

#### Public Notice – Resources Committee Online Public Meeting

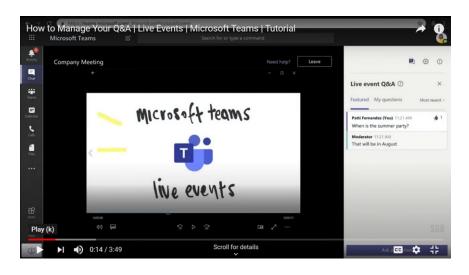
A public meeting of the Resources Committee for School District 62 (Sooke) will be held on October 12, 2021 at 6:00 pm.

Requirements that limit the size of public gatherings due to the COVID-19 pandemic mean this meeting will proceed differently than they have in the past. The meeting will be conducted online via MS teams. We encourage members of the public to join the LIVE Event.

To participate in the meeting please click on this link: <u>ResourcesCommitteeMeeting-October12-2021</u>

To guide you, the following is information on how to join a live event in MS Teams. <u>https://support.office.com/en-us/article/attend-a-live-event-in-teams-a1c7b989-ebb1-4479-b750-c86c9bc98d84</u>

- Anyone who has the link can attend the online meeting without logging in to MS Teams.
- Members of the public have the opportunity to ask questions related to agenda items discussed at the meeting:
  - Select the **Q&A** Tunction on the right side of the screen.
  - When asking a question using the Q&A function, please identify yourself. Anonymous questions will not be responded to.
    - A reminder for Stakeholder groups to use the **Q&A** function.
  - Members of the media can direct their questions to the Communications Manager at School District 62 for response following the meeting.



If you have questions regarding the meeting and how to access it that aren't answered in the link above please email info@sd62.bc.ca.



### RESOURCES COMMITTEE School Board Office Live and via MS Teams October 12, 2021 – 6:00 p.m.

### AGENDA

- 1. CALL TO ORDER AND ACKNOWLEDGMENT OF FIRST NATIONS TERRITORIES We are honoured to be meeting on the traditional territories of the Coast Salish, specifically Esquimalt Nation, Songhees Nation, and acknowledge the three nations SD62 works with directly in our schools: Sc'ianew Nation, Coast Salish, and T'Sou-ke Nation; including the West Coast Pacheedaht Nation, Nuu-chah-nulth. (words gifted by the three nations SD62 works with)
- 2. REPORT (page 3)
- 3. PRESENTATIONS (20 minutes)
- 4. BUSINESS
  - 4.1 Energy Sustainability Plan Report Pete Godau (page 5)
  - 4.2 Policy and Regulation Updates: (page 39)
    - **4.2.1** Pest Management Policy F-228 (page 41)
    - 4.2.2 Audit Committee Regulation F-335 (page 52)
  - 4.3 Enrolment by School as at October 5 Harold Cull (page 63)
  - 4.4 Budget Impacts due to Enrolment Increases Harold Cull (page 66)
  - 4.5 Program Review of Resource Areas Farzaan Nusserwanji (page 68)
- 5. ADJOURNMENT
- 6. NEXT MEETING DATE: November 9, 2021



### Committee Report of Resources Committee Meeting Live and via MS Teams September 14, 2021

Present:Bob Beckett, Trustee (Committee Chair)<br/>Wendy Hobbs, Trustee (Committee Member)<br/>Margot Swinburnson, Trustee (Committee Member)<br/>Ravi Parmar, Trustee<br/>Scott Stinson, Superintendent & CEO<br/>Harold Cull, Secretary-Treasurer<br/>Krista Leakey, SPVPA<br/>Amber Leonard, CUPE<br/>Michelle Mackintosh, SPEAC<br/>Ed Berlando, STA<br/>Nicole Gestwa, IT

Guests:Pete Godau, Director of FacilitiesAlex Samousevitch, Manager, Major Capital ConstructionMhairi Nicolson, Manager Minor Capital ConstructionTyson Sauser, Grounds Foreperson

#### 1. CALL TO ORDER AND ACKNOWLEDGEMENT OF FIRST NATIONS TERRITORIES

The meeting was called to order at 6:00 pm by the Committee Chair, Bob Beckett acknowledged that we are honoured to be meeting on the traditional territories of the Coast Salish, specifically Esquimalt Nation, Songhees Nation and acknowledge the three nation SD 62 works with directly in our schools; Sc'ianew Nation, Coast Salish, and T'Sou-ke Nation; including the West Coast Pacheedaht Nation Nuu-chah-nulth. (words gifted by the three Nations SD62 works with)

#### 2. COMMITTEE REPORT

The Board of Education of Sooke School District 62 (Sooke) received the Resources Committee Report dated June 8, 2021 at its Public Board Meeting dated June 22, 2021.

#### 3. PRESENTATIONS

Committee Chair Bob Beckett welcomed the Committee back and asked our employee groups how the school year start-up has been from a personal and professional perspective.

#### 4. **BUSINESS**

4.1 Ventilation in Schools and Buildings – Harold Cull

Staff presented to the Committee the approach taken by the District to improve the ventilation in our buildings as a result of the pandemic. As with most Districts, we have chosen to increase the amount of air exchanges in order to continue to keep our staff and students safe during and after the pandemic.

The Committee also discussed the following items:

- There are 6 air exchanges every hour in our buildings;
- We have over 100 systems in 28 schools;
- The District's HVAC systems were audited and created a baseline from which the improvements have been made from;
- Some of our older buildings have manual levers to exchange the air in rooms and most of these levers were upgraded to automatic systems that could be centrally controlled;
- Our portables have manual air exchange controls (opening windows) as well as furnaces to regulate the timing of the exchange
- The District will be completing the Ministry's Ventilation System Overview document and will providing copies to the local Joint Occupational Health and Safety (JOHS) Committees for discussion as the school/building level.

#### 4.2 Minor & Major Capital Update – Mhairi Nicolson/Alex Samousevitch

Staff presented a series of pictures of the minor capital work completed in the District between April and the end of June 2021. Staff discussed the challenges it faces, including supply chain delays and product/material inflation. Future reports to the Committee will profile the work being considered in-house rather than contracting out to external parties.

The new school builds for Pexsisen Elementary and Centre Mountain Lellum Middle School were highlighted with a number of pictures to reflect the current work to date. The Committee also discussed ensuring the successful proponents on future projects have our current and former students work on these projects.

#### 4.3 Pest Management Policy and Regulations F 228 – Pete Gadau

At the June 22, 2021 Public Board Meeting, the Board of Education directed staff to bring forward a revised Policy and Regulation F-228 Pest Management to reflect the banning of the use of glyophosates (Round-Up) on school grounds. The Committee discussed the current use of glyophosates (Round-Up) on SD 62 property; invasive species on school property; and alternative methods of control if Round-Up was barred.

The Committee also discussed rodent control and whether this should be included in Policy F 228. The Committee recommended that staff should bring the information presented to the Committee (including estimated costs to switch to another option) to the Board of Education at its Public Board Meeting scheduled for September 28, 2021 before revising the policy.

#### 4.4 <u>Guiding Principles to School Construction – Harold Cull</u>

At the June 22, 2021 Public Board Meeting, the Board of Education directed staff to create an engagement process to develop guiding principles reflective of the voices of our students, partners, Indigenous nations, and community, to support future direction on capital projects.

The Committee suggested that the District reach out to local municipalities, to ensure their feedback is included in the guiding principles. Furthermore, it was recognized that SD 62 staff know their communities best and have great ideas. It was recommended that the District should solicit feedback from its staff prior to engaging the communities. The Committee agreed that conducting face to face discussions was key for success in this process; feedback will be reflected in the guiding principles which will be provided to the Board of Education for consideration.

#### 5. ADJOURNMENT AND NEXT MEETING DATE: October 12, 2021



### Committee Info Note Resources Committee Meeting October 12, 2021 Agenda Item: 4.1 – Energy Sustainability Plan Report

#### **Background**

Strategic Plan 2021-2025

- The Board recently approved an updated Strategic Plan with a goal of pursuing organizational excellence
- One objective towards reaching this goal is to expand the District's culture of social responsibility and to implement long-term commitments that strive to support society and protect the environment

#### CleanBC Emission Targets

- An example of a long-term commitment is to reach the provincial government's emission reduction targets as set by CleanBC by the year 2030
- These targets can be summarized as:
  - Buildings will cut emissions by 50% compared to 2010 levels; and
  - Transportation will cut emissions by 40% compared to 2010 levels.
- In order to meet these targets, the District needs a plan to ensure our emissions can be reduced to these target levels

#### District Facilities Plan

- The first step in the planning process was to include a Sustainability goal in the District's Facilities Plan
- The Facilities Plan has been broken down into three goal areas:
  - Learning spaces
  - Maintenance to maintain a learning environment where educators and students feel comfortable and are able to focus on student success
  - Sustainability to reduce SD#62's environmental footprint and energy consumption
- A copy of the Facilities Plan's Sustainability goal (attached) was drafted prior to the receipt of the Energy Sustainability Plan report

#### Energy Sustainability Plan Report

- In the spring of 2021, staff engaged with Associated Engineering to create a draft report to outline the road map for the District to achieve the CleanBC targets as stated above
- The attached report highlights the challenges and proposed options for the District to consider

#### Steps Taken to Date

- A number of steps have been taken to date to address the District's emissions:
  - o Creation and implementation of the 2009 Energy Management Plan;
  - Upgrade central heating plants and controls to high efficiency systems;
  - Replacement of fossil fuel heating sources to air source heat pumps (ASHP) at Spencer;
  - Staffing of the Energy Specialist position;
  - Lighting and window upgrades in several schools;
  - Purchase of electric buses and a Board motion to allow for future E bus purchases;
  - Development of a Facilities Plan goal to reduce the District's environmental footprint and energy consumption; and
  - Development of a report on energy sustainability in 2021.

#### Next Steps

- Staff recommend that the District review the potential actions listed in the report and determine which actions will be pursued
- As with many decisions, these actions will have costs associated with each option that must be considered
- Many of the facility related options will continued to be addressed through the Ministry's capital grant programs (School Enhancement Program, Building Envelope, Carbon Neutral Capital Program and the Annual Facilities Grant)
- Many of the transportation related options will require operational funding in the form of District top up of provincial funds for E bus purchases or District funding to convert the white fleet to electric (once the option is available)
- These funding limitations need to be considered while developing the plan
- As the District is growing, the reduction targets need to take this into consideration
- An easy approach to address this issue is to create targets based on a per building or vehicle perspective as a baseline and measure performance as against these amounts
- This would result in revised targets to reduce average per building emissions by 50% and per vehicle by 40%
- These revised targets will allow the District to grow while still reducing emissions on a per unit basis
- Once a plan approach is determined, the Facilities Plan needs to be updated to ensure alignment

#### **Committee Discussion**

- Staff would like to engage the Committee in a discussion regarding the approach to be taken to meet the CleanBC targets
- The discussion should include:
  - Options to pursue;
  - Funding sources to be used;
  - ↓ Where does the Committee see this fitting into the District's overall funding priorities



## REPORT School District 62 (SD 62) Energy Sustainability Plan





June 2021

Associated Engineering (B.C.) Ltd. 500-2889 E 12th Ave, Vancouver, BC V5M 4T5

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CONTEXT

#### 1.1 SCHOOL DISTRICT 62'S MANDATE

School District No. 62 - Sooke (SD 62) has followed a collaborative process to develop its Energy Sustainability Plan (ESP). That process has identified a series of actions that allow SD 62 to establish the conditions and processes required to effectively reduce its energy use and carbon dioxide emissions in a matter that aligns with SD 62's vision and guiding principles. Additionally, there is interest to meet the greenhouse gas (GHG) reduction targets established by the Province in their CleanBC plan. The targets aim for the education sector to reduce its emissions by 80% by the year 2050 against a 2007 baseline.

SD 62 is located a short distance from Victoria and serves the communities of Sooke, Port Renfrew, Metchosin, Highlands, Langford, and Colwood with 18 elementary schools, 4 middle schools, 3 secondary schools, and 1 Alternate/Adult school. These facilities include a gross floor area of approximately 125,000 square meters as of September 2020.

The main energy sources for facilities are natural gas supplied by FortisBC and electricity from BC Hydro. Propane gas and light fuel oil are used for the buildings where natural gas cannot be supplied. SD 62 also manages a vehicle fleet consisting of buses, vans, trucks and cars related to student and staff transportation and in support of SD 62's operations.

SD 62 has a long and successful history of tracking and reducing its energy use and emissions through a range of initiatives in its schools, and most recently the inclusion of electric buses in its fleet. Some of the initiatives demonstrated by SD 62 in the past range from energy management and building's instrumentation and controls optimization to occupant behaviour programs and materials salvaging during renovations and expansions<sup>1</sup>. The ESP will continue to advance that work by charting a course for SD 62 as it seeks to achieve the Provincial emissions reduction targets.

#### 1.2 ENERGY & EMISSIONS AS METRICS

Key performance indicators must be defined if the necessary reductions in energy and emissions are to be realized. For this purpose, a primary focus exists to reduce GHG emissions of building facilities as well as the vehicle fleet overseen by SD 62. Facilities include instruction facilities such as primary, middle, secondary and adult learning schools, as well as supporting offices and shops. SD 62's fleet consists of buses, as well as "white fleet" vehicles such as vans, pick-ups, dump, service trucks and equipment. Additionally, recognizing that electrification and the use of heat pumps as a means of heating/cooling spaces are an important pathway towards carbon neutrality, refrigerant leak emissions were modelled for completeness.

SD 62 recognizes the need to reduce both energy and emissions from their operations. Energy is normally expressed in units of Giga Joules (GJ) or kilowatt hours (kWh). Emissions are normally expressed and reported in tons of carbon dioxide equivalent (CO<sub>2</sub>e). This is done by converting the emissions of gases other than CO<sub>2</sub>, which have different global warming potentials (GWP), into an "equivalent" unit based on CO<sub>2</sub>. The result is that all emissions can be then aggregated and compared on an equivalent basis. For the

<sup>&</sup>lt;sup>1</sup> <u>https://www.timescolonist.com/news/local/langford-s-belmont-secondary-the-school-that-keeps-on-giving-1.2043376</u>

purposes of making decisions, therefore, energy in GJ and emissions in tons of  $CO_2e$  are both of interest, with the latter having reduction targets established by the Province.

### **OBJECTIVES AND GUIDING PRINCIPLES**

#### 2.1 ENERGY AND EMISSIONS MANAGEMENT PRINCIPLES

Energy use results in greenhouse gas emissions depending on the fuel source, some having fewer emissions than others. In BC, electricity is generally low emission. It is primarily generated from renewable sources and as such is generally desirable.

The "carbon management hierarchy" is presented in Figure 1. The hierarchy seeks to maximize long-range, local environmental benefit, which typically also reflects the cost hierarchy. It is most cost effective to avoid using energy in the first place (energy conservation, behaviour) before reducing and considering how to do more with the energy that is used (efficiency). Only then are strategies like fuel switching to greener supply evaluated, with carbon offsetting and electricity generation being a last resort. The work of the Energy Sustainability Plan is consistent with this hierarchy.

