

WEST MOBERLY FIRST NATIONS HOUSING STRATEGIC PLAN MAY 2020





This Housing Strategic Plan was approved by Chief and Council on January 10, 2023, through the following resolution:

Motion: Council accepts the Housing Strategic Plan as presented by Urban Systems.

Motion # 2023-01-10-10

Moved By: Clarence Willson

Seconded By: Theresa Davis

Motion Carried Unanimously



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1. BACKGROUND AND PURPOSE



1.1 PURPOSE OF THE HOUSING STRATEGIC PLAN



The purpose of the Housing Strategic Plan is to:

- Set a roadmap for the West Moberly First Nations Housing Department to increase and improve housing on reserve
- Support funding applications
- Communicate to members the community's goals and priorities for housing (both on and off reserve)
- Support WMFN to get the best value for money and strategically allocate financial resources



1.2 EXISTING POLICIES AND PLANS

This document will be WMFN's first Housing Strategic Plan and will guide future housing developments and investments. It is informed by the following previous housing policies and plans:

- WMFN Housing Policies: clarifies responsibilities for WMFN and tenants
- WMFN Housing Management Plan: identifies tasks and responsibilities between tenants and WMFN; includes cost and budget tracking, aiming to mitigate unplanned/reactive maintenance; includes detailed assessment of current housing stock, community census, and housing needs



1.3 WMFN MISSION AND VISION

Council Mission

Uniting our community in building for the future.

Council Vision

WMFN is a unified and self-sustaining community that is in control of our own future.





PROCESS

The first step in developing this strategy was to engage the community to understand their needs. Findings from the community engagement are included throughout this report, and full details can be found in the What We Heard Report (Appended).



PROCESS

- The process for the community engagement was as follows:
 - Family Councillors were provided with an information sheet describing the intent of the Housing Strategy and Councillors invited their family members to participate in two ways: (1) attending in-person family meetings held at Moberly Lake and in Prince George, and/or (2) completing a housing needs assessment survey. In total, four family meetings were held which were attended by a total of 37 people.
 - Separate surveys were prepared for the 122 members living on-reserve and 219 members living off-reserve, and were provided electronically and in hard copy. Hard copy surveys were distributed to all members through WMFN's regular monthly mail-out. In total, 15 off-reserve surveys were completed and eight on-reserve surveys were completed.



PROCESS

- Although the Strategy considers housing needs for members living both on and offreserve, it is important to acknowledge that the Housing Strategy project has been funded by Indigenous Services Canada whose mandate is to address on-reserve housing.
- WMFN is interested in finding creative ways to support the housing needs of members living off-reserve although this may take longer to achieve.





KEY CHALLENGES - SURVEY

- The community survey identified a number of key challenges summarized in the following table.
- The number in brackets indicates the number of people who identified this item as a key challenge.

CHALLENGES ON-RESERVE	CHALLENGES OFF-RESERVE
Over crowding (6)	High cost of rent (4)
High cost of utilities (hydro) (4)	Lack of off-reserve support (3)
Heating issues (poor insulation, furnaces, wood heating) (3)	Lack of available housing (2)
Unfinished renovations (roofing, ceiling) (2)	Social issues – drug use, alcoholism (2)
Higher quality of renovations (2)	Overcrowding (2)
Drainage issues – flooding (2)	Lack of employment (1)
Lack of new homes/housing (2)	Lack of Elder housing (1)
Sewer system issues (1)	Need renovations (1)
Expensive renovations (1)	Need additional outbuildings (1)
Seasonal employment (1)	Lack of funding — off-reserve (1)
High cost of rent (1)	Lack of affordable housing off-reserve (1)
Limited space (1)	Need improved education (1)
Aged homes – health/safety concerns (1)	Need improved employment (1)
Lack of funding (1)	Lack of land/historic area protection (1)
	Need renovations (1)
	Lack of facilities (1)
	Lack of space (1)



KEY CHALLENGES — FAMILY MEETINGS

The family meetings identified several key challenges summarized in the following table:

CHALLENGES – FAMILY MEETINGS			
Expensive Hydro (4)	Security for married in, security for		
	families (wills)		
Houses too close together and lots too	Lack of building lots		
small (2)			
High rent (2)	Family to take over remaining mortgage		
Need more housing	Mobility / inaccessibility issues		
Expensive infrastructure costs	Need Elders support		
Work is seasonal	Funding (renovations)		
Housing close to road	Conflict between living in town and living		
	rural		
Drainage issues (flooding)	Landscaping support		



KEY THEME #1 - VARIETY OF HOUSING TYPES

Members described a need for variety in the types and sizes of housing to accommodate peoples' needs during different phases of life including:

- Larger homes for families over-crowding is a concern for people living on-reserve
- Smaller homes are required for single people and possibly Elders who are still able to live independently but do not want a large home or yard to manage
- Seniors housing was mentioned as a need with the ability to make modifications to increase accessibility and support aging in place;
- Townhomes and multifamily structures were mentioned as options to consider
- Family suites in various forms were identified including granny pods, carriage homes on larger lots



KEY THEME #2 - AFFORDABILITY

Affordable housing was a topic that arose often. Expensive heating/utility costs, high rent, home repair and maintenance costs, and infrastructure costs were all cited as concerns. Specific topics that came up included:

- Need for increased energy efficiency heating, hydro, insulation
- Consider charging a modest maintenance fee for people owning their own homes
 that can be pooled and then paid out as repairs are required
- Desire for financial support for renovations and repairs for members off-reserve
- Consider providing refunds for those who renovate their homes
- Upgrade homes before ownership transitioned to members
- Underground repairs should be WMFN's responsibility
- WMFN should provide down payment and mortgage support to members



KEY THEME #3 — ELDERS HOUSING

The topic of Elders housing arose multiple times throughout the engagement process. A variety of housing options for Elders would ensure their mobility and safety along with comfort. Ideas for Elders housing included:

- Modular homes, Granny pods, and renovations to increase mobility and accessibility in current homes
- Care home off-reserve as a possible economic development opportunity.
 (Comprehensive Elder care could be an area for separate attention and exploration)
- Elders building in Hart Highway area.



KEY THEME #4 - LOT SIZE & SITE CONSIDERATIONS

The size and location of lots were discussed during the review of maps. A common theme for those living at Moberly Lake was a desire for houses to be spaced further apart. People enjoy the rural feel and larger lots provide more space for families and outdoor activity including community gardens. Some of the specific comments include:

- Deeper lots at West Moberly to accommodate rural lifestyle
- Town houses, subdivisions
- More space for gardens and children
- Community gardens
- Family groupings and neighbourhoods
- More lake view lots

It is important to note that larger lots are more expensive to service and ISC has specific funding thresholds.





KEY THEME #5 — TEMPORARY, TRANSITIONAL & RENTAL HOUSING

Temporary, transitional and rental housing options were mentioned with some frequency as ways to support students, young people, and community members transitioning out of treatment. Ideas for temporary, transitional and rental housing includes:

- WMFN-owned transition homes
- Student housing in Prince George
- 'Bed n' Bannock' housing as economic development
- Temporary and visitor accommodation (yurts or cabins) at Moberly Lake (e.g. hunting season)
- WMFN as affordable housing provider (off-reserve) apartment(s) to rent to members
- Multi-story condo off-reserve
- Provide options for members to have a home at WMFN or off-reserve

2.3 COMMUNITY ENGAGEMENT KFY THEME #6 — HOUSING ADMINISTRATION & POLICY



Some feedback was received related to overall housing administration and policy including ensuring fair and transparent decision-making. Specific feedback included:

- Clear criteria for who receives housing and repairs
- Build employment and business opportunities (electrical, carpenter, plumbing etc. training)
- Challenge to own home but not the land can't get a mortgage
- Require own source revenue to fund housing grants are insufficient
- Consider community energy options to reduce heating / utility costs

3. HOUSING NEEDS ASSESSMENT





3.1 OVERVIEW

To inform the Housing Strategic Plan, a Housing Needs Assessment was completed to answer the following questions:

- Who needs housing (age, gender, family size)?
- How much housing is needed?
- What type of housing is needed (single family, townhomes, duplexes, number of bedrooms)?



