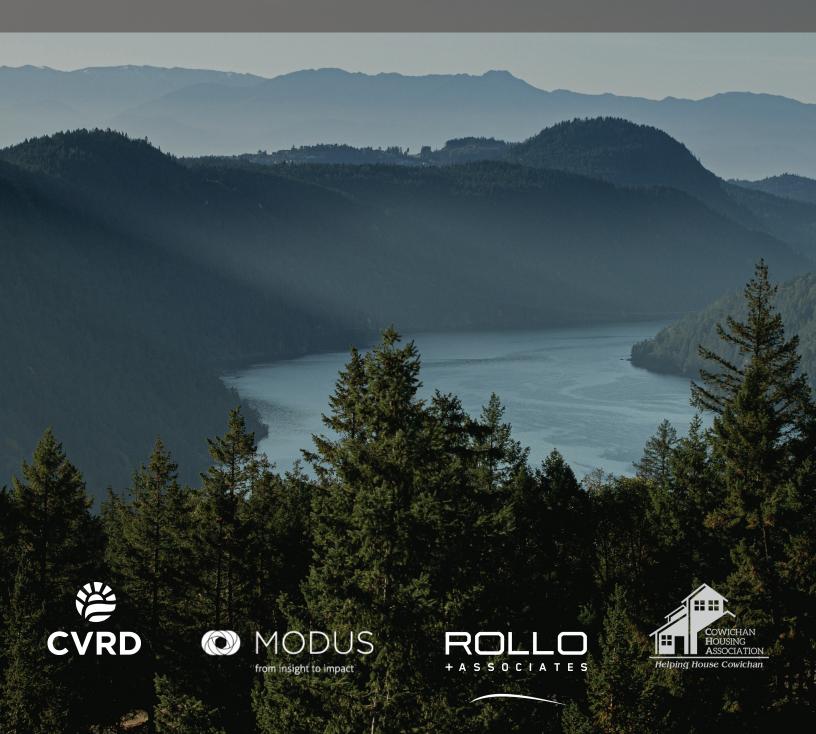
Cowichan Valley Regional District Electoral Area A - Mill Bay/Malahat Housing Needs Assessment Data Report



BACKGROUND1		
KEY FINDINGS 2		
1.	Demographic Profile	2
2.	Income and Economy	3
3.	Housing Profile	
4.	Projections	3
5.	Housing Needs	4
6.	Affordability of New Development	5
THE FINDINGS		6
1.	Demographic Profile	6
2.	Income and Economy	10
3.	Housing Profile	12
4.	Projections	16
5.	Housing Needs	18
6.	Affordability of New Development	24



BACKGROUND

The Cowichan Valley Regional District (CVRD) is developing a Regional Housing Needs Assessment in partnership with its member municipalities and nine electoral areas. A housing needs assessment will help us understand what kinds of housing are most needed in our region's communities now and in the future, which will help inform the official community plan and development decisions.

Effective April 16, 2019 the Province of British Columbia (BC) requires all local governments to complete housing needs reports for their communities by April 2022 and every five years thereafter. These reports will help local governments and the BC government better understand and respond to housing needs in communities throughout the province. As a basis for determining current and projected housing needs, local governments are required to collect approximately 50 kinds of data about current and projected population, household income, significant economic sectors, and currently available and anticipated housing units. This information has been collected for each of the following areas:

- Electoral Area A Mill Bay/Malahat
- Electoral Area B Shawnigan Lake
- Electoral Area C Cobble Hill
- Electoral Area D Cowichan Bay
- Electoral Area E Cowichan Station/Sahtlam/Glenora
- Electoral Area F Cowichan Lake/Skutz Falls
- Electoral Area G Saltair
- Electoral Area H North Oyster/Diamond
- Electoral Area I Youbou Meade Creek
- Town of Ladysmith
- Municipality of North Cowichan
- City of Duncan
- Town of Lake Cowichan

One report has been prepared for the region, one for each electoral area and one report for each of the four municipalities within the CVRD. Each will include the following sections:

- 1. Demographic Profile
- 2. Income and Economy
- 3. Housing Profile
- 4. Projections
- 5. Housing Needs
- 6. Affordability of New Development

The regional report provides additional information, such as a glossary of terms, project overview and context, a description of the housing spectrum, and a detailed description of the methodology.

This report now turns to a summary of the key findings in the six areas: Demographic Profile, Income and Economy, Housing Profile, Projections, Housing Needs and Affordability of New Development. This is followed by a comprehensive review of the findings in the six areas. The tables and figures to support the research are listed in Appendix I.



ELECTORAL AREA A - MILL BAY/MALAHAT SUMMARY

Electoral area A – Mill Bay/Malahat is one of nine electoral areas in the CVRD situated in the southern portion of the region. The CVRD has a much lower-density housing composition than British Columbia (BC), with single-detached dwellings making up a larger share and apartments making up a smaller share. This holds true in electoral area A. Electoral area A includes the moderately compact and complete community of Mill Bay and the Malahat area. Though its residential uses are primarily in a low-density single-detached form, it offers a good mix of nearby commercial, retail and office amenities.

It is an unusual jurisdiction because while it is the second most affluent jurisdiction in the CVRD, it concurrently has a slightly higher share of renter households (at 18% of households) than most other electoral areas and the greatest proportion of manufactured homes in the region (at 13% of housing units), the most affordable housing type. This is unusual because renter households and manufactured homes are typically correlated with lower income but median renter incomes in electoral area A are generally high compared to elsewhere in the region.

According to BC Assessment assessed values of ownership housing, electoral area A also has the most affordable housing for lower-income owners of all jurisdictions in the CVRD. Perhaps its higher share of manufactured homes creates affordable housing, which in turn creates a niche for lower-income homeowners. Although this niche for lower-income homeowners exists elsewhere in the CVRD, it is larger in electoral area A than elsewhere in the region since manufactured homes make up a greater share of this electoral area's homes.

Interviews with 11 local developers and realtors indicate that housing demand in electoral area A is greater than supply at present and that new development will be inhibited by lack of services such as sewer and water. Given the projected population growth and household size, this report's analysis estimates that there is a need for 375 units of new housing in electoral area A in the next five years with a particular need for one-bedroom units.

KEY FINDINGS

The key findings are now presented in six key areas: Demographic Profile, Income and Economy, Housing Profile, Projections, Housing Needs, and Affordability of New Development. The findings are provided in greater detail within this report in the Findings section.

