



Long Range Facilities Plan

August 2019

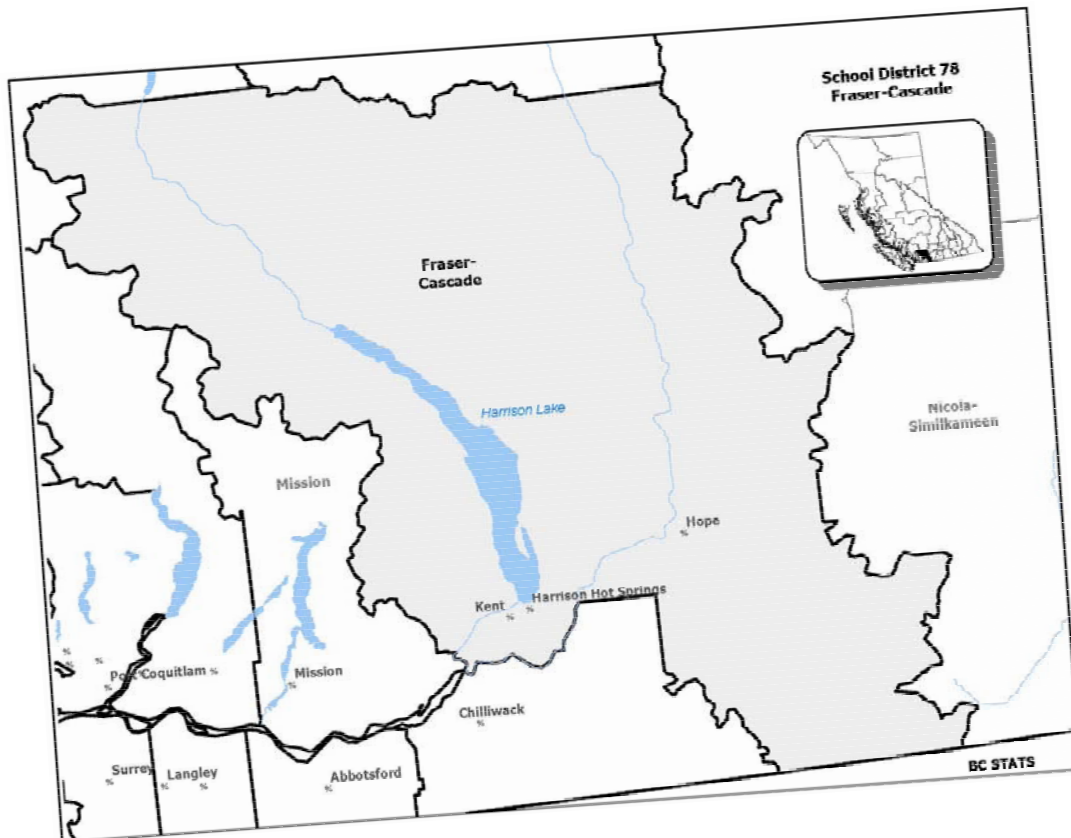


Table of Contents

Executive Summary	i
Introduction	4
School District Facility Plan Development.....	6
Guiding Principles	6
Demographics (from BC Stats Reports)	8
District Actual and Projected Enrolment.....	10
Capital Assets	16
Facility Uses.....	16
Facility Condition	17
Capacity Utilization	20
School District Capacity Utilization - Three Zone Analysis.....	22
Summary Observations.....	25
Capacity Utilization Initiatives	26
Capital Investment Priorities	28
Seismic Mitigation Program (SMP)	28
School Expansion Program (EXP)	28
Appendix A Facilities Inventory	32
Appendix B Adjusted Capacity for Each Zone.....	34
Appendix C Seismic Rating of Schools (from Ministry Website 2016).....	36

Executive Summary

The Fraser-Cascade School District (School District) has experienced a significant decline in enrolment. Actual enrolment has decreased from approximately 4,700 in 1997 to 3,100 in 2015. During the same period the total population according to BC Statistics, has increased from approximately 16,200 to 16,900 people.

The current projections indicate the enrolment will remain relatively constant over the next 10 years. As a result of the declining enrolment, the school district has taken steps to reduce the over-capacity throughout the district. Additional adjustments to catchment areas, grade configuration and distribution of district programs will be considered during the timeframe of this plan to increase resources available to enhance student performance. Residential development in the District of Kent is expected to continue over the next 10 years and will create capacity shortage at the elementary schools in Agassiz.

The School District also faces typical challenges in addressing aging infrastructure including mechanical and electrical systems. The Ministry of Education has initiated new programs to assist school districts deal with initiatives to extend the service life of existing capital assets.

In response to these changes, the Board of Education of School District No. 78 (Fraser-Cascade) has updated the District Facilities Plan created in 2009. The plan provides a framework for:

- local decisions regarding the efficient utilization of school facilities;
- local decisions regarding the refurbishment of building systems including mechanical systems, electrical systems, interior finishes, exterior finishes, etc., and
- provincial funding decisions regarding building systems enhancements, major renovations, expansions, and replacement schools.

The District Facilities Plan also:

1. communicates the Board of Education’s intentions to students, teachers, support staff, parents and other stakeholders; and
2. provides the Ministry of Education with a rationale for specific projects proposed for inclusion in the Capital Plan, and
3. demonstrates that the school district is managing their facilities in an effective, economical and efficient way to support the educational goals in a district-wide context.

The Board of Education has established the following objectives in their 2015-18 Strategic Plan “Everyone Pulling Together” that will inform decision-making concerning program delivery to the diverse population and use of schools.

- Responsibility to all learners
- Honouring Culture and Community

SD78 Long Range Facilities Plan

- Inclusiveness
- Quality teaching and learning
- Transitions
- Communication and collaboration

The following guiding principles will also inform the Long Range Facilities Plan:

- Families and communities play a key role in the education of children, and it is vital that our public schools are welcoming, inclusive centres for family involvement and lifelong learning.
- Neighbourhood schools are important. The facilities plan needs to be designed to support natural community neighbourhoods. Schools will be community-based.
- District programs should be located to maximize utilization rates of the schools.
- Capital investments in new or renovated facilities should generate operational efficiencies.
- Facilities utilization strategies should increase funds available for educational programs.
- The facilities plan needs to support the principles of stability and predictability to meet the needs of parents and students.
- All facilities should be maintained at the highest standard possible and provide healthy, seismically safe and well-equipped learning environments.
- The School District supports the principle that schools are a community asset and will work with the community to create opportunities for joint use of facilities to enhance community education and development.

About 17,000 people reside within School District No. 78 (Fraser-Cascade). This population base is expected to continue to grow to about 18,000 over the next 25 years. The total population is expected to grow slightly; therefore the school age population is expected to grow slowly.

Elementary enrolment is projected to remain below 1,100 students and the secondary enrolment is projected to remain below 800 students. The total district enrolment is projected to increase from 1,700 to over 1,900 by 2026. The comparison of the projected enrolment and the school age population indicates about 76% of school age children are enrolled in the school district schools. The total capacity of the school district is 2,080.

The School District operates and maintains two grade 7 to 12 secondary schools, one kindergarten to 12 elementary / secondary school and 4 elementary schools not including Yale Elementary plus 2 alternative schools. Building condition assessments of all schools were completed in 2012 as part of the

SD78 Long Range Facilities Plan

provincial assessment program. The assessments determined the building condition index ranged from 0.33 to 0.53 for the schools. The assessments confirm the District has effective maintenance programs and allocates the available building renewal funding appropriately. The information will also assist the school district with the determination of future building renewal projects.

Capacity utilization analysis is a means of determining how efficiently capital assets are being utilized. Due to the large size and the geographical constraints the school district is treated as three zones for capacity utilization analysis. Capacity utilization analysis shows that there is surplus capacity in the Boston Bar and Hope zones. The Agassiz zone is expected to have a significant capacity shortfall due to the ongoing residential development.

Seismic assessments of all schools in the Fraser-Cascade School District were completed in 2004 and have been updated recently using the enhanced assessment tools developed by APEGBC. These assessments identified Hope Secondary and CE Barry as a high risk schools. Both seismic projects have been completed. There are no other schools rated as high risk in the District. Further assessment of schools based on more recent criteria may be carried out in 2017.

The majority of capital investment in the next ten years will be focused on upgrading building systems to extend the service life of the schools. In addition, the requirements to support the objectives of the Strategic Plan will be incorporated in the local projects.

The school district will also advance the expansion of Kent Elementary School, and address the enrolment pressures at Harrison Hot Springs Elementary.

In addition, the Board of Education will continue to make best use of existing capacity and expand services to students and communities.

Capital asset utilization will be optimized by:

- ✓ consider adjustments to catchment areas
- ✓ review the opportunities for the delivery of additional educational programs
- ✓ make surplus facilities available for community or commercial use where supported by a favourable business case

Introduction

The Fraser-Cascade School District is part of the Fraser Valley Regional District and includes the District of Hope, the District of Kent, the Village of Harrison Hot Springs, Boston Bar and Sunshine Valley and various electoral areas. The School District operates on the traditional territories of numerous Sto:lo Nations.

Like most school districts in British Columbia, the Fraser-Cascade School District has experienced a significant decline in enrolment from 1997 to 2014. The enrolment has increased since 2014 and current projections indicate that the enrolment will continue to increase slightly over the planning timeframe primarily in the District of Kent. As a result of the decline the school district has taken steps to reduce the over-capacity throughout the district. It should be noted that new Ministry initiatives such as full day kindergarten and early learning programs have been implemented with only the addition of one full Kindergarten module due to the space available from the declining enrolment. In addition, the school district has consolidated programs and modified catchment areas. They have also demolished C.E. Barry Middle School due to surplus capacity instead of completing a seismic upgrade. They have also demolished McCaffery Elementary School. The school district continues to optimize the delivery of educational programs for a diverse student population so that resources can be applied in ways that meet their intellectual, social and physical needs and maximize student achievement.

