATION
SCHOOL DISTRICT NO. 47**

***FINANCIAL STATEMENT NOTES
YEAR ENDED JUNE 30, 2023***

NOTE 2 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES *(Continued)*

i) Liability for Contaminated Sites (cont'd)

The liability is recognized as management's estimate of the cost of post-remediation including operation, maintenance and monitoring that are an integral part of the remediation strategy for a contaminated site.

j) Measurement Uncertainty

Preparation of financial statements in accordance with the basis of accounting described in note 2 a) requires management to make estimates and assumptions that impact reported amounts of assets and liabilities at the date of the financial statements and revenues and expenses during the reporting periods. Significant areas requiring the use of management estimates relate to the potential impairment of assets, liabilities for contaminated sites, asset retirement obligations, rates for amortization and estimated employee future benefits. Actual results could differ from those estimates.

k) Tangible Capital Assets

The following criteria apply:

- Tangible capital assets acquired or constructed are recorded at cost which includes amounts that are directly related to the acquisition, design, construction, development, improvement or betterment of the assets. Cost also includes overhead directly attributable to construction as well as interest costs that are directly attributable to the acquisition or construction of the asset.
- Donated tangible capital assets are recorded at their fair market value on the date of donation, except in circumstances where fair value cannot be reasonably determined, which are then recognized at nominal value. Transfers of capital assets from related parties are recorded at carrying value.
- Work-in-progress is recorded as an acquisition to the applicable asset class at substantial completion.
- Tangible capital assets are written down to residual value when conditions indicate they no longer contribute to the ability of the School District to provide services or when the value of future economic benefits associated with the sites and buildings are less than their net book value. The write-downs are accounted for as expenses in the Statement of Operations.
- Buildings that are demolished or destroyed are written-off.
- Works of art, historic assets and other intangible assets are not recorded as assets in these financial statements.
- The cost, less residual value, of tangible capital assets (excluding sites), is amortized on a straight-line basis over the estimated useful life of the asset. It is management's responsibility to determine the appropriate useful lives for tangible capital assets. These



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***FINANCIAL STATEMENT NOTES
YEAR ENDED JUNE 30, 2023***

NOTE 2 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)

k) Tangible Capital Assets (cont'd)

useful lives are reviewed on a regular basis or if significant events initiate the need to revise. Estimated useful life is as follows:

Buildings	40 years
Furniture & Equipment	10 years
Vehicles	10 years
Computer Software	5 years
Computer Hardware	5 years

l) Revenue Recognition

Revenues are recorded on an accrual basis in the period in which the transactions or events occurred that gave rise to the revenues, the amounts are considered to be collectible and can be reasonably estimated.

Contributions received or where eligibility criteria have been met are recognized as revenue except where the contribution meets the criteria for deferral as described below. Eligibility criteria are the criteria that the School District has to meet in order to receive the contributions including authorization by the transferring government.

For contributions subject to a legislative or contractual stipulation or restriction as to their use, revenue is recognized as follows:

- Non-capital contributions for specific purposes are recorded as deferred revenue and recognized as revenue in the year related expenses are incurred,
- Contributions restricted for site acquisitions are recorded as revenue when the sites are purchased, and
- Contributions restricted for tangible capital assets acquisitions other than sites are recorded as deferred capital revenue and amortized over the useful life of the related assets.

Donated tangible capital assets other than sites are recorded at fair market value and amortized over the useful life of the assets. Donated sites are recorded as revenue at fair market value when received or receivable.

The accounting treatment for restricted contributions is not consistent with the requirements of Canadian public sector accounting standards which require that government transfers be recognized as revenue when approved by the transferor and eligibility criteria have been met.



**POWELL RIVER BOARD OF EDUCATION
SCHOOL DISTRICT NO. 47**

***FINANCIAL STATEMENT NOTES
YEAR ENDED JUNE 30, 2023***

NOTE 2 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES *(Continued)*

l) Revenue Recognition (cont'd)

unless the transfer contains a stipulation that meets the criteria for liability recognition in which case the transfer is recognized as revenue over the period that the liability is extinguished. See note 2(a) for the impact of this policy on these financial statements.

Revenue related to fees or services received in advance of the fee being earned or the service is performed is deferred and recognized when the fee is earned or service performed.

Investment income is reported in the period earned. When required by the funding party or related Act, investment income earned on deferred revenue is added to the deferred revenue balance.

m) Expenses

Expenses are reported on an accrual basis. The cost of all goods consumed, and services received during the year is expensed.

Categories of Salaries

- Principals, Vice-Principals, and Directors of Instruction employed under an administrative officer contract are categorized as Principals and Vice-Principals.
- Superintendents, Assistant Superintendents, Secretary-Treasurers, Trustees and other employees excluded from union contracts are categorized as Other Professionals.

Allocation of Costs

- Operating expenses are reported by function, program, and object. Whenever possible, expenditures are determined by actual identification. Additional costs pertaining to specific instructional programs, such as special and aboriginal education, are allocated to these programs. All other costs are allocated to related programs.
- Actual salaries of personnel assigned to two or more functions or programs are allocated based on the time spent in each function and program. School-based clerical salaries are allocated to school administration and partially to other programs to which they may be assigned. Principals and Vice-Principals salaries are allocated to school administration and may be partially allocated to other programs to recognize their other responsibilities.
- Employee benefits and allowances are allocated to the same programs, and in the same proportions, as the individual's salary.
- Supplies and services are allocated based on actual program identification.



**POWELL RIVER BOARD OF EDUCATION
SCHOOL DISTRICT NO. 47**

***FINANCIAL STATEMENT NOTES
YEAR ENDED JUNE 30, 2023***

NOTE 2 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES *(Continued)*

n) Financial Instruments

A contract establishing a financial instrument creates, at its inception, rights and obligations to receive or deliver economic benefits. The financial assets and financial liabilities portray these rights and obligations in the financial statements. The School District recognizes a financial instrument when it becomes a party to a financial instrument contract.

Financial instruments consist of cash and cash equivalents, accounts receivable, accounts payable and accrued liabilities, and other liabilities.

All financial assets and liabilities are recorded at cost or amortized cost and the associated transaction costs are added to the carrying value of these investments upon initial recognition and amortized using the effective interest rate method. Transaction costs are incremental costs directly attributable to the acquisition or issue of a financial asset or a financial liability.

Unrealized gains and losses from changes in the fair value of financial instruments are recognized in the statement of remeasurement gains and losses. Upon settlement, the cumulative gain or loss is reclassified from the statement of remeasurement gains and losses and recognized in the statement of operations. Interest and dividends attributable to financial instruments are reported in the statement of operations. There are no measurement gains or losses during the periods presented; therefore, no statement of remeasurement gains or losses is included in these financial statements.

All financial assets except derivatives are tested annually for impairment. When financial assets are impaired, impairment losses are recorded in the statement of operations. A write-down of a portfolio investment to reflect a loss in value is not reversed for a subsequent increase in value.

For financial instruments measured using amortized cost, the effective interest rate method is used to determine interest revenue or expense.

o) Statement of Remeasurement Gains and Losses

A statement of re-measurement gains and losses has not been presented as the District does not hold any financial assets or liabilities that would give rise to remeasurement gains or losses.



**POWELL RIVER BOARD OF EDUCATION
SCHOOL DISTRICT NO. 47**

***FINANCIAL STATEMENT NOTES
YEAR ENDED JUNE 30, 2023***

NOTE 2 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)

p) Asset Retirement Obligations

A liability is recognized when, as at the financial reporting date:

- (a) there is a legal obligation to incur retirement costs in relation to a tangible capital asset;
- (b) the past transaction or event giving rise to the liability has occurred;
- (c) it is expected that future economic benefits will be given up; and
- (d) a reasonable estimate of the amount can be made.

The liability for the removal of asbestos and other hazardous material in several of the buildings owned by the School District has been initially recognized using the modified retroactive method. The liability has been measured at current cost as the timing and amounts of future cash flows cannot be estimated. The resulting costs have been capitalized into the carrying amount of tangible capital assets and are being amortized on the same basis as the related tangible capital asset (see note 2k). Assumptions used in the calculations are reviewed annually.

q) Future Changes in Accounting Policies

PS 3400 Revenue issued November 2018 establishes standards on how to account for and report on revenue and is effective July 1, 2023. Specifically, it differentiates between revenue arising from transactions that include performance obligations, referred to as "exchange transactions", and transactions that do not have performance obligations, referred to as "non-exchange transactions".

Revenue from transactions with performance obligations should be recognized when (or as) the school district satisfies a performance obligation by providing the promised goods or services to a payor.

Revenue from transactions with no performance obligations should be recognized when a school district:

- (a) has the authority to claim or retain an inflow of economic resources; and
- (b) identifies a past transaction or event that gives rise to an asset.

This standard may be applied retroactively or prospectively. Management is in the process of assessing the impact of adopting this standard on the School District's financial results



**POWELL RIVER BOARD OF EDUCATION
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***FINANCIAL STATEMENT NOTES
YEAR ENDED JUNE 30, 2023***

NOTE 3 ACCOUNTS RECEIVABLE - OTHER

	<u>2023</u>	<u>2022</u>
Due from Federal Government	\$132,637	\$101,031
Due from Others	214,408	99,474
	<u>\$347,045</u>	<u>\$200,505</u>

NOTE 4 ACCOUNTS PAYABLE AND ACCRUED LIABILITIES – OTHER

	<u>2023</u>	<u>2022</u>
Trade and other payables	\$1,395,672	\$977,179
Salaries and benefits payable	169,970	100,346
Deductions Payable	1,795,447	1,390,829
	<u>\$3,361,089</u>	<u>\$2,468,354</u>

NOTE 5 EXPENSE BY OBJECT

	<u>2023</u>	<u>2022</u>
Salaries	\$28,196,070	\$24,579,935
Benefits	6,498,856	5,374,500
Services and supplies	14,342,545	11,450,958
Amortization	2,095,032	2,025,492
	<u>\$51,132,503</u>	<u>\$43,430,885</u>



**POWELL RIVER BOARD OF EDUCATION
SCHOOL DISTRICT NO. 47**

***FINANCIAL STATEMENT NOTES
YEAR ENDED JUNE 30, 2023***

NOTE 6 DEFERRED REVENUE

Deferred revenue includes unspent grants and contributions received that meet the description of a restricted contribution in the Restricted Contributions Regulation 198/2011 issued by Treasury Board, i.e., the stipulations associated with those grants and contributions have not yet been fulfilled. Detailed information about the changes in deferred revenue are as follows:

	<u>2023</u>	<u>2022</u>
Balance, beginning of year	\$ 832,713	\$ 568,191
Increases:		
Provincial Grant – MOE	\$5,223,056	\$4,601,476
Other	2,172,455	1,122,015
	<u>7,395,511</u>	<u>5,723,491</u>
Decreases:		
Transfers to Revenue	7,625,449	5,458,969
Net Changes for the year	<u>(229,938)</u>	<u>264,522</u>
Balance, end of the year	<u>\$602,775</u>	<u>\$832,713</u>



**POWELL RIVER BOARD OF EDUCATION
SCHOOL DISTRICT NO. 47**

***FINANCIAL STATEMENT NOTES
YEAR ENDED JUNE 30, 2023***

NOTE 7 DEFERRED CAPITAL REVENUE

Deferred capital revenue includes grants and contributions received that are restricted by the contributor for the acquisition of tangible capital assets that meet the description of a restricted contribution in the Restricted Contributions Regulation 198/2011 issued by Treasury Board. Once spent, the contributions are amortized into revenue over the life of the asset acquired. Detailed information about the changes in deferred capital revenue is as follows:

	Deferred Cap Revenue	Unspent Def. Cap Revenue	Total 2023	2022
Balance, beginning of year	\$37,137,548	\$ 888,000	\$ 38,025,548	36,580,467
Increases:				
Transfers from DC - capital additions	1,849,237		1,849,237	2,269,274
Provincial Grants – MECC		1,691,690	1,691,690	2,000,124
Provincial Grants - Other				888,000
Other				269,150
	1,849,237	1,691,690	3,540,927	5,426,548
Decreases:				
Amortization	1,755,075		1,755,075	1,712,193
Transfers to DCR - Capital Additions		1,849,237	1,849,237	2,269,274
Net Changes	94,162	(157,547)	(63,385)	1,445,081
Balance, end of the year	\$37,231,710	\$ 730,453	\$ 37,962,163	\$ 38,025,548



**POWELL RIVER BOARD OF EDUCATION
SCHOOL DISTRICT NO. 47**

**FINANCIAL STATEMENT NOTES
YEAR ENDED JUNE 30, 2023**

NOTE 8 EMPLOYEE FUTURE BENEFITS

Benefits include vested sick leave, accumulating non-vested sick leave, early retirement, retirement/severance, vacation, overtime and death benefits. Funding is provided when the benefits are paid and accordingly, there are no plan assets. Although no plan assets are uniquely identified, the School District has provided for the payment of these benefits.

	2023	2022
Reconciliation of Accrued Benefit Obligation		
Accrued Benefit Obligation – April 1	\$803,840	\$846,802
Service Cost	73,740	69,769
Interest Cost	27,138	22,099
Benefit Payments	(157,957)	(79,325)
Increase (Decrease) in obligation due to Plan Amendment	-	-
Actuarial Loss	63,552	(55,505)
Accrued Benefit Obligation – March 31	<u>\$810,313</u>	<u>\$803,840</u>
Reconciliation of Funded Status at End of Fiscal Year		
Accrued Benefit Obligation – March 31	\$810,313	\$803,840
Market Value of Plan Assets – March 31	-	-
Funded Status – Deficit	(810,313)	(803,840)
Employer Contributions After Measurement Date	-	18,000
Benefits Expense After Measurement Date	(26,412)	(25,220)
Unamortized Net Actuarial (Gain) Loss	45,021	(6,759)
Accrued Benefit Liability – June 30	<u>\$(791,702)</u>	<u>\$(817,819)</u>
Reconciliation of Change in Accrued Benefit Liability		
Accrued Benefit Liability – July 1	\$817,819	\$788,119
Net expense for Fiscal Year	113,840	120,191
Employer Contributions	(139,957)	(90,491)
Accrued Benefit Liability – June 30	<u>\$791,702</u>	<u>\$817,819</u>



**POWELL RIVER BOARD OF EDUCATION
SCHOOL DISTRICT NO. 47**

**FINANCIAL STATEMENT NOTES
YEAR ENDED JUNE 30, 2023**

NOTE 8 EMPLOYEE FUTURE BENEFITS (Continued)

	2023	2022
Components of Net Benefit Expense		
Service Cost	\$73,241	\$70,762
Interest Cost	28,829	23,359
Amortization of Net Actuarial Loss	11,770	26,071
Net Benefit Expense	\$113,840	\$120,191

The significant actuarial assumptions adopted for measuring the School District’s accrued benefit obligations are:

Discount Rate – April 1	3.25%	2.50%
Discount Rate – March 31	4.00%	3.25%
Long Term Salary Growth – April 1	2.50% + seniority	2.50% + seniority
Long Term Salary Growth – March 31	2.50% + seniority	2.50% + seniority
EARSL – March 31	10.0	10.0

NOTE 9 UNEARNED REVENUE

	2023	2022
Balance, beginning of year	\$472,429	\$515,518
Changes for the year:		
Increase:		
Tuition fees	361,732	455,892
Rental/Lease of facilities	9,762	16,537
	<u>371,494</u>	<u>472,429</u>
Decrease:		
Tuition fees	455,892	505,792
Rental/Lease of facilities	16,573	9,726
	<u>472,429</u>	<u>515,518</u>
Net changes for the year	<u>(100,935)</u>	<u>(43,089)</u>
Balance, end of year	<u>\$371,494</u>	<u>\$472,429</u>



**POWELL RIVER BOARD OF EDUCATION
SCHOOL DISTRICT NO. 47**

**FINANCIAL STATEMENT NOTES
YEAR ENDED JUNE 30, 2023**

NOTE 10 TANGIBLE CAPITAL ASSETS

Net Book Value:

	Net Book Value 2023	Net Book Value 2022
Sites	\$4,151,237	\$4,151,237
Buildings	40,536,749	40,350,559
Furniture & Equipment	1,850,084	1,808,854
Vehicles	474,989	415,650
Computer Software	0	3,001
Computer Hardware	103,036	144,954
Total	\$47,116,095	\$46,874,255

June 30, 2023

Cost	Opening Cost	Prior Period Adjustment	Additions	Disposals	Total 2023
Sites	\$4,151,237	\$	\$	\$	\$4,151,237
Buildings	72,734,276		1,849,237	-	74,583,513
Furniture & Equipment	2,646,402		306,587	292,253	2,660,736
Vehicles	1,517,423		181,048	781,712	916,759
Computer Software	30,013		-	30,013	0
Computer Hardware	271,980		-	124,783	147,197
Total Cost	\$81,351,331		\$2,336,872	\$1,228,761	\$82,459,442

Accumulated Amortization	Opening Accumulated Amortization	Prior Period Adjustment	Additions	Disposals	Total 2023
Sites	\$	\$	\$	\$	\$
Buildings	32,383,717		1,663,047	-	34,046,764
Furniture & Equipment	837,548		265,357	292,253	810,652
Vehicles	1,101,773		121,709	781,712	441,770
Computer Software	27,012		3,001	30,013	-
Computer Hardware	127,026		41,918	124,783	44,161
Total Amortization	\$34,477,076		\$2,095,032	\$1,228,761	\$35,343,347



**POWELL RIVER BOARD OF EDUCATION
SCHOOL DISTRICT NO. 47**

**FINANCIAL STATEMENT NOTES
YEAR ENDED JUNE 30, 2023**

NOTE 10 TANGIBLE CAPITAL ASSETS (Continued)

June 30, 2022

Cost	Opening Cost	Prior Period Adjustment (Note 20)	Additions	Disposals	Total 2022
Sites	\$4,151,237	\$	\$	\$	\$4,151,237
Buildings	69,879,612	1,394,540	1,460,124	-	72,734,276
Furniture & Equipment	1,513,429		1,236,080	103,107	2,646,402
Vehicles	1,579,437		21,332	83,346	1,517,423
Computer Software	81,651		-	30,013	30,013
Computer Hardware	137,996		147,198	13,214	271,980
Total Cost	\$77,343,362	1,394,540	\$2,864,734	\$251,305	\$81,351,331

Accumulated Amortization	Opening Accumulated Amortization	Prior Period Adjustment (Note 20)	Additions	Disposals	Total 2022
Sites	\$	\$	\$	\$	\$
Buildings	29,738,684	1,394,540	1,610,493	-	32,383,717
Furniture & Equipment	732,663	-	207,992	103,107	837,548
Vehicles	1,030,276	-	154,843	83,346	1,101,773
Computer Software	67,484	-	11,166	51,638	27,012
Computer Hardware	99,242	-	40,998	13,214	127,026
Total Amortization	\$31,308,349	1,394,540	\$2,025,492	\$251,305	\$34,477,076

NOTE 11 CONTINGENT LIABILITIES

Ongoing Legal Proceedings

In the ordinary course of operations, the School District has legal proceedings brought against it and provision has been included in liabilities where appropriate. It is the opinion of management that final determination of these claims will not have a material effect on the financial position or operations of the School District.



**POWELL RIVER BOARD OF EDUCATION
SCHOOL DISTRICT NO. 47**

***FINANCIAL STATEMENT NOTES
YEAR ENDED JUNE 30, 2023***

NOTE 12 EMPLOYEE PENSION PLANS

The School District and its employees contribute to the Teachers' Pension Plan and Municipal Pension Plan (jointly trustee pension plans). The boards of trustees for these plans, representing plan members and employers, are responsible for administering the pension plans, including investing assets and administering benefits. The plans are multi-employer defined benefit pension plans. Basic pension benefits are based on a formula. As at December 31, 2022, the Teachers' Pension Plan has about 51,000 active members and approximately 41,000 retired members. As of December 31, 2022, the Municipal Pension Plan has about 240,000 active members, including approximately 30,000 from school districts.

Every three years, an actuarial valuation is performed to assess the financial position of the plans and adequacy of plan funding. The actuary determines an appropriate combined employer and member contribution rate to fund the plans. 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 plans. 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 of the Teachers' Pension Plan as at December 31, 2020, indicated a \$1,548 million surplus for basic pension benefits on a going concern basis.

The most recent actuarial valuation for the Municipal Pension Plan as at December 31, 2021, indicated a \$3,761 million funding surplus for basic pension benefits on a going concern basis.