As a result of the Covid-19 pandemic and limitations on conducting in person engagement, this finalized Strategic Housing Plan was not completed until 2022, as a result, the 2018 Housing Needs Assessment used to inform this Plan is not up to date, as some of the data has since changed. Changes in housing data since 2018, from renovations and/or new construction, have been directly influenced by the 2018 Housing Needs Assessment findings and recommendations and the draft version of this strategy.



3.1 OVERVIEW

Housing needs were determined by collecting information from the following information sources:

- WMFN plans and policies related to housing
- WMFN Housing Needs Assessment
- Community census
- Conversations with Gil Davis (WMFN Housing Manager)

- WMFN Housing Inventory
- WMFN Renovation Program summary
- Community engagement
- Population and housing statistics available through Indigenous Services
 Canada and Statistics Canada





WMFN Housing Programs

Briefing Note

February 2019

Housing Programs (each has separate policy)

Program	Financed by	Owned by	Maintenance	Dwellings (2019)	Dwellings (2022)
WMFN Band-Owned Rental Residential Units	CMHC or Bank to Band	WMFN	WMFN	2	1
Social Housing (CMHC Section 95 Residential Units)	CMHC to Band	WMFN until paid off and right to purchase exercised	WMFN until purchased	23	24
WMFN Band-Administered Mortgage Residential Units	Bank to Band	WMFN is mortgage holder. Acts much like Social Housing except no CMHC financing	Member	12	13
WMFN Band-Secured Mortgage (Member-owned Residential units)	Bank to Member Band holds Ministerial Loan Guarantee	Band Member. Bank holds mortgage	Member	9	10

TENURE AND OCCUPANCY

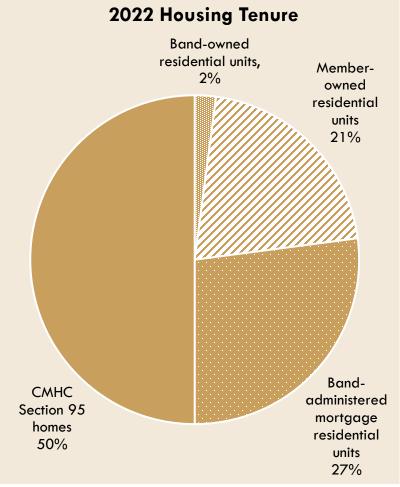
As of 2022, there are 48 homes on-reserve:

- 1 band-owned rental residential unit
- 10 member-owned residential units
- 24 CMHC Section 95 (Social) residential units (i.e. onreserve non-profit housing program funded by the Canada Mortgage and Housing Corporation)
- 13 Band-administered mortgage residential units

What we heard from the onreserve community in 2019:

- 86% are currently renting and pay between \$200-675 in monthly rent
- 88% live in houses and 12% live in mobile homes





TENURE AND OCCUPANCY

- The housing stock consists predominantly of 3bedroom homes, with only a few 2- and 4bedroom homes, and no 1-bedroom homes.
- There is a high proportion of 1- and 2-person households. Between 2018 and 2020, 31% of homes were 3-bedroom homes with 2 or less people residing there, demonstrating a necessity for smaller 2- bedroom homes.
- There is also a large proportion of households with more than 5 people and one survey response reporting 9 people living in one home.



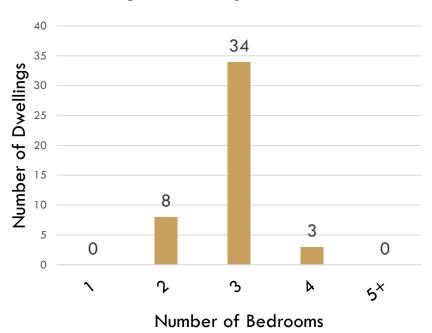


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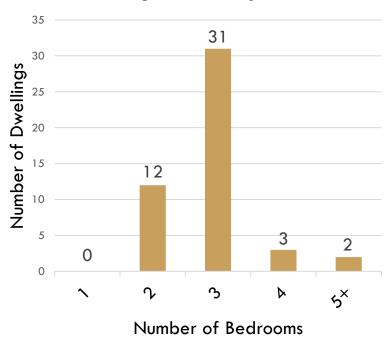
TENURE AND OCCUPANCY

The housing stock has increased from 45 dwellings in 2018 to 48 dwellings in 2022, with a marked increase in 2-bedroom homes.

Housing Stock Composition (2018)



Housing Stock Composition (2022)

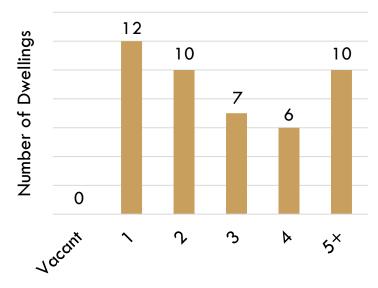


3.2 HOUSING STOCK TENURE AND OCCUPANCY



The BC provincial average for persons per dwelling is 2.5. In 2018 there was an average of 3 persons per dwelling in WMFN, suggesting overcrowded housing conditions. No 2022 data on persons per dwelling is available.

Persons Per Dwelling (2018)

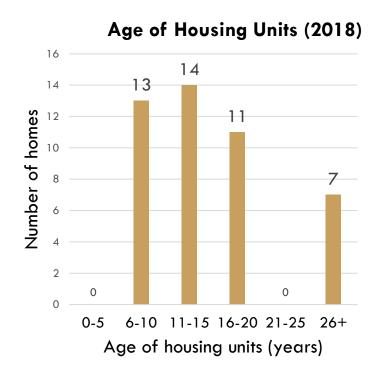


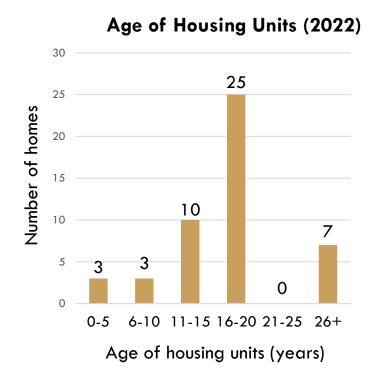
Household Size (Number of Occupants)

AGE AND SIZE OF UNITS



The overall housing stock is young with the oldest existing homes being built in 1987.









INPUTS TO CALCULATE THE AMOUNT OF HOUSING NEEDED





NEED FOR RENOVATIONS & SHORT-TERM RENTALS

- In 2020, 42 homes were in need of renovations. As of 2022, 24 homes are in need of renovations.
 - 13 out of the 14 homes impacted by mould have been remediated. Currently 1 home is affected by mould.
 - 9 homes were in need of roof replacement in 2020, and as of 2022, 2 homes are in need of roof replacements. Further roof replacements are scheduled to take place in 2022.
 - The renovation strategy should consider site grading to deal with drainage and moisture. This issue is also important to consider for future housing construction.
- There is need for additional homes for temporary accommodation, including for families with homes undergoing renovations, and individuals and families in transition or crisis. Ideally, two short-term rental homes would be available to meet these needs.