The mandatory requirement to have a Long Range Facilities Plan (LRFP) was presented by the Ministry in the five-year capital plan instructions for the 2019/2020 Capital Plan. A LRFP must identify and rationalize current and future capital requirements for new schools, school expansion and consolidation; school replacement or upgrades based on building condition, seismic vulnerability and ongoing maintenance/life cycle costs; as well as new government initiatives. The LRFP will provide the critical context for discussions with the Ministry regarding high priority project requests. It will also confirm to the Ministry that the school district is properly managing its capital assets.

The District Long Range Facilities Plan (LRFP):

1. communicates the Board of Education's intentions to students, teachers, support staff, parents and other stakeholders;
2. provides the Ministry of Education with a rationale for specific projects proposed for inclusion in the Capital Plan, and
3. demonstrates that the school district is managing their facilities in an effective, economical and efficient way to support the educational goals in a district-wide context.

The School District completed its last School District Facilities Plan in 2009. An update to the Facilities Plan has been undertaken to incorporate the latest Ministry of Education directions, actions completed since 2009 and new information related to residential development, building condition assessments, seismic assessments and educational program requirements.

SD78 Long Range Facilities Plan

The significant progress since 2009 includes:

- construction of the expansion to Coquihalla Elementary School,
- demolition of C.E Barry Middle School and McCaffery Elementary School
- conversion of Hope Secondary School from grades 8 to 12 to grades 7 to 12
- construction of a new Maintenance Facility in Hope and disposal of the old maintenance facility
- use of Ministry of Education Mechanical upgrades and Carbon Neutral project funding to reduce energy costs
- allocation of Ministry of Education annual facility grant funding to enhance learning conditions, and
- relocation of portable classrooms to match changing capacity requirements.

The development of this LRFP has also been influenced by Ministry of Education plan to seek funding from government for operational grants to districts related to capital funding programs as follows:

- Seismic Mitigation Program (SMP)
- School Expansion Program (EXP)
- School Replacement Program (REP)
- Building Envelope Program (BEP)
- School Enhancement Program (SEP)
- Carbon Neutral Capital Program (CNCP)
- Bus Replacement Program (BUS)

The new Five Year Capital Plan Guidelines require capital project submissions to be based on the LRFP. It also includes the indication that capital projects be co-funded where possible. The school district financial situation and surplus resources will be a consideration in the Ministry capital project funding.

School District Facility Plan Development

The Long Range Facilities Plan provides a framework for:

- local decisions regarding the efficient utilization of school facilities;
- local decisions regarding the refurbishment of building systems such as mechanical systems, electrical systems, interior finishes, exterior finishes, etc. and
- provincial decisions regarding building system enhancements, major renovations, expansions, and replacement schools.

The Ministry of Education now recognizes space for Strong Start in specific schools and Full-Day Kindergarten (FDK) in all elementary schools. The capacity of schools in the district has been adjusted to reflect these program requirements.

It is understood that the Ministry supports up to 15 percent additional area for Neighbourhood of Learning (NLC) program space for new or replacement schools. Community programs may operate in surplus space in schools; Ministry approval is required to officially reduce the school capacity due to these NLC program.

Guiding Principles

The underpinnings of the Capital Planning Framework are a commitment to:

- maintaining current K-12 schools as viable educational institutions
- utilizing excess instructional space effectively
- prioritizing capital improvements within an overall District Facilities Plan

The Board of Education Values Statement in the Governance Policies and their 2015-2018 Strategic Plan “Pulling Together” provide the underpinnings for the guiding principles that reflect the values of the diverse communities comprising the Fraser-Cascade School District

- Responsibility to all learners
- Honouring Culture and Community
- Inclusiveness
- Quality teaching and learning
- Transitions
- Communication and collaboration

SD78 Long Range Facilities Plan

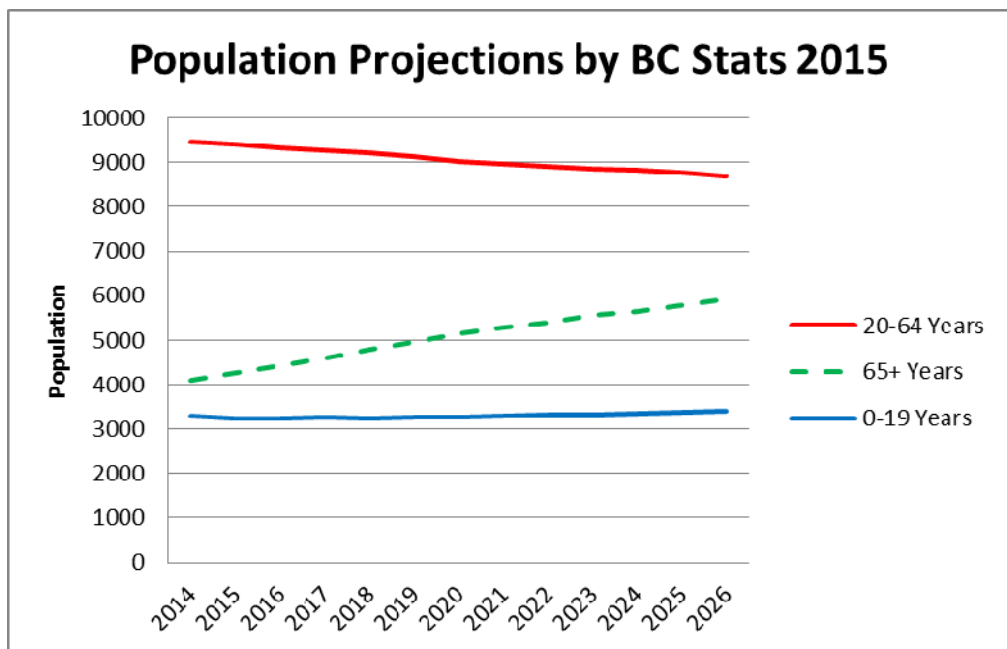
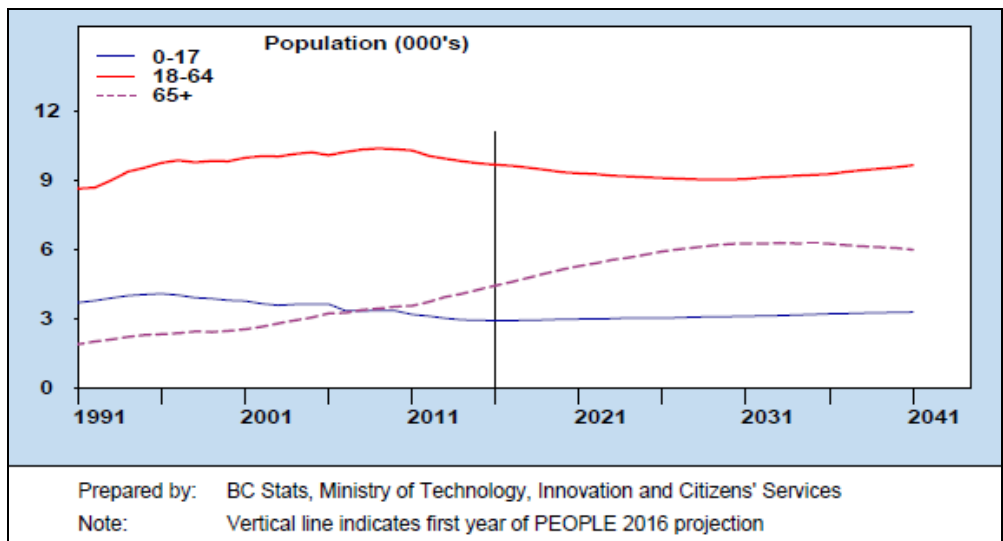
The following guiding principles will also inform the Long Range Facilities Plan:

- Families and communities play a key role in the education of children, and it is vital that our public schools are welcoming, inclusive centres for family involvement and lifelong learning.
- Neighbourhood schools are important. The facilities plan needs to be designed to support natural community neighbourhoods. Schools will be community-based.
- The School District will continue to operate three zones – Boston Bar, Hope, and Agassiz
- District programs should be located to maximize utilization rates of the schools.
- Capital investments in new or renovated facilities should generate operational efficiencies.
- Facilities utilization strategies should increase funds available for educational programs.
- The facilities plan needs to support the principles of stability and predictability to meet the needs of parents and students.
- All facilities should be maintained at the highest standard possible and provide healthy, safe and well-equipped learning environments.
- The School District supports the principle that schools are a community asset and will work with the community to create opportunities for joint use of facilities to enhance community education and development.
- The following conditions will guide the prioritization and planning for capital improvements for elementary and secondary schools:
 - life safety risk of students
 - building condition
 - facility enhancements to support student achievement

Demographics (from BC Stats Reports)

According to BC Stats report of June 2015 the Fraser-Cascade population is expected to grow from approximately 17,800 in 2010 to about 18,300 in 2026; a 3% increase in total population. The school age population has decreased until 2015 when it reached 3,000 and is expected to be constant until 2036. The population trends are presented graphical below from 2010 data and again with 2015 data.