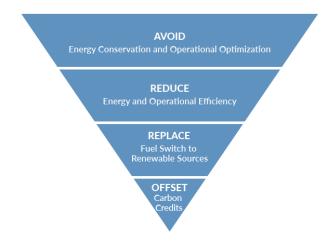


Figure 1: The Carbon Management Hierarchy

Due to the different GHG emissions of fuel sources, an equivalent amount of energy consumption does not translate into the same amount of GHG emissions for all fuel types. For BC locations, electricity produces fewer GHGs than fossil fuels, although it is also more expensive. For this reason, although energy and emissions are related, they tell different stories. The highest energy use facilities for SD 62 do not necessarily translate into the largest emitters of greenhouse gases.

SD 62 has expressed their overarching objectives which are:

- To position SD 62 as a provincial leader in Sustainability Management;
- To enhance SD 62's culture of environmental practices for a strong and sustainable future; and
- To maximize the savings through SD 62's Energy Management Model.

#### 2.2 ORGANIZATIONAL GUIDING PRINCIPLES

To achieve its carbon neutral goals, SD 62 will need to adhere to guiding principles, to support its decisionmaking. In consultation with staff, the following Guiding Principles may assist in the transition to improved energy efficiency and reduced greenhouse gas emissions:

• Students First:

First and foremost SD 62 exists in service of its students.

• Innovation:

Technically and operationally SD 62 will bring innovative solutions to reducing its energy use and emissions.

• Leadership:

Through its use of data and evidence SD 62 will lead BC School Districts in the move to sustainable energy solutions.

• Environmental Stewardship:

SD 62 is grounded in a sense of place, which stewards it to limit SD 62's environmental impact both locally and globally.

• Wellness:

SD 62 actions will increase the wellness of students and staff throughout SD 62, providing an environment in which it is a pleasure to learn and work.

• Pragmatic:

SD 62 will make decisions that identify, understand and respond to the long-term needs of SD 62; while recognizing that rapidly changing technology necessitates flexible approaches that allow SD 62 to adapt over time.

## **3** EMISSIONS TARGETS

One of the goals of the current ESP is to formalize the metrics to be tracked and used to meet the GHG emissions targets established by the Province through CleanBC. CleanBC is a plan from the government of British Columbia, aimed at establishing GHG targets and milestones as well as the means through which the Province will support their achievement. The educational sector targets are as follows:

- Facilities A 50% reduction by the year 2030, based on 2010 base year emission levels.
- Transportation A 40% reduction by the year 2030, based on 2010 base year emission levels.

SD 62 had a Strategic Energy Management Plan finalized in 2009. The current ESP can be used to inform the development of updated energy and emissions targets for SD 62 should there be a desire to formalize that process.

In the long-term SD 62 should be taking measures to move towards net-zero emissions. In the short-term, it is recommended that SD 62 not make choices that lock in future emissions, or limit future opportunities to reduce emissions further.

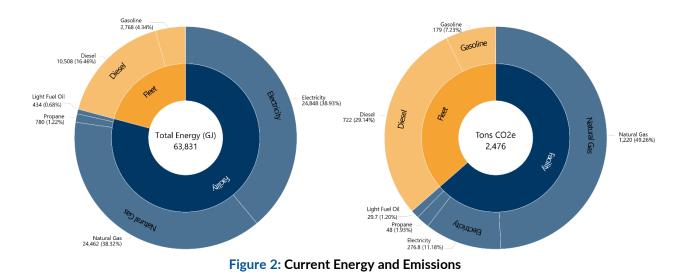
Included in the scope of this report are energy and emissions resulting from the operation of facilities and fleet. All other emission sources are explicitly excluded from the analysis scope, such as, but not limited to: waste, water, embodied carbon, and employee commute.

#### 3.1 CURRENT ENERGY AND EMISSIONS

SD 62's building and fleet energy use were analyzed for both its buildings and vehicles. Although 2020 data was available, a 2019 base year was chosen to be more representative given the ongoing disruption to operations in 2020 due to COVID-19.

Energy use for SD 62 is dominated by natural gas for space heating, hot water, and cooking in buildings (38% of SD 62's total energy use) and electricity for heating and equipment/lighting (39% of SD 62's total). Diesel use, predominantly for school buses, dominates fleet energy use at 16% of SD 62's total energy use. As Figure 2 illustrates, both facilities and fleet are important for reducing emissions.

When considering emissions, however, emissions are dominated by those from natural gas (49% of SD 62's total) and diesel use (29%). A modest amount of gasoline use, in the non-bus fleet, produces slightly less emissions than the electricity used on SD 62's buildings (7% compared to 11%).



Energy and emissions are two sides of the same coin, but as the above charts illustrate, the emphasis and prioritization of actions that would be placed on energy reduction would be somewhat different to those placed on emissions reduction. The high-potential opportunities for *energy* use reduction would be in the largest energy fuel sources of natural gas and electricity, while significant *emissions* reductions would come from lowering, or eliminating, the largest greenhouse gas emission fuel sources: natural gas and diesel use.

	ENERGY		EMISSIONS	
	Fleet -		Fleet	
Largest	Royal Bay Secondary -		Edward Milne Community	Largest
	Edward Milne Community	$\sim$	Spencer Middle	
	Belmont Secondary School (New)		Royal Bay Secondary	
	Spencer Middle	X	Dunsmuir Middle	
	Dunsmuir Middle		Journey Middle	
	Journey Middle		Willway Elementary	
	John Stubbs Memorial Elementary -		Wishart Elementary	
	David Cameron Elementary	$\sim \sim$	Lakewood Elementary	
	Wishart Elementary -	$\times \sim$	Belmont Secondary School (New)	
	Lakewood Elementary		John Stubbs Memorial Elementary	
	Willway Elementary 🗸		District Facilities Office (2015)	
	District Facilities Office (2015)		David Cameron Elementary	
	Ruth King Elementary		- Saseenos Elementary	
	Happy Valley Elementary	$\sim$	<ul> <li>Port Renfrew Elementary</li> </ul>	
	Saseenos Elementary	$\sim$	Ruth King Elementary	
	Sooke Elementary -		Happy Valley Elementary	
	Crystal View Elementary		Sooke Elementary	
	Port Renfrew Elementary		Crystal View Elementary	
	Poirier Elementary		Millstream Elementary	
	John Muir Elementary	$\searrow$	- John Muir Elementary	
	District Board Office	$^{\times}$	- Savory Elementary	
	Millstream Elementary	$X \rightarrow X$	Hans Helgesen Elementary	
	Savory Elementary		• Poirier Elementary	
	Hans Helgesen Elementary		<ul> <li>Colwood Elementary</li> </ul>	
	Colwood Elementary		- Sangster Elementary	
	Sangster Elementary		District Transportation	
Smallest	Westshore Learning Centre Annex	$ \rightarrow $	- Westshore Learning Centre Annex	Smallest
	District Transportation		District Board Office	

#### Figure 3: 2019 Energy and Emission Relationships (Largest to Smallest)

Figure 3 demonstrates the difference by sorting facilities and fleet in descending order according to both energy use and emissions. This exercise reveals that high energy consumption does not necessarily result in higher emissions. In some cases, highlighted in the graphic using red and green lines, facilities are able to jump more than four spots in the ranking, depending on which metric is evaluated. SD 62, therefore may prioritize differently if looking only at emissions. While emissions are regulated, energy is still of interest to SD 62, particularly energy savings which translate into reduced operating costs.

The facilities portfolio of SD 62 is varied. There are several small facilities 4,000m<sup>2</sup> or smaller which are predominantly Primary schools. Middle schools are larger facilities under 9,000m<sup>2</sup> and Secondary schools represent the largest gross area facilities. All facilities average approximately 0.4 GJ/m<sup>2</sup>. Appendix A describes the technical analysis of the facilities in further detail.

#### 3.2 SCOPE OF CONSIDERATIONS

When considering which approaches to include in a potential pathway to achieve net-zero emissions, only commercially available technologies were considered in the technology strategies, while behaviour change was also included to reflect potential gains from non-technical interventions. While it is important to

develop an innovative response to the climate crisis, SD 62 is best positioned to meet the various demands placed upon it when it uses reliable, well-understood and commercially viable technologies that meet multiple needs.

The following sections outline in more detail the analysis and strategies considered in reaching SD 62's objectives (see Section 3.2.1 and 3.2.2).

#### 3.2.1 Facilities

To analyze the facilities' energy use and emissions, a model was generated using electricity, natural gas, propane and liquid fuel oil data for SD 62's facilities. After analyzing usage, facilities were grouped to include the following types:

- Adult Learning Centre
- Primary/Elementary School
- Middle School
- Secondary/High School
- Shops
- Offices

Given the scale of the emissions reductions to be realized, a list of high-impact energy efficiency measures (EEM) was developed, so that the most significant moves that SD 62 needs to undertake could be assessed. Based on each facility's prior renovation, retrofit and improvement history, not all identified EEMs were applicable to every facility. The EEMs considered were:

- Major Envelope and Air Tightness Major envelope upgrade (improved envelope and windows); air tightness testing/sealing (reduce air exchanges and associated energy loss).
- Lighting Improvements Light Emitting Diodes (LED) and lighting occupancy sensor improvements (for schools where they haven't been implemented).
- Heat Pumps Switch fossil fuel heating and hot water to electric air-source heat pumps (ASHP). It should be emphasized that the modeled intervention includes domestic hot water heating upgrades to this technology. Remaining natural gas use is from consumption for space heating during peak events as well as cooking.
- Heat Recovery Implementation of heat recovery, to reduce pre-heating energy demand by recovering energy from exhausted air from the building.

Following the carbon hierarchy, the first two measures reduce the need for energy consumption. The heat pump measure relates to increased efficiency and fuel switching to a lower GHG fuel source. The heat recovery measure relates to reusing energy. Beyond energy and emissions, all measures contribute positively to improved occupant health and comfort. Based on the analysis, the impact of refrigerants is relatively small. Additional modeling details are available in Appendix A.1.

The interventions did not include control optimizations as these activities are recognized to be performed on a regular basis by SD 62 already. Similarly, installation of photovoltaic panels (PV) were not explored given the high cost and long paybacks for electricity provision, while noting that electricity in BC is approximately 97% "clean" since it is sourced from renewable energy sources. It is, however, possible that with future declining prices of PV, this may become a viable technology that could be a good opportunity to reduce the GHG emissions that are associated with grid-supplied electricity given the generation potential associated with the large roof area of SD 62's schools. In the US there are leasing models that have been adopted with success, where schools partner with a private outside party who installs, maintains, and operates PVs and provides a leasing fee to schools<sup>2</sup>, although such approaches are not yet widespread in BC. Renewable Natural Gas (RNG) is another alternative to reduce the emissions associated with natural gas use in facilities. This avenue was not explored, given the high cost and availability concerns in the region.

#### 3.2.2 Fleet

The fleet strategy was evaluated to result in maximum GHG emission reduction. The proposed interventions include:

- Bus Fleet Electrification Purchase and deployment of electric buses and provisioning for necessary charging infrastructure. Electric buses are in the market, and SD 62 operates two electric buses at present.
- Non-Bus Fleet Electrification Purchase and deployment of electric vans, trucks and equipment. Electrification of vans and buses is challenging given that there are no commercially available options at present, although some are expected within the next 2-5 years.

Given that growth of the fleet is expected, it was accounted for in the model. Details of the technical analysis are available in Appendix A.2.

#### 3.3 LINKS TO CLEANBC

CleanBC is the plan proposed by the province to meet its goals of 40% overall emissions reductions by 2030 from the 2007 base year. In March 2021, the government of British Columbia released emissions reduction targets for different emissions sectors. Preliminary information was made available from the BC province to the Public Sector Organizations suggesting updated targets. The revised targets were used to develop appropriate strategies for the plan. As part of CleanBC, by 2030:

- **Buildings** will have cut emissions by 50% compared to 2007<sup>3</sup> levels
- **Transportation** will have cut emissions by 40% compared to 2007<sup>3</sup> levels

Table 1 reports the base year emissions for SD 62 as well as the estimated required emissions for 2030 and 2050, given the emissions reduction targets set by CleanBC. It should be noted that at present there are 30% reductions from the baseline for emissions from facilities. These are the result of proactive policies implemented by SD 62, including, but not limited to: benchmarking and tracking of facilities via Energy Star Portfolio Manager, controls deployment, tuning, and optimization, and overall leadership in sustainability through strategic replacement and improvement of facilities and their building systems. Still, as shown, the 2030 GHG emission targets represent a challenge that must be met by continuing the emissions reduction trend. For fleet this translates to halving current emissions. The greater challenge is that the region is quickly growing which implies SD 62 must continue to do more with less, as schools will likely have to expand in the following decades, yet the baseline year emissions and targets don't change to adjust this growth.

<sup>&</sup>lt;sup>2</sup> Solar Schools Assessment and Implementation Project: Financing Options for Solar Installations on K–12 Schools https://www.nrel.gov/docs/fy12osti/51815.pdf

<sup>&</sup>lt;sup>3</sup> For the education sector, the Province will accept a 2010 baseline.

Category / Sector	2010	2019	2030
Fleet, tons CO2e	750.4	902.3	450.2
Fleet, change from baseline	0%	+16.8%	-40%
Facilities, tons CO2e	2106.1	1574.1	1053
Facilities, change from baseline	0%	-25.3%	-50%

#### Table 1: Base Year Emissions, BC Government PSO Target

## **POTENTIAL ACTIONS**

#### 4.1 OCCUPANT BEHAVIOUR AND BEHAVIOUR CHANGE

Occupant behaviour has a significant impact on energy use and emissions. Besides having synergies with sustainability education, it is a critical part of empowering students, faculty and staff to do their part and realize energy and emissions savings that benefit everyone. Behaviour change applies to both fleet and facilities. For fleet, an example could be for students to be ready on time, to prevent unnecessary bus idling or alternatively, walking to school or riding a bike. For facilities, it could involve making sure equipment is unplugged or turned off via a power strip and lights shut off when not in use. It could be expanded to periodically monitoring and reporting faucet leaks, exterior lights left on during the day, or a broken or cracked window.

SD 62 staff mentioned that, previously, a behaviour change program was in place. It was reported that this program resulted in savings, which were rolled-back once the program stopped. This highlights that behaviour change programs are an active investment, and not just a point-in-time intervention. As such, behavioural programs require organizing, support and resources to ensure all building occupants are reminded of their power in impacting the energy consumption and emissions of their school.

For facilities, given the uncertainty in available building information, it was deemed that the analysis would be overly approximate, and instead a literature review was undertaken. It is estimated that subject to high variation, occupant behaviour can impact 5-15% of energy use with minimal upfront costs when compared to capital intensive technology interventions.

Lighting and stand-by power from equipment are commonly mentioned in as opportunities in K-12 schools. For a North American setting, lighting and stand-by power or plug loads can account for up to 50% of total electricity consumption in K-12 schools. Given, however, that BC's electricity is generally clean, it should be understood that savings are more likely to translate into energy and cost reductions and only slight emission reductions.