NEED FOR RENOVATIONS & SHORT-TERM RENTALS

- As of 2022, 24 social housing units are scheduled for Priority 1 and 2 renovations in 2022. Priority 3 and 4 renovations will be completed in 2023 and 2024 as funding allows.
- As of 2021, 15 out of 17 residential units have had investigations regarding their building foundations, as well as the completion of drainage remediation. All remaining site drainage and landscaping is to be completed in 2022 as funding allows.

4

WE SUGGEST AVOIDING 1-BEDROOM HOMES

Considering WMFN's remote location, it is preferable for each household to have a guest bedroom in order to host friends and family from out of town. 2-bedroom homes are also more versatile than 1-bedroom homes and can serve more family configurations. For this reason, we suggest not building any 1-bedroom homes, and have not included any 1-bedroom homes in this housing strategic plan.



WHAT WE HEARD

43% of on-reserve respondents indicated that their current housing situation is not meeting their needs.

85% of on-reserve respondents said they do not plan to move away from WMFN, while three people indicated that they may move for employment and/or educational purposes.

The top three needs identified by on-reserve respondents included:

- "I need a larger home for my growing family" (25%)
- "I need a different type of home because I am finding it difficult to move around" (25%)
- "I want to stay in my current home but need more in-home support" (25%)

4

OVERCROWDING ASSESSMENT

Disclaimer: our definition of overcrowding is based on National Occupancy Standards, and our assessment is based on the best information from the 2018 community census. However, each household may have a different opinion as to whether they consider their household to be overcrowded, and some conditions may have changed since the community census was collected in 2018.

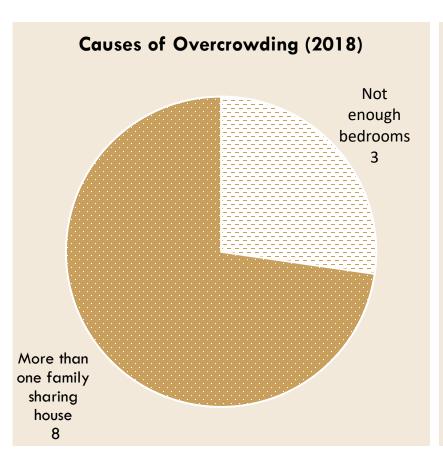
There are 5 households experiencing overcrowding.

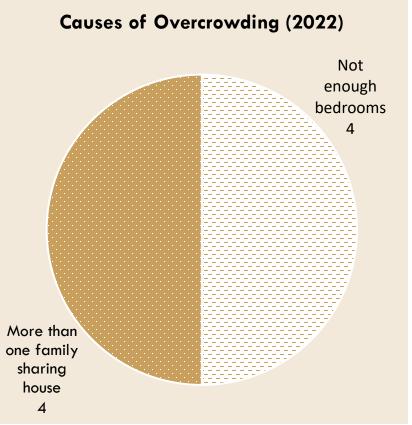
- 4 are overcrowded due to not enough bedrooms
- 4 are overcrowded due to more than one family sharing the house
- In many of these homes there is a young adult (aged 18-35) or Elder who is in need of their own independent housing unit, and who has been counted as a member of a family unit within that household (not counted as their own, separate family unit).

2 of these 5 households will be provided new dwellings under the CMHC Rapid Housing Initiative in construction and/or through new construction via an Indigenous Services Canada subsidy.

\$

OVERCROWDING ASSESSMENT





4

OVERCROWDING ASSESSMENT

The following additional housing units would be required (based on the 2018 community census) for these households to not experience overcrowding:

- 18 units for singles (2 bedrooms)
- 1 unit for a couple (2 bedroom)
- 2 units for families (one 3 bedroom and one 4 bedroom)

As of 2022, 5 households are experiencing overcrowding. There are plans underway for the construction of 2 new dwellings to address overcrowding.

From the on-reserve community:

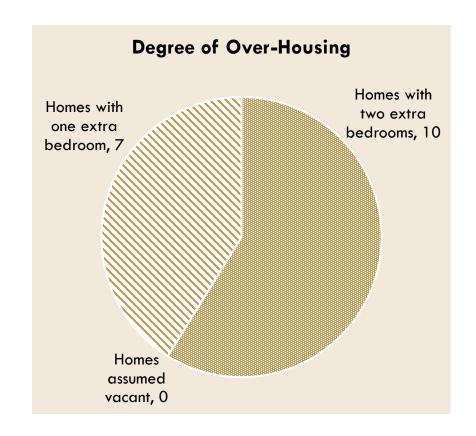
- 29% indicted they often stay with family and friends, while 71% indicated they are currently in stable, permanent housing
- 57% believe their current living situation is overcrowded



OVER-HOUSED ASSESSMENT

There are 18 homes with more bedrooms than residents.

- There are 10 homes with 2 extra bedrooms
- There are 7 homes with 1 extra bedroom
- As of 2022, there are no homes assumed vacant





CONDEMNED HOMES

To the best knowledge of the Housing Manager, at the time of this writing (November 21, 2019) there are no condemned houses, however, this could not be fully verified due to a lack of information presently available.



CURRENT WAITLIST

- There are currently 2 families on the waitlist for housing (in need of two 3-Bedroom and one 4-Bedroom). Plans are underway for new construction to meet the needs of one of these families. The other family is awaiting the next application round for the New Approach for Housing Support (NAHS) program.
- There are an additional 3 single people on the waitlist for housing. 1 of these individuals
 is in need of an Elder's accessible unit and is waiting for the completion of new
 construction. The other 2 individuals are waiting for the next NAHS application round.



SUMMARY

This table provides a summary of the figures provided in the previous section of slides. This table does not include people living off-reserve who are currently interested in moving on-reserve. However, potential future increase of WMFN members moving back to reserve is included in the population growth scenarios (next slides).

25 is the number of units calculated to be needed to meet the existing housing need, however some of these needs can be met as housing is reallocated when people downsize into new units that are more appropriately sized for their household composition.

EXISTING HOUSING NEEDS								
	Families	Singles	Total					
Short-term Rental	2	0	0	2				
Overcrowding	2	1	18	21				
Waitlist	2	0	0	2				
Total	6	1	18	25				





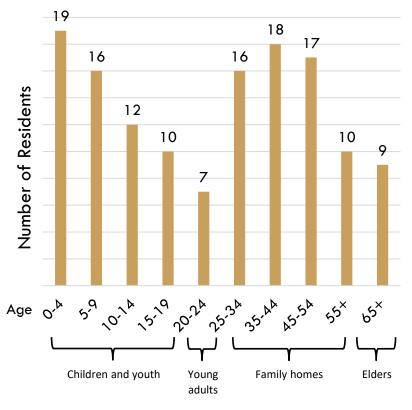
INPUTS TO CALCULATE THE AMOUNT OF HOUSING NEEDED



CURRENT COMMUNITY DEMOGRAPHIC COMPOSITION

- The population is young (48% of the community is less than 25 years old) and thus over the next 10 to 20 years there will be a need for smaller apartments or homes that contain 2 bedrooms
- Adults aged 20-24 may want their own place to live, which should have two bedrooms so there is space for a couple, roommate, visitor, or child. Consider they may need a family-sized home in 5-10 years.
- 45% of community is in the family development years and needs homes with multiple bedrooms
- 7% of community are Elders (age 65+) who need or will need smaller homes designed to meet their accessibility needs

