

qathet Regional District – Electoral Areas A, B, C, & D Population Analysis and Projections 2016 - 2041

Introduction

The Arlington Group, based on a package data run provided by BC Stats, have prepared 25-year population projections for Electoral Areas A, B, C & D in the qathet Regional District (qRD). This report contains individual population analysis and projections for Electoral Areas A, B, C & D (where the qRD provides Planning services). Projections and analysis for Electoral Area D (Texada Island) were prepared in a separate report in October 2018 and have now been included.

qRD Population Breakdown

The qathet Regional District (qRD) currently has a population of 20,070 (Statistics Canada: 2016 Census). Nearly two thirds of the qRD population lives within the City of Powell River. Table 1 below shows a population breakdown as well as the percentage of the qRD population within each Electoral Area and the City of Powell River.

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Table 1 – 2016 qRD Population Breakdown by Electoral Area

AREA	2016 Population	% of qRD Population
Area A	1,080	5.4%
Area B	1,565	7.8%
Area C	2,060	10.3%
Area D	1,076	5.4%
Area E	399	2.0%
City of Powell River	13,157	65.6%
Tla'amin Nation	728	3.6%
qRD Regional District*	20,070	100%

*Total not identical due to rounding

Source: Statistics Canada

Recent Trends

As indicated in the following Figure 2, the population of the qRD saw very modest growth of 1.5% for the 15 year period between 2001 and 2016. This small overall growth masked significant regional differences. Electoral Areas A and B grew by 9.3% and 7.9% respectively, while Electoral Areas C and D saw decreases of 3.5% and 4.8% respectively. The population of the two Electoral Areas adjacent to the City of Powell River increased while those further away or requiring access by ferry declined in population. It should also be noted that, despite the overall population decrease for Electoral Areas C and D between 2001 and 2016, a modest reversal of the downward population trend took place between 2011 and 2016.

The overall increase in population of the five electoral areas from 2001 to 2016 was 110 persons compared to 174 in the City of Powell River and 51 for the Tla'amin Nation. During that time period, the City's proportion of the qRD population declined nominally from 65.7% to 65.6%. As noted above, the population for each electoral area varied but overall, their proportion of the qRD population declined by a nominal 0.1% over the 15 year period. On the other hand, the Tla'amin Nation population increased from 3.4% to 3.6% of the total within the qRD. The increasing First Nation population reflects a trend that has occurred across Canada in recent decades.

Table 2 - Population Change 2001 - 2016

AREA	2001	2006	2011	2016	Total Pop Change 2001 - 2016	% Change 2001 - 2016
Area A	988	914	1,008	1,080	92	9.3%
Area B	1,450	1,489	1,488	1,565	115	7.9%
Area C	2,135	2,074	2,014	2,060	-75	-3.5%
Area D	1,129	1,107	1,053	1,076	-54	-4.8%
Area E	367	359	426	399	+32	8.7%
City of Powell River	12,983	12,957	13,165	13,157	+174	1.3%
Tla'amin Nation	677	682	730	728	+51	7.5%
qathet Regional District	19,765	19,599	19,906	20,070	305	1.5%
BC	3,907,735	4,113,487	4,400,057	4,648,055	740,320	18.9%

*qRD total population higher than individual components due to rounding and census undercount.

Source: Statistics Canada (Census), BC Stats

In addition to these overall population changes were significant changes within age groups. These are documented in the following Figures 3-6. In each Electoral Area, there was a significant decrease in age groups under 20 years (i.e. pre-school, elementary and high school age) and from 20 to 44 years (i.e. younger work force and some post-secondary students). The older work force from 45 to 64 generally increased over the same 15-year time period except in Area A where there was no overall trend. The most significant change affected the senior age group between 65 and 84 years. This population group increased in all Electoral Areas and more than doubled in three of the four from 2001 to 2016.