1. Demographic Profile

- **Population growth:** Electoral area A has grown quickly and increased in population from 3,925 in 2006 to 4,585 in 2016. This growth was more rapid (17% from 2006 to 2016) than the CVRD (8%) and the province (12%).
- Age: Electoral area A remained older than BC and the CVRD as a region. Electoral area A's overall population aged (median age increased from 44 to 47) more quickly than that in BC but less quickly than the CVRD's population, implying migration differences.
- **Household size:** The average household size in electoral area A decreased slightly from 2006–2016, in line with change across the CVRD as a region. In general, jurisdictions with smaller households tend to be more senior in age composition.
- **Tenure:** Electoral area A has fewer renters (at 18%) than the CVRD (22%) but experienced a sharp increase from 2011 to 2016.
- **Unhoused population:** It can be hard to locate and count people in more rural areas, but in 2017, two people were identified as homeless in Mill Bay. Many people who are



- homeless in the CVRD tend to stay close to a community hub where they can access vital services, which could include communities such as Mill Bay.
- Transportation: Electoral area A has an average amount of transit service in comparison to other CVRD areas, with two local transit routes connecting Mill Bay to other parts of the South Cowichan area as well as to Duncan. The urban form, combined with the low frequency of buses and lack of cycling facilities, mean the majority of residents must travel by car to perform their daily activities—88% of commuters used a private automobile to get to work—which can increase the costs of living in electoral area A.

2. Income and Economy

- Household income: The median household income in electoral area A was \$77,746 in 2016. After inflation is removed from the analysis, electoral area A shows a downward trend in median household income between 2006–2016. Electoral area A has the least income inequality between owners and renters in the CVRD.
- **Employment:** Electoral area A has had one of the lowest unemployment rates in the CVRD, but it increased significantly from 2006 to 2016 (3.0% to 6.3%).
- **Industry:** Within the CVRD, the labour force is somewhat geographically clustered. Electoral area A includes clusters of education workers and public administration workers.

3. Housing Profile

- Dwelling types: The CVRD has a much lower-density housing composition than BC, with single-detached dwellings making up a larger share and apartments making up a smaller share. This holds true in electoral area A. Movable dwellings tend to be more predominant in the electoral areas than in the municipalities, including and particularly in electoral area A.
- **Dwelling age:** Electoral area A has a greater percentage of housing units built after 2001 than either British Columbia or the CVRD, and a lower percentage of housing units built in 1960 or earlier.
- Bedroom number: Electoral area A has a much higher share of three-bedroom units and a much lower share of one-bedroom units than BC and is similar in composition to the CVRD
- **Non-market housing:** Electoral area A has no non-market units and 13 households receiving rent assistance in the private market from BC Housing.
- Market rental housing: There is limited data on the supply of market rental housing, and most of the supply is likely provided through the secondary rental market.
- Market ownership housing: Single-detached homes have been the most desirable and expensive form of housing, followed by townhomes. This market saw price stability from 2007 to 2017 as Vancouver Island's economy gradually recovered from the financial crisis of 2008. From 2017 to 2019, prices increased considerably each year for single-detached and townhome products (although not for other unit types). This suggests that since 2016 the electoral area's supply of available land has been insufficient to meet growing demand for single-detached homes and townhomes.

4. Projections

- **Households Projection:** Between 2019 and 2025, electoral area A is expected to grow from 2,057 households to 2,432 households, an increase of 18% in six years, which would be somewhat faster than the 18% growth observed between 2006 and 2016.
- **Population Projection:** From 2019 to 2025, electoral area A is expected to grow from 4,875 residents to 5,853 residents, an increase of 20% in six years.



- Household income projection: Due to the uncertainty of COVID-19, two income projections were done to 2025. One projection assumes a rapid economic recovery from the COVID-19 pandemic, while the other assumes a slower economic recovery. In 2025 (and in 2025 dollars), electoral area A is expected to have a median household income of \$104,395 in the rapid recovery scenario or \$97,570 in the slow recovery scenario.
- Tenure Projection: Based on the income projection, the percentage of renters compared to owners is not anticipated to change significantly in electoral area A.

5. Housing Needs

- Projection of housing need by number of bedrooms: A large majority of households in 2019 and 2025 need only one bedroom for the composition of their household. Many households possess more bedrooms than they need, according to the strict definition of housing need. It is projected that in 2025 electoral area A will need an additional 375 units of housing of which most should be one-bedroom units. See Table 1: Electoral area A projection of units needed 2020 and 2025.
- **Homelessness:** There are no emergency shelters or long-term options for those experiencing homelessness in electoral area A. As a result of this, many are seeking shelter options outside of their communities.
- Non-market housing: Supportive housing was identified through stakeholder and public
 engagement as a key component of the housing spectrum, along with a recognition that
 those with special needs require additional support alongside adequate shelter to ensure
 long-term safety and success. Results of engagement indicate that specifically congregate
 housing (housing units that are in a common building where all tenants are part of a shared
 program) is lacking in electoral area A.
- Market rental housing: Renter households in electoral area A making less than \$48,400 per year tend to spend more than 30% of their annual income on housing expenses, placing these households in core housing need. Renter households making less than \$26,600 per year tend to spend more than 50% of their annual income on housing expenses, placing them in extreme core housing need. This analysis suggests that 25% of electoral area A's renter households are in core housing need and 10% are in extreme core housing need. Engagement results identified that a need still exists to increase the stock of rental properties, such as through secondary dwellings and smaller suites.
- **Historic and Current Housing Condition (Adequacy):** Adequacy of housing in electoral area A is similar to the CVRD and British Columbia, with more renters (10%) living in housing below adequacy standards than owners (5%).
- **Historic and Current Overcrowding (Suitability):** In electoral area A, there is less overcrowded housing than in BC, with rates similar to the CVRD. More renters (4%) living in overcrowded housing than owners (2%).
- **Historic and Current Affordability:** Compared to BC, affordability in electoral area A is somewhat better for owners (13%–17%) and similar for renters (45% in 2006, decreasing to 32% in 2016), to produce an overall share of 15%–20% of households across tenures facing affordability challenges.
- Core housing need and extreme core housing need: A significant number (21%) of electoral area A's households are in core housing need. This is somewhat higher than reported in the last several Censuses, which showed a downward trend from 2006–2016.



6. Affordability of New Development

Financial Analysis Results: The incomes required and percentages of households who will be able to afford buying or renting in new developments in electoral area A in 2020 and 2025 was reviewed.

Based on a calculation of the household income that would be required to purchase or rent a new unit in 2025, paying no more than 30% of one's income on housing expenses, the capacity of electoral area A's households to afford new construction was calculated. This capacity will increase slightly in the rapid recovery scenario; however, the overall difference between the two scenarios is not huge, suggesting that the electoral area's housing market is unlikely to be severely impacted by the COVID-19 pandemic.

