

AGENDA INFORMATION

- ☒ Council Workshop
- ☐ Finance & Audit
- ☐ Advisory Oversight
- ☐ Other:

Date: MARCH 9 2020
Date: _____
Date: _____
Date: _____

TA
Dept.
Manager

DM
GM/
Director

AF
CAO

The District of North Vancouver REPORT TO COMMITTEE

February 18, 2020
File: 13.6480.35/001

AUTHOR: Natasha Letchford, Senior Community Planner

SUBJECT: Targeted Official Community Plan (OCP) Review: Workshop Series

RECOMMENDATION:

THAT the report entitled "Targeted Official Community Plan (OCP) Review: Workshop Series" dated February 18, 2020 be received for information.

REASON FOR REPORT:

This is a covering report for the four white papers and the four white paper snapshots which provide a fact-based understanding of the four OCP topic areas: transportation; economy and employment lands; housing; and, climate emergency. The white paper snapshots are a short (3 to 5 pages) summary of the white papers. The white papers will be discussed at the first of a three part workshop series focusing on the Targeted OCP Review. The focus of the March 9 workshop will be on the first 10 sections of the white papers; the potential actions will be discussed at subsequent workshops.

SUMMARY:

The goal of the Targeted OCP Review is to develop an integrated action plan that provides a concise and doable set of actions that can be delivered within this Council's mandate and beyond. To assist in achieving this goal, there will be a series of workshops in March to review the findings of the white papers and to discuss possible actions. The March 9, 2020 Workshop is the first workshop. The tentative dates for the next two workshops are March 24 and 30, 2020. The Action Plan is scheduled to be delivered by summer 2020.

BACKGROUND:

On May 27, 2019 Council endorsed a targeted review of the OCP. Council indicated their support for the vision, goals, and strategic directions of the 2011 OCP and their desire to focus on the implementation of the current OCP. Urban Systems was retained as the primary consultant for this project and Brian Bydwell (former General Manager of Planning, Properties, and Permits) was retained as Advisor to the Targeted OCP Review.

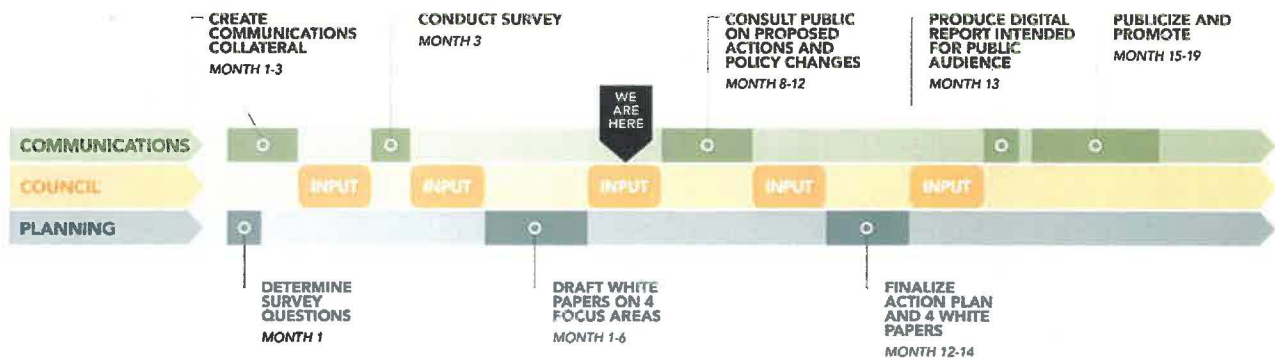
EXISTING POLICY:

District of North Vancouver OCP, 2011 and Council Directions 2019-2022.

ANALYSIS:

Timing/Approval Process:

The action plan is on schedule to be delivered by summer 2020. The Targeted OCP Process will take 15-19 months. March 9, 2020 is the first of a series of Council Workshops to review the white papers and to discuss possible options. Public engagement is ongoing with multiple public events planned for April 2020.



Public Input:

Public involvement in the Targeted OCP Review falls within the CONSULT area of the District's Public Engagement Spectrum.