Number of Residents by Age Group





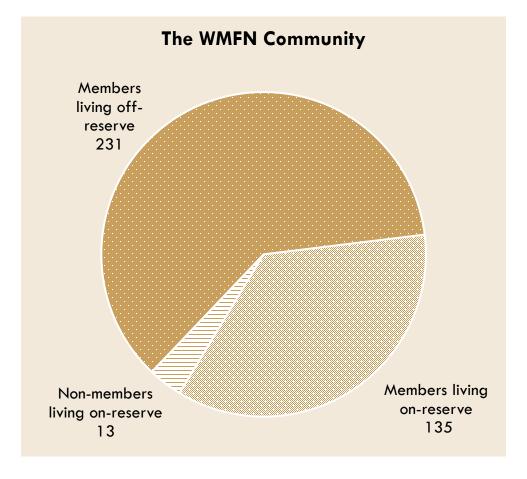
ACCESSIBILITY NEEDS

- In addressing the need for Elders housing it is important to consider accessibility. The 14% of current community members who are Elders (age 60+) may need smaller, single level homes, with features such as ramps, walk-in tubs, and laundry facilities on the same level.
- There may be other community members with accessibility needs. Further information is needed from the community to know how many community members are in need of accessible housing, and what their specific needs are.



CURRENT COMMUNITY DEMOGRAPHIC PROFILE

Based on the ISC community profile data there are 135 WMFN members living onreserve and 231 members living off-reserve, with a total of 366 members. The 2018 community census indicated a total on-reserve population of 135 people, which would suggest that there are approximately 13 nonmembers living on reserve.





NEEDS OF OFF-RESERVE MEMBERS

13% of off-reserve survey respondents indicated that they would be interested in moving on-reserve. However, barriers they faced in moving to West Moberly included:

- Lack of available housing (29%)
- Lack of employment opportunities (14%)
- And other issues (57%) including lack of Elder care, and substance use in the community.

From the off-reserve community we heard:

- 71% of respondents believe their current rent rate is affordable, whereas 29% do not think their rent is affordable
- 20% of survey respondents believe their current living conditions are overcrowded, and 80% do not believe their current living conditions are overcrowded



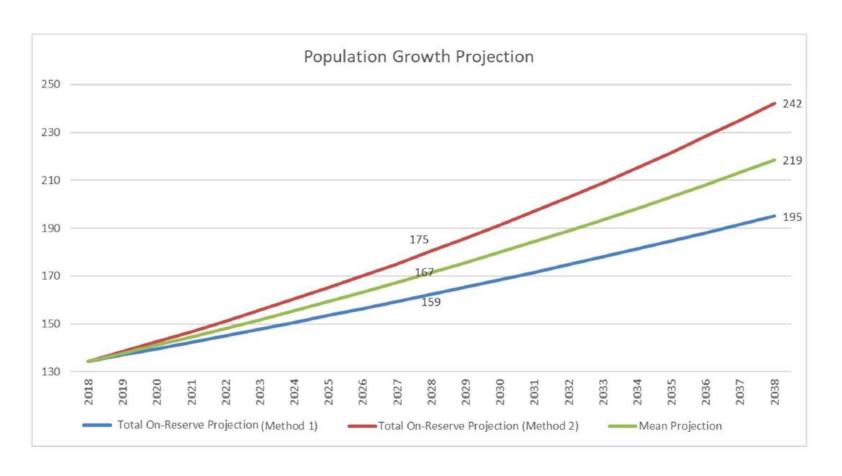
POPULATION PROJECTION

As part of the housing needs assessment, housing projections to 2038 were completed to estimate future housing demand. This future demand was calculated using two methods, resulting in a projected range of 195 to 242 residents on-reserve by 2038 (average of 219).

- Method 1 is calculated based on the total WMFN membership, with a lower growth rate because it includes members off-reserve who tend to have lower birth rates.
- Method 2 is calculated based only on the on-reserve population including nonmembers. It has a higher growth rate because members on reserve tend to have a higher birth rate.

4

POPULATION PROJECTION







HOUSING NEEDS BASED ON POPULATION PROJECTION

Based on the average projected increase in population of 84 residents over 20 years, we can calculate the number of housing units needed for this population. Two scenarios are used to calculate the number of future housing units needed:

- Scenario 1 assumes the BC average of 2.5 persons per dwelling.
- Scenario 2 assumes the ISC average of 3.0 people per dwelling.

This calculation shows that WMFN will require between 11 and 13 (average 12) additional housing units by 2028, and between 28 and 34 (average 31) additional housing units by 2038 to accommodate on-reserve population growth.

YEAR	POPULATION	PROJECTED POPULATION GROWTH	# OF NEW UNITS NEEDED
2018	135	-	-
By 2028	167	32	12
By 2038	219	52	19
Units Nee	31		





SUMMARY OF HOUSING NEEDS FROM NOW TO 2038

The table below summarizes housing needs in WMFN from 2020 to 2038. It is based on the housing waitlist and estimated future housing demand to 2038.

TIME PERIOD	EXISTING NEED FOR UNITS	UNITS NEEDED TO ACCOMMODATE PROJECTED POPULATION GROWTH	TOTAL NEED				
By 2028	25 units	12 units	37 units				
2028-2038		19 units	19 units				
Sub-Totals	25 units	31 units	\				
Grand To	Grand Total Units Needed Between Now and 2038:						



3.5 KEY TAKE-AWAYS

PERIOD	CATEGORY OF	TOTAL NEW	SUGGESTED UNIT TYPES			
	NEED	UNITS NEEDED	2 Bedrooms	3 Bedrooms	4 Bedrooms	
	Short-term rental	2	0	1	1	
Existing Need for Units	Overcrowding	21	19	1	1	
	Waitlist	2	0	1	1	
Units Needed to Accommodate Projected Population Growth	Ву 2028	12	7	3	2	
	2028-2038	19	10	5	4	
Total Units Needed Between Now and 2038:		56	36	11	9	



3.5 KEY TAKE-AWAYS

- WMFN needs 25 new housing units immediately to meet existing community needs on-reserve. 19 of these should be 2-bedroom homes, one should be a 3-bedroom home, and one should be a 4-bedroom home. These homes will fulfill needs from short-term rental demand, overcrowding, and the waitlist.
- WMFN needs an additional 12 new housing units by 2028 to meet anticipated demand. Seven of these should be 2-bedroom homes, three should be 3-bedroom homes, and two should be 4bedroom homes.
- On top of the needed units already mentioned, WMFN will need an additional 19 new housing units by 2038 to meet anticipated demand. Ten of these should be 2-bedroom homes, five should be 3-bedroom homes, and four should be 4-bedroom homes.
- Prioritize new units for singles including two-bedroom units for young adults and Elders. Elders need
 housing suited to their age and mobility needs, including single floor (rancher-style) two-bedroom
 units (so there is space to host visitors), with low-threshold showers and no stairs to laundry facilities.
- Some modest single-family detached homes should also be built to meet demand from the waitlist,
 the need for short-term rental, and new young families.



3.5 CONVERSATION STARTERS

- There are ways to make higher-density units more amenable to the community because higher density units make shared amenities possible, such as fire pits, shared smokehouses, and more.
- Choosing to build more of these units in multi-family housing structures (such as duplexes, triplexes or four-plexes) is more cost-effective and uses less land than single-family detached homes. Some of this housing could also be designated as affordable housing for residents that rely on social assistance.