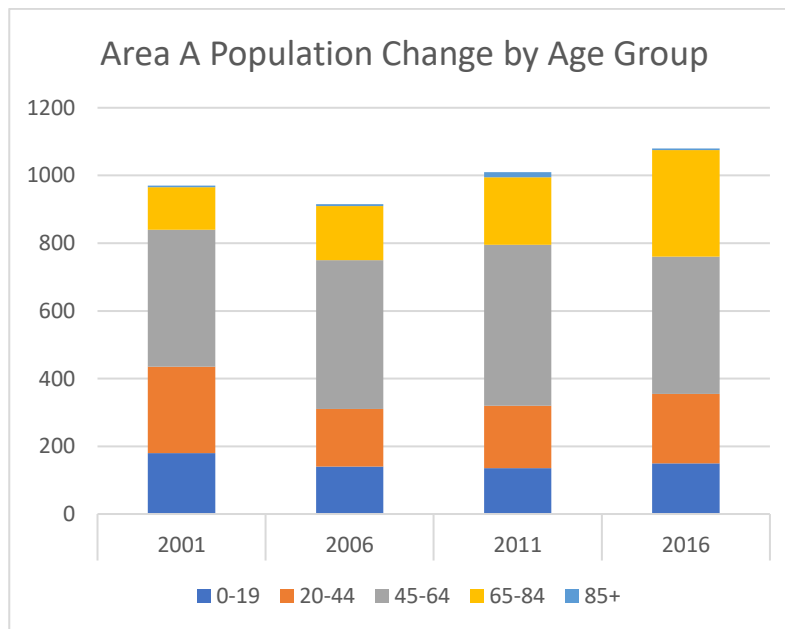
The changes for Area A are documented in the Table 3 and Figure 1 below. Despite the largest overall population increase of 9.3%, both age groups under 45 years declined by double digits in Area A. On the other hand, Area A had the highest proportionate increase in the age group from 65 to 83 - over 150%.

Table 3 - Population Change in Electoral Area A 2001 – 2016 by Age Groupings

AGE	2001	2006	2011	2016	Pop. Change 2001-2016	% Change 2001 - 2016
0-19	180	140	135	150	-30	-16.7%
20-44	255	170	185	205	-50	-19.6%
45-64	405	440	475	405	0	0
65-84	125	160	200	315	190	152.0%
85+	5	5	15	5	0	0
Total*	988	914	1,008	1,080	72	9.3%

* sub-groups and totals differ due to rounding

Figure 1 - Population Change in Electoral Area A 2001 – 2016 by Age Groupings



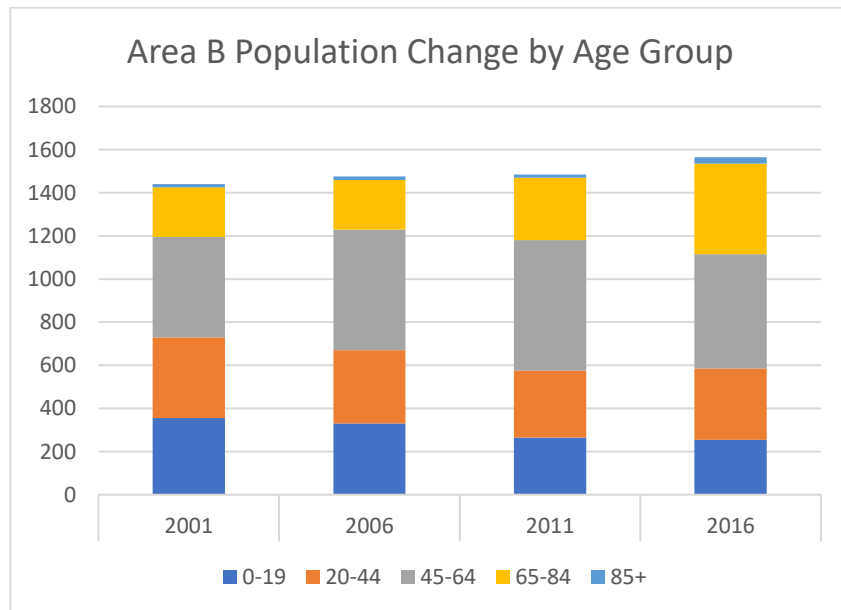
In Area B, the two age groups under 45 also declined by double digits while the age group from 65 to 84 increased but less dramatically than in Area A. Area B had the highest increase in the 45 to 64 age group of 14%. The changes for each 5 year period for Electoral Area B are documented in the below in Table 4. Area B was also the only Electoral Area where the population over 85 increased. Figure 2 displays these changes.