The school district paid \$2,790,881 for employer contributions to the plans for the year ended June 30, 2023 (2022: \$2,456,619)

The next valuation for the Teachers' Pension Plan will be as at December 31, 2023. The next valuation for the Municipal Pension Plan will be as at December 31, 2024, with results available in 2025.

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



**POWELL RIVER BOARD OF EDUCATION
SCHOOL DISTRICT NO. 47**

***FINANCIAL STATEMENT NOTES
YEAR ENDED JUNE 30, 2023***

NOTE 13 INTERFUND TRANSFERS

Interfund transfers between the operating, special purpose and capital funds for the year ended June 30, 2023, were zero.

NOTE 14 RELATED PARTY TRANSACTIONS

The School District is related through common ownership to all Province of British Columbia ministries, agencies, school districts, health authorities, colleges, universities, and crown corporations. Transactions with these entities, unless disclosed separately, are considered to be in the normal course of operations and are recorded at the exchange amount.

NOTE 15 ECONOMIC DEPENDENCE

The operations of the School District are dependent on continued funding from the Ministry of Education and Child Care and various governmental agencies to carry out its programs. These financial statements have been prepared on a going concern basis.

NOTE 16 ASSET RETIREMENT OBLIGATION

Legal liabilities exist for the removal and disposal of asbestos and other environmentally hazardous materials within some district owned buildings that will undergo major renovations or demolition in the future. A reasonable estimate of the fair value of the obligation has been recognized using the modified retroactive approach as at July 1, 2022 (see Note 20 – Prior Period Adjustment – Change in Accounting Policy). The obligation has been measured at current cost as the timing of future cash flows cannot be reasonably determined. These costs have been capitalized as part of the assets' carrying value and are amortized over the assets' estimated useful lives.

Asset Retirement Obligation, July 1, 2022 (see Note 20)	\$1,394,540
Settlements during the year	11,763
Asset Retirement Obligation, closing balance	<u><u>\$1,382,777</u></u>



**POWELL RIVER BOARD OF EDUCATION
SCHOOL DISTRICT NO. 47**

***FINANCIAL STATEMENT NOTES
YEAR ENDED JUNE 30, 2023***

NOTE 17 BUDGET FIGURES

Budget figures included in the financial statements were approved by the Board through the adoption of an amended annual budget on February 15, 2023. The Board adopted a preliminary annual budget on June 22, 2022. The amended budget is used for comparison purposes, as these are based on actual student enrollments. The difference between the two budgets is as follows:

	2023 Amended	2023 Preliminary	Difference
Revenues			
Provincial Grants			
Ministry of Education	41,372,480	38,251,821	3,120,659
Other	100,000	125,000	(25,000)
Tuition	874,182	864,000	10,182
Other Revenue	2,087,439	1,886,184	201,255
Rentals and Leases	125,900	115,900	10,000
Investment Income	107,500	37,500	70,000
Amortization of Deferred Capital Revenue	1,663,578	1,663,578	-
Total Revenue	46,331,079	42,943,983	3,387,096
Expenses			
Instruction	38,369,569	35,764,731	2,604,838
District Administration	1,999,981	1,817,655	182,326
Operations and Maintenance	5,996,168	5,709,306	286,862
Transportation and Housing	1,203,775	1,103,775	100,000
Total Expenses	47,569,493	44,395,467	3,174,026
Surplus (Deficit) for the year	(1,238,414)	(1,451,484)	213,070
Effects of change in Tangible Capital Assets			
Acquisition of Tangible Capital Assets	-	-	-
Amortization of Tangible Capital Assets	1,929,649	1,929,649	-
Total Effect of change in Tangible Capital Assets	1,929,649	1,929,649	-
Capital Assets	1,929,649	1,929,649	-
(Increase) Decrease in Net Financial Assets			
(Debt)	691,235	478,165	213,070



**POWELL RIVER BOARD OF EDUCATION
SCHOOL DISTRICT NO. 47**

**FINANCIAL STATEMENT NOTES
YEAR ENDED JUNE 30, 2023**

NOTE 18 ACCUMULATED SURPLUS

	2023	2022
Internally Restricted (appropriated) by Board for:		
School & Program Based Resources:		
Technology Initiatives	\$ -	\$ 264,000
Library / Learning Commons Re-vitalization	-	200,000
Achievement & Wellness Initiatives	359,633	684,356
Indigenous Initiatives	-	64,016
Committee Initiatives (e.g. SOGI etc)	-	30,000
Child Youth Counselling (ICY)	179,310	-
Strategic Planning Initiatives	250,000	-
Future Capital Cost Share (Edgehill Addition)	100,000	-
Teacher Mentorship	33,210	39,448
Student Furniture & Equipment	-	50,000
School Resources Carried Forward	12,912	35,815
Subtotal Internally Restricted Operating Surplus	935,065	1,367,635
Unrestricted Operating Surplus (Contingency)	<u>979,178</u>	<u>1,797,320</u>
	1,914,243	3,164,955
Local Capital:		
Replacement Fund for Artificial Playfield	-	75,000
Equipment Replacement Fund	155,305	186,353
Portables Classrooms	140,213	646,680
Administration Building Upgrade	241,677	-
Maintenance Facility Upgrade	-	59,440
	<u>537,195</u>	<u>967,473</u>
Investment In Capital Assets	8,501,608	8,342,167
Total Available for Future Operations	<u>\$10,953,046</u>	<u>\$12,474,595</u>

NOTE 19 RISK MANAGEMENT

All significant financial assets, financial liabilities and equity instruments of the School District are either recognized or disclosed in the financial statements together with other information relevant for making a reasonable assessment of future cash flows, interest rate risk and credit risk.



**POWELL RIVER BOARD OF EDUCATION
SCHOOL DISTRICT NO. 47**

***FINANCIAL STATEMENT NOTES
YEAR ENDED JUNE 30, 2023***

NOTE 19 RISK MANAGEMENT *(Continued)*

- **Credit Risk**

Financial instruments that potentially subject the School District to concentrations of credit risk consist primarily of other receivables. The maximum credit risk exposure is \$347,045 (2022 - \$200,505).

The School District manages its credit risk by performing regular credit assessments of its customers and provides allowances for potentially uncollectible accounts receivable.

- **Liquidity Risk**

Liquidity risk is the risk that the School District will encounter difficulty in meeting obligations associated with financial liabilities.

The School District manages liquidity risk by continually monitoring actual and forecasted cash flows from operations and anticipated investing activities to ensure, as far as possible to always have sufficient liquidity to meet its liabilities when due, under both normal and stressed conditions, without incurring unacceptable losses or risking damage to the School District's reputation.

- **Foreign Currency Risk**

Foreign currency risk is the risk that the fair value of future cash flows of a financial instrument will fluctuate because of changes in foreign exchange rates. In seeking to manage the risks from foreign exchange rate fluctuations, the School District does not hold significant funds in U.S. dollars in order to reduce their risk against adverse movements in the foreign exchange rates.

- **Financial Asset Impairment**

At each year-end date, the School District is required to evaluate and record any other-than-temporary impairment of its financial assets, other than those classified as held for trading. Accordingly, the School District has compared the carrying value of each of these financial assets to its fair value as at June 30, 2023. No provision for impairment was recorded in the current year, as the fair value of all financial assets tested exceeded their carrying value.

- **Fair Values of Financial Instruments**

The carrying amount of cash, accounts receivable and accounts payable and accrued liabilities approximates their fair value due to the short-term maturities of these items.



**POWELL RIVER BOARD OF EDUCATION
SCHOOL DISTRICT NO. 47**

***FINANCIAL STATEMENT NOTES
YEAR ENDED JUNE 30, 2023***

NOTE 19 RISK MANAGEMENT *(Continued)*

- Risk Management Policy
The School District, as part of its operations, has established objectives (i.e. hedging of risk exposures and avoidance of undue concentrations of risk) to mitigate credit risk as risk management objectives. In seeking to meet these objectives, the School District follows a risk management policy approved by its Board of Trustees.

NOTE 20 PRIOR PERIOD ADJUSTMENT

On July 1, 2022 the School District adopted Canadian public sector accounting standard PS 3280 Asset Retirement Obligations. This new standard addresses the recognition, measurement, presentation and disclosure of legal obligations associated with the retirement of certain tangible capital assets such as asbestos removal in buildings that will undergo major renovation or demolition in the future (see Note 16). This standard was adopted using the modified retroactive approach.

On July 1, 2022 the School District recognized an asset retirement obligation relating to several owned buildings that contain asbestos and other hazardous materials. The liability has been measured at current cost as the timing and amounts of future cash flows cannot be estimated. The associated costs have been reported as an increase to the carrying value of the associated tangible capital assets. Accumulated amortization has been recorded from the later of, the date of acquisition of the related asset or April 1, 1988 (effective date of the *Hazardous Waste Regulation (April 1, 1988) – Part 6 – Management of Specific Hazardous Wastes*).

The impact of the prior period adjustment on the June 30, 2022 comparative amounts is as follows:

	<u>Increase (Decrease)</u>
Asset Retirement Obligation (liability)	\$ 1,394,540
Tangible Capital Assets – cost	1,394,540
Tangible Capital Assets – accumulated amortization	1,394,540
Operations & Maintenance Expense – Asset amortization (2022)	0
Accumulated Surplus – Invested in Capital Assets	(1,394,540)

NOTE 21 COMPARATIVE FIGURES

Certain prior year comparative figures have been restated to conform to the current year financial statement presentation.

School District No. 47 (Powell River)

Schedule of Changes in Accumulated Surplus (Deficit) by Fund
Year Ended June 30, 2023

	Operating Fund	Special Purpose Fund	Capital Fund	2023 Actual	2022 Actual (Restated - Note 20)
	\$	\$	\$	\$	\$
Accumulated Surplus (Deficit), beginning of year	3,164,955		9,309,640	12,474,595	13,223,317
Prior Period Adjustments					(1,394,540)
Accumulated Surplus (Deficit), beginning of year, as restated	3,164,955	-	9,309,640	12,474,595	11,828,777
Changes for the year					
Surplus (Deficit) for the year	(1,250,712)		(270,837)	(1,521,549)	645,818
Net Changes for the year	(1,250,712)	-	(270,837)	(1,521,549)	645,818
Accumulated Surplus (Deficit), end of year - Statement 2	1,914,243	-	9,038,803	10,953,046	12,474,595

School District No. 47 (Powell River)

Schedule 2 (Unaudited)

Schedule of Operating Operations

Year Ended June 30, 2023

	2023 Budget (Note 17)	2023 Actual	2022 Actual (Restated - Note 20)
	\$	\$	\$
Revenues			
Provincial Grants			
Ministry of Education and Child Care	36,074,548	37,265,237	33,948,066
Other	100,000	115,554	145,872
Tuition	874,182	887,702	1,192,761
Other Revenue	1,212,439	1,509,089	1,421,794
Rentals and Leases	125,900	176,367	143,648
Investment Income	100,000	207,361	49,191
Total Revenue	<u>38,487,069</u>	<u>40,161,310</u>	<u>36,901,332</u>
Expenses			
Instruction	32,475,807	33,415,546	29,106,537
District Administration	1,843,764	1,856,275	1,548,727
Operations and Maintenance	4,097,342	4,850,140	4,257,883
Transportation and Housing	1,049,999	1,290,061	1,033,268
Total Expense	<u>39,466,912</u>	<u>41,412,022</u>	<u>35,946,415</u>
Operating Surplus (Deficit) for the year	<u>(979,843)</u>	<u>(1,250,712)</u>	<u>954,917</u>
Budgeted Appropriation (Retirement) of Surplus (Deficit)	<u>979,843</u>		
Net Transfers (to) from other funds			
Local Capital			(500,000)
Total Net Transfers	<u>-</u>	<u>-</u>	<u>(500,000)</u>
Total Operating Surplus (Deficit), for the year	<u>-</u>	<u>(1,250,712)</u>	<u>454,917</u>
Operating Surplus (Deficit), beginning of year		3,164,955	2,710,038
Operating Surplus (Deficit), end of year		<u>1,914,243</u>	<u>3,164,955</u>
Operating Surplus (Deficit), end of year			
Internally Restricted (Note 18)		935,065	1,367,635
Unrestricted		979,178	1,797,320
Total Operating Surplus (Deficit), end of year		<u>1,914,243</u>	<u>3,164,955</u>

School District No. 47 (Powell River)

Schedule 2A (Unaudited)

Schedule of Operating Revenue by Source

Year Ended June 30, 2023

	2023 Budget (Note 17)	2023 Actual	2022 Actual (Restated - Note 20)
	\$	\$	\$
Provincial Grants - Ministry of Education and Child Care			
Operating Grant, Ministry of Education and Child Care	35,675,455	36,292,353	34,485,481
ISC/LEA Recovery	(974,724)	(1,032,389)	(974,724)
Other Ministry of Education and Child Care Grants			
Pay Equity	243,304	243,304	243,304
Funding for Graduated Adults		6,601	7,860
Student Transportation Fund	91,754	91,754	91,754
FSA Scorer Grant	3,753	7,506	7,506
Early Learning Framework (ELF) Implementation	466	466	1,885
Labour Settlement Funding	955,540	1,394,951	
Equity Scan	79,000	81,381	79,000
ICY Clinical Counsellor Funding		179,310	
District Capacity Building - Early Learning			6,000
Total Provincial Grants - Ministry of Education and Child Care	<u>36,074,548</u>	<u>37,265,237</u>	<u>33,948,066</u>
Provincial Grants - Other	<u>100,000</u>	<u>115,554</u>	<u>145,872</u>
Tuition			
Summer School Fees	10,182	10,582	
International and Out of Province Students	864,000	877,120	1,192,761
Total Tuition	<u>874,182</u>	<u>887,702</u>	<u>1,192,761</u>
Other Revenues			
Other School District/Education Authorities	120,009	120,009	129,477
Funding from First Nations	974,724	1,032,389	974,724
Miscellaneous			
Misc. Billings & Recoveries	50,000	81,520	115,220
Purchase Card Rebate	17,000	21,898	17,595
Tla'amin Service Contract	50,706	37,920	
Art Starts Grant		9,914	8,343
Cafeteria Revenue		132,534	128,395
PAC Contributions		10,000	48,040
Before & After School Care		62,905	
Total Other Revenue	<u>1,212,439</u>	<u>1,509,089</u>	<u>1,421,794</u>
Rentals and Leases	<u>125,900</u>	<u>176,367</u>	<u>143,648</u>
Investment Income	<u>100,000</u>	<u>207,361</u>	<u>49,191</u>
Total Operating Revenue	<u><u>38,487,069</u></u>	<u><u>40,161,310</u></u>	<u><u>36,901,332</u></u>

School District No. 47 (Powell River)

Schedule 2B (Unaudited)

Schedule of Operating Expense by Object
Year Ended June 30, 2023

	2023 Budget (Note 17)	2023 Actual	2022 Actual (Restated - Note 20)
	\$	\$	\$
Salaries			
Teachers	13,614,483	13,464,576	12,122,027
Principals and Vice Principals	2,384,399	2,607,118	2,019,687
Educational Assistants	2,712,723	2,537,629	2,065,719
Support Staff	2,911,252	3,181,765	2,738,334
Other Professionals	2,084,800	1,552,055	1,576,031
Substitutes	1,486,705	1,656,046	1,226,938
Total Salaries	25,194,362	24,999,189	21,748,736
Employee Benefits	5,653,627	5,762,871	4,833,000
Total Salaries and Benefits	30,847,989	30,762,060	26,581,736
Services and Supplies			
Services	3,792,640	5,194,246	4,395,505
Student Transportation	7,700	4,195	6,531
Professional Development and Travel	290,551	339,474	299,847
Rentals and Leases	298,329	258,877	270,961
Dues and Fees	379,383	421,730	515,358
Insurance	105,000	103,239	82,281
Supplies	3,040,820	3,656,060	2,978,752
Utilities	704,500	672,141	815,444
Total Services and Supplies	8,618,923	10,649,962	9,364,679
Total Operating Expense	39,466,912	41,412,022	35,946,415

School District No. 47 (Powell River)

Schedule 2C (Unaudited)

Operating Expense by Function, Program and Object

Year Ended June 30, 2023

	Teachers Salaries	Principals and Vice Principals Salaries	Educational Assistants Salaries	Support Staff Salaries	Other Professionals Salaries	Substitutes Salaries	Total Salaries
	\$	\$	\$	\$	\$	\$	\$
1 Instruction							
1.02 Regular Instruction	10,972,839	137,894		277,004	319,009	1,246,045	12,952,791
1.03 Career Programs	65,971	59,199		29,500			154,670
1.07 Library Services	122,464					8,397	130,861
1.08 Counselling	326,247	65,432					391,679
1.10 Special Education	1,441,020	218,782	2,537,629	14,624	375,064	145,857	4,732,976
1.30 English Language Learning	12,406						12,406
1.31 Indigenous Education	370,309	135,193		33,347	4,368	5,748	548,965
1.41 School Administration		1,645,334		716,878		31,533	2,393,745
1.60 Summer School						71,611	71,611
1.61 Continuing Education	84,500						84,500
1.62 International and Out of Province Students	68,820	64,805			61,851	627	196,103
Total Function 1	13,464,576	2,326,639	2,537,629	1,071,353	760,292	1,509,818	21,670,307
4 District Administration							
4.11 Educational Administration		280,479			236,335		516,814
4.40 School District Governance					84,365		84,365
4.41 Business Administration				191,333	378,376		569,709
Total Function 4	-	280,479	-	191,333	699,076	-	1,170,888
5 Operations and Maintenance							
5.41 Operations and Maintenance Administration				18,713	24,669		43,382
5.50 Maintenance Operations				1,226,191	54,735	97,836	1,378,762
5.52 Maintenance of Grounds				83,068			83,068
5.56 Utilities							-
Total Function 5	-	-	-	1,327,972	79,404	97,836	1,505,212
7 Transportation and Housing							
7.41 Transportation and Housing Administration				21,685	13,283		34,968
7.70 Student Transportation				569,422		48,392	617,814
Total Function 7	-	-	-	591,107	13,283	48,392	652,782
9 Debt Services							
Total Function 9	-	-	-	-	-	-	-
Total Functions 1 - 9	13,464,576	2,607,118	2,537,629	3,181,765	1,552,055	1,656,046	24,999,189

School District No. 47 (Powell River)

Schedule 2C (Unaudited)

Operating Expense by Function, Program and Object

Year Ended June 30, 2023

	Total Salaries	Employee Benefits	Total Salaries and Benefits	Services and Supplies	2023 Actual	2023 Budget (Note 17)	2022 Actual (Restated - Note 20)
	\$	\$	\$	\$	\$	\$	\$
1 Instruction							
1.02 Regular Instruction	12,952,791	3,049,026	16,001,817	3,332,830	19,334,647	18,717,393	17,003,573
1.03 Career Programs	154,670	38,261	192,931	9,066	201,997	194,130	168,792
1.07 Library Services	130,861	31,569	162,430	78,943	241,373	226,737	163,062
1.08 Counselling	391,679	81,666	473,345	804	474,149	433,460	454,609
1.10 Special Education	4,732,976	1,145,913	5,878,889	2,469,481	8,348,370	7,935,008	7,145,763
1.30 English Language Learning	12,406	2,964	15,370	2,094	17,464	23,456	16,634
1.31 Indigenous Education	548,965	122,799	671,764	82,284	754,048	790,476	395,687
1.41 School Administration	2,393,745	508,815	2,902,560	132,010	3,034,570	3,111,932	2,649,694
1.60 Summer School	71,611	9,131	80,742	19,888	100,630	97,500	75,606
1.61 Continuing Education	84,500	20,280	104,780	2,500	107,280	104,780	117,187
1.62 International and Out of Province Students	196,103	47,121	243,224	557,794	801,018	840,935	915,930
Total Function 1	21,670,307	5,057,545	26,727,852	6,687,694	33,415,546	32,475,807	29,106,537
4 District Administration							
4.11 Educational Administration	516,814	111,764	628,578	97,925	726,503	765,054	692,733
4.40 School District Governance	84,365	5,142	89,507	118,784	208,291	164,500	164,205
4.41 Business Administration	569,709	133,142	702,851	218,630	921,481	914,210	691,789
Total Function 4	1,170,888	250,048	1,420,936	435,339	1,856,275	1,843,764	1,548,727
5 Operations and Maintenance							
5.41 Operations and Maintenance Administration	43,382	10,220	53,602	116,950	170,552	243,789	152,981
5.50 Maintenance Operations	1,378,762	273,121	1,651,883	1,839,087	3,490,970	2,932,744	3,009,464
5.52 Maintenance of Grounds	83,068	18,739	101,807	409,875	511,682	216,309	273,896
5.56 Utilities	-	-	-	676,936	676,936	704,500	821,542
Total Function 5	1,505,212	302,080	1,807,292	3,042,848	4,850,140	4,097,342	4,257,883
7 Transportation and Housing							
7.41 Transportation and Housing Administration	34,968	8,573	43,541	4,574	48,115	73,215	67,024
7.70 Student Transportation	617,814	144,625	762,439	479,507	1,241,946	976,784	966,244
Total Function 7	652,782	153,198	805,980	484,081	1,290,061	1,049,999	1,033,268
9 Debt Services							
Total Function 9	-	-	-	-	-	-	-
Total Functions 1 - 9	24,999,189	5,762,871	30,762,060	10,649,962	41,412,022	39,466,912	35,946,415