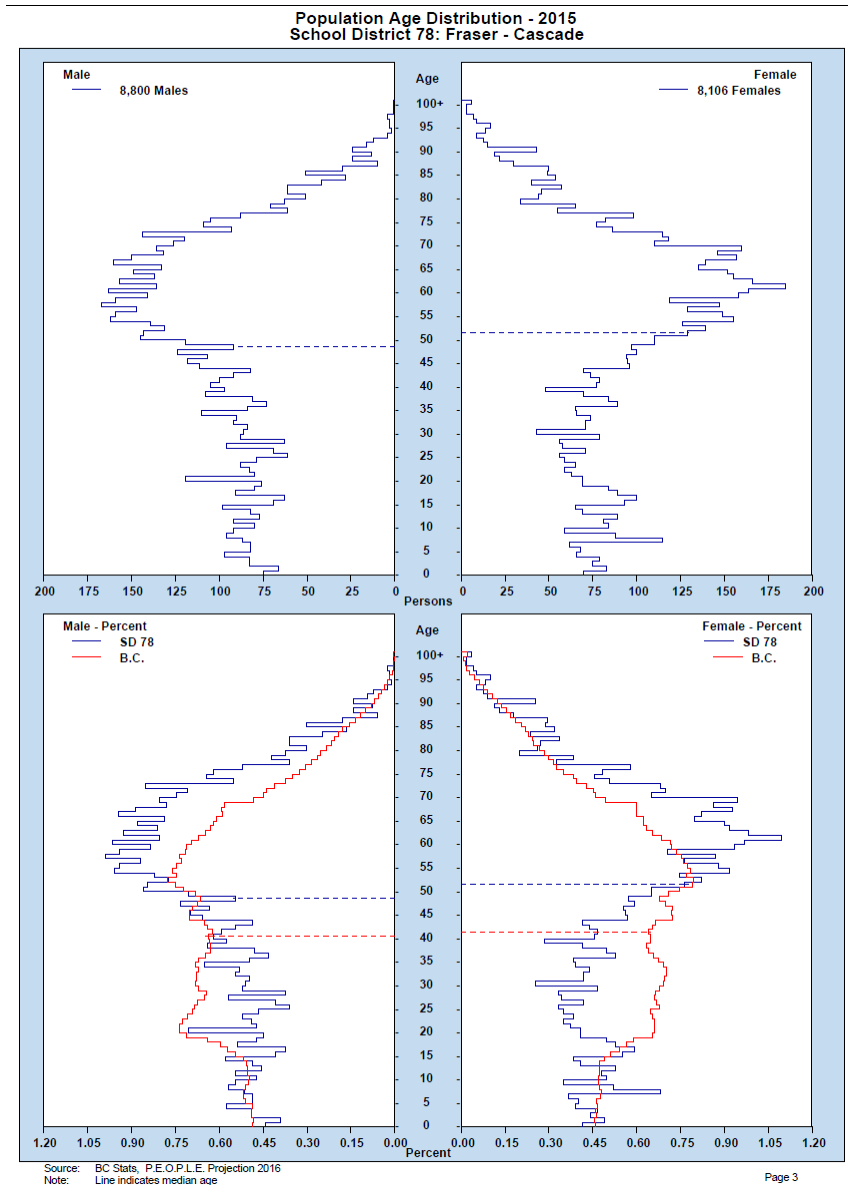
Figure: 1 Population Projections (BC Statistics 2016)



SD78 Long Range Facilities Plan

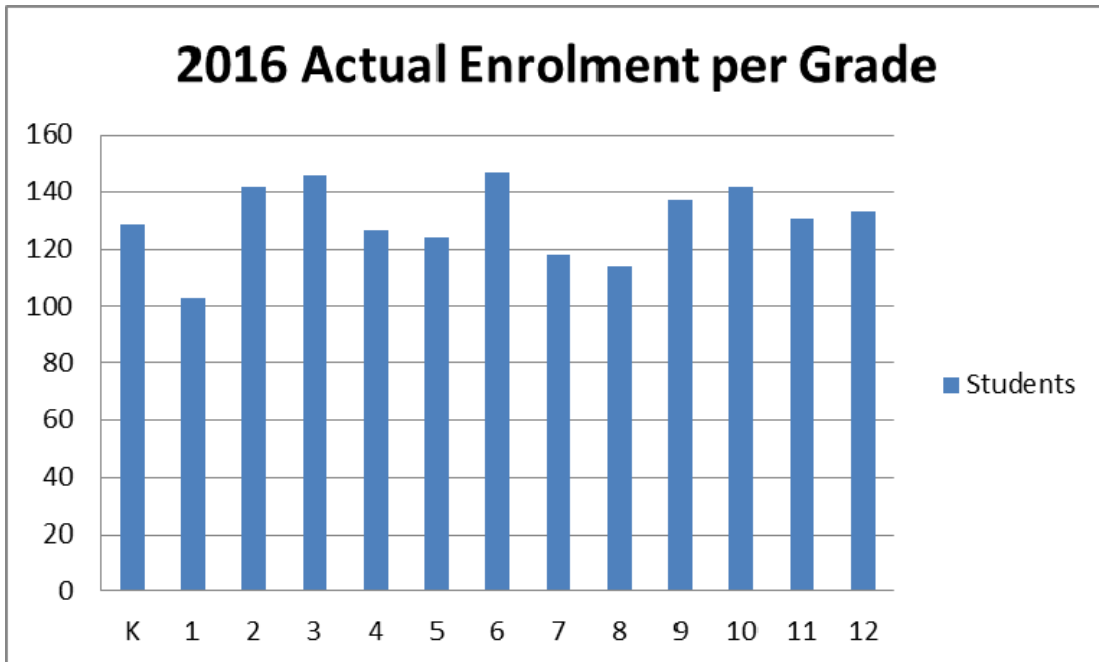
The Fraser-Cascade is experiencing an ageing population. As the total population increases the school age population is relatively constant. The school age population as a percentage of the total population is expected to remain below 16% for the next 10 years.

The age distribution graphs for males and females from BC Statistics in 2016 are presented below; the top graph is head count and the bottom graph is percentage. The blue graph is for the Fraser-Cascade School District and the red graph is for the province. The trend for school age population, 5 to 17 years, is similar to the provincial trend. However, there is a significant reduction in the 20 to 45 year old cohort, which represents the child bearing years. The Fraser-Cascade graph shows the significant increase in the number of residents in the over 50 year old cohort and is indicative of the ageing population relative to the provincial average age distribution. The Fraser-Cascade average age is approximately 50 and the Province is approximately 40 years.



District Actual and Projected Enrolment

The actual district enrolment in each grade in September 2016 is presented in the following graph. The average number of students per grade is 130. The graph shows a narrow fluctuation above and below the average which suggests a relatively stable roll forward enrolment for the planning timeframe.

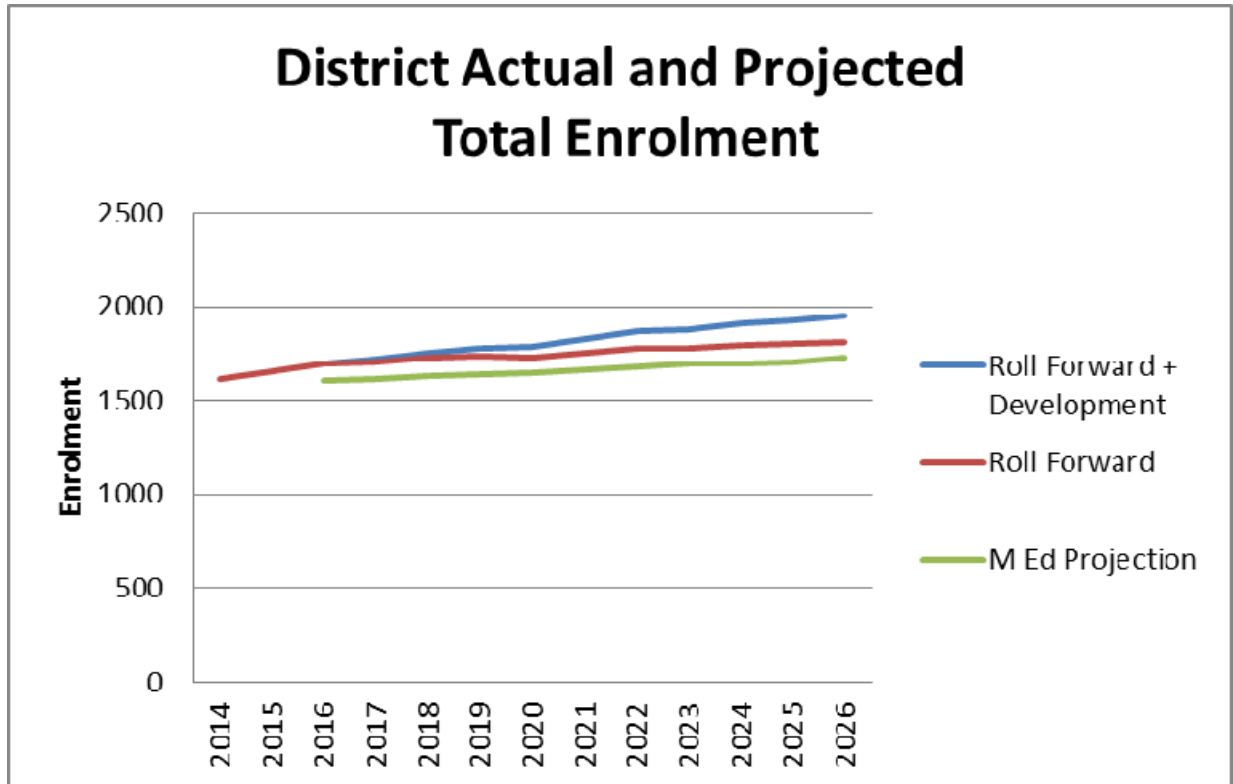


The Fraser-Cascade School District has developed enrolment projections in two ways which are included in the following graph.

1. The roll forward approach - simply rolling forward the students currently in the schools and estimating the kindergarten students entering the system each year. (red line in the graph)
2. Growth of students based on the roll forward of students currently in the schools plus students from the projected residential development. (blue line in the graph)

The Ministry enrolment projection developed by BC Statistics in 2015 is presented in green in the following graph.

The actual total K to 12 enrolment has increased from 2014 to 2016 and is projected to increase over the next 10 years from 1,690 to between 1,800 and 1,950 students.