In electoral area A, the cost of constructing new townhomes will increase faster than the region's incomes, and the cost of constructing new apartments will tend to increase more slowly. This is probably the result of land price increases for patio homes (a particularly desirable type of townhome) being in such short supply and in higher demand than apartments.



THE FINDINGS

Introduction to the Work

The following section of the report presents the full findings organized by six key topic areas:

- 1. Demographic Profile
- 2. Income and Economy
- 3. Housing Profile
- 4. Projections
- 5. Housing Needs
- 6. Affordability of New Development

The tables and figures that accompany these results can be found in Appendix I.

1. Demographic Profile

The following demographic profile presents historic data for electoral area A as collected from the Statistics Canada Census, Summer Point-in-Time Homeless Count, Homeless Needs Survey Community Report and BC Transit.

1.1 Population

From 2006–2016, British Columbia (BC) grew in population from 4.1 million to 4.6 million, an increase of 12%. By comparison, the CVRD grew somewhat slower, from 75,000 to 82,000 for a total of 8% growth during this decade. Within the CVRD, electoral area A grew particularly rapidly—17%, from 2,925 to 4,585 between 2006 and 2016.

See Table 2: Population over time from 2006–2016 and Figure 1: Five-year growth and ten-year population growth by jurisdiction from 2006–2016.

From 2006 to 2016, electoral area A slightly increased its share of the region's overall population, from 5% to 6%.

See Table 3: Share of CVRD population over time from 2006–2016.

1.2 Age

See Table 4, Table 5 and Table 6 and Figure 2: Average age by jurisdiction over time from 2006–2016.

Electoral area A is older than the CVRD as a region, with a higher percentage of the population 85 years or older and a higher average age. Electoral area A is neither among the youngest nor the oldest jurisdictions within the CVRD. Electoral area A increased in age more rapidly than the province but less rapidly than the CVRD as a region, increasing in average age by just over three years, from 44 to 47.

Note that differences in the pace of aging between jurisdictions mostly reflect migration trends.

While electoral area A has an older average age than the CVRD, the percentage of seniors is similar—23% of the population is 65 years or older in both electoral area A and in the CVRD as



a region. This is greater than in all of British Columbia where 18% of the population is 65 years or older.

Electoral area A has a slightly lower percentage of children (aged 0–14) at 13% of its population than both the CVRD as a region (15%) and British Columbia (15%), and this percentage has decreased over time.

While electoral area A's composition of residents 15–19 years old is similar to that of the CVRD and British Columbia, it has far fewer residents aged 20–24 years old, at 3% of its population (compared to 6% in British Columbia).

1.3 Household Size

Household sizes in British Columbia and throughout the CVRD tended to decrease from 2006 to 2016 if they changed at all. Household sizes in electoral area A are close to those in the CVRD as a region. Average household size has decreased slightly from 2.4 in 2006 to 2.3 in 2016.

See Table 7, Table 8 and Table 9: Distribution of households by number of persons between 2006–2016 and Figure 3: Average household size by jurisdiction over time from 2006–2016.

Note that, in general, jurisdictions with smaller households tended to be more senior in age composition. This is intuitive since families with children are typically larger.

1.4 Tenure

During the decade under analysis, renters as a share of all households in British Columbia increased slightly, from about 30% to about 32%. A smaller share of households in the CVRD are renters, but the same upward trend is present: renters increased from 20% to 22% of all households. Electoral area A has a smaller share of renters than the CVRD at 18% of households, but this increased sharply between 2011 and 2016.

See Table 10 and Figure 4: Share of households renting from 2006–2016.

As a share of all households, renter households in subsidized housing in British Columbia made up about 4% in both 2011 and 2016 (2006 data is unavailable for this variable). They make up a lower and decreasing share of households in the CVRD (from 3% in 2011 to 2% in 2016). In electoral area A, renter households in subsidized housing make up 1% of households with no significant change since 2011. In many cases, the total number of households in subsidized housing in smaller jurisdictions, such as individual electoral areas, is ten or fewer. Note that Census data is rounded to the nearest five, so there may be some small rounding errors.

See Table 11 and Figure 5: Renters in subsidized housing as share of total households from 2011–2016.

1.5 Unhoused Population

The most recent data specific to electoral area A was the Summer Point-in-Time Homeless Count and Homeless Needs Survey Community Report completed in 2017. In this count, two people were identified as homeless in Mill Bay in electoral area A.

However, it is hard to locate and count people who are homeless in rural areas, so there may be more people who are homeless in electoral area A, especially people who may be considered



"hidden homeless" who are more difficult to locate and count. Examples of hidden homelessness include people staying with family or friends (e.g., couch surfing), staying in trailers or cars, or accessing transitional or temporary housing.

People who are homeless throughout the CVRD tend to stay close to a community hub where they can access vital services, such as a food bank. As Mill Bay is a community-level service centre, and includes a food bank, people who are homeless or at risk of becoming homeless may locate close to Mill Bay.

Outside of Mill Bay, electoral area A is large and predominantly rural. Across all electoral areas there are places that homeless people could camp out and few people might know they are there.

1.6 Transportation

For a more fulsome understanding of housing affordability in a region, it's important to study its transportation networks. Transportation costs are a key part of the affordability equation because a home's location and its surrounding land use patterns dictate whether a resident needs a personal vehicle. While rent or a mortgage may seem more affordable in rural areas, the need to drive for employment, services, parks, schools and other daily needs places a significant burden on resident pocketbooks. For this reason, the relative affordability in more remote parts of the Cowichan Valley may be masking the actual costs of rural living.

In electoral area A, approximately 88% of commuters used a private automobile to get to work in 2016. In electoral area A, travelling to work by car took an average of 32 minutes (one way) and those who took the bus travelled an average of 52 minutes (one way).

Electoral area A has an average amount of transit service in comparison to other CVRD areas. Five transit routes service electoral area A (8, 9, 44, 66, 99). Routes 8 & 9 connect Mill Bay to Shawnigan Lake, Cobble Hill, Cowichan Bay and Duncan in a loop – with 7 trips each for a total of 15 arrivals/departures from Mill Bay Shopping Centre. Route 44 is a Saturday only route that provides direct service to Victoria and back, three times per day each way. Routes 66 and 99 are limited weekday commuter routes that provide more direct service to Victoria in the mornings and back in the evenings. While frequencies are fairly low—a typical stop is serviced by a bus approximately seven or eight times per weekday—ridership on these lines rival those that are found in the CVRD's incorporated municipalities (such as routes 3, 4, and 6).

See Table 12: Annual rides and trips by bus route in the CVRD in 2019.