School District No. 47 (Powell River)

Schedule 3 (Unaudited)

Schedule of Special Purpose Operations
Year Ended June 30, 2023

	2023 Budget (Note 17)	2023 Actual	2022 Actual (Restated - Note 20)
	\$	\$	\$
Revenues			
Provincial Grants			
Ministry of Education and Child Care	5,297,932	5,450,472	4,441,945
Other Revenue	875,000	2,174,977	1,017,033
Total Revenue	<u>6,172,932</u>	<u>7,625,449</u>	<u>5,458,978</u>
Expenses			
Instruction	5,893,762	7,320,953	5,239,696
District Administration	156,217	98,342	98,945
Operations and Maintenance	122,953	206,154	120,337
Total Expense	<u>6,172,932</u>	<u>7,625,449</u>	<u>5,458,978</u>
Special Purpose Surplus (Deficit) for the year	<u>-</u>	<u>-</u>	<u>-</u>
Total Special Purpose Surplus (Deficit) for the year	<u>-</u>	<u>-</u>	<u>-</u>
Special Purpose Surplus (Deficit), beginning of year			
Special Purpose Surplus (Deficit), end of year		<u>-</u>	<u>-</u>

School District No. 47 (Powell River)

Changes in Special Purpose Funds and Expense by Object
Year Ended June 30, 2023

	Annual Facility Grant	Learning Improvement Fund	Scholarships and Bursaries	School Generated Funds	Strong Start	Ready, Set, Learn	OLEP	CommunityLINK	Classroom Enhancement Fund - Overhead
	\$	\$	\$	\$	\$	\$	\$	\$	\$
Deferred Revenue, beginning of year			213,021	330,932	11,376			10,782	
District Entered								9	
Deferred Revenue, beginning of year, as restated	-	-	213,021	330,932	11,376	-	-	10,791	-
Add: Restricted Grants									
Provincial Grants - Ministry of Education and Child Care	122,953	122,425			128,000	14,700	216,053	214,916	124,939
Other			300,070	1,872,385					
	122,953	122,425	300,070	1,872,385	128,000	14,700	216,053	214,916	124,939
Less: Allocated to Revenue	122,953	122,425	449,251	1,725,726	139,376	14,700	215,255	217,972	124,939
Deferred Revenue, end of year	-	-	63,840	477,591	-	-	798	7,735	-
Revenues									
Provincial Grants - Ministry of Education and Child Care	122,953	122,425			139,376	14,700	215,255	217,972	124,939
Other Revenue			449,251	1,725,726					
	122,953	122,425	449,251	1,725,726	139,376	14,700	215,255	217,972	124,939
Expenses									
Salaries									
Teachers							125,134		
Principals and Vice Principals									
Educational Assistants		109,308			103,304		37,138		
Support Staff								168,875	45,244
Other Professionals								6,696	
Substitutes						5,182		12,565	67,320
	-	109,308	-	-	103,304	5,182	162,272	188,136	112,564
Employee Benefits		13,117			24,034	518	28,781	18,228	3,018
Services and Supplies	122,953		449,251	1,725,726	12,038	9,000	24,202	11,608	9,357
	122,953	122,425	449,251	1,725,726	139,376	14,700	215,255	217,972	124,939
Net Revenue (Expense) before Interfund Transfers	-	-	-	-	-	-	-	-	-
Interfund Transfers	-	-	-	-	-	-	-	-	-
Net Revenue (Expense)	-	-	-	-	-	-	-	-	-

School District No. 47 (Powell River)

Changes in Special Purpose Funds and Expense by Object
Year Ended June 30, 2023

	Classroom Enhancement Fund - Staffing	Classroom Enhancement Fund - Remedies	Mental Health in Schools	Changing Results for Young Children	Federal Safe Return to Class / Ventilation Fund	Seamless Day Kindergarten	Student & Family Affordability	JUST B4	SEY2KT (Early Years to Kindergarten)
	\$	\$	\$	\$	\$	\$	\$	\$	\$
Deferred Revenue, beginning of year					50,000				
District Entered									
Deferred Revenue, beginning of year, as restated	-	-	-	-	50,000	-	-	-	-
Add: Restricted Grants									
Provincial Grants - Ministry of Education and Child Care	1,860,910	376,582	55,000	6,000		55,400	343,568	25,000	19,000
Other									
	1,860,910	376,582	55,000	6,000	-	55,400	343,568	25,000	19,000
Less: Allocated to Revenue	1,860,910	376,582	55,000	6,000	50,000	55,400	290,757	25,000	19,000
Deferred Revenue, end of year	-	-	-	-	-	-	52,811	-	-
Revenues									
Provincial Grants - Ministry of Education and Child Care	1,860,910	376,582	55,000	6,000	50,000	55,400	290,757	25,000	19,000
Other Revenue									
	1,860,910	376,582	55,000	6,000	50,000	55,400	290,757	25,000	19,000
Expenses									
Salaries									
Teachers	1,512,921	259,718	29,600						
Principals and Vice Principals									
Educational Assistants		59,032							
Support Staff						42,661		18,548	
Other Professionals									
Substitutes			7,500	5,455					14,545
	1,512,921	318,750	37,100	5,455	-	42,661	-	18,548	14,545
Employee Benefits	347,989	57,832	5,900	545		10,239		4,452	1,455
Services and Supplies			12,000		50,000	2,500	290,757	2,000	3,000
	1,860,910	376,582	55,000	6,000	50,000	55,400	290,757	25,000	19,000
Net Revenue (Expense) before Interfund Transfers	-	-	-	-	-	-	-	-	-
Interfund Transfers	-	-	-	-	-	-	-	-	-
Net Revenue (Expense)	-	-	-	-	-	-	-	-	-

School District No. 47 (Powell River)

Changes in Special Purpose Funds and Expense by Object
Year Ended June 30, 2023

	ECL (Early Care & Learning)	Auditory Outreach Program	TOTAL
	\$	\$	\$
Deferred Revenue, beginning of year			
District Entered			9
Deferred Revenue, beginning of year, as restated	-	216,593	832,713
Add: Restricted Grants			
Provincial Grants - Ministry of Education and Child Care	175,000	1,362,610	5,223,056
Other			2,172,455
	175,000	1,362,610	7,395,511
Less: Allocated to Revenue	175,000	1,579,203	7,625,449
Deferred Revenue, end of year	-	-	602,775
Revenues			
Provincial Grants - Ministry of Education and Child Care	175,000	1,579,203	5,450,472
Other Revenue			2,174,977
	175,000	1,579,203	7,625,449
Expenses			
Salaries			
Teachers		19,844	1,947,217
Principals and Vice Principals	124,167		124,167
Educational Assistants			308,782
Support Staff	17,500	77,789	370,617
Other Professionals		324,317	331,013
Substitutes			112,567
	141,667	421,950	3,194,363
Employee Benefits	28,333	71,109	615,550
Services and Supplies	5,000	1,086,144	3,815,536
	175,000	1,579,203	7,625,449
Net Revenue (Expense) before Interfund Transfers	-	-	-
Interfund Transfers	-	-	-
Net Revenue (Expense)	-	-	-

School District No. 47 (Powell River)

Schedule 4 (Unaudited)

Schedule of Capital Operations

Year Ended June 30, 2023

	2023	2023 Actual			2022
	Budget (Note 17)	Invested in Tangible Capital Assets	Local Capital	Fund Balance	Actual (Restated - Note 20)
	\$	\$	\$	\$	\$
Revenues					
Investment Income	7,500		69,120	69,120	4,200
Amortization of Deferred Capital Revenue	1,663,578	1,755,075		1,755,075	1,712,193
Total Revenue	1,671,078	1,755,075	69,120	1,824,195	1,716,393
Expenses					
Amortization of Tangible Capital Assets					
Operations and Maintenance	1,775,873	1,973,323		1,973,323	1,870,649
Transportation and Housing	153,776	121,709		121,709	154,843
Total Expense	1,929,649	2,095,032	-	2,095,032	2,025,492
Capital Surplus (Deficit) for the year	(258,571)	(339,957)	69,120	(270,837)	(309,099)
Net Transfers (to) from other funds					
Local Capital				-	500,000
Total Net Transfers	-	-	-	-	500,000
Other Adjustments to Fund Balances					
Tangible Capital Assets Purchased from Local Capital		487,635	(487,635)	-	
Settlement of Asset Retirement Obligation		11,763	(11,763)	-	
Total Other Adjustments to Fund Balances		499,398	(499,398)	-	
Total Capital Surplus (Deficit) for the year	(258,571)	159,441	(430,278)	(270,837)	190,901
Capital Surplus (Deficit), beginning of year		8,342,167	967,473	9,309,640	10,513,279
Prior Period Adjustments					
To Recognize Asset Retirement Obligation					(1,394,540)
Capital Surplus (Deficit), beginning of year, as restated		8,342,167	967,473	9,309,640	9,118,739
Capital Surplus (Deficit), end of year		8,501,608	537,195	9,038,803	9,309,640

School District No. 47 (Powell River)

Tangible Capital Assets
Year Ended June 30, 2023

	Sites	Buildings	Furniture and Equipment	Vehicles	Computer Software	Computer Hardware	Total
	\$	\$	\$	\$	\$	\$	\$
Cost, beginning of year	4,151,237	72,734,276	2,646,402	1,517,423	30,013	271,980	81,351,331
Changes for the Year							
Increase:							
Purchases from:							
Deferred Capital Revenue - Bylaw		1,691,690					1,691,690
Deferred Capital Revenue - Other		157,547					157,547
Local Capital			306,587	181,048			487,635
	-	1,849,237	306,587	181,048	-	-	2,336,872
Decrease:							
Deemed Disposals			292,253	781,712	30,013	124,783	1,228,761
	-	-	292,253	781,712	30,013	124,783	1,228,761
Cost, end of year	4,151,237	74,583,513	2,660,736	916,759	-	147,197	82,459,442
Work in Progress, end of year							-
Cost and Work in Progress, end of year	4,151,237	74,583,513	2,660,736	916,759	-	147,197	82,459,442
Accumulated Amortization, beginning of year		32,383,717	837,548	1,101,773	27,012	127,026	34,477,076
Changes for the Year							
Increase: Amortization for the Year		1,663,047	265,357	121,709	3,001	41,918	2,095,032
Decrease:							
Deemed Disposals			292,253	781,712	30,013	124,783	1,228,761
			-	292,253	30,013	124,783	1,228,761
Accumulated Amortization, end of year		34,046,764	810,652	441,770	-	44,161	35,343,347
Tangible Capital Assets - Net	4,151,237	40,536,749	1,850,084	474,989	-	103,036	47,116,095

School District No. 47 (Powell River)

Schedule 4C (Unaudited)

Deferred Capital Revenue

Year Ended June 30, 2023

	Bylaw Capital	Other Provincial	Other Capital	Total Capital
Deferred Capital Revenue, beginning of year	\$ 33,960,701	\$ 2,180,538	\$ 996,309	\$ 37,137,548
Changes for the Year				
Increase:				
Transferred from Deferred Revenue - Capital Additions	1,691,690	157,547		1,849,237
	<u>1,691,690</u>	<u>157,547</u>	<u>-</u>	<u>1,849,237</u>
Decrease:				
Amortization of Deferred Capital Revenue	1,601,659	90,488	62,928	1,755,075
	<u>1,601,659</u>	<u>90,488</u>	<u>62,928</u>	<u>1,755,075</u>
Net Changes for the Year	<u>90,031</u>	<u>67,059</u>	<u>(62,928)</u>	<u>94,162</u>
Deferred Capital Revenue, end of year	<u>34,050,732</u>	<u>2,247,597</u>	<u>933,381</u>	<u>37,231,710</u>
Work in Progress, beginning of year				-
Changes for the Year				
Net Changes for the Year	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
Work in Progress, end of year	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
Total Deferred Capital Revenue, end of year	<u>34,050,732</u>	<u>2,247,597</u>	<u>933,381</u>	<u>37,231,710</u>

School District No. 47 (Powell River)

Changes in Unspent Deferred Capital Revenue

Year Ended June 30, 2023

	Bylaw Capital	MECC Restricted Capital	Other Provincial Capital	Land Capital	Other Capital	Total
Balance, beginning of year	\$	\$	\$ 888,000	\$	\$	\$ 888,000
Changes for the Year						
Increase:						
Provincial Grants - Ministry of Education and Child Care	1,691,690					1,691,690
	1,691,690	-	-	-	-	1,691,690
Decrease:						
Transferred to DCR - Capital Additions	1,691,690		157,547			1,849,237
	1,691,690	-	157,547	-	-	1,849,237
Net Changes for the Year	-	-	(157,547)	-	-	(157,547)
Balance, end of year	-	-	730,453	-	-	730,453

**School District
Statement of Financial Information (SOFI)**

qathet School District

Fiscal Year Ended June 30, 2023

SCHEDULE OF DEBT

Information on all long term debt is included in the school district audited financial statements and notes.

Prepared as required by *Financial Information Regulation*, Schedule 1, section 4

**School District
Statement of Financial Information (SOFI)**

qathet School District

Fiscal Year Ended June 30, 2023

SCHEDULE OF GUARANTEE AND INDEMNITY AGREEMENTS

The qathet school District has not given any guarantee or indemnity under the Guarantees and Indemnities Regulation.

Prepared as required by *Financial Information Regulation*, Schedule 1, section 5

**School District
Statement of Financial Information (SOFI)**

qathet School District

Fiscal Year Ended June 30, 2023

STATEMENT OF SEVERANCE AGREEMENTS

There were no severance agreements made between the qathet School District and its non-unionized employees during fiscal year 2023.

Prepared as required by *Financial Information Regulation*, Schedule 1, subsection 6(7)

Schedule of Remuneration and Expenses

A. LIST OF ELECTED OFFICIALS

NAME	POSITION	REMUNERATION	EXPENSES
BEHAN, BRENDAN	TRUSTEE	\$5,802	\$0
HILL, ROBERT	TRUSTEE	\$17,718	\$1,963
LAWSON, DALE	CHAIRPERSON	\$20,902	\$2,277
MASON, MAUREEN	TRUSTEE	\$11,916	\$1,670
MILLER, JACLYN	VICE-CHAIRPERSON	\$19,310	\$1,967
SKINNER, DOUG	TRUSTEE	\$6,844	\$0
VAN'T SCHIP, KIRSTEN	TRUSTEE	\$11,916	\$1,682
TOTAL FOR ELECTED OFFICIALS		<u>\$94,408</u>	<u>\$9,559</u>

A. LIST OF EMPLOYEES WHOSE REMUNERATION EXCEEDS \$75,000

NAME	POSITION	REMUNERATION	EXPENSES
ADAM, JESSICA	TEACHER	\$99,232	\$0
ADAMS, WENDY	TEACHER	\$101,517	\$963
ANDERSON, GERALD	TEACHER	\$101,465	\$0
ANDERSON, MARIA	TEACHER	\$92,162	\$0
ARMSTRONG, TREVOR	TEACHER	\$88,838	\$0
BAKER, LISA	TEACHER	\$97,995	\$0
BAKER-PLAIZIER, LORA	SPEECH PATHOLOGIST	\$89,662	\$3,509
BAKKER, NATASHA	TEACHER	\$96,387	\$79
BALL, STEPHEN	TEACHER	\$81,603	\$693
BALZER, COLLEEN	TEACHER	\$99,165	\$0
BANKS, HEATHER	TEACHER	\$101,517	\$0
BARFOOT, SEAN	TEACHER	\$81,256	\$0
BEHAN, SHANNON	ELEMENTARY PRINCIPAL	\$134,744	\$4,309
BELLA, ALEXANDRA	ELEMENTARY PRINCIPAL	\$89,522	\$3,097
BENNETT, DARREN	TEACHER	\$100,037	\$0
BIASUTTI, BRYCE	TEACHER	\$88,117	\$0
BRACH, GERALD	TEACHER	\$101,464	\$0
BRACH, KRISTEN	DIRECTOR OF INSTRUCTION	\$149,624	\$14,089
BRANDER, JENNIFER	TEACHER	\$84,487	\$0
BRATSETH, CHRISTOPHER	TEACHER	\$101,556	\$0
BRENNAN, CAROLINE	ELEMENTARY VICE-PRINCIPAL	\$106,982	\$1,830
BRYANT, RACHEL	TEACHER	\$101,517	\$0
BURDETT, ALIX	TEACHER	\$75,801	\$0
BURNETT, NICOLE	TEACHER	\$101,954	\$0
BURNIKELL, MARANDA	TEACHER	\$99,267	\$0
BURT, ALLISON	DIRECTOR OF INSTRUCTION	\$149,624	\$11,315
BURT, JAMIE	ELEMENTARY PRINCIPAL	\$140,330	\$3,795
CALDARONE, DIANA	TEACHER	\$83,684	\$0
CARSON, SHELLY	TEACHER	\$99,164	\$0
CARSON, ROY H	TEACHER	\$101,464	\$0
CAVERLY, DAVID	TEACHER	\$77,750	\$0
CHEVALIER, LINE	TEACHER	\$92,626	\$0
CHRISTMANN, SAMANTHA	TEACHER	\$89,896	\$0
CLARK, BRENDAN	TEACHER	\$101,566	\$0
CLARKE, KELLEY	TEACHER	\$92,705	\$0
CRISTANTE, ANNA	ADMINISTRATIVE ASSISTANT	\$78,435	\$28
CROOKSHANK, KRISTINA	TEACHER	\$101,517	\$0
CUMMINGS, PAUL	TEACHER	\$101,464	\$2,175
DEGROOT, JOSHUA	TEACHER	\$77,092	\$0
DENDEWICZ, JODY	TEACHER	\$105,180	\$0
DOUGLAS, KATRINA	TEACHER	\$93,794	\$0
DOYLE, DANIEL	TEACHER	\$99,398	\$3,439
DOYLE, MICHELLE	SECONDARY VICE-PRINCIPAL	\$123,109	\$2,425
DUNLOP, WILLOW	TEACHER	\$91,462	\$0
DYCK, JONATHAN	TEACHER	\$107,563	\$0
EDWARDS, ELIAS	TEACHER	\$79,175	\$0
ELLIOTT, DEREK	TEACHER	\$99,165	\$0
ELLIS, PAM	TEACHER	\$102,273	\$0
ERVINGTON, GABRIEL	TEACHER	\$92,252	\$0
FAIRBAIRN, DON	ONLINE LEARNING PRINCIPAL	\$91,421	\$317
FELDE, CARA	TEACHER	\$84,134	\$0

QATHET SCHOOL DISTRICT
STATEMENT OF FINANCIAL INFORMATION (SOFI)
Fiscal Year Ended June 30, 2023