There are many variables that influence actual enrolment levels. These variables include:

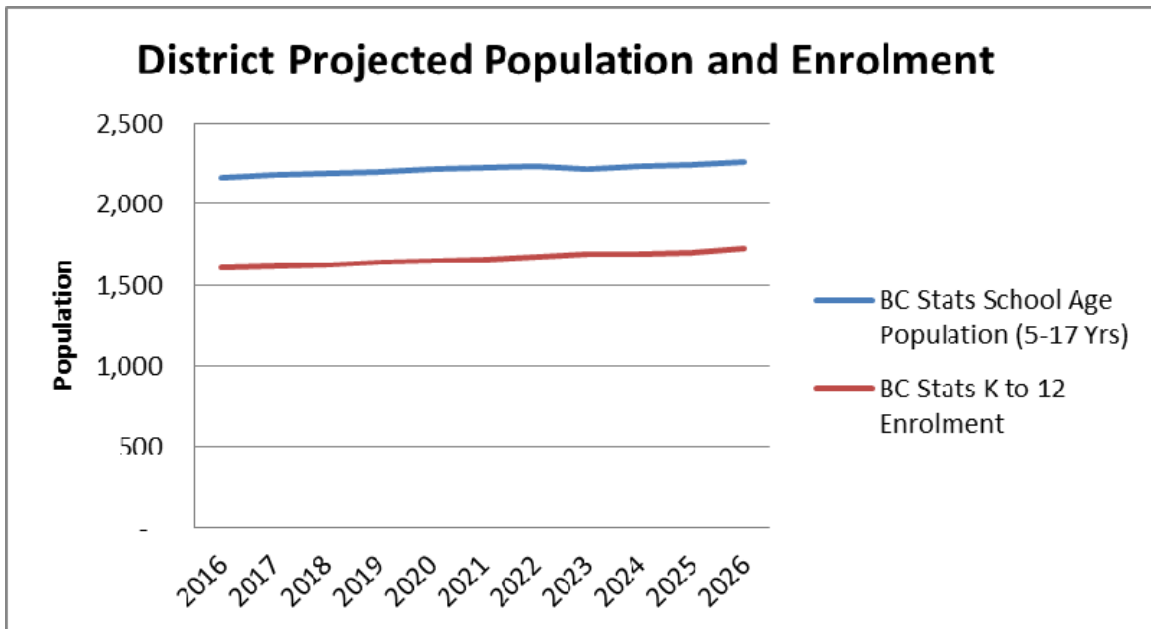
- ✓ birth rates
- ✓ immigration trends
- ✓ interprovincial trends
- ✓ housing starts and absorption rates
- ✓ yield rates
- ✓ percentage of school age population enrolled in the School District.

Residential development may add approximately 140 students to the roll forward projection. As presented later in this report, the growth is expected in the Agassiz area.

The 2015 enrolment projections from BC Stats are slightly lower than the roll forward projections. It appears BC Stats may not have access to the local knowledge on residential development.

SD78 Long Range Facilities Plan

The comparison of the BC Stats projected school age population and the BC Stats projected enrolment for the school district is presented below. The graph shows a slight increase in both over the next 10 years. It also shows the school age population of 5 to 17 years is about 2,200 and the projected enrolment is about 1,700. This demonstrates that approximately 25% of school age children do not attend a Fraser-Cascade School District school.



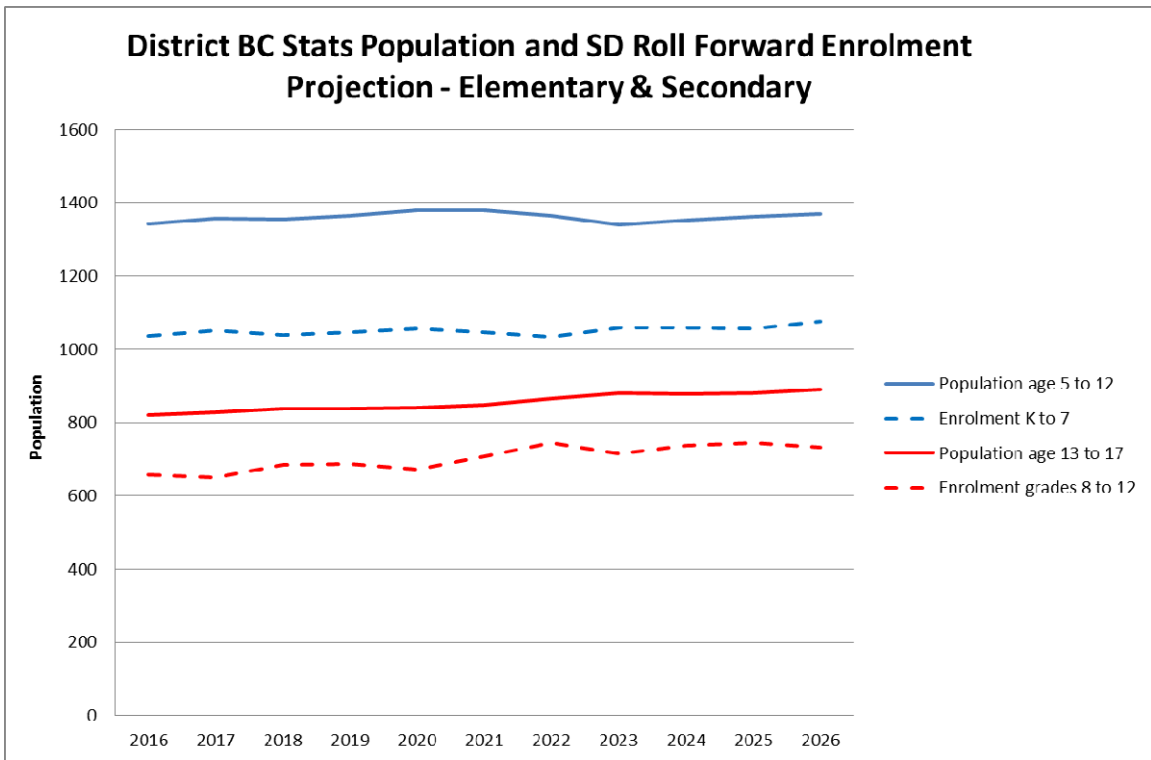
The School District will update enrolment projections regularly and make adjustments to the District Facilities Plan as necessary.

The following graph presents a similar comparison of the BC Stats projection of school age population and the school district projection of school age children in the elementary and secondary age groups.

SD78 Long Range Facilities Plan

It can be seen that the elementary enrolment (dotted blue line) is expected to remain above 1,000 students and is relatively constant over the planning timeframe. The secondary enrolment (dotted red line) is projected to increase slightly and to remain below 800 students. The fluctuations of elementary and secondary student numbers result in a relatively constant total enrolment for the district.

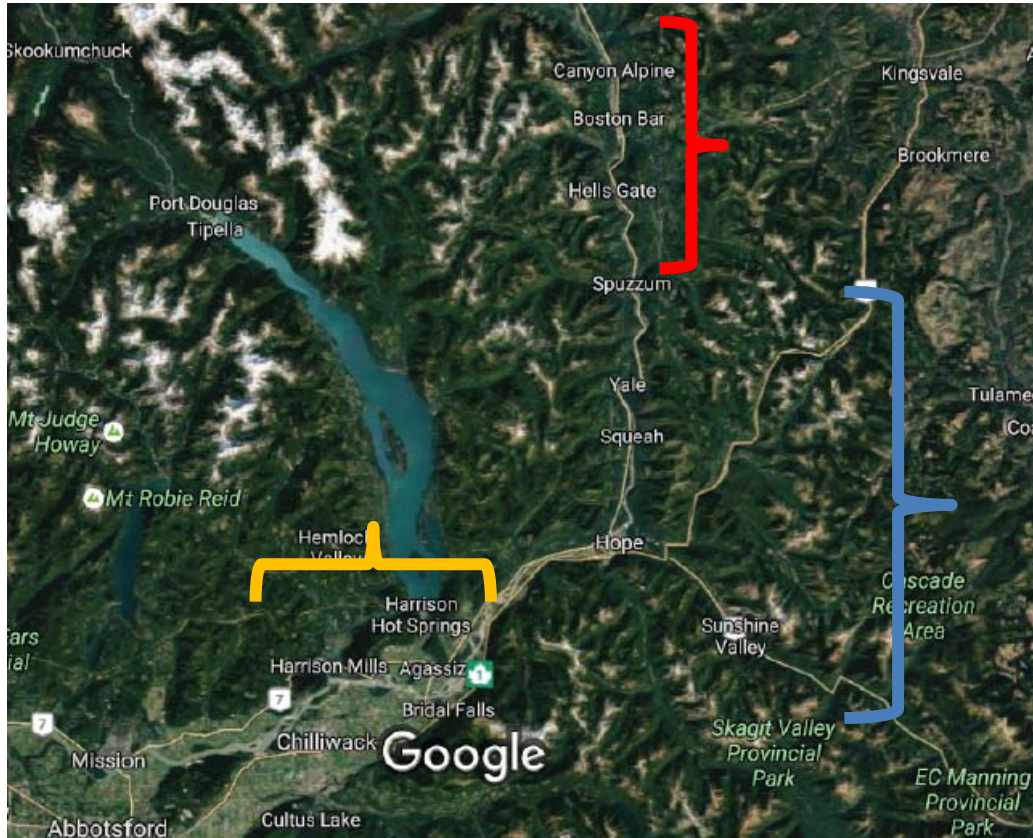
It is also evident that school age population projections for both elementary (solid blue line) and secondary (solid red line) age groups are higher than the enrolments. There are about 300 children of elementary school age and 200 students of secondary school age that do not attend classes in the school district according to the BC Stats projections.



School age children may be enrolled in local Band schools, may do home schooling or participate in private school or attend school in another school district. It is evident that at the secondary level a larger portion of the school age population attend the school district schools.

SD78 Long Range Facilities Plan

Fraser-Cascade School District covers a vast rural area. Due to the geographical constraints and for operational efficiencies the district operates as three zones including Boston Bar highlighted in red on the following google satellite image; Hope highlighted in blue and Agassiz highlighted in gold.



The review of school capacity will be presented for the three zones.

The Boston Bar area has experienced significant decline over the past 10 years due to the reductions in the forestry industry. The population is expected to remain relatively constant during the next 10 years of the planning timeframe.

The District of Hope completed their Official Community Plan in 2015. Based on Fraser Valley Regional District projections Hope expects the population to grow from approximately 6,000 to 6,350 by 2026. The increase in school age population is expected to be small.

The Agassiz zone consists of Harrison Hots Spring and the District of Kent. The area is less than an hour drive from the Greater Vancouver Regional District. Agassiz is becoming an attractive option for families

SD78 Long Range Facilities Plan

due to the lower cost of housing relative to high cost of housing in the western sections of the lower mainland. The population in the District of Kent is expected to increase from 5,619 in 2016 to approximately 7,800 by 2040 which is a 1.6% annual increase. It is expected there will be approximately 41 additional households per year and 0.3 students per household. Much of that development is expected to impact the Agassiz Elementary / Secondary and Kent Elementary Schools. It should be noted that according to BC Stats the population of Agassiz grew by 5.3% in 2015.