Electoral area A also includes a moderately compact and complete community in Mill Bay. Though its residential uses are primarily in a low-density single-detached form with some sprawling street patterns that encourage car use, it offers a good mix of nearby commercial, retail and office amenities. Cycling facilities and safe walking paths/options are notably absent and would provide residents a more complete range of mobility options.

Overall, distances from homes to nearest bus stops, and lack of cycling facilities mean the majority of residents must travel by car to perform their daily activities. The number of bus options paired with the proximity of some commercial services allow for shorter car trips. The street patterns which are primarily curvilinear and with few intersections makes driving a personal vehicle more convenient. This means transportation costs in electoral area A are high,



but options—though limited—are available should residents want to lower their car dependency and thus living costs.





2. Income and Economy

The following section provides an overview of historic income and economy data for electoral area A from the Statistics Canada Census.

2.1 Household Income

Median annual household income in both British Columbia and the CVRD increased from 2006 to 2016, with the region remaining slightly less affluent than the province throughout this period. BC's median income rose from \$62,000 to \$70,000 and the CVRD's rose from \$60,000 to \$65,000. The gap between the region's median income and the province's median income has increased: BC was about \$2,000 per year per household more affluent than the CVRD in 2006 and in 2016 was about \$5,000 per year per household more affluent.

See Table 13, Table 14 and Table 15: Share of households by annual income 2006–2016 and Figure 6: Median annual household income from 2006–2016.

Within the CVRD, electoral area A is particularly affluent, with a median household income of \$77,746 in 2016. Electoral area A exhibited a "u-shaped" trend with income increasing from 2006 to 2011 and then decreasing from 2011 to 2016. This may be a result of the 2008 financial crisis and consequent recession.

Many other jurisdictions in the CVRD also had "u-shaped" trends, with income either decreasing from 2006 to 2011 and then increasing again from 2011 to 2016, or vice versa. Typically, the more affluent communities did *better* during the post-crisis recession and the less affluent communities did worse.

The value of money tends to decrease over time (inflation), so that it takes more units of currency (nominal income) to achieve the same lifestyle (real income). Shifts in real income may be estimated by removing the impact of inflation, creating a more accurate sense of where income has effectively increased and where it has not.

After inflation is removed from the analysis, median household incomes in BC show basically no change between 2006 and 2016. Electoral A and the CVRD as a whole show a downward trend.

See Table 16 and Figure 7: Median real annual household income (constant 2019 dollars) from 2006–2016.

Compared to all households, households in this jurisdiction that own their own homes are wealthier, but the broad differences in wealth between jurisdictions are approximately the same. Electoral area A is particularly affluent, with a median household income for owner households of \$84,460—the second highest of all jurisdictions in the CVRD, lower than just electoral area B.

See Table 17, Table 18 and Table 19: Share of Owners Households by Annual Income 2006–2016 and Figure 8: Median annual household income among owner households from 2006–2016.

Compared to all households, renter households in this jurisdiction are less wealthy.

See Table 20, Table 21 and Table 22: Share of Renter Households by Annual Income and Figure 9: Median annual household income among renter households from 2006–2016.



Compared to renters in BC, renters in the CVRD are less affluent and by a larger margin than all households (about \$38,000 for CVRD renters versus about \$46,000 for BC renters; about \$65,000 for CVRD households versus about \$70,000 for BC households).

Median renter incomes in electoral area A were generally high compared to elsewhere in the region and increased from 2011 to 2016. In 2016, the median renter income, at \$58,663, was the highest out of all jurisdictions in the CVRD. Electoral area A also exhibited a higher renter median income than BC, with a lower share of households making less than \$20,000 per year. There is a significant number of households in the \$20,000–\$24,999 range, as well as a greater share of households making \$45,000 or more.

The ratio of owner to renter income, which is a rough indicator of the degree of income inequality between these two groups, was calculated. A higher ratio indicates more pronounced inequality. By this measure, the CVRD exhibits slightly more inequality between tenure groups than BC in general. Within the CVRD, electoral area A is the most equal jurisdiction.

See Figure 10: Median income in 2016 by household tenure.

2.2 Employment

Participation in the labour force during this decade was generally higher in BC than in the CVRD and generally declined (from 66% to 64% in BC and from 60% to 57% in the CVRD). Within the CVRD, electoral area A had a middling participation rate at just less than 60%. Electoral area A is the only jurisdiction in the CVRD whose participation rate increased during this period.

See Table 23: Labour force (employed or unemployed but seeking employment) from 2006–2016, Table 24: Participation rate (labour force as share of working-age population) from 2006–2016 and Figure 11: Participation rate over time from 2006–2016.

The unemployment rate (reflective of those seeking employment but unable to find it) generally increased during this decade but was highest during the recession in 2011. Unemployment in the CVRD (increasing from 6.5% to 7.4%) has generally been slightly higher than in BC overall (increasing from 6.0% to 6.7%), except in 2011 (both 7.8%). Within the CVRD, electoral area A has generally had one of the lowest unemployment rates, but it increased dramatically from 2006 to 2011, from 3.0% to 6.3%. However, this is still lower than the unemployment rate across the CVRD.

See Table 25: Unemployment rate (share of labour force unemployed) from 2006–2016 and Figure 12: Unemployment rate over time from 2006–2016.

2.3 Industry

Within the CVRD, the labour force is somewhat geographically clustered. Note that this refers to the residential locations of workers in these sectors rather than where this employment takes place. Electoral area A includes clusters of education workers and public administration workers. In contrast, there are notably few agriculture, forestry, fishing and hunting workers.

See Table 26, Table 27 and Table 28: Share of Labour Force by Industry Sector in 2016.



3. Housing Profile

The following section provides an overview of historic and current electoral area A housing data from the Statistics Canada Census, BC Housing and BC Assessment.

3.1 Dwelling Types

From 2006 to 2016, British Columbia's housing supply grew from about 1.6 million to about 1.9 million, an increase of about 15%. By comparison, the CVRD's housing supply grew slightly more slowly, from 31,000 to 35,000 for a total of 13% growth during this decade. Electoral area A had particularly rapid housing growth within the CVRD, behind electoral areas B and D in rate of growth.

See Table 29: Housing units by jurisdiction over time from 2006-2016 and Figure 13: Five-year growth and ten-year housing supply growth by jurisdiction from 2006–2016.

These trends are all similar to trends in population, except that household sizes in BC, the CVRD and electoral area A are decreasing, so housing supply has tended to increase faster than population.