4. FINANCIAL CONSIDERATIONS





4.1 FUNDING PROGRAMS

In order to fund new housing construction WMFN should consider a combination of external government funding programs to maximize support.

- CMHC Section 95 includes grants of \$233,000/unit, for a maximum of 4 units for 2022, then a loan for any additional amount beyond that.
- ISC provides a grant of \$60,647/unit as a new construction subsidy and which can be used for site servicing.
- This means the maximum grant amount available per house is \$293,647. With an estimated building cost of \$425/square feet, the maximum size of this typical unit is 690 square feet without additional financing. This is equivalent to a standard 1-bedroom unit.
- Funding programs also exist through BC Housing, however this requires the formation of a Housing Society, and the building must be multi-family.



4

CAPACITY TO SPEND ON HOUSING

- To analyze what range of rents and mortgage values could be affordable for WMFN members we created three household income profiles based on available census income data for the Treaty 8 Tribal Association (as census income data for WMFN was not available from Statistics Canada due to privacy concerns given the small size of the community).
- We created three income profiles for hypothetical households with annual incomes of \$25,000, \$36,165, and \$65,000.
- Based on a standard target of spending 32% of income on housing, this means these households could theoretically afford annual housing costs of \$8,000, \$11,573, and \$20,800 respectively (assuming no other substantial debts)

CAPACITY TO SPEND ON HOUSING						
Sample Household Income Profiles	Total Housing Spending (at 32% of income)					
\$25,000	\$8,000					
\$36,165	\$11,573					
\$65,000	\$20,800					

4.2 AFFORDABLE RENT & MORTGAGE THREE INCOME SCENARIOS (FOR ILLUSTRATIVE PURPOSES ONLY)

To create three income and mortgage scenarios we made the following assumptions:

- A small home was assumed to be 800 square feet
- A medium home was assumed to be 1,200 square feet
- A large home was assumed to be 1,800 square feet
- A range of rent and mortgage amounts were calculated which vary depending on the type of energy used for heating
- The mortgages assume a 25-year amortization period and a 6.29% rate of interest



4

INCOME SCENARIO 1: \$25,000 PER YEAR

For a household with an income of \$25,000, after paying their heating and power costs*:

- With a small home they can afford to pay \$482-\$607 in monthly rent, or \$73,300-\$92,400 in total mortgage value.
- With a medium home they can afford to pay \$371-\$566 in monthly rent, or \$56,500-\$86,000 in total mortgage value.
- With a large home they can afford to pay \$241-\$536 in monthly rent, or \$36,600-\$81,600 in total mortgage value.

^{*}Note: these calculations are estimates based on an average of monthly heating and electricity costs calculated using BC Hydro and Fortis calculators. The actual monthly costs will be higher in the winter and lower in the summer.





INCOME SCENARIO 1: \$25,000 PER YEAR

	SMALL HOME (800 SQFT)			MEDIUM HOME (1,200 SQFT)			LARGE HOME (1,800 SQFT)		
	Electric Only	Propane - Electric	Natural Gas - Electric	Electric Only	Propane - Electric	Natural Gas - Electric	Electric Only	Propane - Electric	Natural Gas - Electric
Monthly Heat & Power Costs*	\$184	\$144	\$59	\$295	\$226	\$101	\$426	\$3,687	\$131
Max. Monthly Housing Cost	\$482	\$522	\$607	\$372	\$441	\$566	\$241	\$359	\$536
Value of Mortgage	\$73,300	\$79,400	\$92,400	\$56,500	\$67,000	\$86,000	\$36,600	\$54,600	\$81,600

^{*}Note: these calculations are estimates based on an average of monthly heating and electricity costs calculated using BC Hydro and Fortis calculators. The actual monthly costs will be higher in the winter and lower in the summer.



4

INCOME SCENARIO 2: \$36,165 PER YEAR

For a household with an income of \$36,165, after paying their heating and power costs*:

- With a small home they can afford to pay \$780-\$905 in monthly rent, or \$118,600-\$137,700 in total mortgage value.
- With a medium home they can afford to pay \$669-\$864 in monthly rent, or \$101,800-\$131,400 in total mortgage value.
- With a large home they can afford to pay \$539-\$834 in monthly rent, or \$81,900-\$126,800 in total mortgage value.

^{*}Note: these calculations are estimates based on an average of monthly heating and electricity costs calculated using BC Hydro and Fortis calculators. The actual monthly costs will be higher in the winter and lower in the summer.





INCOME SCENARIO 2: \$36,165 PER YEAR

	SMALL HOME (800 SQFT)			MEDIUM HOME (1,200 SQFT)			LARGE HOME (1,800 SQFT)		
	Electric Only	Propane - Electric	Natural Gas - Electric	Electric Only	Propane - Electric	Natural Gas - Electric	Electric Only	Propane - Electric	Natural Gas - Electric
Monthly Heat & Power Costs*	\$184	\$144	\$59	\$295	\$226	\$101	\$426	\$3,687	\$131
Max. Monthly Housing Cost	\$780	\$820	\$905	\$669	\$739	\$864	\$539	\$657	\$834
Value of Mortgage	\$118,600	\$124,700	\$137,700	\$101,800	\$112,300	\$131,400	\$81,900	\$100,000	\$126,800

^{*}Note: these calculations are estimates based on an average of monthly heating and electricity costs calculated using BC Hydro and Fortis calculators. The actual monthly costs will be higher in the winter and lower in the summer.





INCOME SCENARIO 3: \$65,000 PER YEAR

For a household with an income of \$65,000, after paying their heating and power costs*:

- With a small home they can afford to pay \$1,549-\$1,674 in monthly rent, or \$235,600-\$254,700 in total mortgage value.
- With a medium home they can afford to pay \$1,438-\$1,633 in monthly rent, or \$219,000-\$248,400 in total mortgage value.
- With a large home they can afford to pay \$1,308-\$1,603 in monthly rent, or \$198,900-\$243,900 in total mortgage value.

^{*}Note: these calculations are estimates based on an average of monthly heating and electricity costs calculated using BC Hydro and Fortis calculators. The actual monthly costs will be higher in the winter and lower in the summer.



4

INCOME SCENARIO 3: \$65,000 PER YEAR

	SMALL HOME (800 SQFT)			MEDIUM HOME (1,200 SQFT)			LARGE HOME (1,800 SQFT)		
	Electric Only	Propane - Electric	Natural Gas - Electric	Electric Only	Propane - Electric	Natural Gas - Electric	Electric Only	Propane - Electric	Natural Gas - Electric
Monthly Heat & Power Costs*	\$184	\$144	\$59	\$295	\$226	\$101	\$426	\$3,687	\$131
Max. Monthly Housing Cost	\$1,549	\$1,589	\$1,674	\$1,438	\$1,508	\$1,633	\$1,308	\$1,426	\$1,603
Value of Mortgage	\$235,600	\$241,700	\$254,700	\$219,000	\$229,400	\$248,400	\$198,900	\$217,000	\$243,900

^{*}Note: these calculations are estimates based on an average of monthly heating and electricity costs calculated using BC Hydro and Fortis calculators. The actual monthly costs will be higher in the winter and lower in the summer.

4.2 AFFORDABLE RENT & MORTGAGE



SOLAR POWER

Photovoltaic panels can help reduce costs of power and heat.