The details on development from the District of Kent are presented in the following tables. It is projected that there will be 12 students per year from the new development.

District of Kent Development Summary	
Development Area	Estimated Household growth 2016-2040
A1 (Agassiz Townsite)	720
A2 (Mt. Woodside)	134
A3 (Rockwell)	19
A4 (Harrison Mills)	7
A5 (All other areas)	98
Total	978
New houses per year	41
Students per household	0.3
Students per year	12

The District of Kent Population Projections are presented in the following table:

Development Area	2006 Households Baseline	2006 Population	2011 Population	2016 Population	Approx. 2040 POP
A1 (Agassiz Townsite)	1374	3,118	3,571	3,943	5,750
A2 (Mt. Woodside)	44	106	144	240	562
A3 (Rockwell)	79	233	242	209	127
A4 (Harrison Mills)	36	86	89	94	17
A5 (All other areas)	431	1,065	1,214	1,133	1,368
Total	1964	4,608	5,260	5,619	7,824
		Increase	652	359	2,205
		% change	14.1%	6.8%	39.2%
		Annual growth	130	72	92
		Change	2.8%	1.4%	1.6%
		SD78 Annual Student Increase			12

The Village of Harrison Hot Springs community plan indicates a high number of seniors and a relatively even distribution of population in the age groups from 0 to 50 years. Lower housing prices are expected to draw families to the area so a modest increase of school age children is expected.

Capital Assets

Facility Uses

The School District is comprised of three elementary / secondary schools, four elementary schools, two alternative education school in multiple sites. Hope Secondary School accommodates grade 7 to 12 and is fed by Silver Creek Elementary which offers kindergarten to grade 7 and Coquihalla Elementary which has kindergarten to grade 6; Agassiz Elementary / Secondary accommodates grades 7 to 12 and is fed by Harrison Hot Spring Elementary and Kent Elementary which both offer kindergarten to grade 6. Boston Bar Elementary / Secondary accommodates kindergarten to grade 12.

The School District operates 3 Strong Start programs for early childhood development; one program in each zone. They are located at Boston Bar, Kent and Coquihalla. The locations are included in the adjusted capacity table in Appendix B.

The School District Administrative Offices are located in purpose built facilities in Hope. The District Maintenance and Transportation department operates out of the purpose built facilities in Hope as well as the stand alone satellite facilities on the Agassiz Secondary School site.

The School district has 3 portables at Coquihalla Elementary School which were retained following construction of the addition in 2014; one is used for the music program. There is one portables at Kent Elementary which is used for a classroom. There is also one portable at the Two Rivers Alternative Education Centre (TREC) located on the former CE Barry Middle School site. The portable classrooms are not considered in the capacity analysis. There is also one full-day kindergarten module that was added to Harrison Hot Spring Elementary School in 2012 and is included in the school capacity.

The school district owns Yale Elementary School which has a nominal capacity of 20K75. The school was closed 13 years ago due to declining enrolment. The facility is leased to the Regional District for community programs. The school district also owns a two classroom modular structure that is located next to the Maintenance Facility in Hope; it has been leased to the University of the Fraser Valley for an extended period.

The School District operates approximately 25,673 square metres total building area and has 26 hectares of property. In most cases the school sites meet the Ministry site size guidelines for the current school nominal capacity. Hope Secondary School site is only 1.7 hectares which is 1.1 hectares below the Ministry area standard for a 450 capacity secondary school, however, the 2 hectare site of the former C.E. Barry Middle School is only 0.5 KM away and may be used for secondary school sports activities. The School District also owns the site of the former McCaffery Elementary School in the District of Kent which is not required for school use.

SD78 Long Range Facilities Plan

An inventory of facilities is presented in Appendix A and below.

SD78 Facilities								
NAME	FACILITY NUMBER	YEAR OPENED	AREA (ha.)	Area (ac.)	NOMINAL CAPACITY	BUILDING AREA (sm)	STRONG START	PORT-ABLES
Boston Bar Zone								
Boston Bar Elem/ Sec	32004	1917	2.5	6.2	20K 175	2,798	1	0
Agassiz Zone Zone								
Harrison Elementary	76002	1949	2.1	5.1	20K 100	1,006		0
Kent Elementary	76007	1963	2.4	5.9	20K 300	2,946	1	1
Agassiz Elem/Sec	76003	1952	5.5	13.6	S-400	4,719		0
Transportation Grounds	76502	1965	incl	incl	n/a	351		0
A.C.E. Building	76501		incl	incl	n/a	181		0
Hope Zone								
Coquihalla Elementary	32006	1988	2.5	6.2	40K 350	2,880	1	3
Siver Crekk Elem	78012	1998	2.1	5.2	20K 200	2,101		0
Hope Secondary	32003	1974	1.7	4.3	450	6,220		0
TREC	99053		incl	incl	n/a	120		1
Adminstration Building	32504	1990	1.4	3.4	n/a	414		0
Maintenance Shop	32502	2013	2.3	0.3	n/a	520		0
Other Properties								
Yale Elementary (Yale)	32007	1975	0.4	1.0	E-75	937		0
McCaffery site (Kent)	76006	1961	0.9	2.1	n/a	-		0
C.E. Barry Site (hope)	32011	1972	2.1	5.1	n/a	-		0
U.F.V. Building (Hope)	99006		incl	incl	n/a	187		0
		Total	26	58		25,673	3	5

Facility Condition

The Ministry initiated Capital Asset Management Services (CAMS) in 2009/10 and completed standardized facility condition assessments (FCA) of all schools in the Province over a three year period by the firm VFA. The FCAs for all schools in the province provide the Ministry with comparable data to support the Provincial capital plan for building renewal. Schools in the Fraser-Cascade School District were assessed in 2012. The results are presented in the following table.

The Facility Condition Index (FCI) is the primary indicator of the overall condition of the building systems and miscellaneous structures and furnishings. In general, schools with a rating larger than 0.7 may be considered for replacement. It can be seen that the FCI for Boston Bar is 0.53 which is the highest rating for a school and this school has recently received a mechanical

SD78 Long Range Facilities Plan

upgrade which will reduce this value. It is apparent that no schools in the district require replacement due to building condition. Through application of Ministry funding provided annually, upgrades to various building systems will be completed to extend the life of the schools beyond the capital plan timeframe.

NAME	YEAR OPENED	BUILDING AREA (sm)	VFA - BUILDING FCI
BOSTON BAR ELEM / SEC	1917	2,798	0.53
HARRISON ELEMENTARY	1949	1,006	0.38
KENT ELEMENTARY	1963	2,946	0.43
AGASSIZ ELEM / SEC	1952	4,719	0.40
TRANSPORTATION GROUNDS	1965	351	0.56
A.C.E. BUILDING	1965	293	0.52
		181	0.18
COQUIHALLA ELEM.	1988	2,880	0.46
SILVER CREEK ELEM.	1998	2,101	0.33
HOPE SECONDARY	1974	6,220	0.43
TREC		120	
ADMINISTRATION OFFICE	1990	414	0.25
MAINTENANCE SHOP (new)	2013	520	0.25
Other Properties			
YALE ELEMENTARY	1975	937	0.77
McCAFFERY SITE	1961	0	n/a
C.E. BARRY SITE	1972	0	n/a
U.F.V. Building		187	
		25,673	

Operations and Maintenance

The school district has a Maintenance Department funded from the operating budget. It is staffed with permanent custodians and skilled and semi-skilled tradesmen that provide custodial services and minor repairs to normal wear and tear to buildings and grounds. They also manage utilities services and conservation initiatives.

The school district uses the Annual Facilities Grant funding to engage contractors to address larger maintenance projects such as roofing, flooring, exterior painting and mechanical and electrical system upgrades. Recently the focus has been on system upgrades that will reduce the utilities costs.

Capacity Utilization

Purpose of Capacity Utilization Analysis

Capacity utilization is calculated as follows:

$$\frac{\text{Enrolment}}{\text{Operating Capacity}} \times 100\% = \text{Capacity Utilization}$$

Capacity utilization analysis is a useful means of determining how efficiently capital assets are being utilized. Capacity utilization analysis can identify overcrowding at particular schools that may need to be addressed in the short to medium term. Capacity utilization analysis can also identify where surplus space exists that can be made available for other purposes.

Nominal capacities, set by the Ministry of Education for planning purposes, are as follows:

Nominal Capacities	
Kindergarten Classrooms	20
Primary Classrooms	25
Intermediate Classrooms	25
Secondary Classrooms	25

Operating capacities are utilized for capital planning purposes and take into consideration class size limits prescribed by the Ministry of Education. Operating capacities are as follows:

Operating Capacities	
Kindergarten Classrooms	19
Primary Classrooms	21
Intermediate Classrooms	25
Secondary Classrooms	25

Adjustments to the capacity are required due to the addition of one full day kindergarten modular, and the introduction of three Strong Start Programs. Nominal and adjusted operating capacities of Fraser-

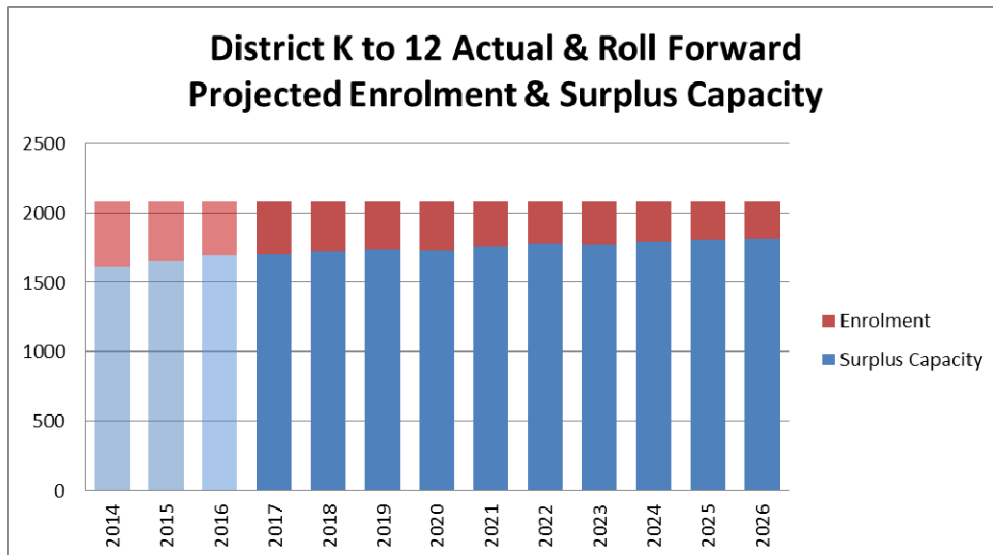
SD78 Long Range Facilities Plan

Cascade School District schools are presented in the following table sorted by family of schools. There are no childcare programs occupying teaching modules.