Table 4 - Population Change in Electoral Area B 2001 – 2016 by Age Groupings

AGE	2001	2006	2011	2016	Pop. Change 2001-2016	% Change 2001 - 2016
0-19	355	330	265	255	-100	-28.2%
20-44	375	340	310	330	-45	-12.0%
45-64	465	560	605	530	65	14.0%
65-84	230	230	290	420	190	82.0%
85+	15	15	15	30	15	100.0%
Total*	1,450	1,489	1,488	1,565	115	7.9%

* sub-groups and totals differ due to rounding

Figure 2 - Population Change in Electoral Area B 2001 – 2016 by Age Groupings



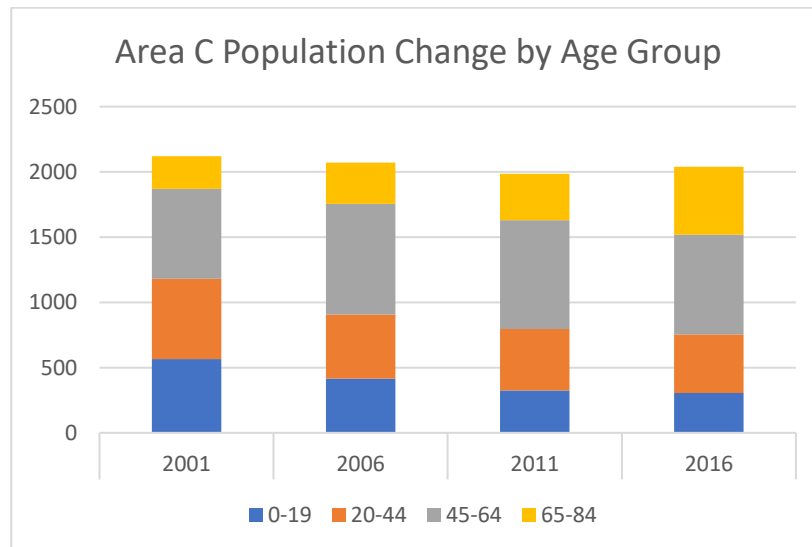
More dramatic changes in the younger age groups took place in Area C. There the population under 20 declined nearly in half and the population between 20 and 44 declined by over one quarter. These changes exceeded the over 100% increase in the population between 65 and 84. The net result was a small overall decline in the population of Area C from 2001 to 2016. These changes in Area C are profiled in Table 5 and Figure 3 below.

Table 5 - Population Change in Electoral Area C 2001 – 2016 by Age Groupings

AGE	2001	2006	2011	2016	Pop. Change 2001-2016	% Change 2001 - 2016
0-19	565	415	325	305	-260	-46.0%
20-44	615	490	470	450	-165	-26.8%
45-64	690	850	835	765	75	10.9%
65-84	250	315	355	520	270	108%
85+	30	15	25	20	-10	-33.3%
Total*	2,135	2,074	2,014	2,060	-75	-3.5%

* sub-groups and totals differ due to rounding

Figure 3 - Population Change in Electoral Area C 2001 – 2016 by Age Groupings



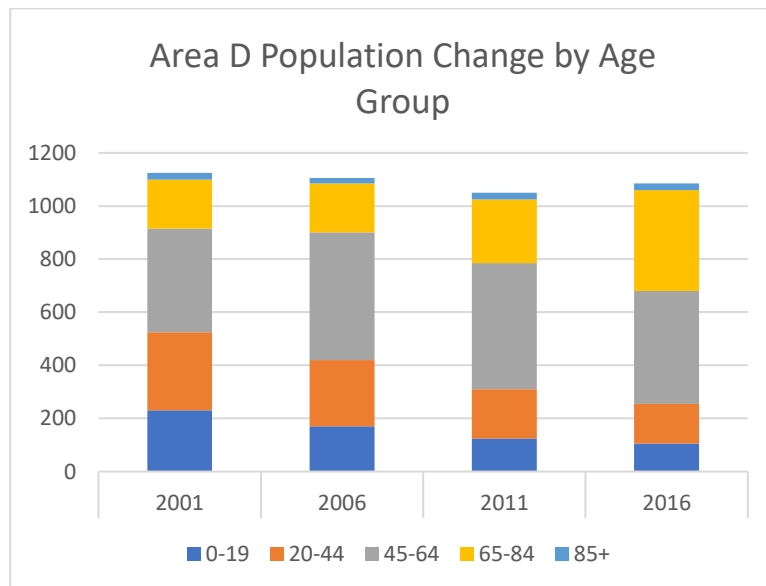
The most dramatic changes in the younger age groups took place in Area D. There, the population under 20 declined by over 50% while the population between 20 and 44 declined just under 50%. These changes also exceeded the over 100% increase in the population between 65 and 84. The net result was the largest overall population decline of 4.7% from 2001 to 2016. These changes in Area D are documented in Table 6 and Figure 4 below.