Electoral area A has a housing composition similar to the CVRD's, both of which have much lower-density housing composition than BC:

- Single-detached homes make up about three-quarters of the housing supply and did not significantly decrease their share during this decade (78% in 2006, 82% in 2011, 74% in 2016)
- Ground-oriented multi-family units are a smaller component of the housing supply (4%–5% rather than BC's 10%–11%)
- Apartments in duplexes are a smaller component of the housing supply (1%–4% rather than BC's 10%–12%)
- Apartments in buildings of one to four storeys make up a much smaller share of the area's housing supply (2%–4% rather than BC's 20%–21%)
- By comparison, movable dwellings make up a larger and growing share (from 8% to 15%) rather than BC's 3%
- There are no apartment buildings of five or more storeys in electoral area A.

Movable dwellings tend to be more predominant in the electoral areas than in the municipalities. Electoral area A has a particularly high share of the CVRD's movable dwellings.

See Table 30, Table 31 and Table 32: Share of total housing units by type 2006–2016 and Figure 14: Housing units by type over time in electoral area A from 2006–2016.

3.2 Dwelling Age

In 2016, BC and the CVRD had similar distributions of dwellings by age with dwellings in the CVRD being only slightly older:

- Built before 1960: 14% in BC and 17% in the CVRD
- Built 1961–1980: 30% in BC and 28% in the CVRD
- Built 1981–1990: 15% in BC and 14% in the CVRD
- Built 1991–2000: 18% in BC and 20% in the CVRD
- Built 2001–2005: 7% in BC and 6% in the CVRD



- Built 2006–2010: 9% in BC and in the CVRD
- Built 2011–2016: 7% in BC and 5% in the CVRD.

In summary, about 60% of dwellings were built before 1990. Electoral area A has a disproportionate number of units in the 2001–2005 category (10%).

See Table 33: Share of dwellings by year of construction in 2016 and Figure 15: Composition of housing stock by age of construction and jurisdiction in 2016.

3.3 Bedroom Number

Compared to BC, the CVRD has a much higher share of three-bedroom apartments (39%) and a much lower share of one-bedroom apartments (9%) but similar shares of two-bedroom and 4+ bedroom apartments. Studio apartments make up a negligible share. It might be said that the CVRD has a narrower range of home sizes available than BC in general.

Electoral area A has a similar range of sizes as the CVRD in general, but consistently has a slightly smaller share of one-bedroom units (7%) and four-bedroom units (21%) and higher share of three-bedroom units (42%).

See Table 34, Table 35 and Table 36: Share of housing units by bedroom count 2006–2016 and Figure 16: Composition of housing stock by room count and jurisdiction in 2016.

3.4 Non-Market Housing

BC Housing breaks down the types of housing support it provides into four high-level categories: emergency shelter & housing for the homeless, transitional supported & assisted living, independent social housing and rent assistance in the private market. These four categories form a rough housing continuum such that, from left to right, the categories become less intensive and have more units. Within these four categories there are also ten low-level categories (indicated in the table above) having to do with the justification for funding rather than the degree of funding (for example, families versus seniors). Seniors make up the largest funding group in the three largest high-level categories and therefore receive the lion's share BC Housing support in the CVRD.

Electoral area A has no units subsidized by BC Housing and 13 households that are provided rent assistance in the private market. There are no other non-market units within electoral area A.

See Table 37: Number of units under BC Housing Administration by Service Allocation Group in 2020.

3.5 Market Rental Housing

CMHC has a minimum population threshold to complete its rental market survey. As electoral area A is under this threshold, there is no information on the inventory of the purpose-built rental market.

In primarily rural areas, such as electoral area A, most rental stock is provided through the secondary rental market (e.g., owners renting condominium apartments, houses, etc.). There is limited information on the secondary rental market in Canada, including electoral area A, so the true size of the rental market is hard to determine. In addition, units in the secondary rental market



can easily "flip" tenures—rented units become owner-occupied, or owners decide to rent out their units.

See Table 38: Number of renter households in the CVRD and electoral area A from 2006–2016.

3.6 Market Ownership Housing

The property assessment rolls were analyzed for electoral area A. Property assessment data relates directly to housing affordability for owner-occupant households but does not directly reflect housing affordability for renter households. This is because property values are the main cost factor for owner-occupants whereas rent is the main cost factor for renters. As such, the properties reported below specifically exclude purpose-built rental buildings and focus instead on single-detached homes, manufactured homes, duplexes and stratified multi-family. Note that these properties could still be occupied by renters through the secondary market.

See Table 39: Average value per dwelling unit by type in electoral area A from 2007–2019 and Figure 17: Average value per dwelling other than purpose-built rental by type in electoral area A over time from 2007–2019.

From 2007 to 2019, the average values of different residential property types in electoral area A have fluctuated in sync, reflecting market forces that impact the property market as a whole, most notably:

- The local employment economy
- Demand spillover from other regions such as the Capital Regional District (CRD) and Metro Vancouver
- Land supply constraints such as zoning and servicing catchments
- Investor and developer attitudes.

Throughout this time period, single-detached homes have been the most desirable and expensive form of housing (\$450,000–\$750,000), followed by townhomes (\$300,000–\$500,000), ten apartments (\$200,000–\$300,000) and manufactured homes (\$100,000–\$200,000). Duplexes have not always been present in electoral area A, but when they have been around (from 2007–2008 and 2017–2019) they have been less valuable than townhomes but more valuable than manufactured homes.

This market saw price stability from 2007–2017 as Vancouver Island's economy gradually recovered from the financial crisis of 2008. This ten-year period of price stability represents a period of increasing affordability for CVRD residents and prospective residents and suggests that in electoral area A the supply of available land was adequate to meet residential demand. From 2017 to 2019, prices increased considerably each year for single-detached and townhome products although not for other unit types. This is beneficial to the homeowner households but detrimental to aspiring homeowners and suggests that since 2016 the electoral area's supply of available land has been insufficient to meet growing demand for single-detached homes and townhomes.

Interviews were held with 11 local developers and realtors to gain an understanding of the CVRD's residential market. Local experts agree that the CVRD is a highly desirable residential environment with significant unmet demand. Demand has grown considerably in recent years due to the following two factors:

Although the CVRD used to be outside of Greater Victoria's commuter catchment, high



residential prices in the CRD have driven a growing number of households to seek housing further afield. According to one interview subject, traffic counts on Highway 1 in South Cowichan totalled about 10,000 per day in each direction ten years ago, but that number has increased to about 25,000, an increase of 150%, indicating significant growth in the commuting population

- More recently, demand for housing in the CVRD and throughout Vancouver Island has increased due to the COVID-19 pandemic for several reasons:
 - Since more people are working from home, living close to key employment centres such as Victoria and the Lower Mainland is less of a priority, liberating many households to seek more affordable, spacious and desirable housing in peripheral areas.
 - Vancouver Island is perceived as a safer environment during the pandemic than more permeable mainland communities.
 - Some "snowbirds" who would normally make a habit of spending their summers in Canada and winters in warmer parts of North America (most notably Florida, Arizona and Mexico) are expecting to have more difficulty entering other countries in the near future and have opted instead to move to Vancouver Island, Canada's most temperate region.