Nominal and Operating Capacities

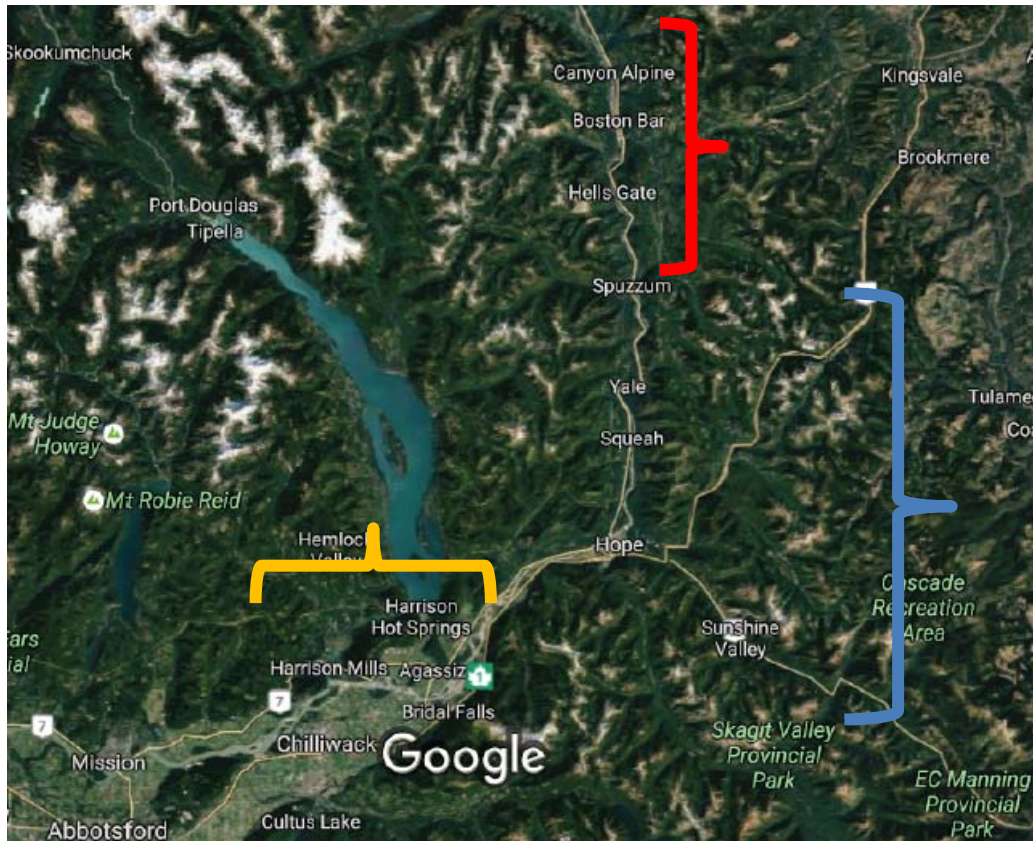
School	Grades	Nominal Cap		Strong	Adj
		FDK	1 to 12	Start	Op Cap
Boston Bar Elem-Secondary	K to 12		275	1	250
Sub-Total					250
Agassiz Zone					
Harrison Hot Springs Elementary	K to 6	20	100		112
Kent Elementary	K to 6	20	325	1	299
Agassiz Elem-Secondary	7 to 12		400		400
Sub-Total					811
Hope Zone					
Coquihalla Elementary	K to 6	40	375	1	364
Silver Creek Elementary	K to 7	20	200		205
Hope Secondary	7 to 12		450		450
Sub-Total					1019
Alternative Education Programs	K to 12				
District Total Capacity		100	2125		2080

The School District total operating capacity is 2,080 seats. The following graph shows the School District total actual and projected enrolment and the surplus operating capacity by year. The graph shows the surplus capacity in red and the total district projected enrolment in blue. Over the past 3 years the enrolment has increased. The surplus number of seats will continue to decrease from 470 to 220 over the planning timeframe.

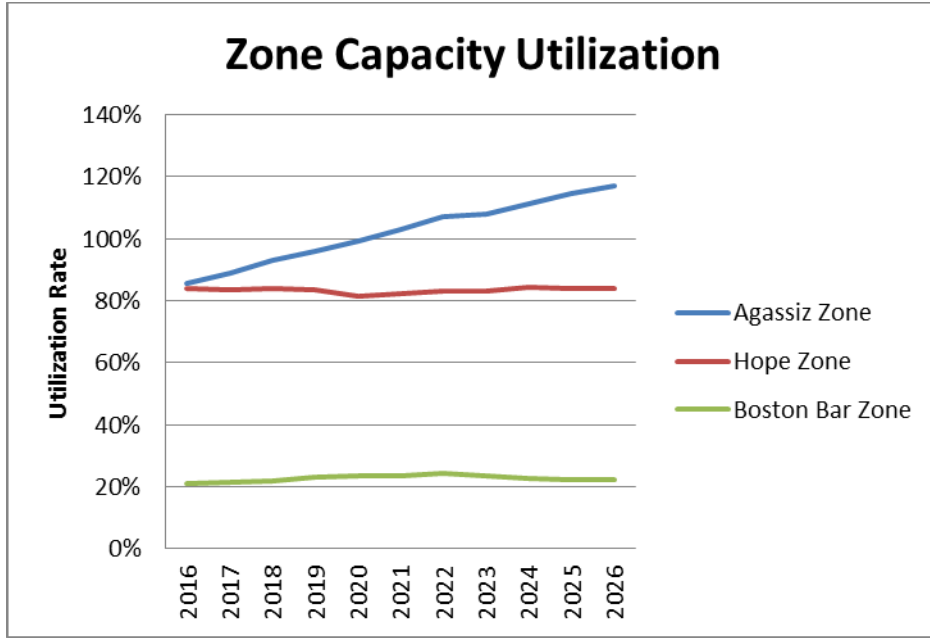


School District Capacity Utilization - Three Zone Analysis

The school district will be considered as three zones for capacity utilization analysis due to the vast area of the district and extended distances between the development areas. Three zones consisting of Boston bar in red, Hope zone in blue and Agassiz zone in gold are shown below.

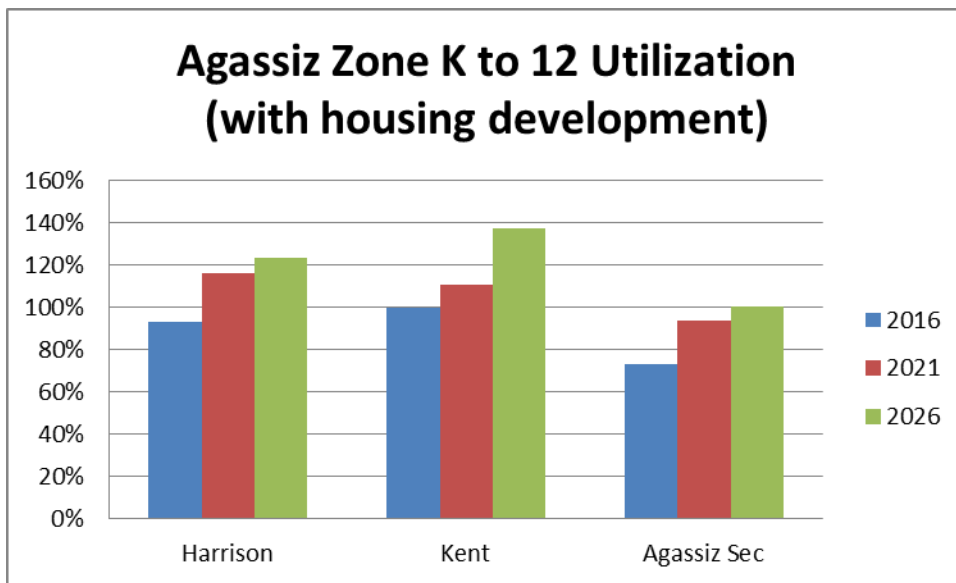


The utilization rate based on the current operating capacities for the three zones is shown in the following graph. It can be seen that the Boston Bar Zone utilization rate is relatively constant at 20% and Hope Zone is relatively constant at 80% throughout the plan timeframe. The Agassiz Zone utilization rate continually increases from 85% to approximately 120% over the next 10 years due to the projected enrolment growth from residential development. Additional capacity will be required in the Agassiz Zone during the planning timeframe.