Table 6 - Population Change in Electoral Area D 2001 – 2016 by Age Groupings

AGE	2001	2006	2011	2016	Pop. Change 2001-2016	% Change 2001 - 2016
0-19	230	170	125	105	-125	-54.3%
20-44	295	250	185	150	-145	-49.2%
45-64	390	480	475	425	+35	9.0%
65-84	185	185	240	380	+195	105.4%
85+	25	20	25	25	0	0.0%
Total*	1,130	1,107	1,053	1,076	-54	-4.7%

* sub-groups and totals differ due to rounding

Figure 4 - Population Change in Electoral Area D 2001 – 2016 by Age Groupings



As a result of these demographic changes, the median age in each Electoral Area was well above that of the qRD as a whole in 2016. The median age ranged from 54.9 in Area C to 60.6 in Area D compared to 53.8 in the qRD as a whole. Table 7 below shows these differences between the electoral areas as well as compared to the qRD and the Province of BC. The median age in each electoral area in 2016 was higher than the qRD as a whole. The median age was only 1.4 years higher in Area C but was 6.1 years higher in Area A and 7.1 years higher in Area D in Area D. The median age comparison is even more dramatic when compared to the Province of BC. The median age in BC was more than a decade (10.5 years) lower than the qRD. The largest difference was in Area D where the median age was 17.6 years higher than the median age in B.C.

Table 7 – Median Age of Electoral Areas 2016

AREA	MEDIAN AGE 2016
Area A	59.6
Area B	55.5
Area C	54.9
Area D	60.6
qRD	53.5
BC	43.0

Population Projections

Population projections have been undertaken to estimate the population change for Electoral Areas A, B, C and D over the next 25 years (2016-2041). BC Stats has applied the Component/Cohort-Survival method to project the population. This method "grows" the population from the latest base year estimate by forecasting births, deaths and migration by age. The risk of error is increased for smaller areas. Due to its much smaller population of approximately 400 persons, projections for Area E have not been undertaken.

As a result, the projections for the Electoral Areas rely on general trends taking place in the qRD as a whole. These projections by small area were prepared by extrapolating past trends and modifying these trends wherever possible to take into consideration available information on planned changes to the industrial base and the regional economic outlook.

Inferences made in this report are intended to provide a base for future planning but the small population size of each Electoral Area and the host of variables which could affect the region's future growth are important limitations.

The following Table 8 shows population projections for Electoral Areas A, B, C & D from 2016 to 2041. These population projections by BC Stats, have maintained each Electoral Area's percentage share of the Regional District's population. These changes indicate a population increase of approximately 20% for each Electoral Area over the 25 year period from 2016 to 2041. The population increase projected for Area A Table 8 is 216 persons and 313 for Area B. Area C shows the highest increase of 406 persons as it has the largest base population. The projected population increase for Area D is 208 over the next quarter century. This represents a compound annual growth rate of 0.71% and 19.3% over the 25-year time period.

Table 8 - Population Change 2016 - 2041

AREA	2016	2021	2026	2031	2036	2041	% Change 2016 - 2041
Area A	1,080	1,130	1,180	1,221	1,267	1,296	20.0%
Area B	1,565	1,632	1,706	1,768	1,824	1,878	20.0%
Area C	2,060	2,145	2,237	2,319	2,398	2,466	19.7%
Area D	1,076	1,123	1,170	1,212	1,253	1,283	19.3%
qRD	20,070	20,719	21,583	22,412	23,193	23,879	18.9%
BC	4,757,700	5,039,700	5,343,300	5,645,000	5,923,900	6,178,300	29.8%

Source: BC Stats + Statistics Canada

These projections show modest growth. However, they reflect a reversal of the trend in the June 2012 Powell River Regional District and Unincorporated Areas Aggregated Population Projections completed by WM Population Analysis for the Powell River Regional District, which predicted a steady decline in the region's population over the coming decades to 2041. The WM Population Analysis indicated that deaths in the qRD exceeded births in every year since 2000. Given the age profile of the Electoral Areas, this trend is projected to continue.