The promise we are making is that the District will keep the public informed, listen to and acknowledge their concerns and aspirations in developing solutions and that the District will report back to the public on how their input has influenced Council's final decisions.

PUBLIC ENGAGEMENT SPECTRUM

Adapted and used with permission from the International Association for Public Participation (IAP2 Federation).

Inform	Listen & Learn	Consult	Involve	Collaborate	Empower
"We will keep you informed. We will provide information that is timely, accurate, balanced, objective, and easily understood. We will respond to questions for clarification and direct you to sources of additional information."	"We will listen to you and learn about your plans, views, and issues; and work to understand your concerns, expectations, and ideas."	"We will keep you informed, and listen to and acknowledge your concerns and aspirations in developing final solutions, and we will report back to you on how your input influenced the decision."	"We will work with you to ensure your concerns and aspirations are directly reflected in the alternatives developed, and we will report back on how your input influenced the decision."	"We will look to you for advice and innovation in formulating solutions, and we will incorporate your recommendations into the decisions to the maximum extent possible."	"We will implement what you decide."

Phase one of engagement is now complete and included a phone survey and intercept surveys. Phase two is ongoing and includes stakeholder workshops; public information

sessions; information pop-ups; focus groups; and, online surveys. The majority of the engagement is expected to be completed by end of April 2020, with the online surveys being completed by summer 2020. The public engagement has been expanded following Council direction at the November 25, 2020 Regular Meeting to allow for more participation and input. A more fulsome report outlining public input received to date will be provided prior to the second workshop of the Targeted OCP Workshop Series.

Concurrence:

This Targeted OCP Review process is being supported by a technical staff team from Community Planning, Parks, Engineering, Transportation, Environment, Development Planning and Corporate Communications. In addition, the process is being overseen by the Targeted OCP Steering Committee comprised of Dan Milburn, General Manager of Planning, Properties, and Permits; Jennifer Paton, Assistant General Manager of Planning; Tina Atva; Manager of Community Planning; Carolyn Grafton, Manager of Strategic Communications; and Brian Bydwell, Advisor.

Financial Impacts:

The revised and broader public engagement will result in a modest budget implication.

Financial impacts of the proposed actions will be discussed during the upcoming series of Council workshops.

Conclusion:

The purpose of this report is to provide Council the four white papers and four white paper snapshots and a brief update on the Targeted OCP review process. The March 9, 2020 workshop will focus on the first 10 sections of the white papers; potential actions will be discussed in subsequent Council Workshops.

Respectfully submitted,



Natasha Letchford
Senior Community Planner

Attachments:

1. Presentation: Targeted OCP Review Workshop 1: Review of White Papers
2. Transportation White Paper Snapshot
 - a. Transportation White Paper
3. Economy and Employment Lands Snapshot
 - a. Economy and Employment Lands White Paper

4. Housing White Paper Snapshot
 - a. Housing White Paper
5. Climate Emergency White Paper Snapshot
 - a. Climate Emergency White Paper

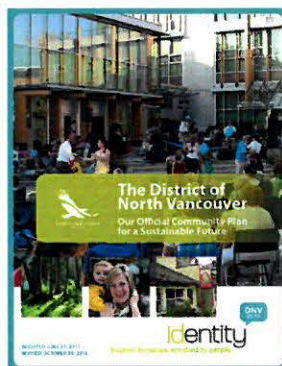
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<input type="checkbox"/> Development Planning	_____	<input checked="" type="checkbox"/> Communications
<input type="checkbox"/> Development Engineering	_____	<input type="checkbox"/> Finance
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<input type="checkbox"/> Engineering Operations	_____	<input type="checkbox"/> ITS
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<input type="checkbox"/> Environment	_____	<input type="checkbox"/> GIS
<input type="checkbox"/> Facilities	_____	<input type="checkbox"/> Real Estate
<input type="checkbox"/> Human Resources	_____	<input type="checkbox"/> Bylaw Services
<input type="checkbox"/> Review and Compliance	_____	<input checked="" type="checkbox"/> Planning
External Agencies:		
		<input type="checkbox"/> Library Board
		<input type="checkbox"/> NS Health
		<input type="checkbox"/> RCMP
		<input type="checkbox"/> NVRC
		<input type="checkbox"/> Museum & Arch.
		<input type="checkbox"/> Other:

Targeted OCP Review

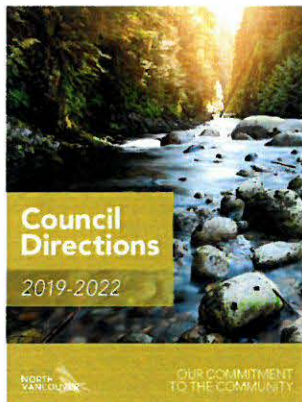
Workshop 1: Review of White Papers

March 9, 2020

Council Direction: Targeted Review

**OPTION 1****OPTION 2****OPTION 3**

Council Direction: 2019-2022 Priority Directions



Timeline



5 year financial plan



- \$22 million for cycling, pedestrian and transit projects



- \$8.1million and land for social housing projects



- \$9.1 million adaptation projects, approx. \$2.5 million for mitigation projects





WHITE PAPERS


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OFFICIAL COMMUNITY PLAN TRANSPORTATION GOAL

Provide a safe, efficient and accessible network of pedestrian, bike and road ways and enable viable alternatives to the car through effective and coordinated land use and transportation planning.

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TRANSPORTATION

- Progress since 2011
- Key issues
- What is causing these issues?
- How is this topic related to the others?
- What will make a difference?
- Questions

4270818

Slide 9 of 20

Residents and businesses are frustrated with the inability to get around reliably, comfortably, and safely.

“ I take the bus to work – I live in North Burnaby. I can’t afford to live in North Vancouver. If I drove, it would probably take me 20-30 minutes in the morning, but it takes me closer to 1.5 hours.

“ I work along Marine Drive and when traffic bound for the Lions Gate Bridge gets backed up (sometimes to McKay), it makes it hard for customers to access the business.

4270818

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**OFFICIAL COMMUNITY
PLAN
ECONOMY &
EMPLOYMENT
LANDS GOAL**

*Support a diverse and
resilient local economy that
provides quality
employment opportunities.*

4270818

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NORTH VANCOUVER



**ECONOMY &
EMPLOYMENT
LANDS**

- Progress since 2011
- Key issues
- What is causing these issues?
- How is this topic related to the others?
- What will make a difference?
- Questions

4270818

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NORTH VANCOUVER

Housing and transportation are top concerns for local businesses.

“I’m struggling to find and keep employees because housing is too expensive and people don’t want to commute here because of the traffic.”

“There are other issues that need to be addressed, but these pale in comparison to the housing and transportation issues our employees face and we face as employers.”



4270818

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OFFICIAL COMMUNITY PLAN HOUSING GOALS


Encourage and enable a diverse mix of housing type, tenure and affordability to accommodate the lifestyles and needs of people at all stages of life.

Foster a safe, socially inclusive and supportive community that enhances the health and well-being of all residents.




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HOUSING


- Progress since 2011
- Key issues
- What is causing these issues?
- How is this topic related to the others
- What will make a difference?
- Questions

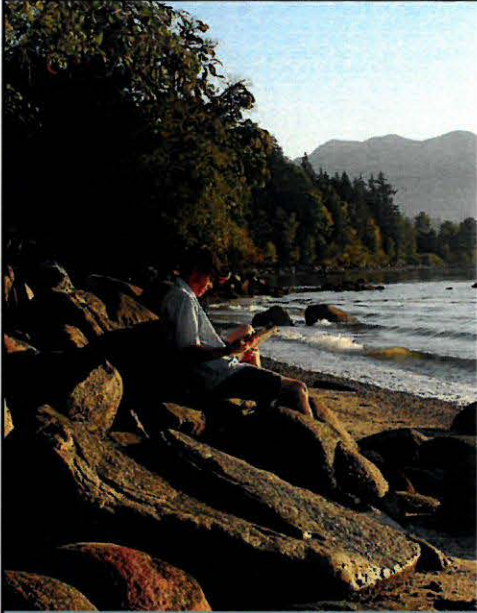
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Residents and businesses are concerned about the lack of affordable housing and housing diversity.

“I grew up in North Vancouver and wanted to stay, but it was too expensive.”