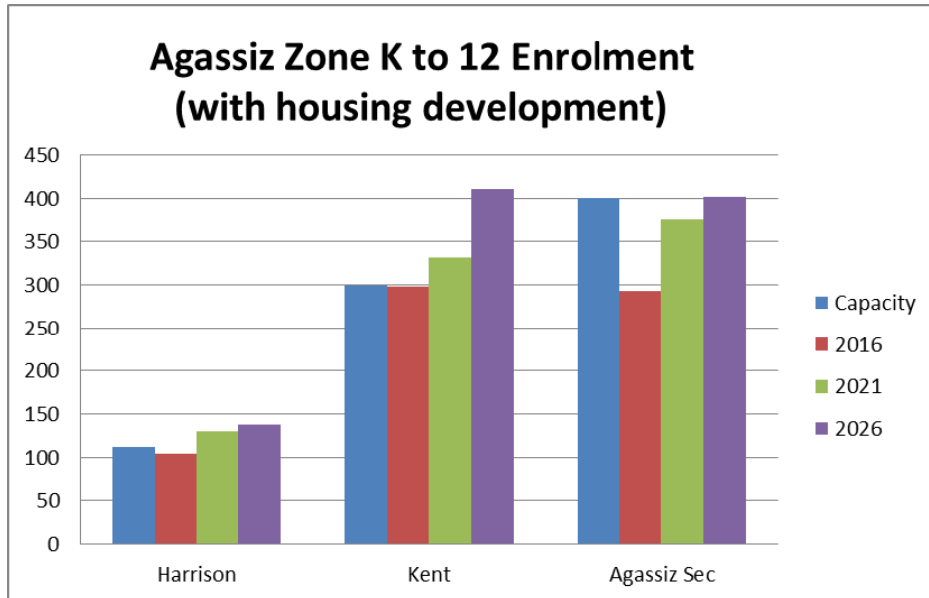
The graph of capacity utilization rate and the graph of enrolment are presented below for each family of schools at three milestones – actual 2016 enrolment, and projected 2021 and 2026 enrolment.

Agassiz Zone: The capacity utilization graph below shows that Agassiz Elem-Sec is at 73% and will experience growth and be fully utilized by 2026. Harrison Elem is at 93% and will experience growth to 120% capacity utilization. Kent Elementary is currently full and will grow to almost 140% utilization.

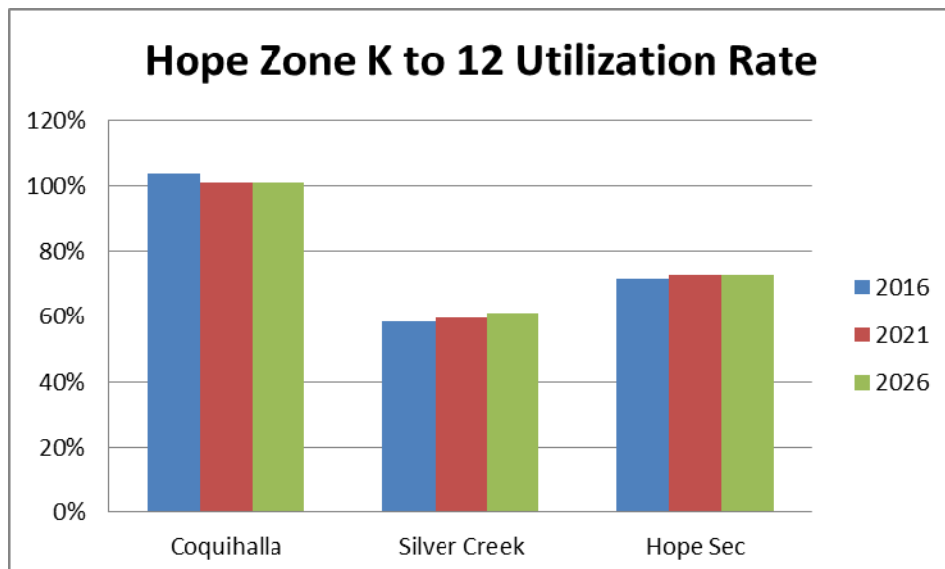


SD78 Long Range Facilities Plan

The enrolment projections are shown in the following graph. Agassiz Elem-Sec will be full, Harrison Elem will be short about 20 seats. Kent Elem will be short over 100 seats by 2026 if development proceeds at the rate projected by the District of Kent.

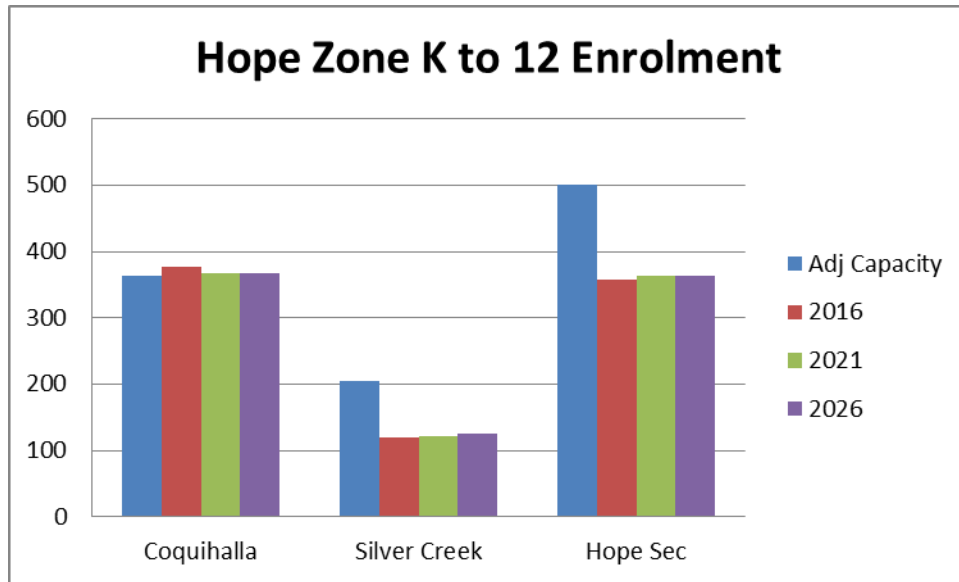


Hope Zone: The Hope Secondary utilization is currently at approximately 70% and is projected to remain at that level. The Silver Creek Elementary utilization is at about 60% now and is projected to remain at the same level. Coquihalla Elementary is at 100% utilization and is expected to remain at the same level through the plan timeframe.



SD78 Long Range Facilities Plan

The enrolment graph below indicates Coquihalla Elementary will be at the capacity throughout the planning time frame. Silver Creek Elementary will have about 80 surplus seats and Hope Secondary will have over 100 surplus seats throughout the planning timeframe.



Boston Bar Zone: The Boston Bar Elementary-Secondary School is the only school in this zone. The projected enrolment and utilization rate are shown in the following table. The utilization rate will remain below 25% and the student population will remain at about 60 students.

Adj Capacity	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
250	52	53	54	58	59	59	61	59	57	56	56
Utilization	21%	21%	22%	23%	24%	24%	24%	24%	23%	22%	22%

Alternative Education: The school district has approximately 90 students in secondary level alternative education programs in Hope at Two Rivers Education Centre (TREC) and Agassiz at the Agassiz Centre for Education (ACE) Building. The programs are offered to students that are not able to take courses in the regular school programs. These students and the program spaces are not included in the zone capacity analysis. The number of students in these programs is expected to remain relatively constant. The facilities including a recently added portable classroom at the Hope facility, meet the program requirements.

Summary Observations

The Fraser-Cascade School District will have adequate capacity in the Hope Zone and Boston Bar Zone for the planning timeframe under the current school configurations. The Agassiz Zone is expected to

experience increased housing development which will utilize the existing surplus capacity by 2021 and require the addition of 100 seats by 2026. The school district has adequate space for alternative education programs for the foreseeable future.

Capacity Utilization Initiatives

Capacity utilization analysis shows that there is currently surplus secondary capacity in the three Fraser-Cascade zones. There is also some surplus elementary capacity in the short to medium term in localized areas. However, projected housing development in the Agassiz zone is expected to result in increased enrolment that will exceed the available capacity in that zone by 2021.

The Board of Education has made adjustments to make best use of existing capacity. They will request expansion of Kent Elementary school to address the projected shortfall due to residential development in the Agassiz zone.

The School District may also investigate new programs to broaden the course offerings to the student population in the Fraser-Cascade.

Generally, the School District will:

- ✓ consider adjustments to catchment areas
- ✓ review the opportunities for the delivery of additional educational programs
- ✓ make surplus facilities available for community or commercial use where supported by a favorable business case

The School District will undertake the following capacity utilization initiatives.

1. Catchment Area Adjustments

The School District establishes catchment areas for all enrolling schools. Enrolments within each catchment area can change over time as a result of program choice, residential occupancy, new development, and redevelopment.

The School District will continue to review and amend catchment areas periodically to address overcrowding and take advantage of existing surplus capacity. Adjustments will be based on:

- enrolment considerations
- class size considerations
- facility considerations

2. Consider implementation of New Programs

The School District attracts approximately 76% of the student population in the Fraser-Cascade area. The School District will review public interest in new programs that may be beneficial and attract students to the Fraser-Cascade School District.

3. Promotion of Day Care Services at Elementary Schools

The School District notes that parents residing in the Fraser-Cascade School District have choice and some parents choose not to enroll their children in the School District programs.

A number of school districts now encourage the establishment of day care programs at elementary schools. The School District will consider the establishment of day care programs at elementary schools with the objectives of:

- building connections with parents before children are of school age
- promoting development of early learning programs in schools
- addressing the needs of families
- making responsible use of surplus space

4. Business Policies for Utilization of Surplus Space

Increased community use of surplus space in schools can result in additional building operating costs. The School District is not in a position to absorb these costs.

The School District will consider accommodation of community services in surplus school capacity and closed schools by community organizations, not-for-profits, and commercial entities where there is a favourable business case.

Yale elementary and the University of the Fraser Valley facilities in Hope and Agassiz are seen as valuable assets for the community, which do not pose a financial burden on the school district so they will be retained for the foreseeable future. The McCaffery site is surrounded by ALR and will be retained pending development of a business case supporting disposal.

Capital Investment Priorities

The Fraser-Cascade School District has a good inventory and distribution of elementary and secondary schools. The School District generally has capacity to accommodate enrolments. The residential development projected for the Agassiz zone is expected to result in enrolment that exceeds the available capacity so expansion will be required in the short term. In addition, the school district will continue to review and adjust catchment areas, grade configurations, and placement of district programs to maximize utilization rates. Neighbourhood Learning Centre programs and partnerships with other agencies that have a beneficial business case will continue to be offered while surplus space is available.

The majority of capital investment in the next ten years will be focused on extending the service life of the existing active schools, and completing enhancements that improve student learning and align with 21st century learning including, outdoor education opportunities, and community partnerships for learning. The school district will pursue capital funding through the available Ministry programs as presented in the 2019/2020 Capital Plan Instructions and presented below. The school district will also pursue expansion of Kent Elementary School.