The literature on the subject, specific to K-12 schools shows several strategies and steps that have been found beneficial<sup>4</sup>:

- Creating an engaged team of students, supported by energy advisors and administrators.
- Gathering of information and prioritizing actions.
- Allowing students to understand the problem and come up with their own solutions.
- Create momentum through regular tracking and reporting of energy use.
- Celebrate success and recognize. Make it fun.

Examples cited in the literature are the formation of energy groups led by students who patrol near the end of the day weekly to check that unoccupied rooms have lights turned off and that equipment is turned off with power strips to prevent stand-by power consumption. Some groups have brainstormed and developed "Power Down Friday" where strategically, the checks occur before the weekend (or long weekend) to make sure things are turned off, while leaving congratulatory notes for those who have turned equipment off, and "oops" notes for those who haven't (and in so doing turning off equipment). Some schools have developed short checklists to support the review process and track progress. These activities make the process of saving energy a fun competition, and can be synergistically integrated into science, technology, engineering, art, and math (STEAM) curriculum activities.

Preventative maintenance is another strategy which can help reduce energy use and extend the life of equipment. Preventative maintenance takes a proactive approach to periodically review the state and operation of facilities equipment. By catching equipment malfunction early, it is possible to fix equipment before sudden equipment failure, at which point the only solution is full replacement, and often at increased cost and disruption. When this occurs, there is an urgency to get operations back up and running and often results in an expense that is not often budgeted. An example could be a boiler that fails during the coldest month of the year, causing an emergency equipment replacement charged out at emergency service rates. Through preventative maintenance, the malfunction could be caught earlier, before failure, and a fix implemented (ideally at normal service rates), while also extending equipment life and resulting in minimal downtime. Asset management is a related activity to create a registry of major equipment, vehicles and assets which could help better determine preventative maintenance work activities as well as expected remaining service life to support long term capital planning.

SD 62 is well positioned to take advantage of an energy efficiency program. One of the largest obstacles is obtaining data, but given the level of instrumentation to track energy use in schools, it is possible to support these efforts while capitalizing on student engagement to align with the sustainability goals set forth in this ESP.

#### 4.2 STRATEGIES

After consultation with SD 62, two strategies were proposed to reduce energy use and work towards the higher end of the CleanBC 2030 emissions targets. Constraints were established recognizing that renovating more than two schools a year would be quite challenging. Two general strategies were therefore developed:

• **CleanBC Strategy**– Representing an ambitious move to ensure the accomplishment of the CleanBC targets, with sufficient allowance for occasional slippage of EEM delivery.

<sup>4</sup> Powering Down: A Toolkit for Behavior-Based energy Conservaion in K-12 Schools. 2013. Available online: <u>https://centerforgreenschools.org/sites/default/files/resource-files/Behavior-based-Efficiency.pdf</u> • **Continual Improvement Strategy**– Establishing a reasonable continuation of the efforts already underway, strategically selecting facilities and fleet to meet the CleanBC targets.

As would be expected, the *Continual Improvement Strategy* does not allow time for project delays, and, should a project or two be delayed for more than a year, may result in not meeting the CleanBC targets.

For facilities, the *CleanBC Strategy* suggests renovation of 8 facilities between 2021 and 2030. The *Continual Improvement Strategy*, on the other hand implements approximately one renovation per year (7 facilities between 2021 and 2030). For fleet, both strategies attempt to electrify the fleet at the same rate, requiring the deployment of 20 electric school buses and 20 vans or pickups to replace their diesel and gasoline counterparts. Details on timing of facility and fleet interventions are included in Appendix B.

#### 4.3 ENERGY & EMISSIONS TRAJECTORY

The following *CleanBC Strategy* shows what it would take to slightly exceed the CleanBC emissions targets for 2030. The strategy represents a conservative planning approach that allows for a certain amount of delay in delivering some, but not all, of the emission reduction projects. This strategy represents a significant amount of work required each year, with 8 schools needing retrofits before 2030. The *Emissions Trajectory* figure below shows the emissions over time for such an approach. By 2030, compared to 2019 emissions, fleet sees a 46% reduction, while elementary school accounts for 13%, middle schools for 22% and secondary schools for 19%. At 1,480 tons CO<sub>2</sub>e total by 2030, this represents a total reduction of 48% from the 2010 baseline, and a 40% reduction from 2019 emissions. The figure presents reduction efforts continuing out to 2050 to establish SD 62 on a path towards net-zero emissions. Appendix B outlines in additional detail the intervention types and timing for each school as modeled in this strategy.

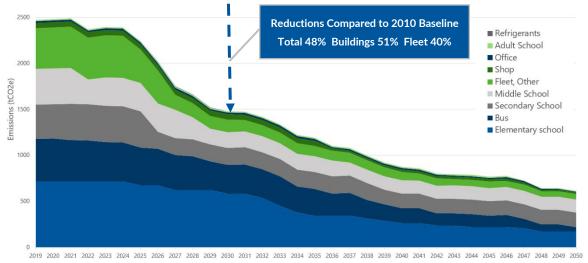


Figure 4: CleanBC Strategy Emissions by 2030

The Continual Improvement Strategy presented in Figure 5 presents the case where emissions and energy use are slightly reduced, but at a pace that may be more realistic. It also considers not implementing EEMs on a handful of the better performing or smaller facilities. Such an approach may be more pragmatic, but there is an increased chance of missing the 2030 emissions targets. In this strategy the proposed building measures yield reductions slightly below the target range. The *Emissions Trajectory* figure below, shows the emissions over time in this strategy. By 2030, compared to 2019 emissions, fleet sees a 46% reduction, while elementary school accounts for 10%, middle schools for 23% and secondary schools for 21%. The

figure presents reduction efforts continuing out to 2050 to establish SD 62 on a path towards net-zero emissions.

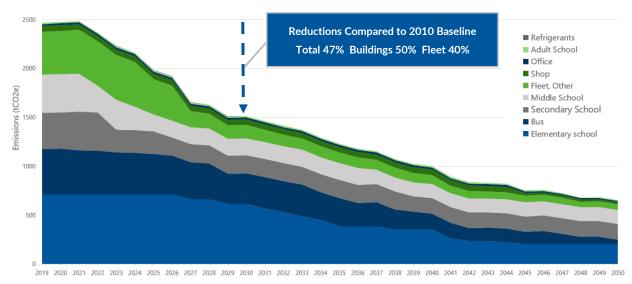
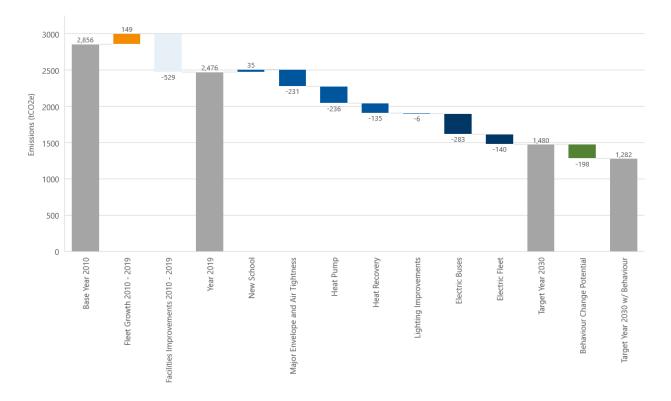


Figure 5: Continual Improvement Strategy Emissions by 2030

The *Emissions Reductions by Measure* chart presented in Figure 6 shows for the *CleanBC Strategy*, the extent to which each energy use and emissions reduction measure contribute to the total emissions reduction in the year 2030. The chart captures how despite the growth in emissions from a bigger fleet, the facilities improvements implemented so far have already resulted in a net reduction of 25% for facilities emissions and 13% overall GHG reduction. The most significant building emission reduction opportunities come from tackling space heating through major envelope and air tightness upgrades, as well as fuel conversion to air-source heat pumps. The switch to electric buses is foundational to meeting the fleet emission reductions. Behaviour change through an energy efficiency program is another significant potential source of emission and energy reductions, with a relatively smaller upfront cost, but requiring ongoing support to realize savings.



#### Figure 6: Emissions Reduction by Measure

#### Table 2: CleanBC Emissions Milestone Summary

Milestone	Fleet	Facilities	Total
2030, tons CO2e	449.7	1029.8	1479.5
2030, % change from base year	-40%	-51%	-48%
2050, tons CO2e	104.0	508.8	612.8
2050, % change from base year	-86%	-76%	-79%

#### Table 3: Continual Improvement Emissions Milestone Summary

Milestone	Fleet	Facilities	Total
2030, tons CO2e	449.7	1065.1	1514.8
2030, % change from base year	-40%	-50%	-47%
2050, tons CO2e	104.0	549.7	653.7
2050, % change from base year	-86%	-74%	-77%

As shown on summary Tables 2 and 3, the long-range trajectory, for both strategies, sets SD 62 on the path for zero-emission but does not achieve it, with facilities emissions falling short of the 80% reduction by 2050. The remaining emissions in 2050 are from the fossil fuel-derived portion of grid-supplied electricity and the use of natural gas for peak heating. It is expected that in the decades between now and 2050, technological improvements will be made that allow these remaining emissions to be eliminated. SD 62 will monitor these technological improvements, and work to ensure that they can be deployed in its facilities.

#### 4.4 COSTS

Based on the expected operational and capital investments from each strategy, approximate costing was developed. Capital costs were estimated by using published estimates of similar work in BC, as well as data provided by SD 62. Additional details and assumptions are presented in Appendix A.

Facilities costs, as shown in Table 4 are very similar, and although slightly lower for the *Continual Improvement Strategy* are ostensibly the same given the level of detail available. Similarly, without site energy audits, the estimated increase in operational (utility) energy costs is indicative, and at an approximate 7% difference, may be considered cost neutral compared to current average utility costs. Facility energy audits would be required to refine the cost estimates further; however, looking forward SD 62 could target operational cost neutrality, focusing its efforts on the need to secure funding for the capital expenditure required for the facility EEMs.

	CleanBC Strategy	Continual Improvement Strategy
Capital Cost		
Cumulative Capital Cost by 2030	\$23.4m	\$21.6m
Annual Average Capital Cost	\$3.37m	\$2.83m
Operational (Utility) Cost		
Average Annual Utility Cost	\$1.18m	\$1.17m
Current Annual Average Utility Cost	\$1.10m	\$1.10m
Change	6.9% Increase	6.7% Increase

#### Table 4: Facilities Costs in the Year 2030

Fleet operational costs, as presented in Table 5 result in estimated fuel savings of 21%. Note that vehicle servicing and maintenance was not considered, although it is understood to be less expensive for electric vehicles. Similarly, battery degradation, life, and replacement were excluded from the analysis.

#### Table 5: Fleet Costs

	CleanBC and Continual Improvement Strategy
Capital Cost	
Cumulative Capital Cost by 2030	\$11m
Annual Average Capital Cost	\$1.2m
Operational Fuel Cost	
2030 Annual Fuel Cost	\$365,000
Current Annual Average Fuel Cost	\$463,000
Change	21% Decrease

### **RECOMMENDED ACTIONS**

Based on the ESP established above, the following actions are recommended to help accelerate the accomplishment of the targets. These are presented as follows:

#### Strategic / Pre-Design

- Use the ESP as guidance to investigate and request the necessary funding required to complete the energy and emissions reduction projects identified.
- Review ESP Appendix B and from that, develop an annual plan identifying which schools will be addressed each year. The plan should be developed based on available funding and available personnel to complete the EEM projects identified. The plan is recommended to be based on the near-term and long-term order of schools proposed.
- Facility and fleet replacements or expansions should favour electric solutions rather than fossil fuels, i.e. establish policies for expansions or renovations to include ASHP's for space and water heating as well as leasing electric vehicles for future fleet additions/replacements.
- Perform energy audits for each facility recommended for EEM implementation. The audits will confirm the EEM's recommended for each facility and provide additional certainty on projected project costs and emissions reductions.
- Explore leasing models for buses/PV panels and negotiate where possible the infrastructure installation costs associated with vehicle charging. New and replacement buses should be electric wherever possible.
- Monitor product developments and availability of electric van and pick-up vehicle options, which are expected to come to market in the next 3-5 years. New and replacement fleet vehicles should be electric wherever possible.
- Anticipate land use planning changes for inclusion of charging stations and potential interaction with building services and capacity requirements.

#### Design

- Consider conversion of existing natural gas kitchens to electric, induction/all electric kitchens to
  maximize decarbonization efforts. Their implementation can improve user comfort and reduce
  emissions.
- Based on the current facility analysis of energy use, SD 62 may consider establishing an Energy Use Intensity (EUI) maximum for future buildings or expansions of 0.28 GJ/m<sup>2</sup> and a GHG intensity maximum target of 0.008 tons of CO2e/m<sup>2</sup>. These values can be included in RFP documents to further guide design consultants.
- Consider Net Zero Energy design or Passive House standards for building retrofits/expansions and new schools.
- In installation or replacement of diesel generators, instead favour electric storage which brings opportunities for increasing resilience, reducing facility peak loading, and lowering operating costs.
- Integrate into future projects specifications that adhere to the American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) Advanced Energy Design Guides<sup>5</sup> for Climate Zone 4. The guides are freely available through registration. The guides offer prescriptive technical guidance. As an example, in an upcoming roof or equipment replacement, the guide could be consulted to inform the tendering process with technical performance values. This would help moves SD 62 closer to their GHG reduction goals as renovations and expansions occur.

#### **Operations**

- Establish an energy efficiency behaviour program, focusing on succession planning to ensure continual success. Utility providers can provide guidance and even toolkits and training<sup>6</sup>.
- Undertake preventative maintenance activities to reduce energy use to minimize equipment failure and associated costs.
- Implement an asset management strategy such that preventative maintenance and capital planning can be coordinated. The asset management plan can be used in conjunction with the ESP to identify which facilities and fleet assets are targeted for EEM's.
- Continue implementing and maintaining building controls optimization and building retrocommissioning efforts to ensure building operation is optimal and GHG emissions reductions are realized and maintained.

# 6

### CONCLUSION

The development of the Energy and Sustainability Plan for SD 62 is a key step to continuing the work accomplished to date to advance sustainability for the district. This plan describes the results of the development of a custom model to describe two potential strategies for meeting the energy and emission objectives set forth by CleanBC for the milestone years of 2030 and 2050.

The growth of the region has resulted in increases in current emissions due to fleet expansion, while the diligence, actions and foresight of SD 62 has already resulted in 25% GHG reductions from the base year 2010 for facilities. Remaining work is needed to accomplish the CleanBC sectoral targets for both fleet and facilities. By strategically applying interventions, in the form of behaviour change, major envelope remediation and air tightness testing, lighting upgrades and controls, air source heat pumps and heat recovery, SD 62 should be able to meet provincial targets for emissions reductions by 2030.