The key driver for the projected population increase in the qRD is an increase in net in-migration. In-migration has three components; population changes within B.C., interprovincial changes and international changes. The relative proportion of the three types of in-migration applicable to the qRD is not available for smaller regions of BC.

Population Distribution by Age Groupings (2016-2041)

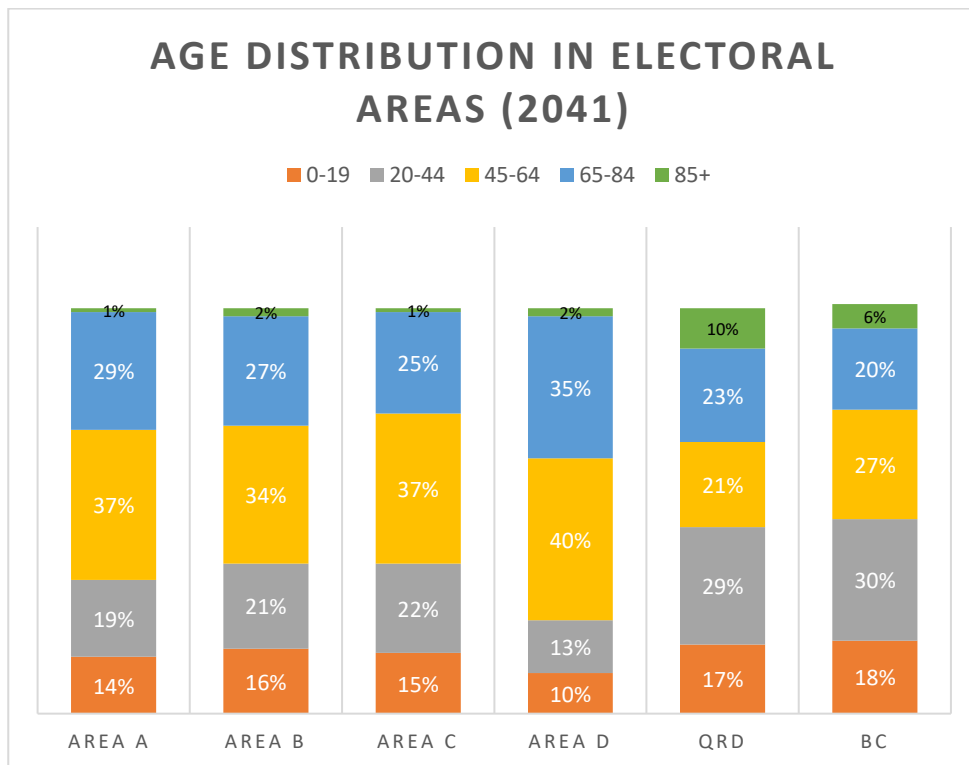
The population of Canada and BC is aging but this trend is more pronounced in the qRD and in Electoral Areas A, B, C and D. Table 9 below compares Electoral Areas A through D with the qRD and B.C. as a whole. The same information is shown graphically in Figure 5. This projection assumes that the population of the Electoral Areas maintain a consistent share of the qRD population as observed in the unadjusted 2016 census figures throughout the whole projection period. It also maintains a constant (2016 Unadjusted Census) age/sex distribution in the population throughout the whole projection period.

Table 9 – Population Distribution by Age Groupings in 2041

AGE	Area A - 2041	Area B - 2041	Area C - 2041	Area D - 2041	qathet RD 2041	BC 2041
0-19	14%	16%	15%	10%	17%	18%
20-44	19%	21%	22%	13%	29%	30%
45-64	37%	34%	37%	40%	21%	27%
65-84	29%	27%	25%	35%	23%	20%
85+	1%	2%	1%	2%	10%	6%

Source: BC Stats

Figure 5 – Population Distribution by Age Groupings in 2041



Following existing trends, the future population is skewed towards an aging population. Approximately two-thirds of the population of Areas A, B and C will be between the ages of 45 and 85 by 2041. 75% of the Area D population will be in this age bracket. Both the 45-64 and 65-84 age groups are proportionately much larger than the other age categories in the Electoral Areas compared to the same age groups in the qRD and BC as a whole. On the other hand, this is not anticipated to occur for the oldest age group (i.e. 85%+) in any of the Electoral Areas. The population of this age group did not show an increase in the 2001 to 2016 time period and this is not expected to change for the 2016 to 2041 time period. While this elderly age group is anticipated to reach 10% of the qRD population, the lack of residential care and other specialized services in the Electoral Areas will be of increasing importance for the frail elderly population. The availability of residential care, hospital and other specialized social and commercial services in the City of Powell River will, however, enable them to continue to reside in the qRD. This will be much less a factor for the 65-84 age group in the Electoral Areas which is why this age will continue to increase both in absolute numbers and as a proportion of the population.