Seismic Mitigation Program (SMP)

The Ministry of Education announced its Seismic Mitigation Program in 2004. Consultants were engaged to undertake “Rapid Seismic Assessments” on all schools in those school districts where significant seismic activity can be expected. These assessments enabled the Ministry of Education to assign a ranking to the various sections of each school based on the seismic upgrading needed, and to estimate the cost of seismic mitigation.

In 2005, the Ministry of Education engaged the Association of Professional Engineers of BC (APEGBC) and the University of British Columbia Civil Engineering Department, Earthquake Research Group to develop enhanced seismic risk assessment tools and seismic mitigation strategies.

The seismic risk assessments were updated in 2010 using the latest risk assessment tools. The assessment identified Hope Secondary School and CE Barry Middle School as high risk schools. These two seismic projects have been completed. Based on the latest assessment tools there are high risk schools which are seismic upgrade projects in the Capital Plan. The rating of all schools is included in Appendix D. The 2019 reassessment has been completed for Agassiz Elementary/Secondary and Harrison Hot Springs Elementary to confirm the seismic risks and Kent Elementary gym is currently under assessment.

School Expansion Program (EXP)

The Ministry priority for new school, addition or site acquisition projects is to areas experiencing consistent and rapid high density population growth and where space optimization has been demonstrated. Expansion projects will not be eligible for funding consideration if adequate ~~space is available at nearby schools.~~

Under the current capacity utilization rates in the three zones the Agassiz zone is the only one where expansion will be considered. Because of the large size of the existing school sites and the effective distribution of schools throughout the school district there is no basis for school site acquisition projects. Therefore the only EXP project in the Five Year Capital Plan is the expansion of Kent Elementary School.

School Replacement Program (REP)

The Ministry will consider replacement projects where the school has reached the end of its useful life and further investment is not substantiated due to major structural issues or the accumulation of maintenance needs that would exceed the cost of replacement. School replacement projects are eligible for cost-sharing based on the school district's ability to contribute.

Based on the VFA assessments and the facility condition index values the Yale Elementary School is the only facility which warrants consideration for replacement; however, the school is closed so replacement is not being considered.

Agassiz Elementary/Secondary School is included in the Capital Plan for partial replacement. The gym was replaced in 2001 and the floor elevation was raised approximately 1 metre due to the flood plain elevation. The main floor of the remainder of the school is below the flood plain. In addition most of the school is constructed on a crawlspace and moisture is an issue.

Harrison Elementary School is included in the Capital Plan for partial replacement. The school district will review options to address the building condition issues with this 1949 facility including self-financing the work.

Building Envelope Program (BEP)

The Ministry established the BEP in 2006 to assist school districts with the identification and remediation of the causes and resultant damage from unintended water ingress where premature failure of the building envelope has occurred in schools built between 1985 and 2000.

Coquihalla Elementary (1988) and Silver Creek Elementary (1998) are the only schools constructed in the specified timeframe. There are no outstanding building envelope issues with these schools; therefore there are no BEP projects in the Capital Plan.

School Enhancement Program (SEP)

The Ministry will contribute to the safety and function of schools through projects that extend the service life of the existing asset including:

- Electrical upgrades (power supply and distribution systems)

SD78 Long Range Facilities Plan

- Energy Conservation upgrades
- Health and Safety upgrades (fire systems, indoor air quality)
- Mechanical upgrades (heating, ventilation, plumbing)
- Roof upgrades.

The projects must cost between \$100,000 and \$3,000,000. Annual Facility Grant funds will be directed to projects below \$100,000 and Capital REP projects will deal with renovations over \$3,000,000.

The school district will pursue SEP projects to enhance school facilities. Mechanical and electrical upgrades and roof replacements are seen as the priorities at this time.

Carbon Neutral Capital Program (CNCP)

The Ministry will distribute \$5,000,000 per year to 2018/19 to energy efficient projects that lower the school district carbon emissions.

The school district will continue to pursue CNCP projects.

Bus Replacement Program (BUS)

The Ministry considers buses capital assets and any new or replacement buses are funded through the Five-Year Capital Plan submission.

The school district provides student transportation through a fleet of school district owned school buses. The school district will require replacement of buses based on the mileage, condition and age. The plan calls for 5 replacement buses by 2020.

SD78 Long Range Facilities Plan

The table below shows the current projects included in the 2017 Five Year Capital Plan.

	Seismic	School Expansion	School Replacement	Building Envelope	School Enhancement	Carbon Neutral
Hope Zone						
Hope Secondary	complete	x	x	x	DDC upgrade; LED lighting upgrade	x
Coquihalla Elementary	x	x	x	x	LED Lighting upgrade	x
Silver Creek Elementary	x	x	x	x	DDC upgrade; LED lighting upgrade	x
Agassiz Zone						
Agassiz Elementary - Secondary		x	2020	x	DDC upgrade, LED lighting upgrade, roof replacement	Replace Boiler & RTU
Kent Elementary	TBC	2018	x	x	x	x
Harrison Hot Springs Elementary	TBC	x	2020	x	DDC upgrade	x
Boston Bar						
Boston Bar Elementary & Secondary	x	x	x	x	DDC upgrade	x
Support Facilities						
Agassiz Centre for Education	x	x	x	x	x	x
Two Rivers Education Centre	x	x	x	x	x	x
District Alternate Secondary Program (Hope)	x	x	x	x	x	x
Maintenance & Transportation Building (Hope)	x	x	x	x	x	Electric vehicle
Transportation Facility (Agassiz)	x	x	x	x	x	x
Board Office	x	x	x	x	x	x
Other Facilities						
University of the Fraser Valley - Hope Centre	x	x	x	x	x	x
Old Maintenance Facility	x	x	x	x	x	x
Agassiz Continuing Education & UFV in Agassiz	x	x	x	x	x	x
Yale Elementary	x	x	x	x	x	x
CE Barry Site	x	x	x	x	x	x
McCaffey Site	x	x	x	x	x	x

Note: TBC is to be confirmed.

Appendix A
Facilities Inventory

SD78 Long Range Facilities Plan

SD78 Facilities									
NAME	FACILITY NUMBER	YEAR OPENED	AREA (ha.)	Area (ac.)	NOMINAL CAPACITY	BUILDING AREA (sm)	STRONG START	PORT-ABLES	VFA - BUILDING FCI
Boston Bar Zone									
Boston Bar Elem/ Sec	32004	1917	2.5	6.2	20K 175	2,798	1	0	0.53
Agassiz Zone Zone									
Harrison Elementary	76002	1949	2.1	5.1	20K 100	1,006		0	0.38
Kent Elementary	76007	1963	2.4	5.9	20K 300	2,946	1	1	0.43
Agassiz Elem/Sec	76003	1952	5.5	13.6	S-400	4,719		0	0.40
Transportation	76502	1965	incl	incl	n/a	351		0	0.56
Grounds	76502	1965	incl	incl	n/a	293		0	0.52
A.C.E. Building	76501		incl	incl	n/a	181		0	0.18
Hope Zone									
Coquihalla Elementary	32006	1988	2.5	6.2	40K 350	2,880	1	3	0.46
Siver Crekk Elem	78012	1998	2.1	5.2	20K 200	2,101		0	0.33
Hope Secondary	32003	1974	1.7	4.3	450	6,220		0	0.43
TREC / D.A.S.P. / H.A.R.P	99053		incl	incl	n/a	120		1	
Adminstration Building	32504	1990	1.4	3.4	n/a	414		0	0.25
Maintenance Shop	32502	2013	2.3	0.3	n/a	520		0	0.25
Other Properties									
Yale Elementary (Yale)	32007	1975	0.4	1.0	E-75	937		0	0.77
McCaffery site (Kent)	76006	1961	0.9	2.1	n/a	-		0	n/a
C.E. Barry Site (hope)	32011	1972	2.1	5.1	n/a	-		0	n/a
U.F.V. Building (Hope)	99006		incl	incl	n/a	187		0	
		Total	26	58		25,673	3	5	

Appendix B
Adjusted Capacity for Each Zone

SD78 Long Range Facilities Plan

SD78 Capacity Analysis					
19-Oct-16					
Operating Capacity per Grade					
Kindergarden	19				
grades 1 to 3	21				
grades 4 to 12	25				
		Nominal Cap		Strong	Adj
School	Grades	FDK	1 to 12	Start	Op Cap
Boston Bar Elem-Secondary	K to 12		275	1	250
Sub-Total					250
Agassiz Zone					
Harrison Hot Springs Elementary	K to 6	20	100		112
Kent Elementary	K to 6	20	325	1	299
Agassiz Elem-Secondary	7 to 12		400		400
Sub-Total					811
Hope Zone					
Coquihalla Elementary	K to 6	40	375	1	364
Silver Creek Elementary	K to 7	20	200		205
Hope Secondary	7 to 12		450		450
Sub-Total					1019
Alternative Education Programs	K to 12				
District Total Capacity		100	2125		2080

Appendix C
Seismic Rating of Schools
(from Ministry Website 2016)

SD78 Long Range Facilities Plan

SD78 - Fraser/Cascade ... SCHOOL LIST			
Facility Name	2004 Risk	Current Risk	Status
AGASSIZ ELEM-SEC	Moderate/High	Medium	Non Structural Upgrade Required
BOSTON BAR ELEM-SEC	Moderate/High	Medium	Non Structural Upgrade Required
C E BARRY INTERMEDIATE SCHOOL demolished 2016	High	High 2	Supporter (May 2012)
COQUIHALLA ELEMENTARY	High	Medium	Non Structural Upgrade Required
DISTRICT ALTERNATE SEC PROG	Moderate/High	Medium	Non Structural Upgrade Required
HARRISON HOT SPRINGS ELEMENTARY	High	Medium	Non Structural Upgrade Required
HOPE SECONDARY completed	High	Medium A	Completed
KENT ELEMENTARY	High	Medium	Non Structural Upgrade Required
MCCAFFREY ALTERNATE demolished 2016	High	Medium	Non Structural Upgrade Required
YALE ELEMENTARY	Low/Moderate	Low	Meets Structural Life Safety Requirements