“I live with six friends in a two-bedroom house in Lynn Creek. It's the only way I can afford rent. We'll probably have to move soon as our house will be knocked down for new development. Not sure what I'll do next.”


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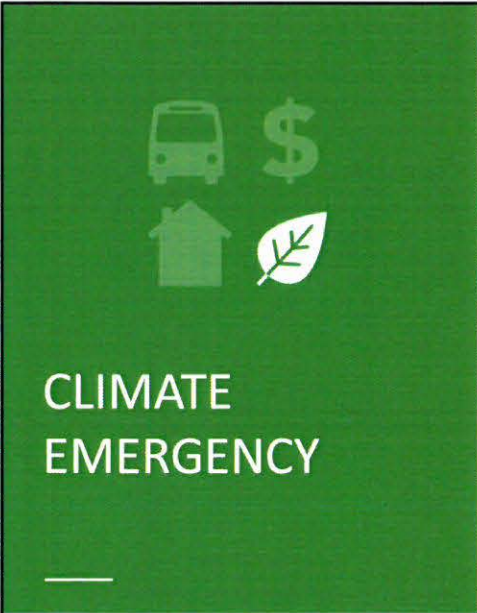


**OFFICIAL COMMUNITY
PLAN**

**CLIMATE
EMERGENCY
GOAL**


Develop an energy-efficient community that reduces its greenhouse gas (GHG) emissions and dependency on non-renewable fuels while adapting to climate change.

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**CLIMATE
EMERGENCY**

- Progress since 2011
- Key issues
- What is causing these issues?
- How is this topic related to the others?
- What will make a difference?
- Questions

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Residents are concerned about the climate emergency.

“People are concerned about the environment but aren't willing to change their behaviour and drive less.”

“Climate is the link to everything. Jobs close to housing reduces emissions.”

NEXT STEPS



White Paper Snapshot

TRANSPORTATION

OCP GOAL

Provide a safe, efficient, and accessible network of pedestrian, bike, and road ways and enable viable alternatives to the car through effective and coordinated land use and transportation planning.

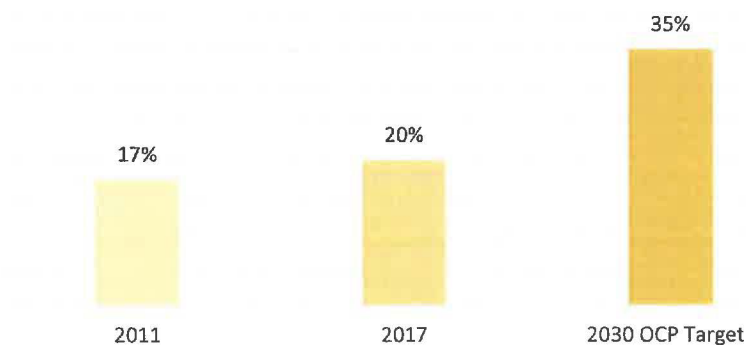
PROGRESS SINCE 2011

% of daily trips by walking, cycling, or transit

(OCP targets 35% by 2030)

- Walk mode share is up (11.2% from 7.8%) (TransLink, 2019).
- Bike mode share is up (1.5% from 0.7%) (TransLink, 2019).
- Transit mode share is down (7.2% from 9.0%) (TransLink, 2019).
- 20% of all daily trips are by walking, cycling, or transit – up from 17.5% in 2011 – this indicator is moving in the right direction, but the rate of change is not sufficient to meet the OCP's target (TransLink, 2019).

Percentage of Daily Trips by Walking, Cycling, or Transit





KEY ISSUES

It's difficult to move around the District quickly and reliably

- There is limited east-west road capacity across the North Shore.
- The Ironworkers Memorial and Lions Gate Bridges have been at capacity during peak hours for more than five years.¹
- Travel times are highly variable – small changes in traffic volumes, incidents, and weather conditions can result in much longer travel times.

Transit service is unreliable

- 6 of the 20 least reliable transit corridors in Metro Vancouver impact District residents. Two of these six corridors are within the District's municipal boundaries (TransLink, 2019).
- Traffic congestion increases transit costs because more buses are required to maintain the same service. Between 2014 and 2019, TransLink spent an additional \$19.6 M annually to offset the impacts of traffic congestion (TransLink, Meeting of the Mayor's Council on Regional Transportation, 2019).
- Lack of adequate transit service affects low income people more as they do not have the option to use personal vehicles.