FILEWICH, JENNA	TEACHER	\$84,600	\$0
GAHAN, LEANNE	TEACHER	\$101,566	\$0
GALLAGHER, KELLY	TEACHER	\$90,688	\$0
GAUDREAU, TAWNIE	DIRECTOR OF STUDENT SERVICES	\$149,395	\$8,224
GORDON, COREY	TEACHER	\$85,172	\$0
GOSSELIN, MELANIE	AUDITORY PROGRAM MANAGER	\$79,433	\$0
GURNEY, SAFRON	TEACHER	\$86,747	\$0
HALL, STEPHANIE	ONLINE LEARNING PRINCIPAL	\$135,218	\$12,145
HANSON, JAMES	TEACHER	\$105,125	\$1,282
HARRIS, ROBERT	TRADESWORKER	\$76,663	\$0
HART, TONI	TEACHER	\$101,522	\$0
HAWKINS, MELISSA	TEACHER	\$101,566	\$0
HERMANEK, HANA	TEACHER	\$79,078	\$0
HERRINGTON, SUSANNE	TEACHER	\$92,708	\$0
HEUCKROTH, KRIS	TEACHER	\$96,287	\$0
HEWLETT, NANCY	TEACHER	\$107,619	\$0
HILDEBRAND, BROOKE	TEACHER	\$97,205	\$0
HILLEREN, MICHAEL	SECONDARY VICE-PRINCIPAL	\$122,573	\$2,492
HODGINS, ERIN	TEACHER	\$86,109	\$0
HOEHN, PATRICIA	TEACHER	\$77,382	\$0
HOEKSTRA, CAROLINE	TEACHER	\$104,264	\$0
HOPKINS, STEVEN	SECRETARY TREASURER	\$173,909	\$8,339
HUGHES, AARON	MAINTENANCE FOREPERSON	\$82,939	\$0
HUGHES, CODY	TRADESPERSON	\$75,070	\$0
HULL, ASHLEY	TEACHER	\$75,820	\$0
HULL, MATHEW	ELEMENTARY PRINCIPAL	\$132,034	\$4,442
IRWIN, WESLEY	TEACHER	\$102,670	\$1,066
JOHNSON, JESSICA	DISTRICT PRINCIPAL	\$132,823	\$8,864
KEANE, STEPHANIE	SPEECH PATHOLOGIST	\$100,976	\$4,155
KENNEDY, JENNIFER	ELEMENTARY PRINCIPAL	\$132,034	\$2,781
KNICKERBOCKER, CONNOR	TEACHER	\$76,594	\$0
KOOP, JESSICA	TEACHER	\$82,954	\$0
LACEY, SARAH	TEACHER	\$99,267	\$0
LANDRY, MANON	TEACHER	\$99,169	\$0
LANDY, IAN	DISTRICT PRINCIPAL	\$140,330	\$6,759
LARKIN, TANYA	SECONDARY VICE-PRINCIPAL	\$124,796	\$5,572
LEACH, KIM	TEACHER	\$75,411	\$0
LEIGH, COURTENAY	ELEMENTARY VICE-PRINCIPAL	\$109,945	\$2,147
LITTLE, DENISE	TEACHER	\$101,465	\$0
LOVELUCK, ISABEL	TEACHER	\$104,284	\$0
MACK, JAMES	TEACHER	\$79,991	\$218
MALIN, SCOTT	TEACHER	\$104,338	\$0
MALONEY, LAURA	TEACHER	\$89,567	\$0
MARSHMAN, JASMIN	SECONDARY PRINCIPAL	\$143,776	\$3,205
MASTRODONATO, JODI	TEACHER	\$94,444	\$0
MAXWELL, ELAINE	TEACHER	\$102,448	\$793
MCCOWAN, LESLIE	TEACHER	\$99,167	\$0
MCKENDRICK, IAN	TEACHER	\$99,215	\$0
MCKINTY, JACQUELINE	TEACHER	\$102,041	\$599
MCSWEEN, MONICA	TEACHER	\$99,533	\$0
MENDOZA, JERALD	TEACHER	\$86,672	\$0
MIKKELSEN, REBEKA-LYNNE	TEACHER	\$81,086	\$0
MILLER, CAMERON	TEACHER	\$105,162	\$0
MOLENAAR, ANITA	TEACHER	\$97,494	\$1,132
MOORE, REED	TEACHER	\$84,886	\$0
MORRISEY, JEREMY	TRADES FOREPERSON	\$80,777	\$684
MORRISSEY, MEGAN	TEACHER	\$76,119	\$0
MURRAY, TAMI	TEACHER	\$83,182	\$0
NG, MILLY	SCHOOL PSYCHOLOGIST	\$101,006	\$1,156
NOSEK AMY	TEACHER	\$101,517	\$0
PAQUETTE, MAXIME	TEACHER	\$89,445	\$0
PARSONS, AMY	TEACHER	\$76,454	\$0
PAYNE, KRISTY	DIRECTOR OF COMMUNICATIONS	\$113,613	\$476
PENDAK, ROBYN	TEACHER	\$76,590	\$644
PETERS, KARINA	TEACHER	\$86,529	\$0
PLAZIER, BRETT	DIRECTOR OF HUMAN RESOURCES	\$96,804	\$600
PRITCHARD, KRISTOPHER	TEACHER	\$92,086	\$0
RAE, JASON	TEACHER	\$94,029	\$0
RAINBOW, RAUN	ELEMENTARY VICE-PRINCIPAL	\$112,738	\$3,590
RICE, ANTHONY	TEACHER	\$96,338	\$0
RIVEST, MEGAN	TEACHER	\$83,435	\$0
ROUNIS, BILL	ELEMENTARY PRINCIPAL	\$144,303	\$4,891
SAUGSTAD, ALLAN	ONLINE LEARNING PRINCIPAL	\$144,081	\$8,427
SCOVILLE, ROBYN	TEACHER	\$99,267	\$0

SHIPLEY, MICHELLE	TEACHER	\$90,357	\$0
SHOSTAK, ANDREW	TEACHER	\$94,383	\$0
SHOSTAK, SARAH	TEACHER	\$92,024	\$186
SIU, CARRIE	AUDIOLOGIST	\$80,865	\$1,844
SKRODOLIS, CARLA	TEACHER	\$78,731	\$871
STEVENS, NICOLE	TEACHER	\$82,682	\$0
SULLIVAN, CHRISTY	TEACHER	\$99,272	\$0
SYTNICK, TREVOR	TEACHER	\$92,756	\$0
TAYLOR, LISA	TEACHER	\$105,179	\$795
THORSELL, DEAN	TEACHER	\$90,508	\$0
TIMOTHY, KIM	TEACHER	\$101,522	\$0
TRAER, LISA	TEACHER	\$95,255	\$0
VAN ACHTE, LINDSAY	TEACHER	\$96,389	\$170
VERAN, CLAUDINE	TEACHER	\$101,517	\$0
WATSON, KERRY	TEACHER	\$99,258	\$0
WEBB, MARNIE	TEACHER	\$81,598	\$109
WEBB, ROBERT	TEACHER	\$81,626	\$0
WIGHTMAN, SYDNEY	TEACHER	\$93,427	\$0
WILLIAMS, JOCELYN	TEACHER	\$101,517	\$0
WYATT, CAROL	TEACHER	\$106,681	\$0
YOUNG, ANGELA	TEACHER	\$101,532	\$0
YOUNG, CHRISTOPHER	FACILITY MANAGER	\$84,203	\$0
YULE, JAY A.	SUPERINTENDENT	\$192,758	\$9,708

TOTAL FOR EMPLOYEES WHOSE REMUNERATION EXCEEDS \$75,000.00		\$14,667,697	\$160,429
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B. REMUNERATION TO EMPLOYEES PAID \$75,000 OR LESS

Total remuneration paid to employees where the amount paid to each employee was \$75,000.00 or less:		\$13,688,642	\$45,163
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C. REMUNERATION TO ELECTED OFFICIALS

	\$94,408	\$9,559
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D. EMPLOYER PORTION OF U.I.C. AND C.P.P.

The employer portion of Unemployment Insurance and Canada Pension Plan paid to the Receiver General of Canada:	\$1,721,895	
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CONSOLIDATED TOTALS	\$30,172,642	\$215,151
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QATHET SCHOOL DISTRICT
STATEMENT OF FINANCIAL INFORMATION (SOFI)
Fiscal Year Ended June 30, 2023

Schedule of Payment for the Provision of Goods and Services

A. LIST OF SUPPLIERS WHERE PAYMENTS EXCEED \$25,000

SUPPLIER NAME	EXPENDITURE
AARON SERVICE & SUPPLY	\$156,939
AERO POWELL RIVER SERVICES LTD	\$65,572
AMAZON CHANNELS	\$36,295
AMAZON.CA	\$79,455
AMZ	\$61,669
APPLE CANADA INC	\$92,700
ASSURED ASBESTOS ABATEMENT LTD	\$113,079
AURORA CASCADE ENTERPRISES LTD	\$329,705
BC HYDRO	\$296,530
BC SCHOOL TRUSTEES ASSOCIATION	\$38,505
BC TEACHERS FEDERATION	\$614,115
BRAINBOOST EDUCATION	\$28,150
CDW CANADA	\$43,758
CENTAUR PRODUCTS INC	\$33,544
CITY OF POWELL RIVER	\$117,810
COLLEEN ALBERTSON	\$31,300
COLUMBIA FUELS	\$139,482
CONCEPT INTERACTIVE INC	\$111,810
CUMMINS CANADA LLC	\$63,954
CUPE LOCAL 476	\$179,591
CUSTOM FLOORING CENTRES LTD	\$55,219
DELL CANADA INC	\$348,993
DESJARDINS FINANCIAL SECURITY	\$73,262
DIANA TOMADA	\$29,000
DRAGONFLY MECHANICAL & GAS	\$25,818
DYNAMIC SPECIALTY VEHICLES LTD	\$90,078
EMPLOYER HEALTH TAX - EHT	\$395,771
FALCON ELECTRIC LTD	\$525,524
FIEDLER INSPIRATIONS	\$31,941
FLATLINE CONCRETE FINISHING	\$37,902
FOOTHOLDS THERAPY CENTER	\$66,876
FORT, GARY	\$34,125
FORTIS BC	\$141,553
FRESH AIR LEARNING SOCIETY	\$55,429
GRAND & TOY	\$38,424
HOLM, LORELEI	\$27,896
IBM CANADA LTD	\$79,432
INGLIS PROFESSIONAL TUTORING	\$62,387
JANT CONSTRUCTION	\$46,244
JEREMY SAMPLE B.SC.BI	\$31,125
JOINT MANAGEMENT COMMITTEE	\$97,464
KEY ALARM MONITORING SERVICE	\$32,734
KOLESZAR PROPERTIES LTD	\$59,850
LAYCRETE CONCRETE	\$79,300
MADRONA FINE HOMES	\$111,982
MANULIFE FINANCIAL	\$40,324
MASSULLO MOTORS LIMITED	\$86,020
MCCANN, BRENDAN	\$39,035
MCNALLY, DEX	\$25,110

QATHET SCHOOL DISTRICT
STATEMENT OF FINANCIAL INFORMATION (SOFI)
Fiscal Year Ended June 30, 2023

MINDFUL HIKES COMOX VALLEY	\$33,339
MINISTER OF FINANCE (MSP)	\$34,350
MEYERS NORRIS PENNY	\$51,818
MODERN ALUMINUM & VINYL PRODUCTS	\$95,762
MODERN SYSTEMS MANAGEMENT	\$118,248
MORNEAU SHEPELL	\$636,925
NELSON ROOFING & SHEET METAL LTD	\$418,313
ORCA EDUCATION SERVICES	\$360,201
OTICON CANADA	\$55,918
PACIFIC BLUE CROSS	\$225,869
PENSION CORPORATION - MUNICIPAL	\$1,177,923
PENSION CORPORATION - TEACHERS	\$4,222,932
PETE'S PLUMBING & HEATING LTD	\$118,786
PHONAK LTD	\$964,838
POTTER, JESSICA	\$32,401
POWELL RIVER CHILD, YOUTH & FAMILY SERVICES	\$72,260
POWELL RIVER DIGITAL FILM SCHOOL	\$66,071
POWELL RIVER DISTRICT TEACHERS ASSOCIATION	\$109,551
POWELL RIVER EQUIPMENT RENTALS	\$200,282
POWERSCHOOL CANADA	\$46,673
PUBLIC EDUCATION BENEFITS TRUST	\$320,712
RECEIVER GENERAL FOR CANADA	\$7,397,899
RFS CANADA	\$38,300
RICHO CANADA INC	\$78,315
RIVERCITY MINI EXCAVATING	\$596,551
RONA BUILDING CENTRE	\$96,116
RUSSELL HENDRIX FOOD SERVICE	\$126,914
SAVE ON FOODS	\$67,725
SHOREFRONT PLUMBING	\$32,480
SMARTS	\$37,550
SMCN CONSULTING INC	\$129,150
SOS TUTORING	\$135,959
SOUTHLANDS FARM	\$25,873
SQUAMISH NATURE LEARNERS	\$31,050
STAPLES POWELL RIVER	\$53,550
STRATHCONA TREE CARE	\$33,569
STROM, CHRISTOPHER	\$32,760
SUNSHINE COAST FUELS LTD.	\$117,259
SUNSHINE DISPOSAL & RECYCLING	\$58,289
SUPERIOR PROPANE INC	\$127,833
SYSCO FOODS	\$155,286
TEACHER FILE	\$52,170
TELUS	\$26,012
TELUS MOBILITY	\$43,947
TERRACENTRIC COASTAL ADVENTURES	\$164,500
THRIVING ROOTS WILDERNESS SCHOOL	\$34,987
ULINE CANADA CORPORATION	\$32,015
UNINEXUS INC	\$40,446
UNITED LIBRARY SERVICES	\$69,644
VALLEY BUILDING SUPPLIES	\$130,463
VANCOUVER DISCOVERY HOME LEARN	\$27,025
VANCOUVER ISLAND UNIVERSITY	\$125,957
WESTVIEW FORD SALES LTD	\$98,915
WHOLE PHONICS	\$26,789
WORKERS COMPENSATION BOARD	\$276,517
X10 NETWORKS	\$162,703

QATHET SCHOOL DISTRICT
STATEMENT OF FINANCIAL INFORMATION (SOFI)
Fiscal Year Ended June 30, 2023

TOTAL FOR SUPPLIERS WHERE PAYMENTS EXCEED \$25,000	\$25,450,471
---	---------------------

B. SUPPLIERS PAID \$25,000 OR LESS

Total amount paid to suppliers where the amount
paid to each supplier was \$25,000 or less:

\$5,652,872

CONSOLIDATED TOTAL

\$31,103,343

**School District
Statement of Financial Information (SOFI)**

qathet School District

Fiscal Year Ended June 30, 2023

EXPLANATORY NOTES

For the Schedule of Remuneration and Expenses, reconciling items for remuneration include the following:

- The audited financial statements are prepared on a modified accrual basis, where as the remuneration and expenses included in the SOFI are reported on a cash basis.
- Remuneration for individual employees may include vacation payouts.
- Remuneration for individual employees may include taxable benefits as defined by Canada Customs and Revenue Agency.
- Salary and benefit amounts recovered by third parties are included in remuneration for SOFI purposes but are reported net of the recovered amount in the financial statements.
- Expenses paid in respect to employees include 100% of the GST/PST paid, whereas the expenditures in the financial statements are shown net of the GST rebate.

For the Schedule of Payments for the Provision of Goods & Services, reconciling items include the following:

- The amounts reported are payments to suppliers; the financial statements include a year-end accrual.
- The list of payments to suppliers include 100% of the GST/PST paid, whereas the expenditures in the financial statements are shown net of the GST rebate.
- Amounts paid by recovery from the Ministry of Education operating grants are included in Services and Supplies expenditures in the financial statements, whereas they are not included in this schedule.
- Payments to suppliers may be reported in the financial statements as Prepaid Expenses, Tangible Capital Assets, or Service and Supplies, as appropriate.
- The Schedule of Payments for Goods and Services may include expenditures which are wholly or partially recovered or reimbursed from other organizations. Thereby reducing the districts operating expenditures in the financial statements.

BOARD COMMITTEES

The Board may establish standing and ad hoc committees of the Board when necessary to assist it with governance functions. When a committee is established, the Board shall define the committee's purpose, powers and duties, membership, and meetings. Committees of the Board shall never interfere with the delegation of authority from Board to Superintendent. The Board may delegate specific powers and duties to committees of the Board that are established by the Board, subject to the restrictions on delegation in the *School Act*.

The primary purpose of all committees of the Board shall be to act in an advisory capacity to the Board. Unless specific powers have been delegated by the Board the power of all committees shall be limited to making recommendations to the Board and shall not include that of acting on behalf of the Board unless specifically authorized by Board motion for individual issues.

1. Standing Committees

1.1 The Board shall utilize a Committee of the Whole structure with the agenda structured to allow the committee to address the following areas as needed:

- Finance and Facilities
- Education ~~&-and~~ Strategic Planning
- ~~Budget and Finance~~
- Audit
- Policy Development
- ~~Other as required (e.g. Employee group Negotiations, Student Discipline, Educational and curriculum change, Indigenous Education, Health, Joint Management)~~

1.2 The rules applied at regular meetings shall be observed while in Committee of the Whole so far as they are applicable, except as to the requirement for seconding of motions and limiting the number of times of speaking.

1.3 The Committee of the Whole shall report to the Board at the Board meeting following each committee meeting.

1.4 The Chair of a Standing Committee shall place all committee recommendations before the Board at a regular business meeting of the Board in the form of a proposed motion. Action of any Standing Committee shall not be binding until formally approved by the Board unless the Board by a majority vote gives the Standing Committee power to act.

1.5 Matters that the Board has directed to a Committee for action must take precedence over any other Committee business.

Adopted: May 18, 2022

Reviewed: November 8, 2023

Revised: December 20, 2023

1.6 Finance and Facilities Portion of the Committee of the Whole.

1.6.1 Purpose/Function:

1.6.1.1 To review and provide recommendations to the Board regarding assigned financial and facilities planning matters.

1.6.2 Powers and Duties:

1.6.2.1 Student Enrolment: Annually review enrolment and enrolment trends and the potential impact on capital planning, student accommodation and catchment changes.

1.6.2.2 Capital Planning: Annually review and make recommendations regarding the draft five-year capital plan for submission to the BC Ministry of Education.

1.6.2.3 Long Range Facilities Plan: Review and make recommendations regarding the draft long-range facilities plan for submission to the BC Ministry of Education.

1.6.2.4 Facilities Planning Matters Referred to the Committee by the Board: Review matters referred and make recommendations as requested.

1.6.2.5 Fiscal Accountability Reporting: Review and assess Fiscal Accountability Reports in light of Policy 12 Appendix B Quality Indicators and make recommendations to the Board.

1.6.2.6 Preliminary and Amended Budgets Items: Review the Preliminary and Amended Operating Budgets and make recommendations as deemed appropriate to the Board.

1.6.3 Membership:

1.6.3.1 Membership includes all trustees.

1.6.4 Meetings:

1.6.4.1 The Committee shall meet at least three times annually unless items referred to the committee by the board necessitates additional meetings.

1.7 Education and Strategic Planning Portion of the Committee of the Whole

1.7.1 Purpose/Function:

1.7.1.1 To review and assess the performance of the Superintendent in relation to the quality indicators identified in Policy 12 Appendix B regarding: student learning, student well-being, and strategic planning and reporting.

1.7.1.2 To review education or strategic planning and reporting related matters referred to the committee by the Board.

Adopted: May 18, 2022

Reviewed: November 8, 2023

Revised: December 20, 2023

1.7.2 Powers and Duties:

- 1.7.2.1 Strategic Planning and Reporting: Annually review the Strategic Planning Accountability Report acknowledging accomplishments and if deemed appropriate recommend revisions to the plan.
- 1.7.2.2 Annually review the Student Learning Accountability Report, identify, and acknowledge accomplishments, identify opportunities for improving student learning and report observations to the Board.
- 1.7.2.3 Annually review the Student Well-Being Accountability Report, identify, and acknowledge accomplishments, identify opportunities for improving student well-being and report observations to the Board.
- 1.7.2.4 Annually review Indigenous services, identify, and acknowledge accomplishments, identify opportunities for improving student learning and report observations to the Board.
- 1.7.2.5 Review and make recommendations to the Board regarding proposed Board Authority Authorized Courses.

1.7.3 Membership:

- 1.7.3.1 Membership includes all trustees.

1.7.4 Meetings:

- 1.7.4.1 The Committee shall meet at least four times per year unless items referred to the Committee by the Board necessitates additional meetings.

1.8 Audit Committee Portion of the Committee of the Whole

1.8.1 Purpose/Function

- 1.8.1.1 The purpose of the Committee is to assist the Board of Education in fulfilling its responsibilities in relation to:

- 1.8.1.1.1 Overseeing the School District’s financial reporting process and its internal control structure and report its findings to the Board of Education. This task is facilitated by asking questions about the quality of work done by management, participating in the audit planning and reporting processes, understanding, and reviewing the aspects of the operation that put the School District at risk, and the District’s preparedness to face that risk. It summarizes its findings and recommendations so that the Board can make informed decisions.

- 1.8.1.1.2 Maintaining direct lines of communications with the Superintendent and with the external auditors.