- **Small home**: 3.2 kW (8 x 400W panels) can produce an estimated 3.7 MWh annually, offsetting approximately \$350 in BC Hydro electricity costs per year. This reduces living costs by an average of \$30 per month.
 - At a cost of \$2,500/kW, construction costs are estimated at \$8,000 per home.
- Medium home: 4.8 kW (12 x 400W panels) can produce an estimated 5.5 MWh annually, offsetting approximately \$530 in BC Hydro electricity costs per year. This reduces living costs by an average of \$44 per month.
 - At a cost of 2,500/kW, construction costs are estimated at 12,000 per home.
- Large home: 6.0 kW (15 x 400W panels) can produce an estimated 6.9 MWh annually, offsetting approximately \$655 in BC Hydro electricity costs per year. This reduces living costs by an average of \$55 per month.
 - At a cost of 2,500/kW, construction costs are estimated at 15,000 per home.

4.3 POLICY ON SELLING SECTION 95 HOUSING



The current policy regarding the selling of Section 95 housing states that if a member has been resident in a Section 95 home for 10 consecutive years, upon the completion of the amortization period of the mortgage that member may purchase the home, provided they are in good financial standing and meet other eligibility criteria as outlined in the WMFN Housing Policy. According to the WMFN Housing Policy, homes are typically sold for \$1.

When the CMHC housing mortgage is paid off, there is no longer any funding provided by CMHC for repairs. This means that a house needing repairs may be transferred to members who are unable to afford the cost of the required repairs. Educating the community on housing costs and housing roles and responsibilities is advised.



4.4 KEY TAKEAWAYS

- Lower energy costs for heating means a family will spend less on energy bills,
 and thus will have more money to spend on mortgage payments or rent. Lower
 energy costs can be achieved through quality construction.
- When a home is oversized relative to the number of residents, it will result in higher energy costs per person, reducing value for residents.
- The maximum combined grant amount available per house is \$293,647. With an estimated building cost of \$425/square feet, the maximum size of this typical unit is 690 square feet without additional income paid to housing. This is equivalent to a standard 1-bedroom home.

5. SUBDIVISON PLAN TYPYT





5.1 SUBDIVISION PLAN

Maps 1 and 2 show the community's preferred subdivision layout which includes 71 lots measuring 30m wide x 70m deep.

Map 1 (zoomed out view):

- The upper developable limit (due to available water pressure) is shown with a red dotted line
- The lower developable limit (due to gravity sewer line) is shown with a brown dotted line
- The wagon trail (purple lines) was identified through a walk-about with an Elder at WMFN (George D.)
- Mountain bike trials and skills park (orange lines) are a future concept (not currently existing)

Map 2 (zoomed in view):

- The red shading indicates steep slopes
- There are unmarked graves to the left (west) of the marked graveyard, as indicated by an Elder, so no lots have been placed in this area
- Three lots (connected rectangle with solid lines) at bottom have already been allocated to members based on historical use
- Inset map shows a possible option for access to Highway 29 which would require land acquisition

5.1 SUBDIVISION PLAN

MAP 1 — ZOOMED OUT VIEW

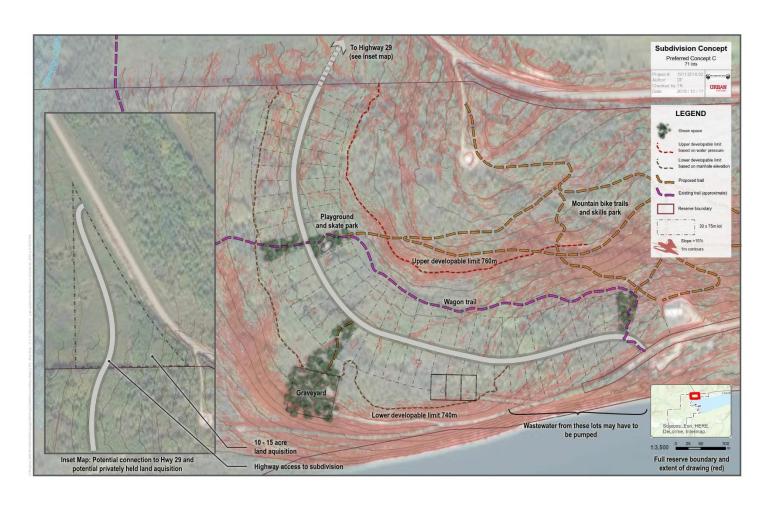




5.1 SUBDIVISION PLAN

MAP 2 - ZOOMED IN VIEW





6. CONSTRUCTION CONSIDERATIONS





6.0 CONSTRUCTION GOALS

WMFN housing construction goals:

- Reduce dependency on fossil fuels
- High performance and culturally appropriate housing are central to energy independence
- Comfortable, quieter, healthier and moisture resistant homes
- Good indoor air quality through Heat Recovery Ventilator (HRV)
- Approach through BC Energy Step Code #4

"WMFN wants to be the Greenest First Nation Community in British Columbia"



6.1 COST EFFECTIVE CONSIDERATIONS

There are design features you can include that do not add additional cost and will enable passive heating, thus reducing ongoing energy costs.

Orientation:

 House and window orientation allows for solar gain in the winter – free heat from the sun.

Overhangs:

- Prevent the hot summer sun from coming in the house
- Protect the house from the weather

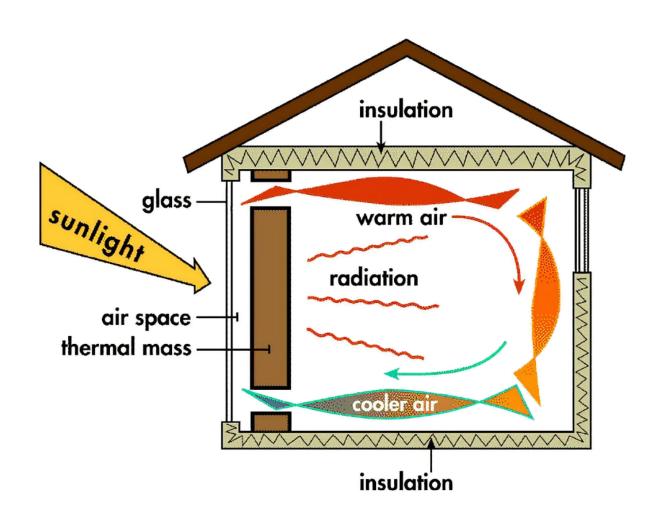
Ventilation:

Opening windows allows for cross-ventilation

6.1 COST EFFECTIVE CONSIDERATIONS



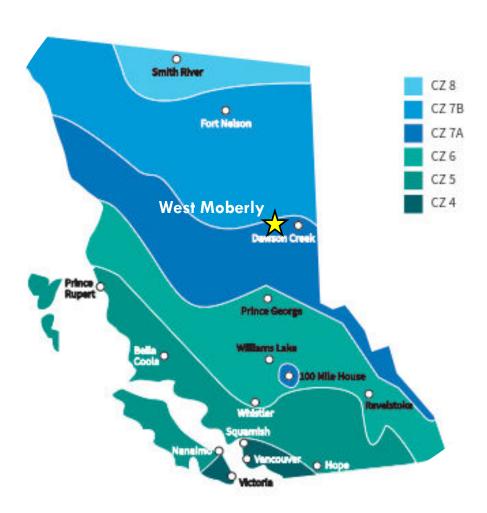
PASSIVE SOLAR HEATING





6.2 BC CLIMATE ZONES

- BC and all of Canada have been divided into Climate Zones.
- West Moberly is currently listed in Climate Zone 7a.
- Some other communities near by are also 7a: Fort St John, Dawson Creek, Taylor, and Chetwynd
- The BC climate zones are defined by the average heating degree days (HDD) below 18° C.
- The estimated Heating Degree Days in the area are 5345.