4. Projections

While all of the information provided to date represents the current housing situation in the CVRD, the following sections focus on projections for what will happen over the next five years. This section includes four projections: Households, Population, Household Income and Tenure. These projections are based on Statistics Canada Census Data, rennie intelligence's Long-range Projections of Population, Housing, and Employment in the Cowichan Valley Regional District and Environics Analytics Demostats Income and Housing Projections.

4.1 Households Projection

Electoral area A is expected to grow from 2,057 households to 2,432 households between 2019 and 2025, an increase of 18% in six years, which would be somewhat faster than the 18% growth observed between 2006 and 2016. In comparison, the CVRD is expected to grow from 34,744 households to 39,967 households, an increase of 15% in six years.

See Table 40: Projected households 2019–2025.

4.2 Population Projection

Between 2019 and 2025, electoral area A is expected to grow from 4,975 residents to 5,853 residents, an increase of 20% in six years, which would be somewhat faster than the 17% growth between 2006 and 2016. In this projection, electoral area A's average household size will barely change from 2019 to 2025. By comparison, the CVRD is expected to grow from 80,404 residents to 93,071 residents, an increase of 16% in six years.

See Table 41: Projected population 2019–2025.

4.3 Household Income Projection

Two scenarios were considered when projecting income to 2025, producing two income projections that are used in this report:

- Rapid recovery scenario: This projection assumes a rapid economic recovery from the COVID-19 pandemic, putting household incomes in 2025 close to where they might have been if the pandemic had not occurred.
- Slow recovery scenario: This projection assumes a slower economic recovery from the COVID-19 pandemic, reducing household incomes significantly compared to the first scenario.

The reality is likely to be somewhere between these two scenarios.

In 2025 (and in 2025 dollars), electoral area A is expected to have a median household income of \$104,395 in the rapid recovery scenario or \$97,570 in the slow recovery scenario.

The amount of residential growth that is assumed to occur is identical between scenarios because COVID-19 does not appear to have a negative impact on housing demand in the CVRD. However, the distribution of these households by income varies by scenario: households in the rapid recovery scenario are generally more affluent.

See Table 42: Estimated number of households by income bracket in 2019 and 2025 by scenario and Figure 18: Households in electoral area A by income bracket in 2019 and in 2025 by scenario.



4.4 Tenure Projection

Tenure is correlated with income: wealthier households tend to be homeowners and less affluent households tend to rent.

To create a projection of housing tenure, split between owner households and renter households by realⁱⁱ income group in 2019 and 2025 is assumed to resemble the split indicated in the 2016 Census in electoral area A. Based on this assumption, 19% of households in electoral area A are projected to be renting in 2025.

Compared to 2019, real income increases in both scenarios by 2025, but increases more rapidly in the rapid recovery scenario. Even so, the split of electoral area A's households by tenure is not expected to change appreciably in either scenario between 2019 and 2025.

See Table 43: Share of households renting in 2019 and in 2025 by scenario.



5. Housing Needs

The following section now comments on housing needs based on assessed values of ownership housing from BC Assessment, rental values from Canadian Rental Housing Index and Canadian Mortgage and Housing Corporation.

5.1 Projection of Housing Need by Number of Bedrooms

For the purpose of this exercise, housing need by bedroom count is defined as one bedroom per cohabitating couple plus one bedroom per individual (including children) not in a cohabitating couple. Average people per household is based on Environics data and in the 2025 projection is adjusted to be compatible with the population per household defined by rennie intelligence. Assumptions about how many households contain couples is based on the 2016 Census data.

A large majority of households in both years need only one bedroom (1,369 households in 2019 and 1,673 households in 2025). The reason for this is that one bedroom of need corresponds with households that include one person and with households that include one couple, which according to the 2016 Census, comprise about 96% of two-person households.

According to this definition of need, electoral area A contains a significant over-supply of two-bedroom homes and homes containing three or more bedrooms since only 7% of the electoral area's homes had one bedroom, 25% had two bedrooms and 68% had three or more bedrooms. This only implies that many households possess more bedrooms than they need according to this strict definition. This does not prevent or indicate a contradiction with 3% of households experiencing overcrowding: it is simply the case that, despite the absolute surfeit of bedrooms, some households still have fewer than they need.

In 2025, it is projected that electoral area A will need an additional 375 units of housing of which most should be one-bedroom units.

See Table 44: Housing need by number of bedrooms in electoral area A in 2019 and 2025.

5.2 Homelessness

As with much of the rest of the region, there is a marked lack of emergency shelters and long-term options for those experiencing homelessness in electoral area A. In particular, there is a lack of safe housing options for youth, First Nations, women and those with mental health challenges. As a result, many are seeking shelter options outside of their communities. Those seeking emergency shelter as well as supportive services frequently travel to Duncan and North Cowichan (particularly the South End), where most programs, shelters and services exist. This area is overwhelmed by the demand incurred by out of area residents seeking shelter, with many community organizations indicating a desperate need for additional supports.

5.3 Non-Market Housing

As per the calculation on affordability of new development, the market will struggle to provide new housing that is affordable for lower-income households. In the case of electoral area A, households with incomes below approximately \$56,000 will not be able to afford renting new homes. Some households with income below this amount will still be able to find housing in the rental market, as older rental homes can be more affordable.



The affordability of existing supply and continuing tenancies will depend principally on policies such as rent control legislation, vacant home taxes, and general housing supply growth. The affordability of non-market housing will depend on the magnitude of housing subsidies present

Through engagement, the need for accessible, low-barrier rental housing with appropriate supports for those with special needs was identified. The lack of adequate housing may force those with special needs into unsafe housing. Of the group homes that currently exist, there is a lack of congregate housing options.

Supportive housing was also identified as a key component of the housing spectrum, as those with special needs require additional support alongside adequate shelter to ensure long-term safety and success.

5.4 Market Rental Housing

Rental rate data was integrated from the following sources to produce a model of rental housing costs throughout the CVRD:

- The Canadian Rental Housing Index (2016)
- The Canadian Mortgage and Housing Corporation Housing Data Portal
- Interviews with local property managers.

These results include subsidized rental properties as well as the cost of utilities and are in line with the findings of the Engagement Survey and with current rental listings on Craigslist and similar websites. They are presented below in the form of deciles, which are the rental rates at which 10% of units are more affordable, 20% of units are more affordable, 30% of units are more affordable, etc.