<sup>&</sup>lt;sup>5</sup> <u>https://www.ashrae.org/technical-resources/aedgs</u>

<sup>&</sup>lt;sup>6</sup> <u>https://www.bchydro.com/powersmart/business/programs/workplace-conservation/campaign-kits.html</u>

Fleet plays an important part in SD 62's overall emissions profile, since transportation emissions have increased by 16.8% over the 2010 base year, and currently available solutions to decarbonize are still maturing, require infrastructure improvements and present challenging upfront capital cost requirements. Nonetheless, the recent action to begin the purchase of electric school buses will help SD 62 to refine their approach in the coming years and expand upon early success.

The current 2030 emissions targets stipulated by *CleanBC* are ambitious and not far away. With continued action informed by the ESP, and appropriate funding support, it is possible to achieve and potentially exceed the emissions targets, and significantly reduce energy use.

## **APPENDIX A: TECHNICAL ANALYSIS**

A summary follows regarding the technical analysis performed. As outlined in the report, RETScreen Expert version 8 was used to generate a representative model calibrated to the average for each facility type. For fleet, a bespoke model was created using data supplied by SD 62 and supplemented with industry averages where needed.

#### A.1 FACILITIES

An initial analysis was performed on the provided facility utility data for the years of 2018, 2019 and 2020. Given the fact that 2020 was a different year due to the pandemic, data from 2019 was used.

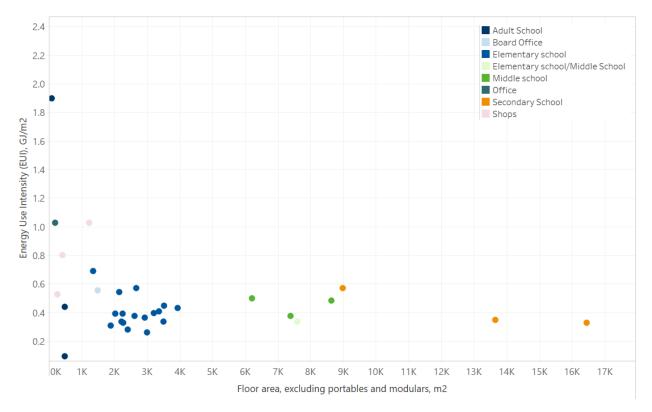


Figure A-1: 2019 Relationship of Floor Area and Energy Use Intensity (EUI)

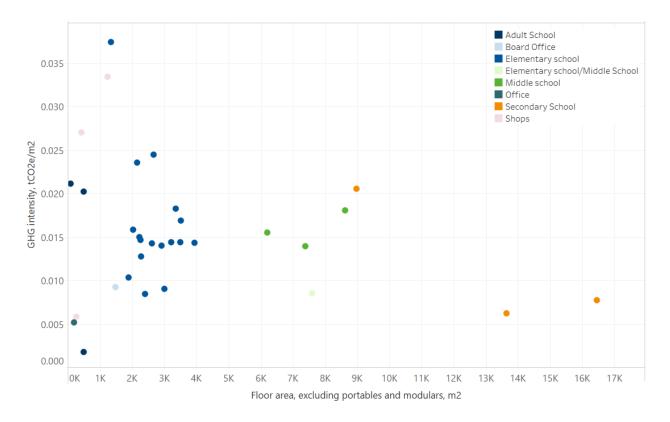


Figure A-2: 2019 Relationship of Floor Area and GHG Intensity

Figure A-1 shows the relationship of the size and energy use intensity to the type of facility. As can be observed, the smaller facilities have a wide range of energy use, but as facilities become larger, the energy trend appears to be reduced when normalized by gross area. Depending on the fuel type used, this translates to a different GHG intensity (also normalized by gross area). It is from this analysis that a target could be determined by taking the average EUI of 0.4 GJ/m<sup>2</sup> and reducing it by 30 percent: resulting in 0.28 GJ/m<sup>2</sup>. Similarly, a target GHG intensity of 0.008 tons of CO2e/m<sup>2</sup> could be introduced in future projects or expansions to better direct design consultants to align with the objectives of SD 62.

Average consumption values were used to create "archetype" buildings for each building type. 2019 utility fuel and energy consumption values<sup>7</sup> were used to estimate averages to which each archetype was calibrated to match.

Using the 2019 fuel consumption data provided by SD 62, representative averages for each type were calculated. A model for each type was generated using RETscreen Expert software, version 8.0.1. RETScreen Expert is a software program developed by the Ministry of Natural Resources Canada containing, among other modules, one which allows facilities to be created virtually for the purpose of evaluating various Energy Efficiency Measures.

Given, the uncertainty for each facility due to unknow metrics, such as window to wall ratio, construction assemblies and orientation, an archetype was generated for each building type using the Virtual Energy Analyzer function of RETScreen Expert. This generates a building of a given type in a specified location, based on a catalog of facilities. Adjustments in terms of typical area were made to match the facilities of

<sup>7</sup> Royal Bay Secondary utility data for 2018 was used, given that it was more representative of normal operation. The school underwent a major renovation, which temporarily increased consumption of natural gas while the new systems came online.

SD 62, and parameters were modified to match the calculated energy consumption averages for each building type in SD 62's portfolio. The location selected, in all cases, was the closest available weather station in Esquimalt Harbor.

The following table outlines some assumptions used in generating or modifying the parameters used in the RETScreen Expert archetype models. The assumptions, while reasonable, are conservative, to avoid overestimating savings. For example, it is not uncommon for certain heat recovery units to achieve 65% or higher sensible heat recovery efficiencies, however, knowing that these units generally require the incoming air and exhaust air to be in the same location, it is harder to implement as a retrofit. A run-around loop would be used in this instance and a lower efficiency of around 50% would be expected.

LED, Lighting Occupancy Controls	Air Source Heat Pump	Heat Recovery
Switch from fluorescent to LED lighting and 10% reduction in operating hours for lighting.	Air source heat pump with seasonal coefficient of performance of 2 (i.e. 200% efficiency) per RETScreen suggested values table. It was further assumed that heat pump would cover 90% of the peak	Sensible Heat Recovery efficiency of 50%.
	load, with existing system remaining as backup and	
	to make up the difference	
	Controls Switch from fluorescent to LED lighting and 10% reduction in operating	ControlsAir Source Heat PumpAir source heat pumpAir source heat pumpAir source heat pumpwith seasonal coefficientof performance of 2 (i.e. 200% efficiency) per RETScreen suggestedSwitch from fluorescent to LED lighting and 10%values table.reduction in operating hours for lighting.It was further assumed that heat pump would cover 90% of the peak load, with existing system remaining as backup and

Major Envelope and Air Tightness improvement is one intervention that is highly variable, given it is highly dependent on the current condition and specific building design. Furthermore, the differential between the code and current thermal performance for each facility was unknown. The assumption was made to improve the construction assemblies to match current building energy code values as shown. Air tightness testing involves temporarily sealing exhaust ducts and pressurizing the building using blower doors prior to completion of the full envelope remediation to detect and fix air leaks. Reducing infiltration, or uncontrolled movement of air, is important to maximize energy savings and provide adequate air quality and comfort.

The HVAC systems approximation also provides some uncertainty in the analysis presented. In generation of the facility archetypes, a mechanical system had to be assumed: It was understood that most facilities would be moving from space heating and domestic hot water to air source heat pumps. The suggested higher end of efficiency was used for these systems based on RETScreen's documentation (seasonal COP of 2), although it is likely even higher given the temperate climate of BC.

A spreadsheet model was generated to incorporate these updated fuel consumptions, normalized by gross area. This spreadsheet model allowed the interactive updating of interventions, their extent and timing (year). Resulting from such inputs, the spreadsheet calculates the rate and magnitude of energy and emission reductions. The spreadsheet was augmented to allow the inclusion of additional facilities. This was the case for Pexisisen Elementary & Centre Mountain Lellum Middle School which was modeled as

joining SD 62's portfolio by 2023, using estimated consumption based on the design energy model. No facilities were assumed to be decommissioned for the remaining period leading to 2050.

Refrigerants associated with the increased use of heat pumps were also approximated. Using a simplified approach, the gross area was used to estimate the required refrigerant charge, and industry accepted values for leakage were applied. Most refrigerants in current use have global warming potential (GWP) in the thousands range, which could be a potential concern. It is estimated that by 2030, low GWP refrigerants will be mandated nationally and internationally.

#### A.2 FLEET

For fleet, the fuel usage was provided and analyzed. Specific information on kms travelled and fuel efficiency was provided for school buses. From this analysis school buses were determined to have an average fuel efficiency of 0.369 L/km. For electric buses, an efficiency of 1.77 kWh/km was used<sup>8</sup>, and it is recommended to evaluate this efficiency of electric bus operation at the end of this first year of operation. Operating the buses during cold months could result in a lower efficiency than estimated.

A 1% growth rate in kms travelled was assumed. An average km per vehicle type was calculated, and when exceeded, due to growth in kilometers travelled, resulted in an increase in vehicles. Vehicles purchased were assumed to replace diesel or gasoline vehicles currently in operation.

#### A.3 FINANCIAL

In calculating fuel costs, the following fuel costs and utility blended rate values were used in the analysis.

Fuel	Unit	Cost per Unit	Source
Gasoline	L	\$1.23	Statistics Canada, Victoria, BC*
Diesel	L	\$1.33	Statistics Canada, Victoria, BC*
Electricity	GJ	\$34.68	SD 62, 2018-2020 average
Natural Gas	GJ	\$9.51	SD 62, 2018-2020 average
Light Fuel Oil	GJ	\$32.06	SD 62, 2018-2020 average
Propane	GJ	\$35.45	SD 62, 2018-2020 average

\* Table 18-10-0001-01 Monthly average retail prices for gasoline and fuel oil, by geography DOI: https://doi.org/10.25318/1810000101-eng

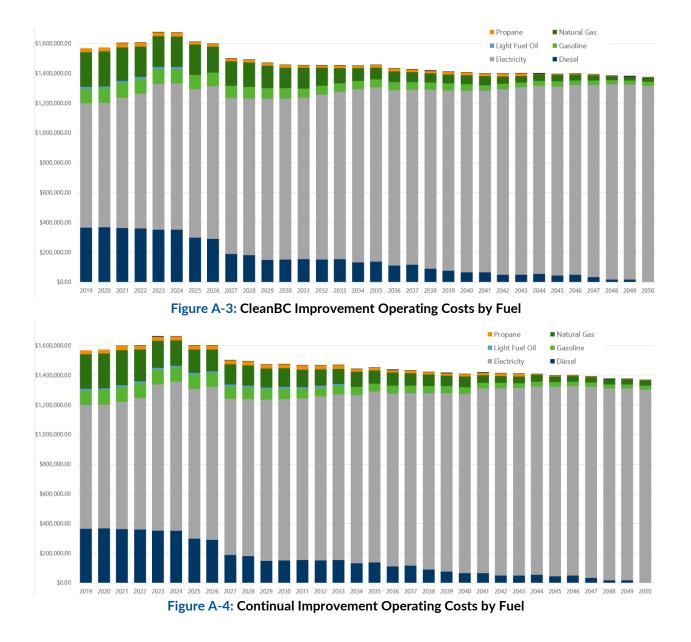
For facilities, one big unknown assumption in the current analysis is the major envelope remediation. At a minimum this can include only windows and doors, but could be bundled with envelope remediation, such as adding insulation to walls. Additionally, addressing roofing could add significant cost. In the cost estimates presented, walls, windows, doors, roof and doors were assumed. Yet even within these estimates there is high uncertainty based on the original building construction year, actual building configuration and integrity of the construction assemblies. Numbers presented do not anticipate health hazard management or remediation, as would be required should asbestos or mold be present.

For all electric vehicles, the infrastructure costs of chargers were bundled to occur at the time of purchase/deployment of vehicles. The costs do not include additional requirement for electric capacity that could be required, as well as potential electric energy storage options that may be deployed to mitigate peak costs of charging. Electric school buses were determined to have a cost of \$350,000 and a charger cost of \$18,000 each.

For capital costs, a yearly cost escalation of 3% was assumed to calculate Net Present Values.

As experienced through recent pandemic events, cost uncertainty can be high and unpredictable.

Figures A-3 and A-4 show estimated operating costs for both fleet and facilities by fuel. There is very little variation in terms of operating costs, with annual costs hovering near \$1.6 million, and stabilizing over time slightly below \$1.4 million. The colors indicate the contribution of the different fuels, highlighting the eventual dominance of electricity as a predominant fuel for both facilities and fleet.



## **APPENDIX B: POTENTIAL MEASURES**

#### **B.1 SCHOOL AND FACILITIES SUMMARY**

Facility		iner mis edu 1ea	sio Icti	ns on			Retrofit hange (		Potential Emissions Reduction (tons CO2e) Post-Retrofit Emissions Change (%)	Modeled Implementation Date		
		LED + Active Controls	Heat-Pumps	Heat Recovery	Electricity	Natural Gas	Propane	Fuel Oil		Post-Retrofit Emission (%)	Strategy #1: CleanBC	Strategy #2: Continual Improvement
Elementary Schools												
Colwood Elementary			х	Х	75%	-85%			-10.3	-55%	2048	-
Crystal View Elementary			х	х	137%	-93%			-30.0	-77%	2038	2038
David Cameron Elementary	х		х	Х	6%	-93%			-45.7	-77%	2033	2031
Hans Helgesen Elementary	х		х	Х	47%		-100%		-17.9	-67%	2044	2044
Happy Valley Elementary			х	х	58%	-92%			-34.3	-75%	2035	2035
John Muir Elementary	х		х	Х	79%	-93%			-24.8	-77%	2042	2042
John Stubbs Memorial Elementary				Х	-2%	-79%			-28.8	-52%	2037	2037
Lakewood Elementary			х		63%	-87%			-37.2	-68%	2033	2032
Millstream Elementary		х	х	Х	111%	-92%			-24.7	-73%	2039	2041
Poirier Elementary			х	Х	67%	-88%			-21.7	-64%	2048	-
Port Renfrew Elementary	х	х	х	Х	81%		-100%	-100%	-39.6	-90%	2025	2034
Ruth King Elementary			х	Х	83%	-92%			-41.3	-74%	2034	2041
Sangster Elementary		х	х	х	53%	-89%			-13.8	-65%	2047	2045
Saseenos Elementary	х	х	х	Х	170%	-96%			-41.5	-85%	2030	2033
Savory Elementary			х	Х	144%	-93%			-26.0	-78%	2040	2041
Sooke Elementary			х	Х	76%	-93%			-34.9	-76%	2034	2035
Willway Elementary	х		х	Х	48%	-96%			-51.8	-85%	2027	2027
Wishart Elementary			х	х	52%	-92%			-45.8	-76%	2032	2029
Middle Schools					-							
Dunsmuir Middle			х	х	31%	-89%			-65.9	-69%	2028	2024
Journey Middle			х	х	-5%	-92%			-68.0	-76%	2029	2025
Spencer Middle	Х		х	х	62%	-94%			-117.8	-79%	2022	2022
Secondary Schools												
Belmont Secondary School (New)**			X**		3%	-82%			-27.1	-36%	2039	2039
Royal Bay Secondary**			X**		11%	-88%			-46.7	-45%	2026	2026
Miscellaneous												
District Board Office			х	х	-16%		-45%		-3.7	-27%	2048	2048
District Facilities Office (2015)		х	х	Х	-28%	-79%			-5.0	-74%	2036	2045

	E R	iner mis edu 1ea	sio Icti	ns on			Retrofit hange		eduction	Change (%)	Implement	ation Date
Facility	Envelope & Sealing	LED + Active Controls	Heat-Pumps	Heat Recovery	Electricity	Natural Gas	Propane	Fuel Oil	Potential Emissions Reduction (tons CO2e)	Post-Retrofit Emissions Change	Strategy #1: CleanBC	Strategy #2: Continual Improvement
Miscellaneous (Continued)												
District Facilities Shop (2015)		х	х	Х	-28%	-79%			-32.1	-74%	2036	2045
District Transportation (2015)		х	х	Х	-32%	-72%			-7.8	-67%	2048	-
Edward Milne Community			х	Х	36%	-98%			-161.2	-84%	2026	2023
Sooke Maintenance Shop		х	х	Х	-35%				-0.5	-35%	2049	2049
Westshore Centre for Learning		х	х	Х	-70%				-1.2	-64%	2049	-
Westshore Learning Centre Annex		х	х	Х	15%	-84%			-6.6	-57%	2047	2047
Total Potential					26%	-91%	-93%	-100%	-1,113	-71%		

\* Positive change values demonstrate an increase in energy use, typically from the installation of an electric heat-pump, which

increases electricity use but decreases natural gas use (and resultant emissions).