- 1.8.1.1.3 Monitoring the scope and costs of the activity of the external auditors and assessing their performance.
- 1.8.1.1.4 Recommending to the Board the terms of engagement for the external Auditor.
- 1.8.2 Powers and Duties
 - 1.8.2.1 Review the audited financial statements and recommend approval of the audited statements by the Board.
 - 1.8.2.2 Review the Auditor’s assessment of managements risk mitigation strategies and the appropriateness of internal controls with a focus on safeguarding District assets.
 - 1.8.2.3 Review the “Auditor’s Management Letter” with the Auditor and assess Management’s action plan to address concerns and follow up on the implementation of the auditor’s letter of recommendations including ensuring the Board directs by motion the recommendations to be implemented, and ensuring any deficiencies identified in the audit report and management letter are addressed in a timely manner to the satisfaction of the external auditor.
 - 1.8.2.4 Review the nature and extent of other services provided by the auditor in relation to auditor independence and ensure the auditor presents information relative to those Fiscal Quality Indicators contained in Policy 12 which the audit committee determines can be best assessed by the external auditor.
 - 1.8.2.5 Monitor the development of and changes to accounting principles and practices and financial reporting standards, and their impact on the School District’s financial reporting.
 - 1.8.2.6 Review proposed terms of engagement for the external auditor and make recommendations to the Board regarding such terms of engagement. Oversee the engagement of external auditors including the terms of the audit engagement and appropriateness of proposed fees.
 - 1.8.2.7 At least once a year, connect with the external auditors. This function may be performed by the Board Chair.
 - 1.8.2.8 Make inquiries of the Auditor which members of the Committee believe are necessary to discharge its fiduciary responsibilities.
 - 1.8.2.9 Make recommendations to the Board regarding appointment of external auditor and review external audit services as needed.
 - 1.8.2.10 Make recommendations to the Board regarding banking services as needed.

- 1.8.2.11 Review fiscal accountability reports and related information.
- 1.8.2.12 As appropriate make policy recommendations to the Board related to the role of the audit committee.
- 1.8.2.13 Reviews, in connection with the review of the audited financial statements, an annual report on the use of legal services and on substantial outstanding legal actions against the School District in order to monitor possible risk exposures and contingent liabilities;
- 1.8.3 Membership
 - 1.8.3.1 Membership includes all trustees.
- 1.8.4 Meetings
 - 1.8.4.1 The Audit Committee shall meet at least twice a year.
 - 1.8.4.2 In establishing the agenda for meetings of the Committee, the Chair will be advised by the Secretary Treasurer of items for the agenda.
- 1.9 Policy Committee Portion of the Committee of the Whole
 - 1.9.1 Purpose
 - 1.9.1.1 Ensure the review of all Board Policies within the Board’s four-year term of office.
 - 1.9.1.2 To prepare recommendations for additions/amendments/deletions to Board Policy.
 - 1.9.2 Powers and Duties
 - 1.9.2.1 To obtain advice on revision of current policy and to generate new or revised policies to recommend to the Board.
 - 1.9.2.2 To review Board Policies on a schedule which would at minimum provide for the review of all policies at least once in a four-year board term of office and make recommendations to the Board regarding amendments, changes, and deletions.
 - 1.9.2.3 Ensure adherence to Policy 10 Policy Making.
 - 1.9.2.4 Address matters referred to it by the Board.
 - 1.9.3 Membership
 - 1.9.3.1 Membership includes all Trustees.
 - 1.9.4 Meetings
 - 1.9.4.1 At least twice annually.

Policy 8



Ad Hoc Committees

Ad hoc committees may be established to assist the Board on a specific project for a specific period of time. The terms of reference for each ad hoc committee will be established by Board motion at the time of the formation. Such ad hoc committees shall cease to exist when the purpose has been achieved.

Resource Personnel

The Superintendent shall appoint resource personnel to work with committees and the Superintendent shall determine the roles, responsibilities, and reporting requirements of the resource personnel. Minutes or notes shall be recorded at all committee meetings by the designated staff resource person.

Legal Reference: Section 65, 85 *School Act*

Adopted: May 18, 2022
Reviewed: November 8, 2023
Revised: December 20, 2023

BOARD REPRESENTATIVES

In response to requests from external organizations or agencies, the Board will consider naming representatives to various external committees, agencies, and organizations. Such representation is established at the discretion of the Board to facilitate the exchange of information on matters of mutual concern and/or to discuss possible agreements between the District and other organizations.

The Board shall be guided by the following principles when naming representatives to other organizations:

- The Board's decision-making role can be exercised only by the Board as a whole, not by an individual trustee or committee;
- The Board's function is primarily governance, rather than administration;
- Responsibilities placed on trustees are to be closely related to the Board's central role as per Policy 2.

The Superintendent may appoint resource personnel to work with the external committee representatives and shall determine the roles, responsibilities, and reporting requirements of resource personnel.

External committees will have Board representation identified normally at the annual Inaugural Meeting or alternatively at a subsequent meeting of the Board.

Representatives serve at the pleasure of the Board.

External Committees

1. British Columbia School Trustees Association (BCSTA) Provincial Council

1.1 Purpose of the Provincial Council

- 1.1.1 Act as a forum for discussion of relevant, timely and emerging issues identified from individual Boards, BCSTA Board of Directors, Ministry of Education, and other sources.
- 1.1.2 Discuss, and/or develop, policy issues for submission at the Annual General Meeting.
- 1.1.3 Establish interim policies of the Association between general meetings.
- 1.1.4 Address matters as outlined in BCSTA bylaws, including Association budget approval.
- 1.1.5 Act on action requests from BCSTA Board of Directors.

1.2 Powers and Duties of the Board Representative

- 1.2.1 Attend Provincial Council meetings.
- 1.2.2 Represent the Board's positions and interests at the provincial level.

Adopted: May 18, 2022

Reviewed: November 8, 2023

Revised:

- 1.2.3 Communicate to the Board the work of the Provincial Council.
- 1.2.4 Bring recommendations to the Board as and when necessary.
- 1.2.5 Build positive relationships.
- 1.3 Membership
 - 1.3.1 One (1) trustee; one (1) alternate.
- 1.4 Meetings
 - 1.4.1 As called by Provincial Council. (Usually 4 per year, one at the AGM)
- 2. British Columbia Public School Employers' Association (BCPSEA)
 - 2.1 Purpose of the BCPSEA
 - 2.1.1 Act as the accredited bargaining agent for the BCSTA's members.
 - 2.1.2 Assist in carrying out any objectives and strategic directions established by the Public Sector Employers' Council.
 - 2.1.3 Coordinate collective bargaining objectives, benefit administration, human resource practices and out-of-scope compensation matters amongst members.
 - 2.2 Powers and Duties of the Board Representative
 - 2.2.1 Attend the BCPSEA meetings as required.
 - 2.2.2 Represent the Board's positions and interests at BCPSEA meetings.
 - 2.2.3 Communicate to the Board the work of BCPSEA.
 - 2.2.4 Bring recommendations to the Board as and when necessary.
 - 2.2.5 Build positive relationships.
 - 2.3 Membership
 - 2.3.1 One (1) trustee; one (1) alternate.
 - 2.4 Meetings
 - 2.4.1 As called by BCPSEA.
- 3. BCSTA South Coast Branch
 - 3.1 Purpose of the BCSTA South Coast Branch
 - 3.1.1 Receive reports from the BCSTA Board of Directors.
 - 3.1.2 Discuss and/or develop policy issues for submission at the Annual General Meeting.
 - 3.1.3 Act as a forum for discussion of South Coast Branch issues.

- 3.2 Powers and Duties of the Board Representative
 - 3.2.1 Attend BCSTA South Coast Branch meetings.
 - 3.2.2 Represent the Board’s positions and interests at BCSTA South Coast Branch meetings.
 - 3.2.3 Communicate to the Board the work of the BCSTA South Coast Branch.
 - 3.2.4 Bring recommendations to the Board as and when necessary.
 - 3.2.5 Build positive working relationships with other Boards.
- 3.3 Membership
 - 3.3.1 All trustees are expected to attend.
- 3.4 Meetings
 - 3.4.1 Two (2) meetings per year or as called by the South Coast Branch.

Local Community Representation

From time to time the Board is invited to appoint representative(s) to committees or other entities external to the School District. Currently the Board has approved trustee representation for the following groups or committees: Chamber of Commerce, Northern Sunshine Coast Ferry Advisory Council, District Parent Advisory Council (DPAC), Powell River Community Action Team, Social Action, and Planning Advisory Committee.

- 4.1 Purpose:
 - 4.1.1 The purpose of sending representatives to represent the Board on such external committees or entities is to strengthen communication and understanding with the external organization.
- 4.2 Powers and Duties of the Representative is to:
 - 4.2.1 Represent the Board’s positions and interests. If no Board position has been determined the representative will refrain from expressing a personal opinion and will seek a Board position.
 - 4.2.2 Communicate to the Board the work of the external entity and any opportunities which may exist for mutual benefit involving the Board and the entity.
 - 4.2.3 Build positive relations between the entity and the Board corporate.
- 4.3 Representatives:
 - 4.3.1 Normally one (1) representative chosen by the Chair.
- 4.4 Meetings:
 - 4.4.1 As determined by the external committee or entity.
- 4.5 The Board shall review annually the efficacy of continued Board representation on such committees or entities.

Adopted: May 18, 2022
Reviewed: November 8, 2023
Revised:

Other Community Involvement

As active community members, trustees are frequently requested to sit on various community committees or be involved in community organizations. If representation to such an external organization has not been approved by the Board as noted above, the trustee shall make clear that their presence is as a community member and not as a Powell River School District Trustee and therefore the views expressed are those of the individual and not those of the Board or District.

Administrative Committee Representation

From time to time the Superintendent in consultation with the Board may request the Board to select a Board representative to an Administrative committee. In such instances the Superintendent will determine the purpose of the committee.

The role of the Board representative in such instances shall be to provide visible Board support for advancing the purpose of the committee and act as the Board's eyes and ears relative to matters being discussed and bring to the Board's attention any related issues which fall within areas of Board retained authority. The Board representative has no decision making authority. Since these are Administrative Committees, the Superintendent shall bring any recommendations to the Board for the Board's consideration and decision.

The Administrative Committee structure shall be determined by the Superintendent with the proviso that the membership shall include one Board member selected by the Board. Committee meetings shall be at the call of the Superintendent.

School Liaison Trustee Role

The Chair shall make School Liaison assignments. The assignments shall be posted on the District website.

School Liaison responsibilities shall not:

- Inhibit or circumvent administrative authority or responsibility.
- Include any decision-making authority.

Parent Advisory Councils as per section 8 of the School Act may advise the Board and the Principal and staff of a school. At the invitation of the PAC the school trustee liaison may attend the PAC meeting. If the Council wishes to advise the Board corporate, that advice is to be sent to the Board.

The role of liaison trustee is to provide visual support for school activities, including but not limited to, athletic competitions, fine arts performances and displays, school celebrations, and recognition events. The role allows trustees to become knowledgeable of public-school events, while keeping manageable

Adopted: May 18, 2022
Reviewed: November 8, 2023
Revised:

Policy 9



the time demands should there not be some limiting of expectations for Board or trustee attendance at such public events.

Legal Reference: Sections 8.4, 8.5, 22, 65, 74, 85 *School Act*
Ministry of Education website

Adopted: May 18, 2022
Reviewed: November 8, 2023
Revised:



BOARD OF EDUCATION REPRESENTATIVES

SCHOOL LIAISONS

School Name	Trustee
Brooks Secondary	
Edgehill Elementary	
Henderson Elementary	
James Thomson Elementary	
Kelly Creek Community	
Partners in Education	
Texada Elementary	
Westview Elementary	

BOARD COMMITTEES

Committee Name	Trustee
Committee of the Whole	All

REPRESENTATIVES TO INTERNAL ADMINISTRATIVE COMMITTEES

Administrative Committees	Trustee	Alternate
Educational and Curriculum Change		
Environmental and Sustainability Committee		
French Advisory Committee		
Health Committee		
Joint Management Committee (JMC)		
Justice, Equity, Diversity, Inclusion		
Labour Negotiations		
SOGI		

REPRESENTATIVES TO EXTERNAL COMMITTEES, ORGANIZATIONS AND AGENCIES

External/Sectoral Committees	Trustee	Alternate
BCPSEA Representative	Jaclyn Miller	
BCSTA Provincial Council Representative	Rob Hill	
South Coast Branch	All	
District Parent Advisory Council		
Indigenous Education Council		
Community Representation	Trustee	Alternate
Chamber of Commerce		
Northern Sunshine Coast Ferry Advisory Council		
Powell River Community Action Team		
Social Action and Planning Advisory Committee		

Steve Hopkins

From: steve.hopkins@sd47.bc.ca
Subject: FW: SD47 Screen Time During Student Meals
Attachments: 2023-NOV-29 Dear Bill and Kristen - Screen Time at Lunch.pdf; 2023-DEC-04 Dear Bill and Kristen - Follow Up Meeting.pdf; Manwell et al (2022) Digital Dementia.pdf

From: Kurt Kuzminski
Sent: Monday, December 4, 2023 1:10 PM
To: Jaclyn Miller <jaclyn.miller@sd47.bc.ca>; Kirsten VantSchip <kirsten.vantschip@sd47.bc.ca>; Rob Hill <rob.hill@sd47.bc.ca>; Dale Lawson <dale.lawson@sd47.bc.ca>; Maureen Mason <maureen.mason@sd47.bc.ca>
Cc: Kristen Brach <kristen.brach@sd47.bc.ca>; Bill Rounis <Bill.Rounis@sd47.bc.ca>; Jay Yule <jay.yule@sd47.bc.ca>
Subject: SD47 Screen Time During Student Meals

Caution! This message was sent from outside your organization.

Hi all,

I'm a father of two students at James Thomson Elementary School, and I'm writing to request your awareness and support regarding an initiative at JT with potential implications for the SD47 district as a whole.

For background, please read the attached correspondence and research article.

The 29-NOV-2023 letter summarizes the issue--elementary students watching screens during meal time and introduces some current expert recommendations and research. The 04-DEC-2023 letter lists 3 follow up actions from today's meeting. Thanks again, Bill--that was a great discussion.

As we are envisioning a district-wide policy, we will need the awareness and advocacy of School Trustees to help protect student meal times in our elementary schools.

Please reach out if you would like to discuss this in depth.

Best regards all,

Kurt Kuzminski

Dear Bill and Kristen,

Thanks in advance for reading this letter.

I'm writing to request your leadership and careful thought in developing a policy for screen time during student meals. Occasional, quality screen use to support a lesson is different than excessive use during meal times.

Allowing children to watch screens during meal times is something the Canadian Pediatric Society cautions against^[1], and that recommendation is also echoed by Dietitians^[2] and Public Health^[3]. Screen time during meals disrupts opportunities for social development. It may also lead to distracted eating and its associated harms, or it may simply distract children from eating, leaving lunches unfinished, bellies empty, and brains vulnerable.

I understand screens are being used to calm children during meal times; however, the Canadian Pediatric Society also clearly states, "Screens might help in the moment, but if used repeatedly, over time your child won't learn how to self-soothe without them"^[4].

The negative effects of excessive screen time in childhood have been found all over cognitive-behavioural research. These effects span from brain structure and function, attention and concentration, learning and memory, emotional regulation and social functioning, to global intelligence and beyond^[5].

Please, while considering this issue, read the attached research article from the *Journal of Integrative Neuroscience*^[5]. Start with *Table 1* (pg. 4), which is so interesting, I couldn't help but share it at the end of this letter.

A parent letter with a research article? I know. It's humorous, but I think we're also at the edge of unravelling a humorous feedback loop here. Using screens to calm children, who lack executive control, who in turn, miss opportunities to develop executive control, because screens have been used to calm them... How should we fix this? More screens?

In short, screen use during meals harms kids. We owe our children a careful assessment of whether the benefits really outweigh the risks. The bare minimum we can do is dive into the research and refresh ourselves on the effects screen time is having on cognitive-behavioural development.

I'm hoping this letter leads to further discussions and greater support for teachers across the district. Looking forward to an evidence-based screen time policy and alternatives to screens at lunch!

Warm regards,
Kurt Kuzminski

Open Access Article:

Laurie A. Manwell, Merelle Tadros, Tiana M. Ciccarelli, Roelof Eikelboom. Digital dementia in the internet generation: excessive screen time during brain development will increase the risk of Alzheimer's disease and related dementias in adulthood. *J. Integr. Neurosci.* **2022**, 21(1), 28.

<https://doi.org/10.31083/j.jin2101028>

Table 1. Effects of excessive screen time on cognitive-behavioural brain reserve early in life and implications for risk of MCI and ADRD.

Category	Effects on Brain, Behaviour & Cognition (CBBR)	Implications for risk of MCI & ADRD	References
Brain structure and function	Screen time associated with changes in occipital cortex (reduced volume, thinning, sulcal depth), prefrontal cortex (smaller orbitofrontal volume, thinning), temporal cortex (thinning), insula (reduced volume), limbic structures (smaller hippocampus, amygdala, ventral striatum), reduced functional connectivity in cortico-subcortical circuits, and microstructure abnormalities in gray and white matter	Early volume losses in areas governing sensorimotor functioning, executive functioning, and reward-learning areas could reduce overall CBBR and increase risk of cognitive-behavioural disorders including substance use disorders and thus increase risk of MCI and ADRD later in life	He <i>et al.</i> [29] (2017); Hong <i>et al.</i> [30, 31] (2013); Lee <i>et al.</i> [32] (2018); Paulus <i>et al.</i> [33] (2019); Weng <i>et al.</i> [34] (2013); Yuan <i>et al.</i> [35, 36] (2011, 2013)
Attention and concentration	Screen time associated with impairments in attention during development, cognitive capacity (working memory and functional fluid intelligence), vulnerability to distractions, poorer inhibition, reduced executive control (focused and sustained attention), shallow information processing, and poorer academic progress	Impairments in attention, concentration, and cognitive capacity similar to symptoms of MCI; if occurring early in life, these could reduce overall CBBR, adult IQ, and lifetime educational attainment which are known risk factors for MCI and ADRD	Carrier <i>et al.</i> [14] (2009); Christakis <i>et al.</i> [12] (2004); Christakis <i>et al.</i> [13] (2018); Loh & Kanai [37] (2016); Ward <i>et al.</i> [16] (2017)
Learning and memory	Screen time associated with impaired development of sensorimotor skills, spatio-temporal abilities, problem solving and language acquisition, lower crystallized and fluid intelligence, poorer vocabulary and reading comprehension, reduced metacognitive and self-regulation skills, and superficial effort and retention of information, poorer long-term memory, cognitive development (analytical thinking), and academic performance	Impairments in learning and memory early in life could reduce overall CBBR, adult IQ and lifetime educational attainment which are known risk factors for MCI and ADRD; impairments in episodic and semantic memory in young adults likely to persist into middle and late adulthood increasing risk of early onset of MCI and ADRD symptoms	Glass & Kang [9] (2018); Madigan <i>et al.</i> [7] (2019); Mangen <i>et al.</i> [8] (2013); Paulus <i>et al.</i> [33] (2019); Sparrow <i>et al.</i> [10] (2011); Tamir <i>et al.</i> [11] (2018)
Emotional regulation and social functioning	Screen time associated with poorer emotional regulation, inability to stay calm, reinforcing cognitive-emotional spirals, lower self-esteem, increased anxiety and depressed moods, lower productivity and curiosity, fewer social interactions, lower sociability, upwards social comparison, uncooperative attitudes and behaviour, sexual activity	Symptoms of poor emotional regulation, self-care, and social functioning are characteristic of MCI which is a known risk factor for ADRD	Boers <i>et al.</i> [17] (2019); Hunt <i>et al.</i> [38] (2018); McNicol & Thorsteinsson [23] (2017); Neophytou <i>et al.</i> [4] (2019); Twenge & Campbell [20] (2018) Twenge <i>et al.</i> [21] (2019)
Mental disorders and substance use	Screen time associated with poorer mental health, overall risk of psychiatric conditions including externalizing psychopathology (e.g., attentional problems, hyperactivity, rule breaking and aggressive behaviour) and internalizing psychopathology (e.g., social anxiety, depression) and excess behaviour related to reward-learning disruptions (e.g., impulse control and addictive behaviours related to the internet and substances)	Psychiatric conditions are known risk factors for MCI and ADRD; chronic exposure to excessive audiovisual stimulation may affect the neuroimmunoendocrine system increasing allostatic load and risk of mental disease	Maras <i>et al.</i> [19] (2015); Neophytou <i>et al.</i> [4] (2019); Yen <i>et al.</i> [39] (2009); He <i>et al.</i> [29] (2017); Gommans <i>et al.</i> [25] (2015); Twenge & Campbell [20] (2018)
Physical health	Screen time associated with poorer sleep, more sedentary lifestyle, reduced physical activity, lower cardiovascular fitness, increased incidence of being overweight or obese; may directly and indirectly affect the neuroimmunoendocrine system increasing allostatic load and increase risk of physical disease	Poor physical health is a known risk factor for MCI and ADRD	Martin [40] (2011); Twenge <i>et al.</i> [41] (2017); Wethington <i>et al.</i> [42] (2013)
Global intelligence	Significant population level increases in screen time align with significant population level declines in intelligence despite population level increases in educational attainment (i.e., Reverse Flynn Effect)	Lower IQ and educational attainment tend to be risk factors for MCI and ADRD	Bratsberg & Rogeber [3] (2018); Twenge <i>et al.</i> [43, 44] (2019)

Dear Bill and Kristen,

Thanks for the meeting today, Bill.