See Table 45: Rental rates in the CVRD's electoral areas and Lake Cowichan in 2019 and Figure 19: Rental rates in the CVRD's electoral areas and Lake Cowichan in 2019.

The CVRD's electoral areas and the Town of Lake Cowichan, unlike the City of Duncan, the Municipality of North Cowichan and the Town of Ladysmith, all have no-to-limited quantitative data on the rental market. Therefore, available data was insufficient to detect meaningful differences between rental housing cost trends in the CVRD's electoral areas and Lake Cowichan.

However, all data sources suggest that the CVRD is in a state of acute rental shortage, with almost no vacancy. Households seeking rent in the region are locating where housing is available rather than where they would prefer, which tends to equalize rental rates throughout the region.

Note also that the data presented reflects rental rates that are currently paid by households rather than the rates those same units might be able to achieve if they were vacated and placed on the market today. British Columbia's *Residential Tenancy Act* only permits rental rates for a particular tenant to be increased by a limited amount each year. The impact of this policy is that renter households who remain in the same dwelling for many years tend to pay less rent than more recently arrived renter households. Currently listed rental units will therefore tend to ask higher rents than those represented here, as these rates are varyingly subject to rent control.

Housing affordability for renter households was analyzed by assuming that the wealthiest 1% of households will occupy the most expensive 1% of homes, the wealthiest 10% of households in



the most expensive 10% of homes, etc. Assigning homes to income groups in this way reveals which income groups might struggle to pay for housing in which jurisdictions.

As noted above, this is only an approximation. In reality, some households will occupy more expensive or less expensive homes than this assumption would assign to them. However, because homes are limited, if a household occupies a more affordable unit than this model would assign and therefore has lower housing costs, that means that another household has to occupy a more expensive unit than this model would assign, and therefore has higher housing costs. As such, the deviations from this model that would exist in real life should cancel each other to produce something close to the averages indicated here.

Renter households in electoral area A making less than \$48,400 per year tend to spend more than 30% of their annual income on housing expenses, placing these households in core housing need. The same data suggest renter households making less than \$26,600 per year tend to spend more than 50% of their annual income on housing expenses, placing them in extreme core housing need.

See Table 46: Estimated housing costs versus household income for renter households.

See Figure 20: Estimated housing costs versus household income for renter households in electoral area A.

This analysis suggests that 25% of electoral area A's renter households are in core housing need and 10% are in extreme core housing need. This is an improvement over the rates reported in the previous few Censuses (45% in 2006, 31% in 2011, and 32% in 2016)

Engagement results identified that a need for secondary dwellings and smaller suites exists. A variety of secondary suite options, like carriage homes and more transient RV areas, are suggested by residents to provide rental options for young adults and multi-generational families.

5.5 Market Ownership

Combining the Property Assessment data with the income estimate allowed the relationship between income and housing expenses for owner households in electoral area A to be estimated. This requires certain assumptions:

- The share of owner households with a mortgage in 2019 resembles the share indicated in the 2016 Census (59%).
- Renter households and owner households of the same income are likely to live in units with similar property value. That is, more affluent households of either tenure will live in higher-value units.
- Similarly, owner households with and without mortgages are assumed to occupy units of similar value.
- For the purposes of this analysis, housing expenses include:
 - mortgage payments, if applicable, using a 20% down payment, 3.5% interest rate, 25-year amortization and the property prices of ten years earlier (2009)
 - \$1,212 per year in hydro per household, the BC average
 - municipal service fees of \$465
 - strata and/or maintenance expenses of \$1,200 per year
 - property taxes, factoring the BC Homeowner's Grant.



As with renter households, housing affordability was analyzed for owner households by assuming that the wealthiest 1% of households will occupy the most expensive 1% of homes, the wealthiest 10% of households will occupy the most expensive 10% of homes, etc. Assigning homes to income groups in this way reveals which income groups might struggle to pay for housing.

Note that this is only an approximation. In reality, some households will occupy more expensive or less expensive homes than this assumption would assign to them. However, because homes are limited, if a household occupies a more affordable unit than this model would assign and therefore has lower housing costs, that means that another household has to occupy a more expensive unit than this model would assign, and therefore has higher housing costs. As such, the deviations from this model that would exist in real life should cancel each other to produce something close to the averages indicated here.

The majority of owner households with mortgages in electoral area A making below \$71,800 per year spend more than 30% of their annual income on housing expenses, placing these households in core housing need. Owner households without mortgages were analyzed but found that according to this model none of them would be spending more than 30% of their incomes on housing expenses.

See Table 47: Estimated housing costs versus household income for owner households with mortgages.

See Figure 21: Estimated housing costs versus household income for owner households with mortgages in electoral area A.

Electoral area A is unusual because housing at the low end appears to be plentiful, but supply gaps exist in the \$24,800–\$71,800 range, probably due to the presence of extremely affordable properties in the form of manufactured homes.

This analysis suggests that 20% of electoral area A's owner households are in core housing need, continuing an upward trend evident in the Census (13% in 2006 and 2011, then 17% in 2016).

5.6 Historic and Current Housing Condition (Adequacy)

The share of all households requiring major repair (the adequacy standard) remained constant in BC between 2006 and 2016:

For owners: from 6% to 5%
For renters: from 8%–7%

Average of all households: 6%

Adequacy of housing in electoral area A is similar to the CVRD and British Columbia, with more renters (10%) living in housing below adequacy standards than owners (5%) in 2016.

See Table 48: Share of household by tenure below adequacy standard (major repairs required) from 2006–2016 and Figure 22: Share of household by tenure below adequacy standard (major repairs required) in 2016.



5.7 Historic and Current Overcrowding (Suitability)

The share of all households experiencing overcrowding (the suitability standard) in BC decreased between 2006 and 2016:

For owners: from 4% to 3%For renters: from 12% to 9%

Average of all households: from 7% to 5%

Compared to BC, households in the CVRD are less crowded for both tenure groups, and improvement was also observed:

• For owners: from 2% to 1%

• For renters: from 8% to 6%

Average of all households: from 3% to 2%

In electoral area A, crowding is more of an issue for owners and less of an issue for renters compared to the CVRD as a whole, although double the rate of renters experience crowding (4% of households) than owners (2% of households).

See Table 49: Share of households by tenure below suitability standard (overcrowded) from 2006–2016 and Figure 23: Share of households by tenure below suitability standard (overcrowded) in 2016.

5.8 Historic and Current Affordability

The share of all households falling below the affordability standard (housing expenses equal to 30% of household income) remained fairly constant in BC between 2006 and 2016:

For owners: from 18% to 17%

• For renters: 34%–35%

Average of all households: from 23% to 22%.