\*\* Numbers presented estimate conversion of domestic hot water heating to a heat pump system.

#### **B.2 FACILITY INTERVENTIONS 2021-2030**

The following is a list of the modeled facility interventions that help reach the CleanBC targets by 2030, grouped by strategy. Where possible, it is recommended to first complete major envelope projects to be able to take advantage of the reduced heating and cooling loads when implementing new mechanical systems.

#### **Major Envelope and Air Tightness**

- Spencer Middle
- Willway Elementary

#### Heat Pump (Space Heating and DHW)

- Spencer Middle
- Willway Elementary
- David Cameron Elementary
- Royal Bay Secondary (DHW only)
- Edward Milne Community
- Dunsmuir Middle
- Journey Middle
- Wishart Elementary
- Ruth King Elementary

#### Heat Recovery

- Spencer Middle
- Willway Elementary
- David Cameron Elementary
- Edward Milne Community
- Dunsmuir Middle
- Journey Middle
- Wishart Elementary
- Ruth King Elementary

#### **B.3 FACILITY INTERVENTIONS 2030-2050**

#### **Major Envelope and Air Tightness**

- David Cameron Elementary
- Saseenos Elementary
- Port Renfrew Elementary
- John Muir Elementary
- Hans Helgesen Elementary

#### **Occupancy Controls / LED**

- Saseenos Elementary
- Port Renfrew Elementary
- District Facilities Shop (2015)
- Millstream Elementary
- Sangster Elementary
- District Transportation (2015)
- Westshore Learning Centre Annex
- District Facilities Office (2015)
- Westshore Centre for Learning
- Sooke Maintenance Shop

#### Heat Pump (Space Heating and DHW)

- Saseenos Elementary
- Port Renfrew Elementary
- Lakewood Elementary
- Sooke Elementary
- Happy Valley Elementary
- District Facilities Shop (2015)
- Crystal View Elementary
- Belmont Secondary School (New) DHW only
- Savory Elementary
- John Muir Elementary
- Millstream Elementary
- Poirier Elementary
- Hans Helgesen Elementary
- Sangster Elementary
- Colwood Elementary
- District Transportation (2015)
- Westshore Learning Centre Annex
- District Facilities Office (2015)

- District Board Office
- Westshore Centre for Learning
- Sooke Maintenance Shop

#### **Heat Recovery**

- Saseenos Elementary
- Port Renfrew Elementary
- Sooke Elementary
- Happy Valley Elementary
- District Facilities Shop (2015)
- Crystal View Elementary
- Savory Elementary
- John Muir Elementary
- Millstream Elementary
- Poirier Elementary
- Hans Helgesen Elementary
- Sangster Elementary
- Colwood Elementary
- John Stubbs Memorial Elementary
- District Transportation (2015)
- Westshore Learning Centre Annex
- District Facilities Office (2015)
- District Board Office
- Westshore Centre for Learning
- Sooke Maintenance Shop

#### **B.4 FLEET ELECTRIFICATION**

The vehicle transition rate to electric was assumed for both CleanBC and Continual Improvement strategies. An average kilometer growth of 1% was assumed year over year, resulting in an increase of vehicles over time. It was assumed that electric vehicles would replace diesel or gasoline counterparts.

Туре	2021-2030	2031-2050
School Bus	20	38
Electric Van / Truck	20	31

# **APPENDIX C: DEVELOPMENT PROCESS**

The Plan development process is shown in *Figure C-1*, with completed tasks shown in green, current tasks in red (split green/red indicates partial completion), and future work with no colour.

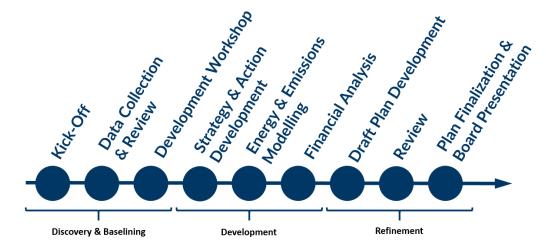


Figure C-1: Energy Sustainability Plan Development Process

The development process was designed to review the current state of emissions reporting and planning to inform the path forward, rather than taking a retrospective view to understand, in detail, past emissions. Through this, the workshops described below, and insights from the consultant a set of candidate implementation actions has been developed and reviewed with stakeholders. The options and strategy development have also been developed with a triple bottom line plus risk perspective, with the strategy options intended to reflect SD 62's situation and that of BC, particularly given its ample clean electricity supply.

#### C.1 DEVELOPMENT WORKSHOP

The first virtual workshop was held with SD 62 staff. The purpose of the workshop was to review, collate, and present the initial analysis from fleet and facilities for current energy and emissions. The discussion presented opportunities, challenges and expectations from Staff for achieving CleanBC targets for the year 2030. A proposed Vision Statement and Guiding Principles were also presented to Staff and refined. Potential actions were discussed for viability for both fleet and facilities.

Following the workshop, the consultant team compiled and put forward proposed energy efficiency measures that could be explored further. Each of the candidate actions were initially evaluated by SD 62 staff for their technical viability.

#### C.2 IMPLEMENTATION ACTIONS

In consultation with the Energy and Sustainability team at SD 62, the final list of implementation actions presented in *Appendix B* were developed, and included the refinements informed by discussions during the draft report presentation.

#### C.3 SCHOOL DISTRICT REPRESENTATION

The following SD 62 staff were included in the plan development.

Long Range Planning, Sustainability and Energy

Pete Godau	Director of Facilities
Mhairi Nicolson	Manager, Minor Capital Construction
James Lee	Energy Specialist, Facilities



## SUSTAINABILITY GOAL – To reduce School District #62 environmental footprint and energy consumption:

- 1. To enhance SD62's culture of environmental practices for a strong and sustainable future
- a. Create an Energy Sustainability Plan (ESP) June 30, 2021
- b. Agree on baseline data to identify Clean BC targets June 30, 2021
- c. Update/Create Energy Sustainability Policy/Regulation December 31, 2021
- d. Create a process to implement the ESP December 31, 2021
- e. Initiate Education and Awareness of Sustainability ongoing
- 2. To position SD 62 as a provincial leader in Sustainability Management
- a. Monitor and record work processes ongoing
- b. Monitor and record district utility use to create key performance measures June 30, 2021
- c. Create Energy and Emission performance measures June 30, 2021
- d. Create Energy/Emission reduction project plan June 30, 2021
- e. Incorporate Energy/Emission reduction project plan for Maintenance and Capital programs into the Energy Sustainability Plan (ESP) June 30, 2021
- f. Incorporate high energy efficiency and low carbon foot-print technologies, equipment, vehicles to new projects ongoing
- 3. To maximize the savings through SD 62's Energy Management Model
- a. Identify inefficient components and create a list for life cycle replacement June 30, 2022
- b. Create SD62's Energy Management Model June 30, 2021
- c. Improve HVAC operational efficiency by adapting advanced technologies and methodologies ongoing

Measure	20/21	21/22	22/23	23/24
Energy Sustainability Plan	X			X
<b>Energy &amp; Emission Measures</b>	Benchmark	-X%	-Y%	-Z%
Average Utility Costs	Benchmark	-X%	-Y%	-Z%

#### **Performance Measures - Sustainability**



### Committee Info Note Resources Committee Meeting October 12, 2021 Agenda Item: 4.2 – Policy and Regulation Update

#### **Background**

- Staff have been working on revisions to Pest Management Policy F-228 and the Audit Committee Regulation F-335
- These revisions are being provided to the Committee prior to going to the Education Policy Committee for policy review and input

#### Pest Management Policy F-228

• As discussed at last month's Committee meeting, staff were asked to revise Policy F-228 based on the following Board motion:

That the Board of Education of School District 62 (Sooke) direct staff to bring forward a revised Policy and Regulation F-228 Pest Management to reflect the banning of the use of glyphosates (Round-Up) on school grounds.

- Based on this direction, staff reviewed the need to provide regular maintenance of noxious weeds on District grounds and what other options, other than using glyphosates, would be and the estimated costs
- Staff have created the attached presentation outlining the issue, other options and estimated costs
- As a result, staff have attached the proposed revision to the Policy F-228 by adding glyphosates to the list of products not to be used on District property
- Staff recommend that the revised policy be sent to the Education Policy Committee for review and eventual consideration/approval by the Board

#### Audit Committee Regulation F-335

• It has been discovered that there is an inconsistency between Board Regulation A-340 which indicates the Board Chair will appoint the standing committees' (Education Policy, Resources, Audit) chairs and members and Audit Committee Regulation F-335 which indicates the Committee will elect the Committee Chair

- To ensure the consistent application, staff are recommending that Regulation F-335 is revised to delete the language that the Committee will elect the Committee Chair
- Regulation A-340 allows for the consistent application of chair appointments across all three standing committees and this regulation should remain in force
- Staff recommend that the revised regulation be sent to the Education Policy Committee for review and eventual consideration/approval by the Board

School District #62 (Sooke)

PEST MANAGEMENT

Effective: Apr. 22/03 Revised: Jan. 24/17 Reviewed: May 16/16; June 20/16; Dec. 5/16; Dec. 13/16

No.: F-228

#### SCHOOL BOARD POLICY

The Board of Education recognizes that it has a responsibility for the health and safety of students, employees and users of school sites. Additionally, there is a concomitant responsibility to control insect infestations and noxious weeds on school property.

School District #62 (Sooke) shall use Integrated Pest Management (IPM) methods in the operation and maintenance of its facilities. An IPM approach is the best combination of cultural, biological, and genetic methods for the most effective control of pests.

Alternative measures will be fully explored before consideration is given to the use of pesticides, herbicides or insecticides.

The Board recognizes that under an IPM program there may be extenuating circumstances when it is necessary to use chemicals to control pest populations. This will be done in accordance with all applicable environmental Acts and regulations of the Province of British Columbia.

The following is a list of products that will not be used on School District property:

- Paraquat and Simazine (Agent Orange)
- Diazinon
- Carbaryl
- Neonicotinoid
- Fungicide
- Molluscicide
- Avicide
- Nematicide
- Plant growth regulators
- Glyphosates



# Weed Management

SD62 (SOOKE)

## Reasons for weed management

- To control fast spreading and dangerous invasive weed species (e.g. knot weed, Poison Hemlock, Giant Hogweed)
- Provide safe parking lots, sidewalks and play spaces for pedestrians and students free of trip hazards
- keep property lines clean and tidy to prevent weed spread, insects and garbage collection
- Preventative maintenance
- Aesthetics

## Types of weed control

### Preventative

 Doing the necessary things to control weed seed from spreading (e.g. cleaning equipment after use, using weed free seed and soil mixes)

### Cultural

 Maintaining good site conditions (e.g. proper fertility, over-seeding, irrigation on fields and repairing damaged hard surfaces)

### Mechanical

Removal of weeds with equipment (e.g. tillers, pullers, shovels, mowers, line trimmers)

### **Biological**

The introduction of natural enemies of weed plants

### Chemical

Application of herbicides (foliar or systemic) to control weed germination and growth

## Round-up (glyphosate)

## PROS

- IOL jug of product lasts a long time (0.315 L product/ 15L solution)
- Applied by backpack sprayer which is easily moved around site
- Inexpensive
- One application can eliminate 3-4 months of maintenance during growing season
- Most effective method of controlling invasive seed spread when applied during the proper life cycles

- Public perception
- Human health risk (mainly applicators)
- Non-selective killing
- Weed resistance over time
- Requires training, licensing and application reporting
- Restricted application windows due to regulations (school closure times)

## EcoClear or Eco-friendly herbicides

## PROS

- Generally safe method of application
- Applied by backpack sprayer which is easily moved around site
- Can be applied during school hours (although not recommended)
- Public perception

- Requires a lot of product in a solution (1L product / 5L water) nearly 10X the amount of product as round up per tank
- Requires multiple applications over a growing season and is less effective on established weeds
- Not a good control method for invasive species
- •Weed resistance over time
- Expensive (more stock)
- If sprayed during regular working hours it would require more staff or replacement of other scheduled work

## Steam machines

## PROS

- Generally safe method of application
- Requires no product only water
- Can be applied during school hours (although not recommended)
- Public perception
- No odors
- Can be applied in most weather conditions

- Substantial initial cost for equipment
- Equipment is not easily moved around site and requires 2 people to lift or lift system
- Requires multiple applications over a growing season
- Not a good control method for invasive species
- Slow process
- If sprayed during regular working hours it would require more staff or replacement of other scheduled work

## Burning (propane & flame)

## PROS

- Inexpensive
- Public perception
- Fairly easy to move around site and minimal equipment involved

- Open flame results in higher risk near buildings and property boundaries
- Oil and gas leaks in parking lots can result in spot fires
- Slow process
- Cannot use along fence lines that border neighboring properties, forest or grasslands
- Application should be done during school closure times

## What about the money?



Application	Initial Materials Cost			Total Annual Cost
Glyphosate (roundup)	<mark>\$0</mark> (already have sprayers)	(already have (1-2 10L jugs) (1 application)		\$11,500
EcoClear Eco- friendly Herbicide	<mark>\$0</mark> (already have sprayers)	(already have (15-20 10L jugs) (2 applications		\$23,500
Steam Machine (Ninja Pro)	e \$50,000 \$500 (2 machines/parts) (fuel)		<mark>\$20,000</mark> (3 wks. x 2)	\$20,500
Burning (propane & flame HS)	<mark>\$1000</mark> (tanks/wands)	<mark>\$500</mark> (propane)	<mark>\$40,000</mark> (still requires line trimming)	\$40,250
Mechanical (line- trimming, scrape)	\$0\$1000\$45,000(already own equipment)(fuel/line)(2 GM/4 mth FT)			\$46,000

## Key points & Additional Info

>A 1-time application of glyphosate is the cheapest method of control and takes the least amount of scheduled maintenance

Additional applications of glyphosate are required as needed for dangerous invasive species during shoulder seasons with posting and notification

> Products like EcoClear still require a Pesticide license as it is a registered commercial herbicide

➢ Having the ability to have multiple tools for weed control (e.g. steam/glyphosate/EcoClear) would not only be beneficial from a maintenance stand point but also help with weed resistance to chemical applications over time School District #62 (Sooke)

	No.: F-335
AUDIT COMMITTEE	Effective: May 22/18 Revised: Reviewed: Apr. 24/18

#### ADMINISTRATIVE REGULATIONS

#### AUDIT COMMITTEE POWERS, STRUCTURE AND OPERATIONS

#### 1. Powers of the Audit Committee

In carrying out its functions and duties, the Audit Committee has the power to:

- (a) With the prior approval of the Board, retain counsel, accountants or other professionals to advise or assist the Audit Committee.
- (b) Meet with or require the attendance of Management, internal or external auditor or legal counsel or representatives from a reporting entity of the Board at meetings of the Audit Committee, and require such persons or entities to provide any information and explanation that may be requested.
- (c) Where the Audit Committee determines it is appropriate, meet with the Board's external or internal auditor, counsel, accountants or other professionals, without the presence of staff.
- (d) Require the Board's internal or external auditor to provide reports to the Audit Committee.
- (e) Have access to all records of the Board.