As we discussed, I'm seeking leadership from SD47 in developing a policy to eliminate screen time during elementary student meals. As protecting children's meals from screen time is recommended by the Canadian Pediatric Society^[1], Dietitians^[2] and Public Health^[3], implementing this recommendation within SD47 schools is a logical step.

Based on our meeting, I recommend the following actions:

1. Develop and share education for SD47 staff based on current research to raise awareness of the cognitive-behavioural effects of excessive screen time on children's development, and the effects of screens during meal times. To start, please see Manwell et al. (2022) figure 1 (pg. 2) and table 1 (pg. 4) for summaries of these negative effects.
2. Develop and share resources for SD47 staff with screen-free activities for student meal times. You discussed inviting ideas from teachers to share during staff meetings and tapping the creativity of teachers to discover screen-free ways of supervising children during lunch.
3. Develop a school-wide and district-wide policy to eliminate screen time during elementary student meals. Policy to be supported by staff education and resources in points 1 and 2.

In the spirit of sharing our discussion, I will also invite the participation of the SD47 leadership team. I will forward them a copy of our correspondence and highlight the need for their support developing a district-wide, evidence-based screen time policy for elementary student meal times.

Please feel free to reach out with further updates or questions, and thanks again for your help supporting children and teachers across the district.

Sincerely,

Kurt Kuzminski

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Digital dementia in the internet generation: excessive screen time during brain development will increase the risk of Alzheimer's disease and related dementias in adulthood

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Converging evidence from biopsychosocial research in humans and animals demonstrates that chronic sensory stimulation (via excessive screen exposure) affects brain development increasing the risk of cognitive, emotional, and behavioural disorders in adolescents and young adults. Emerging evidence suggests that some of these effects are similar to those seen in adults with symptoms of mild cognitive impairment (MCI) in the early stages of dementia, including impaired concentration, orientation, acquisition of recent memories (anterograde amnesia), recall of past memories (retrograde amnesia), social functioning, and self-care. Excessive screen time is known to alter gray matter and white volumes in the brain, increase the risk of mental disorders, and impair acquisition of memories and learning which are known risk factors for dementia. Chronic sensory overstimulation (i.e., excessive screen time) during brain development increases the risk of accelerated neurodegeneration in adulthood (i.e., amnesia, early onset dementia). This relationship is affected by several mediating/moderating factors (e.g., IQ decline, learning impairments and mental illness). We hypothesize that excessive screen exposure during critical periods of development in Generation Z will lead to mild cognitive impairments in early to middle adulthood resulting in substantially increased rates of early onset dementia in later adulthood. We predict that from 2060 to 2100, the rates of Alzheimer's disease and related dementias (ADRD) will increase significantly, far above the Centres for Disease Control (CDC) projected estimates of a two-fold increase, to upwards of a four-to-six-fold increase. The CDC estimates are based entirely on factors related to the age, sex, race and ethnicity of individuals born before 1950 who did not have access to mobile digital technology during critical periods of brain development. Compared to previous generations, the average 17–19-year-old spends approximately 6 hours a day on mobile digital devices (MDD) (smartphones, tablets, and laptop computers) whereas individuals born before 1950 at the same age spent zero. Our estimates include the documented effects of excessive screen time on individuals born after 1980, Millennials and Generation Z, who will be the majority of individuals ≥ 65 years old. An estimated 4-to-6-fold increase in rates of ADRD post-2060 will result in widespread societal and economic distress and the complete collapse of already overburdened healthcare systems in developed countries. Preventative measures must be set in place immediately including investments and interventions in public education, social policy, laws, and healthcare.

Keywords

Excessive screen time; Brain development; Alzheimer's disease and related dementias (ADRD); Mild cognitive impairment (MCI); Internet generation (iGen) or Generation Z; Anterograde amnesia

1. Introduction

Researchers at the Centers for Disease Control and Prevention (CDC) project that the rate of Alzheimer's disease and related dementias (ADRD) in the United States will increase 2-fold, from 1.6% to 3.3%, by 2060 [1]. These estimates are based on data for the ADRD burden of disease in 2014 for adults aged ≥ 65 years according to age, sex, race, and ethnicity factors which primarily represents individuals born between 1925–1945 (Silent Generation) and 1946–1964 (Baby Boomers) [1]. These factors do not account for significant and relevant differences between individuals born before 1965 and those born after 1980 (Millennials) and 1995 (Generation Z). The CDC estimates are based upon factors currently known about the Silent Generation and Baby Boomers who are aged ≥ 65 years today, whereas most of the population aged ≥ 65 years older in 2060 will be Millennials and Generation Z. There are at least two known critical factors that differ significantly between those born before 1965 and those born after 1980 which are related to the risk of neurodegenerative disorders such as ADRD: these are overall intelligence level (i.e., assessed by IQ testing) and excessive screen time (i.e., time spent on electronic media).

Growing evidence documents a negative (or reverse) Flynn Effect, which is a progressive decline in population intelligence (i.e., intelligence quotient or IQ test scores), on a global scale starting around 1975 and projected to continue into 2050 [2]. The projected global decline in intelligence of approximately 1.28 I.Q. points for 2000–2050 is thought to be related to environmental rather than genetic causes and to have started with Millennials and will include Generation Z [3]. Converging evidence shows that excessive screen time (i.e., more than 2–3 h/day exposure to electronic media including television, computers, and mobile devices such as

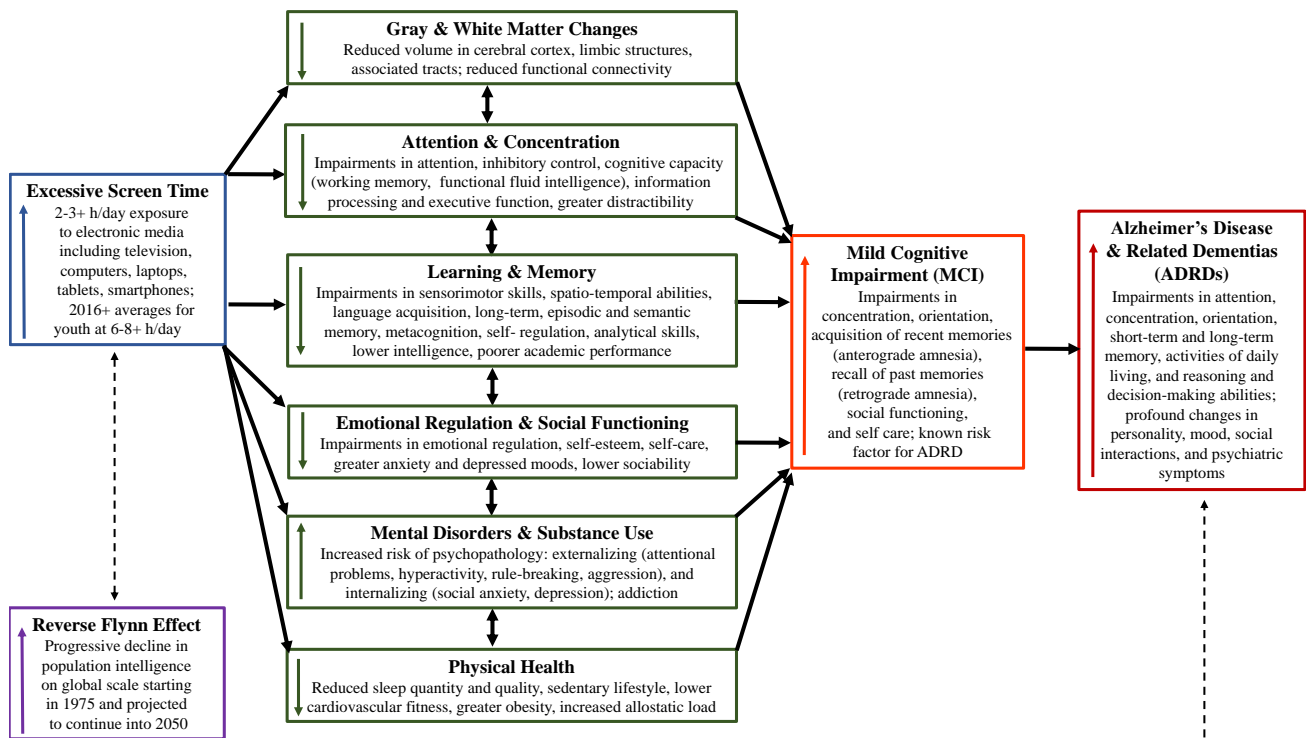


Fig. 1. Schematic model of the effects of excessive screen time on various factors that contribute to the development of mild cognitive impairment and dementia. Excessive screen time (i.e., >2–3 h/day exposure to electronic media including television, computers, and mobile electronic devices) has been shown to affect brain development (i.e., structure and function) and increase the risk of cognitive, emotional, and behavioural disorders in adolescents and young adults by negatively impacting attention and concentration, learning and memory, emotional regulation and social functioning, physical health, and development of mental disorders and substance use. These effects are similar to the symptoms of mild cognitive impairment (MCI) seen in older adults that increase the risk of Alzheimer's disease and Related Dementias (ADRDs). The current decline in global IQ, estimated to have started post-1975 and projected to continue into 2050, parallels significant population level increases in screen time and could also increase the risk of MCI and ADRD. Solid lines represent empirically-supported connections between factors and dotted lines represent theoretically-supported connections.

smartphones, tablets, and laptops), particularly during brain development, is related to increased risk of learning and memory impairments, attentional and emotional disorders, substance abuse, and changes in cortical gray and white matter volumes [4]. These observations are consistent with the cognitive-behavioural-brain reserve (CBBR) hypothesis of dementia, which suggests that more complex patterns of neural and mental activity in early, middle, and later life stages are associated with decreased risk of dementia, whereas less complex patterns are associated with an increased risk of dementia [5]. We propose that these two factors, declining intelligence and excessive screen time, which came to prominence for Millennials and Generation Z, will compound over time reducing the overall cognitive-behavioural-brain reserve of these individuals significantly increasing their risk of ADRD. We predict that from 2060 to 2100, the rates of ADRD will rise far above the CDC projected estimates up to a four- to six-fold increase. The CDC estimates are based entirely upon factors related to the age, sex, race and ethnicity of individuals born before 1950 who did not have access to mobile digital technology during critical periods of brain development. Our estimates include the documented effects of global declines in intelligence levels and excessive screen time for individu-

als born after 1980, Millennials and Generation Z, who will comprise most individuals ≥ 65 years old in 2060.

2. Theory

Converging evidence from biopsychosocial research in humans and in animal models demonstrates that chronic sensory stimulation via excessive screen time (i.e., defined as more than 2–3 h/day exposure to electronic media including television, computers, and mobile electronic devices) affects brain development, increasing the risk of cognitive, emotional, and behavioural disorders in adolescents and young adults [4]. Excessive screen time negatively impacts learning [6–8], memory [9–11], attention [12–15], concentration [12, 13, 16], emotional regulation and social functioning [17–21]. Effects of excessive screen time appear similar to symptoms of mild cognitive impairment (MCI) seen in adults in the early stages of dementia, including impaired concentration, orientation, acquisition of recent memories (anterograde amnesia), recall of memories (retrograde amnesia), social functioning, and self-care [4, 22, 23]. Excessive screen time is also known to increase the risk of mental disorders [20, 24], and substance use [25, 26] which are known risk factors for dementia [27, 28]. The current decline in global IQ,

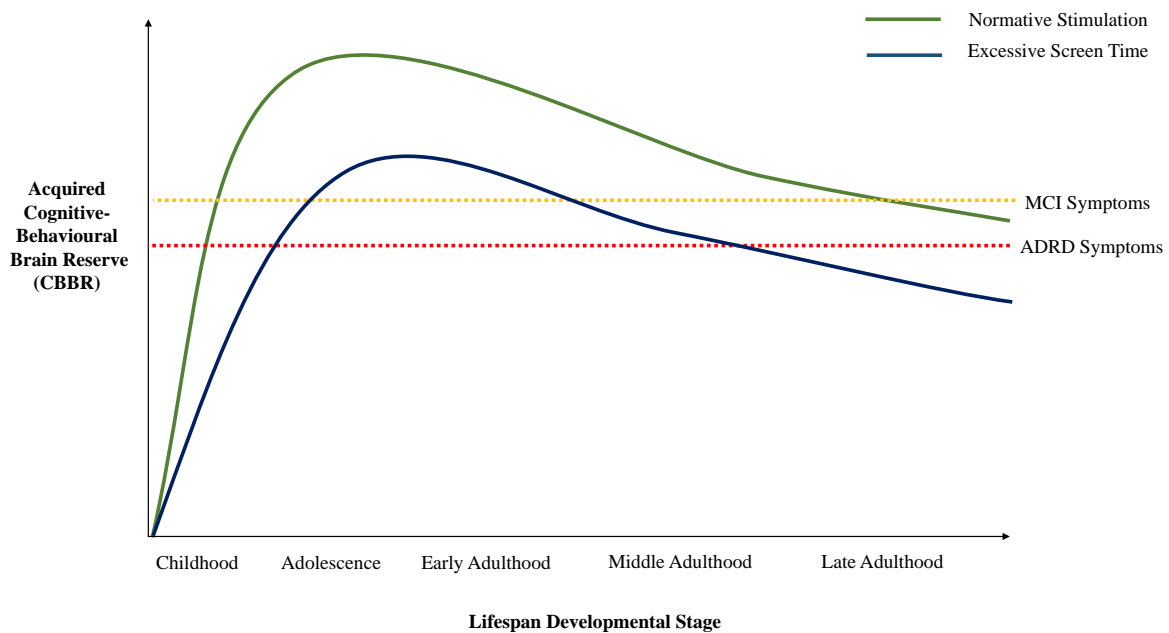


Fig. 2. Schematic model of the effects of excessive screen time on cognitive-behavioural brain reserve and implications for early onset of mild cognitive impairment and dementia. The cognitive-behavioural-brain reserve (CBBR) hypothesis of dementia postulates that more complex patterns of neural and mental activity in early, middle, and later life stages are associated with decreased risk of dementia as opposed to less complex patterns which are associated with increased risks. Brain development occurs in stages marked by periods of massive neuroplasticity (i.e., significant changes in gray and white matter) that correspond to cognitive-behavioural maturation. Neuroimaging studies of connectivity in the brain suggest several dynamic brain networks governing executive functions, intelligence, and social-emotional behaviour emerge early in brain development, increase their functional interactions during adolescence, and variations in patterns of connectivity can predict healthy and pathological trajectories of development into adulthood. Studies show that these cortical networks can be influenced by early environmental experiences including excessive screen time. If the neural circuits underlying these cognitive-behavioural abilities essential for general intelligence and lifetime adaptability are under- or abnormally-developed before adulthood, then it is likely that these changes will persist into early and middle adulthood and be more vulnerable to accelerated neurodegeneration in late adulthood therefore increasing the risk of early onset MCI and ADRDs.

estimated to have started post-1975 and projected to continue into 2050, could contribute to an overall cognitive decline in the world's population increasing the risk of ADRD in individuals ≥ 65 years old in 2060 and beyond. It is estimated that these two factors, increasing rates of excessive screen time and declining IQ levels, will compound over time to reduce the overall cognitive-behavioural-brain reserve capacity for individuals born after 1975 and increase their rates of ADRD compared to those born before 1950 (refer to Figs. 1,2 and Table 1, Ref. [3, 4, 7–14, 16–21, 23, 25, 29–44]). Specifically, we predict that Millennials and Generation Z will have a 4- to 6-fold increase in ADRD in 2060 compared to recent estimates of ADRD in 2014 for the Silent Generation and Baby Boomers.

3. Hypothesis

We hypothesize that for individuals born after 1975, the effects of excessive screen exposure during critical periods of brain development and the global decline in IQ levels will compound over time leading to lower overall cognitive-behavioural-brain reserve. This will translate into a higher prevalence of MCI in early to middle adulthood resulting in

substantially increased rates of ADRD in late adulthood. We predict that the rates of ADRD will rise far above the projected estimates from the CDC of a 2-fold increase from 2014 levels [1] up to a 4- to 6-fold increase in 2060 and beyond.

4. Evaluation of hypothesis

4.1 Critique of CDC estimates

Using data from the Centers for Medicare and Medicaid Services (CMS) and the United States (US) Census Bureau, Matthews and colleagues [1] estimated a 178% increase from 2014 to 2060 for the number of Americans projected to have ADRD. This reflects a growth in both aging and minority populations and assumes trends in 2014 will remain constant [1]. Matthews and colleagues [1] suggest that since their estimates are based solely upon unchangeable risk factors for ADRD, other modifiable factors such as educational attainment which tend to have protective effects against dementias may result in an overestimate for future decades. We will argue that not only is the Matthews and colleagues [1] projection not an overestimate, but it is a significant underestimate based upon additional data showing several critical differences between populations aged ≥ 65 in 2014 compared

Table 1. Effects of excessive screen time on cognitive-behavioural brain reserve early in life and implications for risk of MCI and ADRD.

Category	Effects on Brain, Behaviour & Cognition (CBBR)	Implications for risk of MCI & ADRD	References
Brain structure and function	Screen time associated with changes in occipital cortex (reduced volume, thinning, sulcal depth), prefrontal cortex (smaller orbitofrontal volume, thinning), temporal cortex (thinning), insula (reduced volume), limbic structures (smaller hippocampus, amygdala, ventral striatum), reduced functional connectivity in cortico-subcortical circuits, and microstructure abnormalities in gray and white matter	Early volume losses in areas governing sensorimotor functioning, executive functioning, and reward-learning areas could reduce overall CBBR and increase risk of cognitive-behavioural disorders including substance use disorders and thus increase risk of MCI and ADRD later in life	He <i>et al.</i> [29] (2017); Hong <i>et al.</i> [30, 31] (2013); Lee <i>et al.</i> [32] (2018); Paulus <i>et al.</i> [33] (2019); Weng <i>et al.</i> [34] (2013); Yuan <i>et al.</i> [35, 36] (2011, 2013)
Attention and concentration	Screen time associated with impairments in attention during development, cognitive capacity (working memory and fluid intelligence), vulnerability to distractions, poorer inhibition, reduced executive control (focused and sustained attention), shallow information processing, and poorer academic progress	Impairments in attention, concentration, and cognitive capacity similar to symptoms of MCI; if occurring early in life, these could reduce overall CBBR, adult IQ, and lifetime educational attainment which are known risk factors for MCI and ADRD	Carrier <i>et al.</i> [14] (2009); Christakis <i>et al.</i> [12] (2004); Christakis <i>et al.</i> [13] (2018); Loh & Kanai [37] (2016); Ward <i>et al.</i> [16] (2017)
Learning and memory	Screen time associated with impaired development of sensorimotor skills, spatio-temporal abilities, problem solving and language acquisition, lower crystallized and fluid intelligence, poorer vocabulary and reading comprehension, reduced metacognitive and self-regulation skills, and superficial effort and retention of information, poorer long-term memory, cognitive development (analytical thinking), and academic performance	Impairments in learning and memory early in life could reduce overall CBBR, adult IQ and lifetime educational attainment which are known risk factors for MCI and ADRD; impairments in episodic and semantic memory in young adults likely to persist into middle and late adulthood increasing risk of early onset of MCI and ADRD symptoms	Glass & Kang [9] (2018); Madigan <i>et al.</i> [7] (2019); Mangen <i>et al.</i> [8] (2013); Paulus <i>et al.</i> [33] (2019); Sparrow <i>et al.</i> [10] (2011); Tamir <i>et al.</i> [11] (2018)
Emotional regulation and social functioning	Screen time associated with poorer emotional regulation, inability to stay calm, reinforcing cognitive-emotional spirals, lower self-esteem, increased anxiety and depressed moods, lower productivity and curiosity, fewer social interactions, lower sociability, upwards social comparison, uncooperative attitudes and behaviour, sexual activity	Symptoms of poor emotional regulation, self-care, and social functioning are characteristic of MCI which is a known risk factor for ADRD	Boers <i>et al.</i> [17] (2019); Hunt <i>et al.</i> [38] (2018); McNicol & Thorsteinsson [23] (2017); Neophytou <i>et al.</i> [4] (2019); Twenge & Campbell [20] (2018) Twenge <i>et al.</i> [21] (2019)
Mental disorders and substance use	Screen time associated with poorer mental health, overall risk of psychiatric conditions including externalizing psychopathology (e.g., attentional problems, hyperactivity, rule breaking and aggressive behaviour) and internalizing psychopathology (e.g., social anxiety, depression) and excess behaviour related to reward-learning disruptions (e.g., impulse control and addictive behaviours related to the internet and substances)	Psychiatric conditions are known risk factors for MCI and ADRD; chronic exposure to excessive audiovisual stimulation may affect the neuroimmunoendocrine system increasing allostatic load and risk of mental disease	Maras <i>et al.</i> [19] (2015); Neophytou <i>et al.</i> [4] (2019); Yen <i>et al.</i> [39] (2009); He <i>et al.</i> [29] (2017); Gommans <i>et al.</i> [25] (2015); Twenge & Campbell [20] (2018)
Physical health	Screen time associated with poorer sleep, more sedentary lifestyle, reduced physical activity, lower cardiovascular fitness, increased incidence of being overweight or obese; may directly and indirectly affect the neuroimmunoendocrine system increasing allostatic load and increase risk of physical disease	Poor physical health is a known risk factor for MCI and ADRD	Martin [40] (2011); Twenge <i>et al.</i> [41] (2017); Wethington <i>et al.</i> [42] (2013)
Global intelligence	Significant population level increases in screen time align with significant population level declines in intelligence despite population level increases in educational attainment (i.e., Reverse Flynn Effect)	Lower IQ and educational attainment tend to be risk factors for MCI and ADRD	Bratsberg & Rogeber [3] (2018); Twenge <i>et al.</i> [43, 44] (2019)

to 2060. These additional factors include a decline in intelligence [3], despite greater educational attainment [43], and an increase in screen time [44], due to greater access to mobile digital devices, both of which occurred post-1975. Converging research suggests that the negative effects of excessive screen time include impairments in learning, memory, attention, concentration, emotional regulation, and social functioning in young adults that are similar to symptoms of MCI observed in older adults and that typically precede the development of AD. MCI is a diagnostic category thought to be a transitional stage from normal to pathological aging, and is characterized by the following minimal impairments to instrumental activities of daily living in the absence of dementia: complaint or history of cognitive decline/impairment, objective evidence of impairment in attention, memory, language, visuospatial skills or executive function, and impairments in normal functional activities [45].