6.3 BC ENERGY STEP CODE

The BC Energy Step Code is a voluntary provincial standard enacted that provides an incremental and consistent approach to achieving more energy-efficient buildings that go beyond the requirements of the base BC Building Code. It does so by establishing a series of measurable, performance-based energy-efficiency requirements for construction that builders can choose to build to, and communities may voluntarily choose to adopt in bylaws and policies.

- The BC Energy Step Code is designed to help meet the goal that all new buildings will be net-zero energy ready.
- The Steps increase in energy efficiency. For example, Step Code 4 is much more energy efficient than Step Code 2.
- In 2019, Energy Step Code 1 was the required base BC Building Code.
- Now, in 2022, Energy Step Code 3 is the current base BC Building Code.



6.3 BC STEP CODE



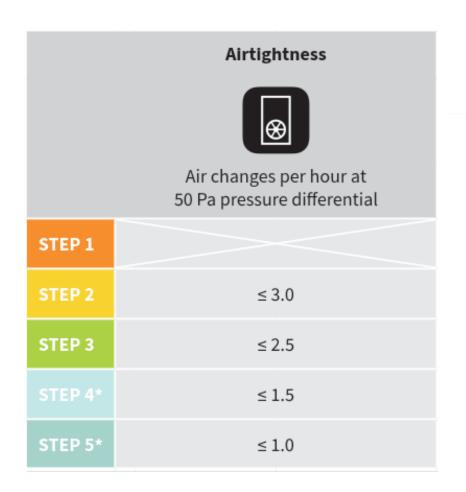


6.4 AIR TIGHTNESS

- One of the main aspects of meeting higher steps on the Energy Code is reducing air tightness.
- Reducing air tightness means not having to heat the air more often.
- Requiring builders to build a more air tight structure, reduces the operating costs for the occupants.



6.4 AIR TIGHTNESS





Drawing courtesy of Touch 'n Foam Insulating Sealants



6.5 EQUIPMENT AND SYSTEMS

	Equipment & Systems		
	G	OR	(np)
	% < REF		MEUI
STEP 1	0%		
STEP 2	10%	OR	see below
STEP 3	20%	OR	see below
STEP 4*	40%	OR	see below
STEP 5*			see below

- Mechanical Energy Use Intensity, or MEUI, measures annual energy consumption for the building's mechanical systems.
- This metric includes space heating and cooling, ventilation, and domestic hot water.
- 2019 Base BC Building Code offers 0% reduction.
- Where Step Code 4 would estimate a 40% reduction in the energy consumption of the equipment.



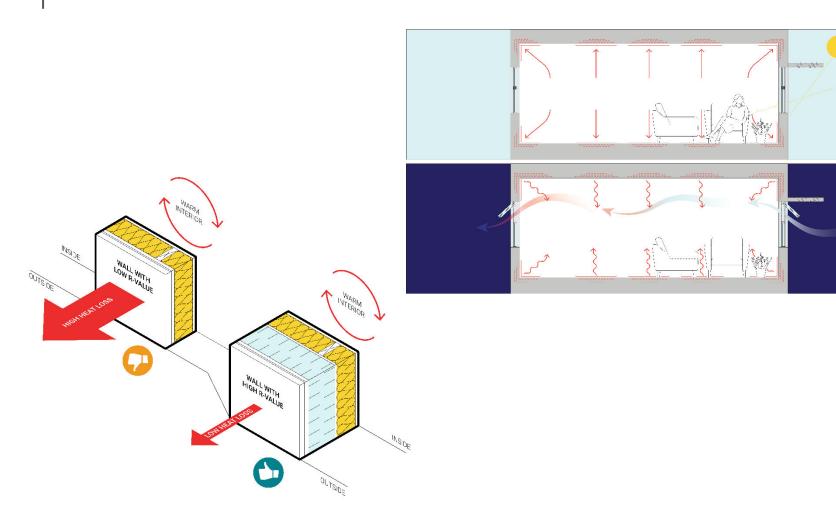
6.6 BUILDING ENCLOSURE

	Building Enclosure TEDI (kWh/(m²·year))
STEP 1	
STEP 2	80
STEP 3	70
STEP 4*	55
STEP 5*	35

- Thermal Energy Demand Intensity, or TEDI,
 is a measure of the amount of annual
 heating energy needed to maintain a
 building's stable interior temperature.
- It takes into account heat loss through the envelope and passive gains, such as the warmth generated by sunlight, body heat, and appliances.
- Minimizing thermal bridging is key to reducing the thermal energy demand intensity.



6.7 EFFICIENT THERMAL BUILDING

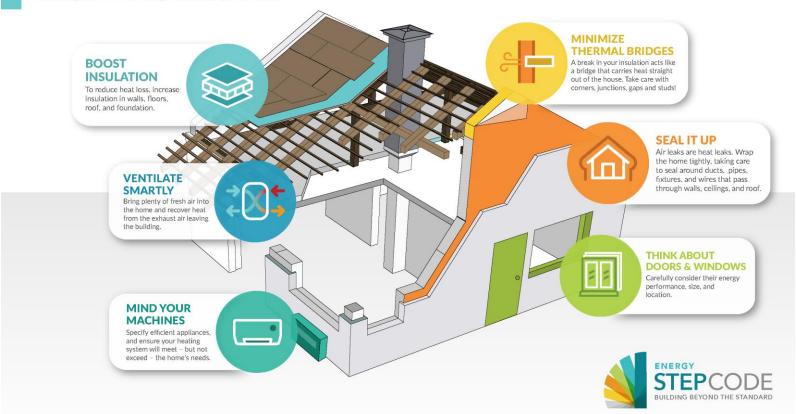




6.8 BUILDING ELEMENTS AND STEP CODE

INSIDE THE STEP 3 HOME

Six strategies to boost energy-efficiency performance





6.8 BUILDING ELEMENTS AND STEP CODE



6.8 BUILDING ELEMENTS AND STEP CODE



HEAT RECOVER VENTILATOR-HRV



6.9 CUMULATIVE IMPLICATIONS ON COSTS



All of these design and construction options together combine to significantly reduce ongoing costs and maintenance requirements.

- The savings for Part 9 buildings (including single-family homes, townhomes and small apartment buildings) increase as the buildings get larger
- Building to Step 3 can increase construction costs between 0.6% to 0.9% for townhomes or a medium sized single-family home. A 10-unit small apartment building would only see construction costs increase by 0.1%
- Including costs, the 20-year return on a 10-unit apartment building built to Step 3 would be \$217 per square metre.
 - A 6-unit townhome development would almost break even after 20 years, while a medium sized single-family home would not have broken even after 20 years, with a negative return of \$34 per square metre.



6.10 KEY TAKEAWAYS

- WMFN has the goal to be the greenest First Nation community in BC. To reach this
 goal we need to build new homes to be as energy efficient as possible, while
 balancing this goal with being realistic about building costs.
- Building to BC Step Code 3 will have higher upfront building costs than building to Step Code 1, but will produce higher quality housing that will reduce monthly energy costs, reduce maintenance requirements, save residents money in the long term, and make the community more resilient by being less vulnerable to external changes in energy prices.
- Build energy-efficient homes with smart green technologies to Step Code 3 at least. This will produce higher quality housing that will reduce monthly energy costs, reduce maintenance requirements, reduce heating costs over the lifetime of the building, and create homes that are more resilient to changes in weather and utility rates.