#### 2. Composition of the Audit Committee

The Audit Committee will be comprised of three members, including two trustees of the Board as appointed by the Board and one external community member appointed by the Board, who may be as recommended by the Selection Committee.

The majority of Audit Committee members will be trustees of the Board.

#### 3. Eligibility for Appointment of Persons who are not Trustees of the Board

A person who is not a trustee of the Board member may be appointed to and serve on the Board's Audit Committee only if he or she:

- (a) Is a Canadian citizen who is 18 years of age or older and a resident of British Columbia.
- (b) Has accounting, financial management or other relevant business experience that would enable him or her to understand the accounting and auditing standards applicable to the Board.
- (c) Is not an employee or officer of the Board at the time of appointment.
- (d) Does not have a conflict of interest at the time of appointment.
- (e) Is not an undischarged bankrupt or a person who would be disqualified under the *School Act* or any other enactment from being nominated for, being elected to or holding office as a trustee of the Board.
- (f) Was identified by a trustee of the Board or by the Selection Committee as a potential candidate for appointment to the Audit Committee.

A person has a conflict of interest if his or her parent, child or spouse is employed by or an officer of the Board.

#### 4. Selection Committee

A selection committee (the "**Selection Committee**") will identify persons who are not trustees of the Board as potential candidates for appointment to the Audit Committee by the Board.

The Selection Committee shall be composed of:

- (a) The superintendent
- (b) A member of senior management
- (c) The chair of the Board or a trustee of the Board designated by the chair

#### 5. Chair of the Audit Committee

At the first meeting of the Audit Committee in each fiscal year, the members of the Audit Committee will elect the chair of the Audit Committee for the fiscal year of the Board from among the members appointed to the Audit Committee. The Chairperson of the Board will designate the Chairperson of the Audit Committee.

If at any meeting of the Audit Committee the chair is not present, the members present may elect a chair for that meeting.

#### 6. Term of Appointment

The term of office of each member of the Audit Committee shall be determined by the Board **Chair** upon appointment of the member. The term of office of a member of the Audit Committee who is a trustee of the Board will not exceed four years or the trustee's term of office as a trustee of the Board. The term of office of a member of the Audit Committee who is not a trustee of the Board will not exceed three years.

A member of the Audit Committee may be reappointed for subsequent terms.

An individual who is not a trustee of the Board may not be appointed to the Audit Committee more than twice unless:

- (a) The position has been advertised for at least 30 days.
- (b) After the 30 days, the Selection Committee did not identify any potential candidates.

When the term of a member of the Audit Committee expires, the member may continue as a member until a successor is appointed or the member is reappointed.

#### 7. Meetings

The Audit Committee will meet at least three times in each fiscal year at the call of the chair of the Audit Committee, and at such other times as the chair considers advisable.

Each member of the Audit Committee who is a trustee of the Board shall have one vote. A member of the Audit Committee who is not a trustee of the Board shall be a non-voting member. The Audit Committee will make decisions by resolution. In the event of a tie vote, the chair is entitled to cast a second vote.

A majority of the members of the Audit Committee constitutes a quorum for meetings of the Audit Committee.

The chair of the Audit Committee will ensure that minutes are taken at each meeting and provided to the members of the Audit Committee before the next meeting.

#### 8. Codes of Conduct

Any code of conduct of the Board that applies to trustees of the Board also applies to members of the Audit Committee who are not trustees of the Board in relation to their functions, powers and duties as members of the Audit Committee.

#### 9. Remuneration and Compensation

A person shall not receive any remuneration for serving as a member of the Audit Committee. The Board will establish policies respecting the reimbursement of members of its Audit Committee for expenses incurred as members of the Audit Committee.

#### 10. Declaration of Conflicts

Every member of the Audit Committee will, when he or she is appointed to the Audit Committee for the first time and at the first meeting of the Audit Committee in each fiscal year, submit a written declaration to the chair of the Audit Committee declaring whether he or she has a conflict of interest.

A member of the Audit Committee who becomes aware after his or her appointment that he or she has a conflict of interest will immediately disclose the conflict in writing to the other members of the Audit Committee. If a member or his or her parent, child or spouse could derive any financial benefit relating to an item on the agenda for a meeting, the member will declare the potential benefit at the start of the meeting and withdraw from the meeting during the discussion of the matter and shall not vote on the matter.

If no quorum exists for the purpose of voting on a matter only because a member is not permitted to be present at the meeting because of the conflict, then the remaining members will be deemed to constitute a quorum for the purposes of the vote.

If a potential benefit is declared, a detailed description of the potential benefit declared will be recorded in the minutes of the meeting.

#### 11. Reporting

The Audit Committee will report to the Board annually, and at any other time that the Board may require, or the Audit Committee may consider appropriate, on the Audit Committee's performance of its duties. The report will include:

(a) A summary of the work performed by the Audit Committee since the last report.

(b) The results of any review conducted by the Audit Committee and any findings and recommendations of the Audit Committee to the Board.

(c) An assessment by the Audit Committee of the Board's progress in addressing any findings and recommendations that have been made by the internal or external auditor.

(d) A summary of the matters addressed by the Audit Committee at its meetings.

(e) The attendance record of members of the Audit Committee.

(f) A written report evaluating the Audit Committee's performance.

(g) Any other matter that the Audit Committee considers relevant.

#### 12. Minutes

The minutes of the Audit Committee meetings will accurately record each decision reached by the Audit Committee. The secretary treasurer, or such other person as may be designated by the Audit Committee will keep the minutes of the proceedings of all meetings of the Audit Committee. The minutes will be distributed to the Audit Committee members with copies to the superintendent, the external auditor and others as directed by the Audit Committee.

#### 13. Audit Committee Performance

On an annual basis, the Audit Committee will assess its performance in fulfilling the duties and responsibilities set out in this Terms of Reference. The assessment will review the performance of the Audit Committee, as well as the contribution and participation of the individuals that comprise the Audit Committee. The evaluation may be a self-assessment or may involve facilitation or review by an external party.

#### 14. Orientation and Education

All members of the Audit Committee will be provided with an orientation to the Audit Committee's duties and functions upon appointment and be offered financial literacy training.

#### DUTIES OF THE AUDIT COMMITTEE

#### 15. Financial Reporting Processes

The Audit Committee has the following duties related to the Board's financial reporting process:

- 1. To review the Board's financial statements, including:
  - a. Relevant accounting and reporting practices and issues.
  - b. Complex or unusual financial and commercial transactions.
  - c. Material judgments and accounting estimates.
  - d. Any departures from accounting principles that are applicable to the Board.
- 2. To review, before the results of an annual external audit are submitted to the Board:
  - a. The results of the annual external audit.
  - b. Any difficulties encountered during the external auditor's work, including any restrictions or limitations on the scope of the external auditor's work or on the external auditor's access to required information.
  - c. Any significant changes the external auditor made to the audit plan in response to issues that were identified during the audit.
  - d. Any significant disagreements between the external auditor and the superintendent and/or secretary treasurer and how those disagreements were resolved.

3. To review the Board's annual financial statements and consider whether they are complete, are consistent with any information known to the Audit Committee members and reflect accounting principles applicable to the Board.

4. To recommend, if the Audit Committee considers it appropriate to do so, that the Board approve the annual audited financial statements.

5. To review all matters that the external auditor is required to communicate to the Audit Committee under generally accepted auditing standards.

6. To review with the external auditor material written communications between the external auditor and the superintendent or secretary treasurer.

7. To ask the external auditor about whether the financial statements of the Board's reporting entities, if any, have been consolidated with the Board's financial statements.

8. To ask the external auditor about any other relevant issues.

#### 16. Internal Controls

The Audit Committee has the following duties related to the Board's internal controls:

1. To review the overall effectiveness of the Board's internal controls.

2. To review the scope of the internal and external auditor's reviews of the Board's internal controls, any significant findings and recommendations by the internal and external auditors and the responses of the Board's staff to those findings and recommendations.

3. To discuss with the Board's senior management the Board's significant financial risks and the measures management have taken to monitor and manage these risks.

#### 17. Internal Audit

The Audit Committee has the following duties related to the Board's internal auditor:

1. To review the internal auditor's mandate, activities, staffing and organizational structure

2. To make recommendations to the Board on the content of annual or multi-year internal audit plans and on all proposed major changes to plans.

3. To ensure there are no unjustified restrictions or limitations on the scope of the annual internal audit.

4. To review at least once in each fiscal year the performance of the internal auditor and provide the Board with comments regarding his or her performance.

5. To review the effectiveness of the internal auditor, including the internal auditor's compliance with standards for internal auditing.

6. To meet on a regular basis with the internal auditor to discuss any matters that the Audit Committee or internal auditor believes should be discussed.

7. To review with the superintendent and secretary treasurer and the internal auditor:

- a. Significant findings and recommendations by the internal auditor during the fiscal year and the responses of the management to those findings and recommendations.
- b. Any difficulties encountered during the internal auditor's work, including any restrictions or limitations on the scope of the internal auditor's work or on the internal auditor's access to required information.
- c. Any significant changes the internal auditor made to the audit plan in response to issues that were identified during the audit.

#### 18. External Auditor

The Audit Committee has the following duties related to the Board's external auditor:

1. To review at least once in each fiscal year the performance of the external auditor and make recommendations to the Board on the appointment, replacement or dismissal of the external auditor and on the fee and fee adjustment for the external auditor.

2. To review the external auditor's audit plan, including:

- a. The external auditor's engagement letter.
- b. How work will be coordinated with the internal auditor to ensure complete coverage, the reduction of redundant efforts and the effective use of auditing resources.
- c. The use of independent public accountants other than the external auditor of the Board.

3. To make recommendations to the Board on the content of the external auditor's audit plan and on all proposed major changes to the plan.

4. To review and confirm the independence of the external auditor.

5. To meet on a regular basis with the external auditor to discuss any matters that the Audit Committee or the external auditor believes should be discussed.

6. To attempt to resolve any disagreements between the superintendent and/or secretary treasurer and the external auditor about financial reporting.

7. To recommend to the Board a policy designating services that the external auditor may perform for the Board and, if the Board adopts the policy, to oversee its implementation.

School District #62 (Sooke)

	No.: A-340
SCHOOL BOARD COMMITTEES	Effective: Jan. 13/81
	Revised: 26/04/83; 13/12/85; 24/03/87; 24/11/92; 23/05/95; 13/05/97; 08/12/98; Jan. 19/15; Apr. 24/18; Dec. 10/19 Reviewed: Dec. 8/14; Jan. 19/15; Jan. 9/18; Mar. 12/18; Mar. 13/18; Dec. 10/19

#### ADMINISTRATIVE REGULATIONS

#### 1. General

- 1.1 The Board may establish such committees as it considers desirable.
- 1.2 Standing Committees exist to provide an opportunity to deliberate on issues of ongoing importance to the District in an open and inclusive manner.
- 1.3 Meetings may be in public, or where warranted in-camera.
- 1.4 A standing committee will consider matters referred to it by the Board, and may consider items suggested by staff, trustees, committee representatives or members of the community.

#### 1.5 Standing Committees:

The Board will establish the following standing committees to conduct its business:

#### 1.5.1 Audit (Financial Statements Review Committee)

<u>Mandate</u>: The Audit Committee will assist the Board in fulfilling its governance and oversight responsibilities and may consider matters pertaining to:

- Financial reporting;
- Internal control, information systems and risk management;
- External audit; and
- Internal audit.
- 1.5.1.1 **Contact**: Secretary-Treasurer

#### 1.5.1.2 **Operations**:

- The Audit Committee shall be chaired by a trustee.
- The committee will meet as necessary during the school year.
- Reports and recommendations from this committee shall be prepared for the subsequent regular meeting of the Board of Education.

#### 1.5.2 Education – Policy Committee

<u>Mandate</u>: To meet with the Superintendent, other appropriate staff, and district partner groups to review and recommend to the Board direction and actions pertaining to:

- Provision of educational programs for students, including curriculum, instruction and assessment;
- Student learning, including student support services;
- Learning resources;
- Research on teaching and learning;
- Showcase district programs and effective teaching practices;

- achievement accountability;
- periodically and systematically review Board policies with the intent of ensuring that policies remain useful, current and understandable;
- Present recommendations for new and revised policy for Board approval; and,
- other matters referred to it by the Board.
- 1.5.2.1 **Contact**: Superintendent.

#### 1.5.2.2 **Operations**

- The Education-Policy committee shall be chaired by a trustee.
- It will ordinarily meet on the first Tuesday of every month from September to June.
- Reports and recommendations from this committee shall be prepared for the subsequent regular meeting of the Board of Education.

#### 1.5.3 **Resources Committee**

<u>Mandate</u>: To meet with the Secretary-Treasurer, other appropriate staff, and district partner groups to review and recommend to the Board direction and actions pertaining to:

- Building construction, maintenance and district facilities, transportation and custodial services;
- Develop and recommend to the Board long range planning for accommodating the District's needs related to sites and buildings;
- Make recommendations to the Board regarding the annual Capital Budget submission to the Ministry of Education;
- Consider and make recommendations to the Board on the District's operating, special purpose and capital budgets;
- Consider and recommend to the Board new or adjusted bylaws;
- Consider and make recommendations to the Board on the District's business and accounting services;
- Consider, recommend and provide advice and information to the Board related to human resources; and,
- other matters referred by the Board.
- 1.5.3.1 **Contact**: Secretary-Treasurer.