4.2 Neurological and cognitive-behavioural markers of MCI and AD

ADs are progressive brain disorders characterized by gradual and increasing impairments in attention, concentration, and orientation, short-term and long-term memory, activities of daily living, and reasoning and decision making abilities [22, 46]. At the end stages of AD, individuals are usually non-verbal, non-ambulatory and unresponsive to their surroundings [46]. The progression from early to end stages of AD also include profound changes in personality, mood and social interactions, including anterograde amnesia (i.e., inability to acquire new memories), retrograde amnesia (i.e., trouble recalling past memories), and even psychiatric symptoms such as delusions and hallucinations [46, 47]. Those with AD also show poorer social functioning and self-care routines, score higher on tests of anxiety, and have greater sleep disturbances [48, 49].

Studies show that regional and global cerebral atrophy rates are well correlated with progressive cognitive-behavioural declines characteristic of Alzheimer's disease (AD) [50–55]. Progressive cerebral atrophy is associated with the stages of AD [52, 54]. Pre-symptomatic and mildly affected individuals show significant volume loss in the hippocampus and posterior cingulate and neocortical temporoparietal cortices; in contrast, moderately and severely symptomatic individuals show more widespread cerebral atrophy, particularly in the inferolateral areas and frontal lobes with some sparing of the primary motor and sensory areas and cerebellum [52, 54]. Volumetric changes in the hippocampus, entorhinal cortex, whole brain, and ventricles predicted conversions from preclinical (i.e., no symptoms) to clinical stages of MCI or AD and from MCI to AD and were more reliable predictors than standard psychometric measures [53]. For individuals over age 60, gray matter volume decreases of approximately 2% per year are seen in patients with AD compared to controls [50] and significant losses in white matter essential for communication between brain regions [30, 34, 35, 51, 56]. Reduced cortical thick-

ness in the posterior cingulate gyrus is characteristic of AD in both typical and atypical clinical presentations [57]. These findings demonstrate that cerebral volume is a robust indicator of MCI and AD in middle to late adulthood. Factors that may increase cerebral volume loss in early adulthood, or even prevent cerebral volume growth in childhood and adolescence, may greatly accelerate the cognitive-behavioural signs of neurodegeneration in middle adulthood and significantly increase the rates of MCI and AD. We will argue that excessive screen time in childhood, adolescence, and early adulthood impairs brain development leading to reduced overall CBBR before middle adulthood increasing the risk of neurodegeneration potentially 10 to 20 years earlier than expected.

4.3 Global declines in intelligence may increase risk of MCI and dementia in 2060

The Flynn effect refers to the increasing performance over time on intelligence tests across the population throughout the 20th century [3, 58–61]. Studies show increases of approximately 2.50 to 3.00 IQ points per decade with proposed explanations focusing on biological factors (e.g., nutrition, pathogen stress, fertility) and environmental factors (e.g., education, family size, technology, test-taking behaviour) and the interactions between them, referred to as 'social multipliers' (i.e., any environmental factor that confers an advantage improving test performance) [62]. Analyses show substantial gains in fluid IQ (i.e., reasoning-based performance) that are greater than gains for crystallized IQ (i.e., knowledge-based performance), greater gains for adults than children, and positive correlations with economic gains (i.e., GDP growth) [62]. Results also show a deceleration or reversal of gains in recent decades [62].

The reversal of this trend in IQ gains, referred to as the negative Flynn effect, has been documented in several countries in post-1975 birth cohorts [2, 3, 58, 62]. The main contributors to the Flynn effect are thought to be environmental and generate within-family variation based upon exposure differences (e.g., age at exposure, exposure duration), although the specific mechanisms underlying these environmental effects are unclear [3]. The negative Flynn effect may reflect a ceiling effect for environmental advantages (e.g., saturation or diminishing returns) or increases in social multipliers detrimental to IQ (e.g., dysgenic fertility, immigration, declining educational standards) [3, 62]. Although exposure to technology is postulated to positively affect IQ by providing greater visual stimulation, evidence does not support a link between increased fluid IQ and frequency of visual media exposure [62]. In fact, evidence is emerging that excessive screen time may be a significant negative social multiplier contributing to the deceleration and decline of population IQ. The negative Flynn effect starting post-1975 is paralleled by a decline in vocabulary, documented from 1974 to 2016 for American adults; this is despite an increase in educational attainment (e.g., 11.83 to 13.68 years of school completed), which is generally correlated with verbal intel-

ligence [43]. During this same time period, there has been a significant decrease in reading print (e.g., books, magazines, newspapers) and a critical increase in digital screen exposure (e.g., television, computers, tablets, smartphones) [44]. In a study examining reading comprehension, it was found that students who read from print scored significantly higher on reading comprehension tests than those who read the text digitally [8]. Several explanations were proposed: (i) *navigation* via scrolling on screens is known to negatively interfere with mental representations of text, (ii) *multitasking* on a computer (e.g., switching screens to read or answer questions) has hidden cognitive processing and memory costs (e.g., increasing challenges of dividing attentional resources), and (iii) *metacognitive* and *self-regulation* skills (i.e., ability to monitor and adapt one's cognitive performance to a task) may have been engaged more with print media, traditionally used for effortful learning, compared to digital media, often used for quick and superficial information gathering [8]. Evidence suggests there are detrimental consequences of excessive screen time for attention, learning, memory, and language development [4]. Research shows that screen time is increasingly replacing time spent on academics for adolescent and young adult students [43, 44, 62] and constant use of digital devices is associated with worse reading comprehension, word reading and vocabulary [8], which may impact overall IQ levels.

4.4 Significant differences in screen time exposure for individuals born before and after 1975

The amount of screen time exposure during critical periods of brain development differs significantly for the Silent Generation (born 1925 to 1945), Baby Boomers (born 1946 to 1964), and Generation X (born 1965 to 1979) compared to Millennials (born 1980 to 1995) and Generation Z (born 1996 to 2012). Compared to previous generations, the average 17–19-year-old spends approximately 6 hours a day on mobile digital devices (MDD) (e.g., smartphones, tablets, and laptop computers) [44] whereas individuals born before 1965, the Silent Generation and Baby Boomers, at the same age spent zero hours on MDD. Generation Z is the first in history to never know a world without the Internet; Generation Z surpasses Millennials on social media use by almost 3 hours each day [63].

Adolescent screen time use has changed dramatically from 2.5 hours a day of TV viewing in 1970 to almost 8 hours a day of TV viewing, internet use, texting, and social media use in 2016 [44]. This represents at least a 3-fold increase in screen use for adolescents as these numbers were reported for leisure time and do not include screen use at work, school or studying [44]. Even the time spent viewing television may be fundamentally different across cohorts as Generation Z increasingly engages in multiscreen use [64–68] which is known to have negative effects on cognitive processing including attention, memory, learning, and comprehension [69–73]. Overall, Generation Z spends more time online and texting and less time with more traditional media

such as magazines, books, and television than previous generations [44].

4.5 The effects of screen time on brain development and implications for cognitive-behavioural-brain reserve in adulthood

Excessive screen time affects brain structure and function, particularly during development, which greatly impacts attentional and inhibitory control, focused concentration, learning, memory, reasoning, and creativity [10, 74–76]. These basic capacities are essential for executive control in goal-directed and decision-making behaviours which underlie human intelligence and the essential “ability to adapt to uncertain, changing, and open-ended environments” [74] (pp. 1). If the neural circuits underlying these cognitive-behavioural abilities essential for general intelligence and lifetime adaptability are under- or abnormally-developed before adulthood, then it is likely that these changes will persist into early and middle adulthood and be more vulnerable to accelerated neurodegeneration in late adulthood. Brain development occurs in stages and is marked by periods of massive plasticity (i.e., major neuronal and synaptic rearrangement), particularly the perinatal and periadolescent transitions, the latter of which is characterized by significant gray matter reductions and white matter increases that correspond to cognitive-behavioural maturation [77–79]. Neuroimaging studies of connectivity in the brain suggest several dynamic brain networks governing executive functions, intelligence, and social-emotional behaviour emerge early in brain development, increase their functional interactions during adolescence, and variations in patterns of connectivity can predict healthy and pathological trajectories of development into adulthood [22, 80–82]. Changes in these cortical networks are thought to be influenced by early environmental experiences, including childhood abuse [83], urban upbringing [84], and screen time [33], and may have serious lifetime impacts on general cognitive ability, social-emotional behaviour, psychopathology, and substance use and abuse. Studies show that abnormal patterns of regional connectivity, specifically in frontal and parietal lobe connections, are also found in neurodegenerative conditions including ADRDs, particularly frontotemporal dementia and AD [22].

Preliminary data from The Adolescent Brain and Cognitive Development (ABCD) Study, a multi-site longitudinal neuroimaging study, shows the significant impact that screen time has on the relationship between cognitive-behavioural maturational markers and normal patterns of brain development in children and adolescents [33, 85]. The study identified several associations between screen time, brain structure (e.g., cortical thickness, gray matter volume, and sulcal depth), and cognition (e.g., fluid and crystallized intelligence) and mental health (e.g., internalizing and externalizing psychopathologies) [33]. First, results showed a robust association between screen time and changes in visual system structural patterns (i.e., reduced volume, thinner cortex, variations in sulcal depth), which may negatively affect the functioning of other cortical networks, such as cognitive

control regions, that interact with sensorimotor areas [33]. Second, results showed a strong association between screen time, externalizing (but not internalizing) psychopathology, and changes in cortical and limbic structures (e.g., smaller orbitofrontal volume, thinner occipital and temporal cortices, thinner hippocampi) [33], which may help explain the concomitant rise in screen time and disorders of attention and hyperactivity (reviewed in [4]). Third, results showed a more complex pattern of association between screen time, particularly type (e.g., gaming versus social media), and brain structure changes and measures of fluid and crystallized intelligence. For fluid intelligence, gaming activity showed positive associations with prefrontal cortex thinning, whereas social media activity showed negative associations with hippocampal thickness and temporal lobe volume [33]. In contrast, for crystallized intelligence, screen time in general and social media activity showed strong negative associations with occipital and orbitofrontal volume [33]. In a study of young adults, it was demonstrated that excessive social media use is associated with gray matter volume reduction in the bilateral amygdala and right ventral striatum but not the prefrontal cortex [29], suggesting that excess behaviour arises from a developmental disruption of reward-learning [29].

Taken together, these results contribute to evidence from brain imaging and behaviour studies that support the dual system theory of excess problematic behavior [86] which proposes that the development of these abnormal behaviors arises from imbalances between the reward system (mesolimbic dopamine amygdala-striatal) which becomes hyperactive and the inhibition system (prefrontal regions) which becomes hypo-active [29]. Such imbalances have important implications for focusing attention, learning, memory, intelligence, social-emotional regulation, and behavioural addictions. Based on models of drug, alcohol, and gambling addictions, characteristic traits of internet addiction include fixation with playing online games, repeated failed attempts at cessation, increased negative affect, neglecting significant relationships or activities, and the development of tolerance and withdrawal symptoms [30, 35, 36]. Studies show internet addiction is associated with important changes in both gray and white matter in the developing brain, including volumetric loss and functional impairments related to behavioural abnormalities (e.g., impaired cognitive ability and control) [30, 34–36, 87]. For example, individuals with internet addiction showed abnormalities in cortical thickness in several areas involved in cognitive control including the frontal lobe, left lateral orbitofrontal cortex, insula cortex, lingual gyrus, right postcentral gyrus, entorhinal cortex, and inferior parietal cortex [35]. The frontal lobe performs executive functions, such as planning and organizing, and undergoes massive changes from puberty until mid-twenties [74]. The frontal lobe along with volume loss in the striatum, which includes the reward pathway and suppression of impulses, is seen to be affected by gray matter atrophy and white matter volumes; those with gaming addiction showed significant

gray matter atrophy in the right orbitofrontal cortex, bilateral insula, and right supplementary motor area [34]. A functional magnetic resonance imaging study found that there is less efficient information processing and a reduced impulse inhibition in those with an internet addiction disorder, along with an increased sensitivity to rewards and an insensitivity to loss was exhibited [88, 89]. It was identified that those with an internet addiction disorder had abnormal spontaneous brain activity that correlated with poor task performance [35].

Thus, these studies suggest that early reductions in brain volume and functional capacity during brain development may increase the risk of MCI and ADRD which are characterized by significant white and gray matter loss and a deterioration in instrumental activities of daily living. This is consistent with the cognitive-behavioural-brain reserve (CBBR) hypothesis of dementia. Studies show that brain reserve is positively correlated with IQ, educational attainment, and engagement in cognitively stimulating occupational and leisurely activities, and negatively correlated with the transition from MCI to dementia [5, 90].

4.6 Main developmental effects of screen time on learning and memory

The term digital dementia was first coined by the neuroscientist Manfred Spitzer to refer to the literal ‘mind-deteriorating’ effects of digital technology; specifically, that excessive use of digital devices is associated with cognitive impairments characteristic of dementia, such as decreased attention and impaired memory, and these effects are being seen increasingly in younger adults not expected to be experiencing neurodegeneration characteristic of old age [91–93]. For example, Generation Z children began regularly watching television by 3 months of age [94] compared to 4 years of age for Generation X children [95]. Previous research indicates that earlier and longer exposures to screen time are associated with increased risk of psychiatric conditions (i.e., attentional problems and hyperactivity, anxiety, and depression) [19, 39], further suggesting that Generation Z children would be more likely to exhibit learning and memory impairments when compared to Generation X children.

Excessive screen time was found to be associated with problems in meeting developmental milestones for motor skills, spatio-temporal abilities, problem solving and language acquisition [7]. Content, pace, and degree of exposure were associated with dysfunction in attention, learning, and memory for both infants and children [6, 13]. For example, observational experiments in humans and animals determined that excessive sensory stimulation and exposure to fast-paced television during infancy and childhood resulted in cognitive and behavioural deficits [13]. Similarly, television programs which encourage active participation facilitated greater vocabulary acquisition when compared to passive programming [6]. A decline in performance on cognitive tasks was also observed in children who had over two hours of screen time per day and children exposed to seven

or more hours of screen time per day revealed significantly reduced orbitofrontal thickness [32], a fundamental structure in the reward circuit pathway responsible for decision-making and addiction disorders in adolescence and adulthood [25, 31, 96].

The consequences of digital technology are associated with prolonged effects in adulthood. For example, post-secondary students scored significantly higher on midterms and exams in classrooms that prohibited the use of electronic devices in comparison to classrooms that did not prohibit the use of electronic devices [9]. In the general population, long-term effects of excessive screen time were associated with reductions in long-term memory and cognitive development [9]. In addition, many adults rely on technology and smartphones as opposed to cultivating self-imposed analytical thinking [76]. For instance, three studies examining smartphone use and cognition determined that individuals who thought more intuitively were more likely to rely on their smartphones for information when compared to individuals who thought more analytically [76]. Since search engines allow easy access of information, users are more prone to remember where to locate a fact instead of remembering the fact itself [10]. This can be seen when dealing with difficult questions: users tend to think more about searching for solutions online as they have a decreased recollection of the information and an enhanced recollection for where to access it [10].

Excessive screen time involving task switching between multiple screens also has harmful effects on memory, especially explicit memory which consists of episodic and semantic memory [97]. Episodic memory involves the recollection of autobiographical events from the past occurring in specific spatial and temporal contexts [98]. However, an overuse of digital recording of events (e.g., digital pictures, videos, etc.) may result in a loss of episodic memories as one begins to rely on external storage for memory rather than encoding it in the brain [97]. In a study evaluating the effects of using social media to record or share one's experiences, it was found that participants who did not use social media consistently remembered their experiences more accurately than those who used social media [11]. These results suggest that using digital media may prevent people from remembering the very events they are attempting to preserve [11]. Semantic memory is described as the general knowledge and recall of factual information [98]. Information on the internet is often presented in hypertexts permitting users to scan information superficially which can lead to poor memory recollection [37]. Digital media adapts at a rapid pace, producing fundamental changes in written word or text (e.g., internet shorthand such as acronyms, keyboard symbols and abbreviations) [99]. Constant literary changes impede one's ability to internalize the categorical rules of language like verb conjugation, spelling, and punctuation. Today, penmanship is dramatically diminished, which may drastically impact future generations more significantly because it serves as a tool for

learning and consolidating memories [99].

In a study that evaluated the concept of digital dementia, the starting age and amount of mobile device use were potential factors leading to cognitive decline in males and females either under 20 years old or over 21 [75]. Excessive screen time is also associated with decreased attention and memory ability, alongside a greater amount of stress endured [75]. Generation Z may be a high-risk population for ADRD due to their heavy reliance on technology during critical periods of brain development and maturation. Many symptoms of excessive screen time parallel early cognitive decline as language and memory are severely impaired.

4.7 Effects of excessive screen time on attentional disorders

The rise of infant television viewing started in the late 1990s and has only become progressively more common [100]. The United States has seen a 10-fold rise in the incidence of attention-deficit disorder diagnoses in the past 20 years [100]. Television exposure early on is associated with attentional problems; in one study, 10% of children aged 1 to 3 developed attentional problems as early as the age of 7 [12]. Children viewed an average of 2.2 hours of television per day at age 1 and 3.6 hours per day at age 3. A one point standard deviation increase in the number of hours of television watched at age 1 is linked with a 28% rise in the likelihood of having attentional problems at age 7 [12].

Furthermore, increased multitasking on digital devices, particularly during study time, increases the risk of poor academic progress for adolescents and young adults [9, 14]. Interestingly, another study proposing a brain drain hypothesis for the effects of digital technology on cognition demonstrated that even when people are successful at maintaining sustained attention and avoid checking their phones, the mere presence of these devices still reduces available cognitive capacity [16]. The presence of a smartphone can adversely affect two measures of cognitive capacity, working memory capacity and functional fluid intelligence; both were negatively affected in those who had the highest rates of smartphone dependence [16].