7. OFF-RESERVE HOUSING TYPY





7.1 OFF RESERVE HOUSING

Through community engagement events and surveys the desire for off-reserve housing was raised. However, the scope of this project has focused exclusively on onreserve housing due to the constraints of the funder.

Given the interest on behalf of the community we recommend WMFN look into options for off-reserve housing in the future. Note that funding for off-reserve housing is not available through CMHC or ISC.

Comments from the community engagement related to off-reserve housing included:

- Student housing in Prince George
- WMFN as affordable housing provider (offreserve) – apartment to rent to members
- Multi-story condo offreserve
- Provide options to have a home at WMFN or offreserve





- Community engagement emphasized the importance of having a variety of types of housing, affordability, Elders housing, considerations for lot sizing and sites, opportunities for new kinds of rental housing, and improving housing administration.
- Over the next 10 years there is an anticipated need for 37 new housing units to meet existing and anticipated demand. Choose to build more of these units in multi-family housing structures. This is more cost-effective, uses less land than single-family detached homes, and creates opportunities to develop shared amenities. Some of this housing could also be designated as affordable housing for residents that rely on social assistance.
- Prioritize new units for singles including smaller two-bedroom units for young adults and elders. Elders need housing suited to their age and mobility needs, including single floor 2-Bedroom units with accessibility features.



- Some modest single-family detached homes should also be built to meet demand from the waitlist, the need for short-term rental, and new young families.
- This year focus on funding applications for renovations (such as through the New Approach for Housing Support "NAHS" program).
- Next year focus on new builds including 2 bedrooms (possibly as duplexes) for young adults and elders.
- Consider that the maximum combined grant amount available per house with both CMHC and ISC grants is \$293,647, equivalent to a 1-Bedroom house of 690 square feet.
- Based on a standard target of spending 32% of income on housing, households could theoretically afford annual housing costs in the range of \$8,000 (low), \$11,573 (medium), and \$20,800 (high).



- Lower energy costs for heating means a family will spend less on utility bills per month, and thus will have more money to spend on mortgage payments or rent. Lower energy costs can be achieved with solar power. The larger a family's home, the more they will spend on heating and thus the less they will have to spend on mortgage payments or rent.
- WMFN has the goal to be the greenest First Nation community in BC. To reach this
 goal we need to build new homes to be as energy efficient as possible, while
 balancing this goal with being realistic about building costs.
- Build energy-efficient homes with smart green technologies to Step Code 3 at least.
 This will produce higher quality housing that will reduce monthly energy costs, reduce maintenance requirements, reduce heating costs over the lifetime of the building, and create homes that are more resilient to changes in weather and utility rates.



- Pursue funding to develop Phase 1 of the Subdivision Plan over the next ten years.
 Plan for all new WMFN-built homes to be built in the new subdivision. Once Phase 1 is built out, review and update the Housing Strategic Plan to determine appropriate density and housing types for future phases.
- Develop a process for optimal allocation of housing resources at WMFN (e.g., reduction in over-crowding and the number of people who are "over-housed").
- Through the community engagement events and surveys the desire for off-reserve housing was raised. Given the interest on behalf of the community we recommend WMFN look into options for off-reserve housing in the future.
- Educate the community on housing roles, responsibilities and how to take care of homes.
- Work with ISC to resolve the issue related to serviced lots that cannot be built on due to cultural reasons.





(GOALS NUMBERED FOR CONVENIENCE PURPOSES - NOT NECESSARILY LISTED IN ORDER OF PRIORITY)

- Increase on-reserve housing inventory by up to 25 units over next five years, including an appropriate mix of size and type
 - Build 8 two-bedroom homes in 2021/22
 - Build 9 two-bedroom homes, 1 three-bedroom home, and 1 four-bedroom home in 2022/23
 - Build 6 two-bedroom homes in 2023/24.



(GOALS NUMBERED FOR CONVENIENCE PURPOSES - NOT NECESSARILY LISTED IN ORDER OF PRIORITY)

2. Leverage all Funding/Finance Opportunities to Increase On-reserve Housing Inventory

- ISC New Approach to Housing Fund
- CMHC Social Housing Fund
- BC Housing Funding for Elders
- Market housing assess the value of homes and sell them
- FN Market Housing
- Encourage Member-financed homes through Ministerial Loan
 Guarantees



(GOALS NUMBERED FOR CONVENIENCE PURPOSES - NOT NECESSARILY LISTED IN ORDER OF PRIORITY)

3. Optimize Current Housing Inventory

- Work with each household to confirm specific housing status and requirements (over housed / under housed / unaffordable / mobility issues)
- Prioritize retrofits and upgrades to better accommodate needs
- Work with community to match housing inventory to community's needs:
 - prioritize new builds that free up housing inventory that matches needs (e.g., building two-bedroom duplexes may free up larger single-family homes)
 - Identify opportunities to create family suites on existing lots including granny pods and carriage homes.
 - Facilitate the transfer of homes within the community to match people with the homes that best suit their needs.



(GOALS NUMBERED FOR CONVENIENCE PURPOSES - NOT NECESSARILY LISTED IN ORDER OF PRIORITY)

4. Reduce Household Energy and Heating Costs

- All new homes will be built to minimum Step Code 3
- Take steps to bring down energy costs in current homes
 - Prioritize energy efficiency upgrades in the most inefficient homes
 - Add solar panels



(GOALS NUMBERED FOR CONVENIENCE PURPOSES - NOT NECESSARILY LISTED IN ORDER OF PRIORITY)

5. Ensure Housing is Affordable to Own and Maintain

- Build a mix of homes to suit different income levels including multifamily
- Implement a home maintenance and repair fund that households can pay into and draw from
- Achieve economies of scale through bulk buying of materials and appliances
- Host workshops and educate the community to maintain/repair their homes



(GOALS NUMBERED FOR CONVENIENCE PURPOSES - NOT NECESSARILY LISTED IN ORDER OF PRIORITY)

6. Ensure Elders' Housing Needs are Met

- Family Councillors to confirm Elders' housing needs for long term planning purposes
- Develop an Elders' housing plan
 - Safety / accessibility modifications to current homes
 - Potential moves to smaller / more accessible homes
 - Elders' complex to facilitate home-care supports



(GOALS NUMBERED FOR CONVENIENCE PURPOSES - NOT NECESSARILY LISTED IN ORDER OF PRIORITY)

- 7. Increase housing support for off-reserve members based on findings of housing and comprehensive community plan engagement. Opportunities to be explored further over the next five years include:
- Direct a portion of WMFN's own-source revenues to support offreserve housing needs
- Expand WMFN's role as landlord/property manager to generate own-source revenue to support member housing (on and off reserve)
- Explore non-ISC grants/funding opportunities for off-reserve
 (COVID-19 community funding)



(GOALS NUMBERED FOR CONVENIENCE PURPOSES - NOT NECESSARILY LISTED IN ORDER OF PRIORITY)

- 7. Increase housing support for off-reserve members based on findings of housing and comprehensive community plan engagement. Opportunities to be explored further over the next five years include (continued):
- Institute a housing repair and renovations fund for off-reserve
- Provide a housing renovation/repair or down-payment 'grant' to people living off-reserve
- Negotiate bulk-buy rates with suppliers to get people a break on windows, doors, roofing materials, appliances, etc.
- Develop a relationship with Habitat for Humanity
- Develop an off-reserve rent to own program