#### 1.5.3.2 **Operations**:

- The Resources committee shall be chaired by a trustee.
- It will ordinarily meet on the second Tuesday of every month from September to June.
- Reports and recommendations from this committee shall be prepared for the subsequent regular meeting of the Board of Education.

#### 1.6 **Membership**:

1.6.1 In December of each year, the Chairperson of the Board shall appoint three Trustees to the Education-Policy committee, three trustees to the Resources committee, and two trustees to the Audit committee, after consultation with Trustees. If an appointed Trustee is absent from a committee meeting, the Board Chairperson may act as an alternate committee member or appoint another trustee.

- **1.6.2** The Chairperson of the Board shall also designate the Chairperson of each standing committee.
  - 1.6.2.1 In addition to ensuring the proper functioning of committee meetings, the Committee Chair shall also be responsible for setting the committee agenda, in collaboration with the Board Chair and designated staff contact, and reporting the proceedings of the committee meeting back to the Board of Education.
- **1.6.3** The Superintendent or designate and the Chairperson of the Board shall be ex officio members of all standing committees. In addition, members of the district's staff may be invited to assist a committee with its business.
- **1.6.4** The Chairperson of the Board may be named as a regular member of any standing committee, but shall not serve as Chairperson of the standing committee.
- 1.6.5 Any trustee not assigned as a committee member may attend any committee meeting as a guest in order to participate in discussion or debate, but may not vote.
- 1.6.6 Only Trustees, District Staff and invitees may attend in-camera sessions.
- **1.6.7** Where there are public sessions of a standing committee, the following groups will be invited to appoint a representative:
  - Sooke Teachers' Association (STA);
  - CUPE Local 459;
  - Sooke Principals and Vice-Principals Association (SPVPA);
  - Sooke Parent Education Advisory Council (SPEAC); and
  - Student representatives.

#### 1.7 **<u>Committee Procedures</u>**:

- 1.7.1 No committee shall make recommendations when fewer than two appointed Trustee committee members are present.
- 1.7.2 All committee members and attendees (including members of the public) are able to participate fully in discussion, however, only Trustees appointed to the committee will vote on recommendations to the Board.
- 1.7.3 Standing committees will function in a formal manner under Robert's Rules of Order, permitting the kind of free-flowing discussion anticipated for committee of the whole work.
- 1.7.4 Written notice of committee meetings and agendas shall be available for all Trustees, representative members, and the public at least three days prior to committee meeting dates.
- 1.7.5 Agenda preparation:
  - 1.7.5.1 Agenda preparation shall be the responsibility of the committee's Chairperson, supported by staff assigned to assist that committee.
  - 1.7.5.2 Preference on the agenda will be items referred by the Board through formal motion.
  - 1.7.5.3 District staff may bring items forward to standing committee meetings for consideration and recommendation to the Board of Education.
  - 1.7.5.4 Individual trustees may advance an item to a Board Standing Committee through:
    - 1.7.5.4.1 Formal motion of the Board, or
    - 1.7.5.4.2 Individual trustees may request that the Committee Chair add the item to the agenda after first discussing the item with the Superintendent or Secretary-Treasurer.

- 1.7.6 Committee Reports:
  - 1.7.6.1 Committee reports shall be the responsibility of the committee's chairperson, supported by staff assigned to assist that committee.
  - 1.7.6.2 Standing committees shall report on the activities and recommendations of the committee at subsequent regular Board of Education meetings.
  - 1.7.6.3 Committee recommendations for Board consideration shall be written in the form of Board motions for debate. Each recommendation will be dealt with individually.
  - 1.7.6.4 Each committee chairperson, at the completion of their report, will move that the report be accepted by the Board.
- 1.7.7 Any matters considered by a committee of the Board which have financial implications are to be referred to the Resources Committee for comment before the originating committee brings the matter to the Board.
- **1.7.8** District staff will support the committee chairperson by acting as secretary in order to complete committee reports for the committee chairperson's approval.

#### 1.8 **Special or Ad Hoc Committees**:

- **1.8.1** The Board may establish special or ad hoc committees to study, investigate or report on specific matters.
- **1.8.2** The Board shall determine a period within which a special committee shall present a report to the Board.
- 1.8.3 The purpose and terms of reference of a special or ad hoc committee shall be defined in writing and approved by the Board before members of the committee are named, except when the Board asks the committee to recommend its own terms of reference for Board approval. The recommendations of a special or ad hoc committee shall be confined to its terms of reference.
- 1.8.4 Membership on a special or ad hoc committee shall be limited in number to a minority of Trustees holding office at the time of the committee's appointment, and to members of the Board's staff appointed to the committee by the chairperson of the Board, in consultation with the Superintendent. In addition, the Board may appoint members of the community who, in the Board's judgement, may assist the committee in its work.
- 1.8.5 The Chairperson of the Board shall name the chairperson of the special or ad hoc committee. The committee chairperson shall preside at all special or ad hoc committee meetings.
- **1.8.6** Dates, times and places for meetings will be determined by members of the committee. Notice of meeting and agenda will be given to members at least three days prior to the meeting.
- **1.8.7** A report of the items discussed and recommendations made by the committee will be kept and will be made available to committee members and to the Board.



### Committee Info Note Resources Committee Meeting October 12, 2021 Agenda Item: 4.3 – Enrolment by School as at October 5

#### **Background**

- Further to the information provided at the September 27<sup>th</sup> Board meeting, staff are in the process of finalizing the actual enrolment numbers at the school level for submission to the Ministry later this month
- The 21/22 budget has been initially built on the enrolment estimates created in February 2021 and now that we have the actual enrolment amounts, staff can begin to look at the increased funding that will come with the enrolment growth (budget to be discussed during agenda item 4.4)
- The attached summary spreadsheet outlines actual enrolment (as at October 5) by school for the K-12 FTEs as well as our alternate program out of the Westshore Centre for Learning

#### Additional Context

- The screening process for students with special needs is continuing and therefore staff have used the February estimates at this point until the actual amounts can be confirmed later this month but these numbers are trending significantly upwards
- Staff are estimating that K-12 enrolment is growing by 729 students from last year (11,659 from 10,930)
- The breakdown of this increase can be summarized by:

			Increase		
Level	20/21	21/22	#	%	
Elementary	5,181	5,452	271	5.23%	
Middle	2,521	2,683	162	6.43%	
Secondary	3,228	3,524	296	9.17%	
Total	10,930	11,659	729	6.67%	

- Below is a table reflecting the changes in K-12 enrolment over the last 21 school years
- The projected growth of 729 FTEs or 6.67% is the greatest annual increase on record since at least 01/02 (as far as the analysis was conducted)
- The alternate numbers are still being finalized and appear to be low at the moment

School District Six Too Summary of Changes of K-12 Enrolment											
	01/02 02/03 03/04 04/05 05/06 06/07 07/08 08/09 09/10 10/11 11/12										
K-12 Enrolment	8,681	8,657	8,650	8,625	8,501	8,323	8,272	7,811	7,956	8,251	8,574
Change #		-24	-7	-25	-124	-178	-51	-461	145	295	323
Change %		-0.28%	-0.08%	-0.29%	-1.44%	-2.09%	-0.61%	-5.57%	1.86%	3.71%	3.91%
	12/13	13/14	14/15	15/16	16/17	17/18	18/19	19/20	20/21	21/22	22/23
K-12 Enrolment	8,503	8,572	8,738	9,094	9,609	10,026	10,444	10,701	10,931	11,513	
Change #	71	69	166	356	515	417	418	257	230	582	
Change %	0.83%	0.81%	1.94%	4.07%	5.66%	4.34%	4.17%	2.46%	2.15%	5.32%	

### School District Six Two Summary of Enrolment from 20/21 to 21/22 by School

Enrolment Update - Oc	tober 5, 2021	2020/21	2021/22	Varia	Variance		
Sooke School District 17	01		@ October 5	#	%		
Elementary	Colwood	176	202	26	14.77%		
Elementary	Crystal View	251	271	20	7.97%		
Elementary	David Cameron	384	406	22	5.73%		
Elementary	Hans Helgesen	193	205	12	6.22%		
Elementary	Happy Valley	429	446	17	3.96%		
Elementary	John Muir	216	221	5	2.31%		
Elementary	John Stubbs Elementary	520	513	-7	-1.35%		
Elementary	Lakewood	449	457	8	1.78%		
Elementary	Millstream (English)	134	201	67	50.00%		
Elementary	Millstream (French Immersion)	141	103	-38	-26.95%		
Elementary	Poirier (English)	146	168	22	15.07%		
Elementary	Poirier (French Immersion)	239	236	-3	-1.26%		
Elementary	Port Renfrew	18	14	-4	-22.22%		
Elementary	Ruth King	320	370	50	15.63%		
Elementary	Sangster	233	247	14	6.01%		
Elementary	Saseenos	176	196	20	11.36%		
Elementary	Savory	220	234	14	6.36%		
Elementary	Sooke	287	278	(9)	-3.14%		
Elementary	Willway	206	227	21	10.19%		
Elementary	Wishart	443	457	14	3.16%		
Elementary Subtotal		5,181	5452	271	5.23%		
Middle	Dunsmuir	861	922	61	7.08%		
Middle	John Stubbs Middle	299	310	11	3.68%		
Middle	Journey (English)	438	474	36	8.22%		
Middle	Journey (French Immer)	85	100	15	17.65%		
Middle	Spencer	838	877	39	4.65%		
Middle Subtotal		2,521	2683	162	6.43%		
Secondary	Belmont (English)	1,169	1272	103	8.81%		
Secondary	Belmont (French Immersion)	232	176	-56	-24.14%		
Secondary	Edward Milne	626	669	43	6.87%		
Secondary	Royal Bay (English)	1201	1319	118	9.83%		
Secondary	Royal Bay (French Immer)	0	88	88			
Secondary Subtotal		3,228	3524	296	9.17%		
K-12 Totals:		10,930	11,659	729	6.67%		
Alternate	Byte	210	201	(9)	-4.29%		
Alternate	JDF	140	110	(30)	-21.18%		
Alternate	Westshore	15	7	(8)	-54.47%		
Alternate Totals:		365	318	(47)	-12.86%		
District Totals:		11,295	11,977	682	6.04%		



### Committee Info Note Resources Committee Meeting October 12, 2021 Agenda Item: 4.4 – Budget Impacts Due to Enrolment Increases

#### **Revenue Impacts**

- Based on the estimated enrolment increases identified in agenda item 4.3, staff are forecasting additional revenue and costs associated with the growth
- The K-12 enrolment can be summarized as growth of 729 FTEs from last year and 522 FTEs from budget
- International FTEs are estimated to be up from budget by 40 FTEs
- Alternate program FTEs are forecasted to be down by 47 FTEs at this point although this number is expected to grow during the course of the year
- The gross revenue amount from these increases and decreases is \$4.111 m

#### **Expenditure Impacts**

- There are direct staffing impacts required due the enrolment growth
- These costs include enrolling and non-enrolling teacher and other ratio driven staff (administration, clerical, supervisors, etc.)
- The table below outlines the projected revenue and estimated costs associated with the enrolment growth:

Revenue/Expenditure	Structural	One-Time	Total
Domestic Enrolment Growth	4.116		4.116
International Enrolment Growth	0.320		0.320
Alternate Enrolment Decline	(0.325)		(0.325)
Gross Revenue Increase	4.111		4.111
Direct Staffing Costs	(2.427)		(2.427)
21/22 Structural Deficit	(0.643)		(0.643)
Reserve Payback to 2%		(0.808)	(0.808)
Excluded Salaries & Benefits	(0.350)		(0.350)
Estimated Costs	(3.420)	(0.808)	(4.228)
Net Revenue Increase	0.691	(0.808)	(0.117)

Amount available for one-time use in 21/22 (\$.643 m less \$.117) \$0.526 m

#### **Committee Discussion**

- Staff would like to engage the Committee in discussion of possible uses for the remaining funding after the direct staffing costs and reserve/obligations are met
- During the budget development process in the spring, the following budget priorities were identified:
  - ✓ Mental health/wellness of students and staff
  - ✓ Early education opportunities
  - ✓ Safe and clean learning/working spaces
  - ✓ Adequate resources, supplies and equipment
- Staff are also embarking on the Program Review project to ensure our programs are closely aligned and coherent to our strategic plan in an effective and efficient manner – should that process be completed prior to making financial decisions
- During the budget development process the following items were reduced from the budget:

$\triangleright$	Engagement survey	\$.045 m
$\triangleright$	Teacher staffing .4 @ middle and .6 @ secondary	\$.100 m
≻	School and department supply accounts	\$.054 m
$\triangleright$	Internal Audit reviews	\$.025 m
$\triangleright$	Incremental IES funding	\$.135 m

• Staff would like the Committee's input on how any residual funding could be spent prior to the Executive making a recommendation to the Board for their review and consideration