Lastly, "digital natives", such as Generation Z, are generations that grow up with internet technologies and drift towards a shallow information processing behavior distinguished by rapid attention shifting [37]. They also display higher incidence of internet-related addictive behaviors that reflect changed reward-processing and self-control mechanisms. Neuroimaging investigations have indicated associations between these internet-related cognitive effects and fundamental alterations in the brain [37]. A study that analyzed multitasking between different generations found that Millennials and Generation Z reported more multitasking than Generation X, who reported more multitasking than the Baby Boomers [14]. Generation Z differs significantly than Baby Boomers as they engage in heightened multitasking activities which are related to increased distractibility and poor executive control abilities [14]. Attention is necessary for all cognitive activities, and impairments in attention in adoles-

cence and early adulthood that persist into middle and late adulthood may greatly reduce overall brain reserve leading to greater risk and early signs of MCI and ADRD [101, 102].

4.8 Effects of excessive screen time on social emotional functioning and self-care

Generation Z individuals see their friends in person an hour less a day than Millennials did at similar ages [41]. On average, Generation Z adolescents in Grade 12 spend approximately 2 hours a day texting, 2 hours a day on the internet (including gaming) and 2 hours a day on social media for a total of 6 hours a day of screen time [44]. When the smartphones became more available around 2010, fewer adolescents reported that they were happy [20]. Adolescents who scored high on-screen use were significantly more likely to display poor emotion regulation, an inability to stay calm, irritability, uncooperative attitudes, lower productivity and curiosity, and damaged sociability [20]. Poor mental health is correlated with excessive screen time (any more than 2 hours per day), less sleep, or decreased in-person interactions [44]. Excessive screen use contributes to a sedentary lifestyle which is associated with reduced physical activity, lower vascular fitness, and an increased incidence of being overweight or obese [40]. In a 2007 survey it was found that 20.8% of 6 to 11-year olds and 26.1% of 12 to 17-year olds engaged in excessive screen time. Having a TV in their bedroom, for both groups, was strongly associated with excessive screen time. For the older age group, it was also strongly associated with obesity [42]. Excessive screen time on social media has negative impacts on sleep duration and/or sleep quality [41]. Adolescents in 2015 were 16–17% more likely to report sleeping less than 7 hours a night compared to those in 2009 [41]. Screen time, such as electronic device use, social media, and reading news online, rose during this time period [41]. This was linked with heightened odds of short sleep duration, with a clear exposure-response relationship for electronic devices after 2 or more hours of use per day [41]. Experimental studies show that limiting social media use to less than 30 minutes per day may lead to significant improvements in well-being (e.g., significant reduction in loneliness and depression) [38]. Symptoms of impaired self-care, emotional regulation, and social functioning are characteristic of MCI and ADRD [48]. Impairments in instrumental activities of daily living in adolescence and early adulthood that persist or worsen in middle adulthood could lead to diminished brain and cognitive-behavioural reserves increasing the risk of early onset dementia.

4.9 Effects of excessive screen time on the development of psychiatric disorders

Studies show that early sociobiological embedding of stressors tends to have enduring lifetime effects rather than transient ones and increases the risk of lifetime physical and mental illness and social problems [103]. Brain structure and function, which is the most malleable during development, is continually remodeled by environmental factors and is particularly sensitive to acute and chronic stressors which exert

their effects through the neuro-immuno-endocrine system [103]. Although neuroplastic changes in response to stressors may confer adaptive advantages in the short-term (allostasis), the persistence of changes that are abnormal and irreversible can be maladaptive later in life under accumulating pressures of the biopsychosocial environment (allostatic load and overload) [103]. Excessive screen time can act as both a non-normative stimulus, exerting its effects at a sub-stress threshold level, and as an acute and chronic stressor, increasing the risk of psychiatric problems during development and later in life [4]. Evidence is emerging that excessive social media use is a significant psychosocial stressor contributing to mental health problems in adolescents and young adults, for example, by lowering global self-esteem and heightening the risk of internet addiction, and increasing the prevalence of psychopathology including attentional, hyperactivity, anxiety, and depressive disorders [4]. Unlike offline face-to-face social connection, online virtual social interaction is associated with greater incidence of internalizing problems such as social anxiety and depression [4, 20]. Specifically, the association between screen time and depression was proposed and tested with three explanatory hypotheses: displacement, upward social comparison, and reinforcing spirals [17]. Upward social comparison suggests that the impact of screen time on mental health depends on the kind of content being viewed; for example, when individuals compare themselves with others who they consider are in more favorable positions (e.g., those with perfect bodies and lives) [17]. Reinforcing spirals also posits that screen time effects are mediated through content; however, reinforcing spirals adds that individuals try to obtain and choose information consistent with their thoughts which may then become increasingly negative in nature [17]. The displacement hypothesis suggests that all screen time adversely affects mental health because it displaces time one could be engaging in physical exercise and other healthy behaviours [17]. It was found that the upward social comparison and reinforcing spirals hypotheses explained associations between social media, television, and depression more than the displacement hypothesis [17]. Since those on social media platforms share the most idealized versions of themselves, it becomes commonplace for individuals to compare their real-life experiences with those of others who highlight positive moments, causing deleterious effects on self-esteem and life satisfaction [17]. Of the four types of screen use assessed (i.e., social media, TV viewing, video gaming, and computer use), only greater levels of social media and computer use were associated with depression, but not TV viewing or video gaming [17]. However, in a study on the relationship between screen time and psychological distress, internet addiction was associated with greater online video gaming and sexual activity, higher anxiety levels, and low email use [23]. Individuals with internet addiction also had increased avoidance coping mechanisms and higher rumination whilst having worsened self-care behaviors, such as seeking social support and getting adequate sleep [23]. Screen

time potentially worsens- or in some cases creates- mental health problems which some speculate may lead to premature neurodegeneration and increased risk of premature cognitive decline in later adulthood [4].

4.10 Limitations of the hypothesis and counterarguments on the evidence

Given the significant increases in average daily use of digital technology, we are concerned about the possibility of a rising trend in ADRD attributed to excessive screen time. To date, few studies have assessed the relationship between excessive screen time during development and ADRD, which is concerning because the ADRD burden is expected to at least double by 2060 [1]. The estimates provided in Matthews and colleagues (2019) [1] were from a nationally representative sample, ADRD was physician-diagnosed in a clinical setting, and sociodemographic characteristics (i.e., age, race, sex, and ethnicity) were included. We considered the same estimates as outlined in Matthews and colleagues [1] and also considered the effects of screen time and type, by age, and developmental stage. Statistical analyses by sex, race, or ethnicity were omitted because the data is not available or is not significant for these factors. Matthews and colleagues [1] also note that estimates did not include socioeconomic factors, such as education, which is a known risk factor in ADRD research [104]. To address this, our proposed hypothesis considered education attainment and IQ. Our report is the first to propose and explore the relationship between ADRD and screen time during development. Future research should consider additional factors, for example the serious short- and long-term implications of excessive screen time for the development of youth and young adult CBBR. These should include the short term implications of overall increased screen time from greater digital technology use both at home and at school (e.g., increased anxiety, depression, substance abuse, suicidal ideation and attempts etc.) and their long term consequences (e.g., permanent effects on brain development that will affect learning, memory and intelligence level, poorer school performance, greater risk of internalizing and externalizing psychological disorders, poorer overall health and economic outcomes, etc.). Future research should examine the lifelong implications of excessive screen time because it represents a significant proportion of daily activity during development, equal or greater than time spend on traditional educational activities (i.e., face-to-face instructional learning, reading from print, learning to hand write words and numbers). Additionally, physical activity should be included as a covariate because research shows that a reduction in physical activity is associated with increased screen time [105] and risk of developing ADRD [106–108].

While research on ADRD and screen time during development is limited, the current literature indicates that cognitive activity and physical activity are the two major modifiable risk factors for ADRD [106] and both cognitive and physical activity have also shown associations with screen time [109]. However, counterarguments on the evidence are

mixed and inconclusive as to whether brain structure and physiology are associated with cognitive activity [106]. For example, cognitive activities may cross domains (i.e., completing a puzzle with a friend is both a cognitive activity and a social activity) and no such methods exist to classify the rate of cognitive activities (i.e., high cognitive activity versus a low cognitive activity), introducing noise into the variable [106]. Prospective research should continue to monitor the long-term effects of excessive screen time, including the ABCD study [33] that records the amount of screen use, amongst other factors, and the incidence of dementia in a large population in 2060. Preliminary results, for example in 2020 and 2040, could help inform future health policy decisions and potential preventative actions. Ideally research should focus on a number of factors including the influence of duration and type of media in order to inform appropriate guidelines and recommendations. A predicted effective approach would be to focus on informing the public on the dangers of excessive screen time use.

5. Consequences of the hypothesis and discussion

The projected estimates of those with ADRD, as reported in Matthews and colleagues (2019) [1], will double from 1.6% to 3.3%, meaning 13.9 million Americans are predicted to have ADRD in 2060. We, however, predict that from in 2060 to 2100, the rates of ADRD will rise far above the CDC's projected estimates of a 2-fold increase to up to a four- to six-fold increase. With our prediction this would mean that up to 26.7 to 48.0 million Americans aged ≥ 65 years could potentially show signs of ADRD between 2060 and 2100 as Millennials and Generation Z become the majority of the elderly population. In minority populations, the disproportionate prevalence of ADRD could amplify current socio-economic disparities leading to worse health outcomes for those with ADRD and their subsequent caregivers [1]. If our proposed hypothesis is correct, then there are substantial consequences to excessive screen time for Millennials and Generation Z, and future generations to follow, which include their children and grandchildren. There are three main courses of action available to address the implications of our hypothesis: treatment, mitigation, and prevention. Perhaps the easiest, but most costly, will be treatment, whereas the least costly but most difficult will be prevention. As such, mitigation may be the most pragmatic and effective overall.

First and foremost, for the majority of Millennials and Generation Z, the negative effects of excessive screen time on development and cognitive-behavioural-brain reserve have already occurred. Thus, any negative effects can only be treated in late adulthood or potentially mitigated before then. It is possible for the youngest Generation Z individuals that these effects could potentially be reversed with targeted intervention. If nothing is done to address the concerns raised here over the next 40 years, then treatment of MCI and ADRD will be the main course of action. The health care system is

not prepared to handle the future social and economic burden of an ADRD patient population estimated to more than double or triple in size by 2060. For example, the ratio of potential caregivers to patients is currently 7-to-1 for adults in the high-risk age group, but this support is anticipated to decrease to 4-to-1 by 2030 [110]. If our projected estimates are correct it will be far lower by 2060. Furthermore, caregivers often report experiencing work disruption, decreased income and personal savings, poorer physical health increased rates of psychological distress and depression, and have increased mortality risks [111–113]. The full and future socioeconomic costs to society of ADRD are challenging to gauge, specifically in light of new and converging data suggesting that factors unique to youth and young adults today, such as declining global IQ and rapidly increasing rates of screen time, may increase their risk of accelerated neurodegeneration in early and middle adulthood and rates of ADRD in late adulthood. Recent estimates of the worldwide costs of ADRD in 2015 were equivalent to 1.1% of the global gross domestic product (GDP) and more than 85% of these costs occur in high-income countries such as the US and Canada [114]. Global economic costs of ADRD are projected to double from \$1 trillion to \$2 trillion (USD) in the next decade alone (e.g., from 2018 to 2030) [114, 115]. If our predictions are correct, and the prevalence of ADRD will increase by more than double the current projected rates estimated by Matthews and colleagues [1], this could cripple or even collapse the healthcare systems in North America.

Second, significant efforts could be made to mitigate the negative effects of screen time for Millennial and Generation Z adults with interventions targeted at reducing screen time, treating physical and mental health problems associated with screen time during early adulthood, and promoting factors known to increase cognitive-behavioural-brain reserve. Proper management of health, lifestyle, and wellness choices can reduce the risk of ADRD. A significant reduction in screen time will help mitigate the incidence of ADRD through preventing cognitive impairment. For example, correlational and experimental studies show that reducing screen time can improve concentration, learning, and memory [9, 12, 116], psychological well-being [117–119], reduce experiences of anxiousness and depressed moods [120], improve sleep [121] and overall mental health [63]. Studies in humans and animals models show that environmental enrichment can reduce or reverse some of the effects of deprivation, non-normative stimulation and even acute or chronic stress [122, 123] at the behavioural and neural levels [109, 124–126]. Evidence suggests that brain structure volume is influenced by environmental enrichment [106]. For instance, the London taxi driver study found that taxi drivers who drove passively (i.e., following fixed routes) had more prominent signs of hippocampal atrophy when compared to taxi drivers who drove actively (i.e., driving routes exclusively from memory) [127]. The latter raises the question as to whether students who passively take notes (i.e., on a lap-

top or tablet) may be more at risk for ADRD than students who take notes actively (i.e., longhand) [109], given that active participation increases cognitive-behavioural-brain reserve [106]. Additionally, increasing physical activity can prevent ADRD by improving cognitive reserve [106]. Physical activity, defined as 20 minutes of high-intensity training for 3 or more days per week or moderate-intensity training for 5 or more days per week, has been shown to decrease hippocampal, prefrontal and cingulate cortex atrophy [128, 129], all hallmarks of ADRD. By minimizing screen time, physical and mental health and environmental enrichment will improve, reducing the risk of ADRD. Correspondingly, improving physical and mental health and encouraging environmental enrichment can help to minimize screen time, and in turn lower the risk of ADRD. Thus, highlighting that the relationship between ADRD and screen time, physical and mental health, and cognitive reserve is bidirectional (i.e., improving one variable, directly affects another variable, and vice versa).

Last but not least, for future generations, it is still possible to completely avoid the detrimental effects of screen time and thus preventive measures should be the predominant focus. Excessive screen time is associated with negative physical, mental and social health effects as well as learning and behavioral disadvantages; as such potentially drastic measures should be implemented to decrease both the duration and consistency of screen use. For example, public and private investments (i.e., scholarships, awards, bursaries, and grants) could be used to encourage students from elementary through post-secondary school to replace digital learning with traditional learning. Students who can demonstrate more time engaging in non-digital enrichment activities when compared to digital enrichment activities can be eligible to apply for or receive monetary compensation. Data shows that institutional aid motivates students and encourages persistence towards program completion and graduation [130]. Additionally, education should be created to focus more on enriched environments promoting spatio-temporal learning and higher order analytic abilities, which both contribute to minimizing the risk of developing ADRD [7, 106]. Legislation can be implemented such that there are legal and economic costs (i.e., fines and incarceration) for individuals/companies who exploit the addictive nature of technology. Penalties should be of similar nature to how the US government prosecuted and convicted Big Tobacco companies for deceiving the public and racketeering [131]. Also, digital-free zones and mass public education campaigns can be implemented in public places such as schools, workplaces, places of worship, shopping malls, and restaurants with signs that promote physical activity and environmental enrichment, both proven to reduce the risk of ADRD [106]. In the short-term, the implementation of these measures will assist with reducing screen time, improve sleep and overall mental health, and have long-term implications for preventing ADRD.

6. Summary and conclusions

Estimates of the projected 2-to-4-fold increase in ADRDs for 2060 are based on age, sex, race, and ethnicity, and do not take into account significant and relevant differences in the populations used to make these predictions (i.e., Silent Generation and Baby Boomers) and the populations who will be represented in this growing burden of disease in 2060 (i.e., Millennials and Generation Z). We have identified two known critical factors that differ significantly between individuals born before 1965 and those born after 1980 which are related to the risk of MCI and ADRD: excessive screen time and intelligence. Excessive screen time has been empirically demonstrated to affect brain development and increase the risk of cognitive, emotional, and behavioural disorders in adolescents and young adults by negatively impacting attention and concentration, learning and memory, emotional regulation and social functioning, physical health, and development of mental disorders and substance use. These effects are similar to the symptoms of MCI seen in older adults that increase the risk of ADRDs. The current decline in global intelligence, estimated to have started post-1975 and projected to continue into 2050, parallels significant population level increases in screen time and could also increase the risk of MCI and ADRD. We have provided a detailed model of the effects of excessive screen time on CBBR expected to contribute to the increased risk of MCI and ADRD in Millennials and Generation Z in 2060 and beyond. The CBBR hypothesis of dementia postulates that more complex patterns of neural and mental activity in early, middle, and later life stages are associated with decreased risk of dementia as opposed to less complex patterns which are associated with increased risks. Studies show that these cortical networks and associated cognitive-behavioural abilities can be influenced by early environmental experiences including excessive screen time. If the neural circuits underlying these cognitive-behavioural abilities essential for general intelligence and lifetime adaptability are under- or abnormally-developed before adulthood, then it is likely that these changes will persist into early and middle adulthood and be more vulnerable to accelerated neurodegeneration in late adulthood therefore increasing the risk of early onset MCI and ADRDs. We present three main courses of action focused on treatment, mitigation, and prevention as measures to counteract the potential 4-to-6-fold increase in rates of ADRD post-2060 which could result in widespread societal and economic distress in an already overburdened healthcare system in North America.

Abbreviations

ABCD, Adolescent Brain and Cognitive Development; ADRD, Alzheimer's disease and related dementias; CBBR, cognitive-behavioural brain reserve; CDC, Centres for Disease Control; GDP, gross domestic product; IQ, intelligence quotient; MCI, mild cognitive impairment; MDD, mobile digital devices.

Author contributions

LAM conceived and designed the study; LAM, MT, TMC, RE contributed to analyzing the data and writing the manuscript; LAM added graphics and edited the manuscript.

Ethics approval and consent to participate

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Dear Branch presidents,

My name is Catherine Zaitsoff from Kootenay Columbia SD20, and I'm joined in this email by Jane Fearing from Rocky Mountain SD6/BCSTA Board of Directors. We are a part of the BCSTA Climate Action Working Group.

We are all very much aware of climate change and we are looking into how it is impacting each district; how each district is coping, and what measures are in place or planned to mitigate this.

We are reaching out to you, the branch presidents for Fraser Valley, Kootenay Boundary, Northern Interior, and South Coast.

We have three questions to pose to your branch district board chairs as well as yourselves. We also wish to inform you of our work so that firstly, you are informed and secondly, that you may provide us with input. We will be contacting the board chairs shortly.

We are looking for thoughts about:

- The school board's governance role re: climate action
- The impacts of climate change on the school district
- Best practices of the school district that is lowering or will lower carbon emissions

We look forward to hearing from you at your earliest convenience. We will also be following up with a phone call to each of you. We are really interested in continuing dialogue with this matter as it is of such importance.

Sincerely,
Catherine Zaitsoff
Jane Fearing



ANNUAL BOARD WORK PLAN 2023-2024

JULY

- CSBA Conference

SEPTEMBER

- Receive Enhancing Student Learning Report
- Review School Growth Plans
- Review Audit Findings Report
- Adopt Annual Financial Statements
- Adopt Minor Capital Projects
- Review Executive Compensation Disclosure
- Recognize Orange Shirt Day – Every Child Matters

OCTOBER

- Recognize World Teachers' Day

NOVEMBER

- Election of Board Chairperson & Vice Chairperson
- Election of Provincial Council and BCPSEA Representatives

DECEMBER

- Receive Statement of Financial Information
- Approve Trustee Appointments to Committees and Community Liaison Groups
- Attend BCSTA Trustee Academy

JANUARY

- Receive Strategic & School Growth Plan Interim Report
- Review Trustee Remuneration
- Submit Financial Disclosure Forms by January 15th
- Recognize Literacy Week

FEBRUARY

- Adopt Amended Annual Budget
- Review School Calendar Consultation Information
- Chairperson – Represent Board at Ministry of Education Annual Partner Liaison Meeting
- Represent Board at BCSTA Provincial Council
- Recognize Pink Shirt Day – Anti Bullying

MARCH

- Approve School Calendar Submission
- Review Provincial Motions for BCSTA AGM
- Approve Budget Process

APRIL

- Review Government Grant Information
- Attend BCSTA AGM
- Recognize Anniversary of Tla'amin Treaty

MAY

- Review Annual Facility Grant Plans
- Recognize Mental Health Week
- Attend May Day Celebration
- Attend District Track and Field Event

JUNE

- Adopt Annual Budget
- Adopt Major Capital Projects
- Receive Carbon Neutral Action Report
- Review Strategic Plan
- Review Board Meeting Calendar
- Review Board Work Plan
- Recognize National Indigenous Peoples Day
- Recognize Children and Youth in Care Week
- Attend Graduation Ceremony

OTHER ITEMS SCHEDULED AS NEEDED

- Review Board Policies and Bylaws
- Review and Approve Capital Project Bylaws
- Trustee & Superintendent Evaluations
- Hear Appeals as needed
- Represent Board at BCSTA Branch Meetings
- Represent Board at Provincial Council and BCPSEA Meetings and Events
- Attend School Functions
- Attend Employee Recognition Events