Compared to BC, affordability in the CVRD is somewhat better for owners (from 15% in 2006 to 14% in 2016) and somewhat worse for renters (from 38% in 2006 and 2016 and 42% in 2011 during the recession), to produce an overall share of 19% of households across tenures facing affordability challenges in 2016.

In electoral area A, both owner and renter households have fewer affordability issues than in the CVRD and in BC. Affordability has increased for both tenure groups from 2006 to 2016.

See Table 50: Share of household by tenure below affordability standard from 2006–2016 and Figure 24: Share of households by tenure below affordability standard in 2016.

5.9 Core Housing Need and Extreme Core Housing Need

In 2019, 21% of electoral area A's households are in core housing need $^{\rm iii}$ and 2% are in extreme core housing need $^{\rm iv}$. Of these:

- 20% of owners are in core housing need and 1% of owners are in extreme housing need
- 25% of renters are in core housing need and 10% of renters are in extreme housing need



This is in line with trends reported in the last several censuses, which showed 20% of households in core housing need in 2006, 15% in 2011 and 17% in 2016.





6. Affordability of New Development

A financial model analyzing the cost of residential development for a variety of housing types and tenures was created considering the Altus Construction Cost Guide, development costs by jurisdiction (permit fees, Development Cost Charges, etc.), parking requirements by jurisdiction as defined by zoning bylaw and market research drawn from current listings on realtor.ca.

Using this model, the lowest sale price or rental rate per unit that a builder could afford to charge for the finished product while still achieving a minimal level of profit (this is called the "economic price") was identified. These minimum prices and rental rates imply what levels of household income would be required to purchase or rent new units in electoral area A without paying more than 30% of one's household income. This analysis is performed for 2020 and 2025.

6.1 Financial Analysis Results

Based on the construction cost assumptions detailed in our methodology^v, the following housing prices represent the most affordable units that a developer or building could afford to produce in electoral area A. More affordable new units may exist, but these would arise from exceptional circumstances such as unusually cheap land.

The price of a new single-detached home is about \$650,000, the price of a new townhouse is about \$449,000, and the price of a new apartment about \$320,000. The monthly rent for new townhomes is about \$1,670 and for new apartments about \$1,180.

To produce an estimate of the minimum income that would allow a household to purchase or rent one of these new units without spending more than 30% of its household income, the following assumptions are used:

- Purchasers will have a mortgage with the following characteristics:
 - 20% down payment
 - 3.5% stated annual interest rate
 - 25-year amortization
- Owners and renters will both pay additional housing expenses as detailed elsewhere in this report, including utilities and property taxes.

See Table 51: The most affordable new units by type and jurisdiction in 2020 and Table 52: Minimum household income required to purchase or rent a new home by unit type in 2020.

The household income that would be required to purchase or rent a new unit, paying no more than 30% of one's income on housing expenses, and the percentage of electoral area A's current households (2019) that could afford that housing option was calculated:

- To purchase a new single-detached home would require \$118,000 of annual household income, and about 34% of households could afford to do so
- To purchase a new townhouse would require \$84,000 of annual household income, and about 52% of households could afford to do so
- To purchase a new apartment would require \$63,000 of annual household income, and about 66% of households could afford to do so
- To rent a new townhouse would require \$76,000 of annual household income, and about 57% of households could afford to do so
- To rent a new apartment would require \$57,000 of annual household income, and about



71% of households could afford to do so.

For each of these categories, note that this is the least affluent demographic that could be served by the new-build market. If supply constraints exist and less housing is built, then that new housing will tend to go to the highest bidder, increasing the price and income required to avoid core housing need.

The economic price of new homes in electoral area A in 2025 was also projected based on the escalation assumptions presented above.

See Table 53: The most affordable new units by type and jurisdiction in 2025.

Compared to 2020, the price of construction in 2025 is expected to increase so that:

- The economic price of a single-detached home will be about \$746,000
- The economic price of a townhouse will be about \$525,000
- The economic price of an apartment will be about \$363,000
- The economic monthly rent for townhomes will be about \$2,035
- The economic monthly rent for apartments will be about \$1,400.

See Table 54: Minimum household income required to purchase or rent a new home by unit type in 2025.

The household income that would be required to purchase or rent a new unit in 2025, paying no more than 30% of one's income on housing expenses, and the percentage of electoral area A's projected households (2025) that could afford that housing option was calculated:

- To purchase a new single-detached home will require \$134,000 of annual household income. About 36% of households will be able to afford to do so under the rapid recovery scenario versus 33% in the slow recovery scenario.
- To purchase a new townhouse home will require \$97,000 of annual household income. About 54% of households will be able to afford to do so under the rapid recovery scenario versus 50% in the slow recovery scenario.
- To purchase a new apartment home will require \$70,000 of annual household income. About 70% of households will be able to afford to do so under the rapid recovery scenario versus 66% in the slow recovery scenario.
- To rent a new townhouse in the region will require \$91,000 of annual household income. About 58% of households will be able to afford to do so in the rapid recovery scenario versus 54% in the slow recovery scenario.
- To rent a new apartment in the region will require \$66,000 of annual household income. About 73% of households will be able to afford to do so in the rapid recovery scenario versus 69% in the slow recovery scenario.

The capacity of electoral area A's households to afford new construction will tend to increase slightly in the rapid recovery scenario and will tend to decrease slightly in the slow recovery scenario. The overall difference between the two scenarios is not huge, suggesting that the electoral area's housing market is unlikely to be severely impacted by the COVID-19 pandemic. In electoral area A, the cost of constructing new townhomes will increase faster than the region's incomes, and the cost of constructing new apartments will tend to increase more slowly. This is



probably the result of land price increases for patio homes (a particularly desirable type of townhome) being in such short supply and in higher demand than apartments.







ⁱ At the time of writing this report, data from the point-in-time homeless count completed in March 2020 was not available for individual jurisdictions.

[&]quot;Real" here means that currency inflation is removed so that household incomes can be compared directly between time periods because they have been brought to parity in terms of true spending power.

ⁱⁱⁱ A household is said to be in core housing need if its housing falls below at least one of the adequacy, affordability or suitability standards and the household would have to spend 30% or more of its total beforetax income to pay the median rent of alternative local housing that meets all three housing standards.

iv A household is said to be in extreme housing need if its housing falls below at least one of the adequacy, affordability or suitability standards and the household would have to spend 50% or more of its total beforetax income to pay the median rent of alternative local housing that meets all three housing standards.

^v See the regional CVRD housing needs report methodology section for detailed assumptions behind cost of new development.