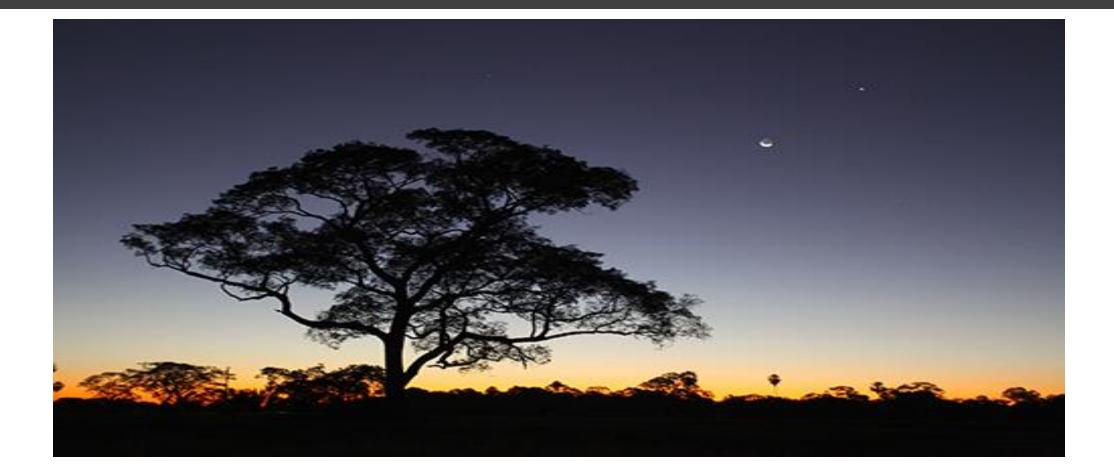


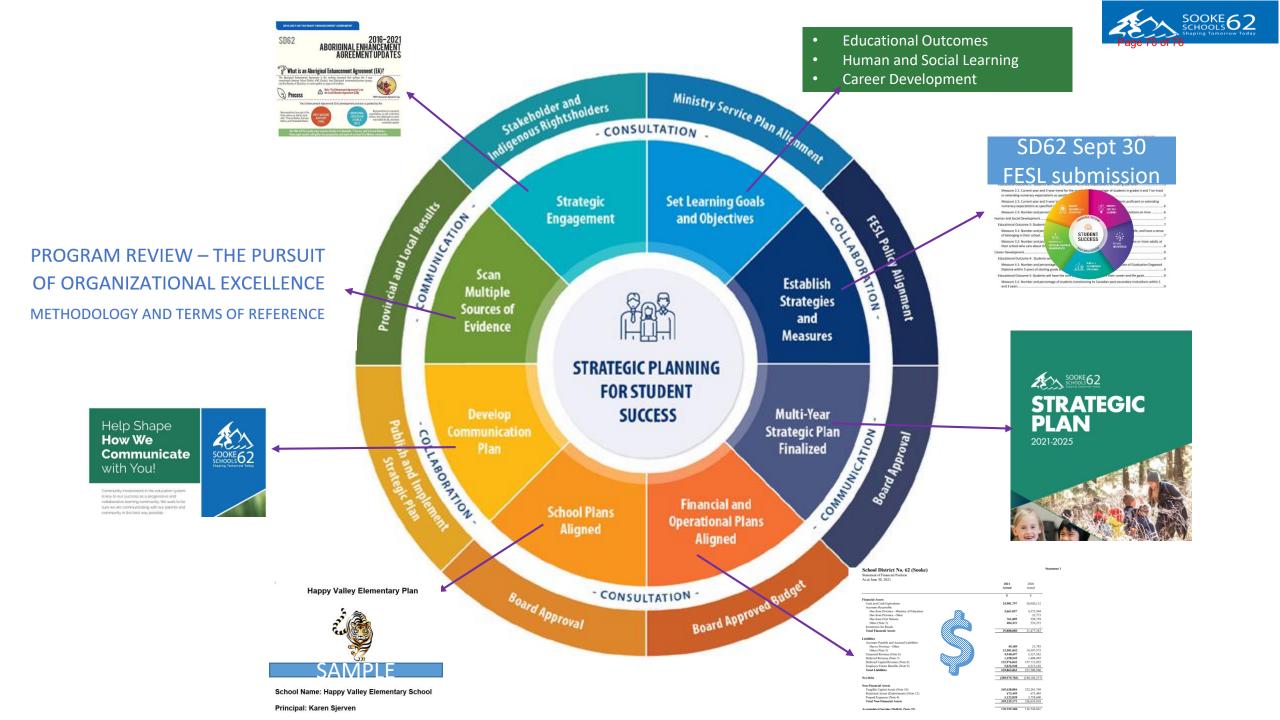
### Committee Info Note Resources Committee Meeting October 12, 2021 Agenda Item: 4.5 – Program Review of Resource Areas

#### **Background**

- Further to the Program Review presentation to the Board at their September 28<sup>th</sup> meeting, staff would like to engage the Committee in a discussion regarding the review of the District resource areas:
  - ✓ Human Resources
  - ✓ Business Services
  - ✓ Digital Services
- The Education & Policy Committee recently discussed the other areas of the review (Core Education, Student Support and Special Programs)
- These reviews are a great example of the District's commitment to continuous improvement and innovation to best support student achievement
- Staff will lead the Committee through a quick overview of the process that will begin to answer the following:
  - What is the connection with the Framework for Enhancing Student Learning (FESL)?
  - Why we are doing the reviews?
  - What are we reviewing?
  - Who is doing the reviews?
  - What data will be using to begin the reviews?
- It is not the expectation that the review process will answer all of the questions that we have or to the depth that we would like to get to
- Instead, the reviews will be the start of a process to ensure we properly align the work with the resources (human and financial) required to deliver on the District's Strategic Plan in a coherent, efficient and effective manner
- This contextual information will be provided to lead the Committee in discussion to get partner input on the following questions:
  - 1) Are there program areas that our partner groups suggest reviewing deeper?
  - 2) How will outcomes of the reviews align with resources and budget setting?
  - Are the traditional boundaries between "education", "policy" and "resources" shifting?

## Program Review: Alignment, Coherence & Efficacy The Pursuit of Organizational Excellence







## FRAMEWORK FOR ENHANCING STUDENT LEARNING

A shared commitment to improve student success and equity of learning outcomes for every student in public education in British Columbia

### BOARDS OF EDUCATION WILL:

- Develop and implement a multi-year district strategic plan and individual school plans and will publish these annually on or before September 30;
- Use the district strategic and individual school plans to align all district annual operational plans, including but not limited to financial, human resources, Information Technology, engagement and communications and long-range facilities plans, with the educational objectives from the district strategic plan; and
- Participate in a continuous improvement review program, including:
  - reviewing the alignment of the school district strategic plan and the results of the educational outcomes for the school district to address student outcome deficiencies and inequities;
  - o acting on findings coming out of the continuous improvement review; and
  - collaborating with Indigenous peoples and key education stakeholders throughout the process.

Boards will submit an annual report to the Minister in accordance with the requirements in the <u>Enhancing</u> <u>Student Learning Reporting Order</u> (see <u>Appendix B</u>).

1	
REQUIRED	

FRAMEWORK

LEARNING

## Why are we doing reviews?

- Alignment across the Executive Team on initiatives:
  - Legislative/ Ministerial Directions
  - Strategic Plan /Operational Plans
  - Other agreements, directions and innovation ideas

### Coherence

- Strategic coordination is not ad hoc mutual adjustment. It is coherence imposed on a system by policy and design...specifically how actions and resources will be combined\*
- Focusing Direction, Cultivating Collaborative Cultures, Deepening Learning, Securing Accountability\*\*
- Identification of interdependencies

- Efficacy (Efficiency & Effectiveness)
  - Results strategic, educational, business, financial, operational or social benefits are being delivered
  - Overall workload and do-ability given resource, time and financial constraints
- Performance Budgeting
  - District is facing financial pressure and we need to align our resources with results
  - Reviews will feed multi-year (3 year) budget priorities
  - Shift in focus from last year's spend to next year's goals
- Risk Management
  - Programs and Initiatives are functioning within the Reputational and Operational risk tolerance of the board

## What are we reviewing?



#### 1) Articulate TWG Vision/Mission & Alignment with Strategic Plan

- Vision/Mission
- Connection to District Strategic Plan (list Goals and Objectives)

#### 2) Staffing Overview

- All employee groups,
- Commentary on the overall staffing trends & future needs

#### 3) Program/Department/Process Financial Information

- Financials: (Budget vs Actual Expenditures)
- Staff: Salary & Benefits Costs
- Grant or Special Purpose Fund (Revenues & Expenditures)
- Commentary on the overall financial health & future needs

#### 4) Information & Technology Analysis

Identify opportunities to improve efficiency using data & technology

#### 5) Stakeholder & Partner Summary - who do you serve?

• List of stakeholders/clients/partners & feedback received

#### 6) Program/Department: Evidence of Delivery Success & Challenges ?

- Qualitative Indicators (SD62 internal)
- Quantitative Indicators (SD62 Internal)
- Industry research & evidence/benchmarks (External)

#### 7) Risks and Dependencies affecting Program/Department/Process

- Risk Factors (reputational, operational, etc.)
- Barriers

#### 8) Opportunities for Collaboration/Cross-dependency

• Identify by departments what the interdependencies are/could be

#### 9) Summary of Major Programs/Initiatives/Projects/Processes

- Deliverables completed in the last 12 months
- Projects currently underway
- Projects to be started and delivered over the next 3 years

#### **10) Overall Recommendations**

- Summarize any areas for improved alignment and coherence with the strategic plan?
- Summarize any areas of efficiency or savings?
- What can be decommissioned or re-purposed or delivered using alternate models?
- Are there improvements in services that can be made within existing budgets?
- What are the recommended improvements for student success and/or district outcomes?
- What are the recommendations on the inter-dependencies on other groups identified ?
- Should resources be utilized (allocated) differently to improve student and/or district outcomes ?

## Review Teams – 6 Technical Working Groups



ring Committee : Stinson, Harold Cull, Paul Block, Farzaan Nusserwanji Axford (C), Shelly Green (C)		serwanji	Scott Stinson - Lead		Support Team Sue Grundy, Alison Makkinga, David Lee Bonar, Mohammad Amin	
	Core Education	Student Support	Special Programs	HR Services	Business Services	Digital Services
Lead (Subject Expert)	Steph H	Dave S	Paul B	Dan H	Harold C	Farzaan N
Secondary (Build Capacity/ Fresh Perspective)	Harold	Dan	Farzaan	Stephanie	Paul	Dave
Scope	Elementary, Middle, Secondary regular Instruction, School-Based PVP, Library, Curriculum, French and Career Programs.	Inclusive Education, Counselling, Safe and Healthy Schools + OHS, Indigenous Education, ELL	International Program, Alt. Ed Programs, Distance Learning, Academies, District- Based PVP	Staffing processes for CUPE, STA, Excluded & Admin, Recruiting, Onboarding, Employee Relations, Training, Contracts	Payroll, Budgeting, Accounts Payable, Facilities: Major Capital, Minor Capital & Maintenance, Custodial Transportation	Service Desk, School Support & Ops, IT Teacher Mentors, Communications, Data, Project Management, Records, Security
Team Members	District & School Directors/Managers/ PVP	District & School Directors/Managers/ PVP	District & School Directors/Managers/ PVP	District & School Directors/Managers/ PVP	District & School Directors/Managers/ PVP	District & School Directors/Managers/ PVP



## Sample of the data feeding the reviews

		C	entral					
Function 5 Support and Exempt Staffing	Sooke	0	kanagan	Chilliwack	Abbotsford	Nanaimo		
Administration	10.0	00	16.714	5.000	8.957	14.571		
Maintenance/Trades	27.0	00	44.000	38.435	47.000	40.000		
Custodial	64.2	63	117.750	70.000	92.000	66.800		
Information Technology	-		-	-	-	-		
Grounds	13.1	25	9.438	1.000	3.000	9.600		
Total	114.3	88	187.902	114.435	150.957	130.971		
Square Meters per Staff	919.8	82	1,131.006	1,173.682	1,353.431	1,114.083		
Students per Staff	94.7	22	122.580	116.267	124.678	102.580		
Average Support Staff Hourly Rate	\$ 27.	92 \$	29.67	\$ 28.31	\$ 30.14	\$ 30.01		

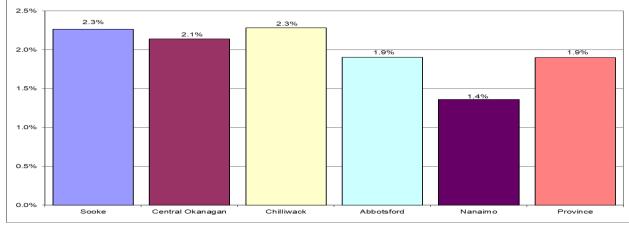
		Central			
Finance(inc. ST office)	Sooke	Okanagan	Chilliwack	Abbotsford	Nanaimo
Exempt	5.00	3.00	3.00	6.00	6.00
Support	2.97	5.00	-	8.00	4.57
Average Hourly Rate	28.27	26.20		26.37	28.86
Staff served per Finance staffing	175.57	323.73	506.83	146.64	152.45
Students per Finance staffing	1,359.23	2,879.13	4,435.00	1,344.36	1,270.88
Staffing Expected in 2026/27 based on median students per staff	9.318				

		Central			
Information Technology	Sooke	Okanagan	Chilliwack	Abbotsford	Nanaimo
Information Technology Staffing	13.000	22.000	15.000	14.000	19.000
Students per Staff	833.462	1,046.955	887.000	1,344.357	707.105
Staff Served per Technology Staff	107.657	117.721	101.367	146.638	84.820
Staffing Expected in 2026/27 based on median students per staff	14.278				

		Central			
Payroll	Sooke	Okanagan	Chilliwack	Abbotsford	Nanaimo
Exempt	-	-	1.00	1.00	1.00
Support	4.00	3.00	3.00	5.00	5.00
Average Hourly Rate	29.90	27.24	27.14	27.09	28.62
Staff served per Finance staffing	349.88	863.29	380.13	342.15	268.60
Students per Finance staffing	2,708.75	7,677.67	3,326.25	3,136.83	2,239.17
Staffing Expected in 2026/27 based on median students per staff	4.038				

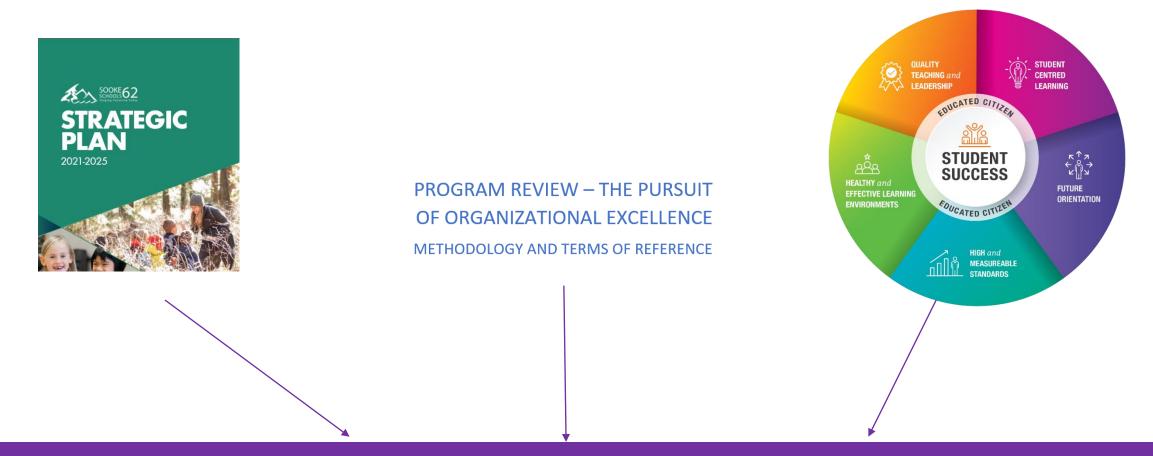
		Central							
Human Resources including Health and Safety	Sooke	Oka	nagan	Chilliwack		Abbotsford		Nanaimo	
Exempt	9.80		8.00	\$	7.60		7.00		12.00
Support			9.00	\$	1.00		7.69		6.00
Average Hourly Rate	-	\$	27.10	\$	25.60	\$	24.92	\$	28.74
Staff served per HR staffing	142.81		152.35		176.80		139.79		89.53
Students per HR staffing	1,105.61		1,354.88		1,547.09		1,281.59		746.39
Staffing Expected in 2026/27 based on median students per staff	9.88								







## Linking Our Work



Question 1) Are there program areas that our partner groups suggest reviewing deeper? Question 2) How will the outcomes of the program review align with the resources and budget setting process? Question 3) Given that FESL is causing us to ensure Alignment, Coherence and Efficacy across the system as a whole, does the committee see the traditional boundaries between "education", "policy" and "resources" shifting?