Figure 10 provides an intriguing indication of population growth in the Electoral Areas. It indicates both a numerical increase and a rate of growth in the Electoral Areas that are well above that of the City of Powell River. Although the time period is short (2016-2018), it supports the reversal of the downward population trend of earlier reports.

Table 10 – Population Increases 2016-2018

YEAR	2016	2017	2018	Increase (2016-2018)	% Increase (2016-2018)
Electoral Areas	7,198	7,324	7,462	264	3.7%
City of Powell River	13,742	13,793	13,874	132	1.0%
qRD	20,962	21,139	21,358	396	1.9%

Source: BC Stats

Conclusions

Earlier findings in both the Vanstruth and the WM Population Analysis reports highlighted the importance of in-migration in stimulating future population growth and stabilizing the region’s population. Those reports at the regional district level indicated a small but steady population decline due to deaths exceeding births since 2004. Net in-migration occurred but not in sufficient numbers to counteract this trend.

The latest BC Stats projections indicate increasing in-migration. This in-migration has been sufficiently large to counteract the slow population decline within the resident population. A key factor is likely the more

affordable housing prices compared to other areas of the Province. Other factors are also at play including the mild climate, wide array of outdoor recreational opportunities, the availability of regional services including health care and technology changes which have enabled home-based business to proliferate in the qRD. (A similar rapid upward trend in home based business has occurred in the Sunshine Coast Regional District.)

While the projected population increase of approximately 19% for the Electoral Areas represents a change in the previous trend, it should be noted that the projected increase is well below the nearly 30% population increase forecasted for BC as a whole.

The population projections for the years 2016 to 2041 indicate modest population growth for the Electoral Areas. This reflects a change from the previous projection of slow population decline due to deaths exceeding births. The population growth reflects increased in-migration to the qRD from other parts of the Province and outside B.C. However the median age will also continue.

For all Electoral Areas, the 45-64 age group has been the largest from 2001 to 2016. The working age group is projected to stay the largest to the year 2041. This age group is projected to range from a high of 40% in Area A to 34% in Area B. However the 65-84 age became the second largest age group in Area A and Area D in 2011 and in Area B and Area C in 2016 and is projected to continue to be the second largest age group to the year 2041. This age group is projected to comprise one quarter of the population of Area C in 2041 to over one third in Area D (35%). The 20 to 44 age group dropped to the third largest age group by 2016 and is projected to continue to the year 2041. Its proportion of the population is projected to be as low as 13% in Area D and highest in Area C with 22%.

The two age groups from 20-64 represent the prime working age population. These two groups declined as a proportion of the population in all electoral areas from 2001 to 2016. The lowest proportion of the population was 58% in Area B and the highest was and 67% in Area A. By 2016 the lowest was 53% in Area D and to 59% in Area C.

In 2016, the 0-19 age group was the fourth largest and is projected to continue as the fourth largest to the year 2041. The age group under 20 is projected to range from 10% of the population in Area D to 16% in Area B in 2041.

The smallest age group has been and will continue to be the those over 85 with only 1% or 2% in any electoral area. However this age group will be a sizable 10% of qRD as a whole by 2041. The projections indicate most of this age group will reside in the City of Powell River, likely due to limitations in specialized housing and service needs.

Planning implications include the following:

- Gradual population growth in the electoral areas will be a stabilizing force.
- The older work force and seniors will be the dominant demographic groups.
- Population diversity will continue – electoral areas will not become exclusive retirement areas.
- Schools will be continue to be based in Powell River (except Texada Elementary and Kelly Creek Elementary) with busing to serve the continuing population base under 20 in the electoral areas.
- Home based business will increase in importance as many over 65 will continue to maintain an attachment to the work force.
- The importance of health based services located in the qRD and commercial services in general will increase as the median age of the population increases.