Travel by walking/ wheeling and cycling seems unsafe and undesirable

- Stakeholders noted that feeling unsafe is the main reason residents do not walk, wheel, or bike.

“

I take the bus to work - I live in North Burnaby. I can't afford to live in North Vancouver. If I drove, it would probably take me 20-30 minutes in the morning, but it takes me closer to 1.5 hours.

*North Burnaby resident
working in the District
(provided during early public
engagement in 2019)*

“

I work along Marine Drive and when traffic bound for the Lions Gate Bridge gets backed up (sometimes to McKay), it makes it hard for customers to access the business.

*Resident
(provided during early public
engagement in 2019)*

¹ Based on assessment of the BC Ministry of Transportation's Permanent Count Station data.



WHAT IS CAUSING THESE ISSUES?

Recent building activity and population growth is not the main cause of congestion

- Transportation issues predate occupancy of the new buildings in the Town and Village Centres and is not closely tied to overall population and employment growth or housing starts on the North Shore (INSTPP, 2018).
- Traffic volumes have increased for many reasons, including increased through traffic from the growing communities along the Sea-to-Sky corridor and an increase in the number (and distance) of vehicle trips made by District residents.²

Traffic volumes have increased within an already busy road network

- The Burrard Inlet Crossings were already at capacity during peak hours almost 10 years ago. Consequently, even a small increase in traffic volume noticeably impacts the ability to get around.
- Daily traffic volumes on the Ironworkers Memorial Bridge increased 9% between 2013 and 2018 (an increase of more than 10,000 vehicles per day)³.

Until Town and Village Centres are more fully built, it will be difficult to realize transportation improvements

- The best way to get more people walking, biking, and taking transit to meet their daily needs is to build complete communities.
- Town and Village Centres are located along the Frequent Transit and future RapidBus networks, which will significantly increase transit ridership.
- Redevelopment in the Town and Village Centres allows the District to acquire land and funding to support transportation priorities, including AAA cycling and pedestrian networks, transit priority lanes, bus queue jumpers, signal improvements and turn lanes.

Transit is not given a higher priority than private vehicles

- Because buses also use general purpose lanes on most roads, transit travel times and reliability are negatively impacted by slow and highly variable conditions.

² Based on data from TransLink's 2017 Trip Diary and an assessment of the BC Ministry of Transportation's Permanent Count Station data.

³ Based on assessment of the BC Ministry of Transportation's Permanent Count Station data.

WHAT IS CAUSING THESE ISSUES? (CONTINUED)

Lack of complete walking/wheeling/biking networks

- Approximately 10% of arterial roadways (and 60% of all roadways) in the District do not have a sidewalk on either side.⁴
- The existing cycling network is discontinuous, with a limited amount of space that feels safe and comfortable for people of all ages and abilities.

HOW IS THIS TOPIC RELATED TO THE OTHERS?



HOUSING

Safe, comfortable, and reliable transit and active transportation connections increase housing affordability by decreasing the overall cost burden of housing and transportation.

Reliable public transit can reach more people when residential growth is concentrated in compact, connected centres.



CLIMATE EMERGENCY

Transportation accounts for 52% of GHG emissions in the District, 96% of which is from passenger vehicles (Integral Group LLC, 2019).

Increased use of sustainable transportation choices will reduce GHG emissions.



ECONOMY & EMPLOYMENT LANDS

Businesses locate in areas where their employees can get to work easily and where they are able to get goods to market efficiently.

Lack of efficient and reliable transportation options (to and within the District) is cited by the business community as a key barrier to attracting and retaining employees.

Businesses are leaving the District because their employees can't get to work.

⁴ Statistics provided by District staff



WHAT WILL MAKE A DIFFERENCE?⁵

Get transit moving	<ul style="list-style-type: none">• Transit reliability is largely within municipal control – providing transit priority measures, such as transit lanes, transit queue jumps, and transit signal priority are the responsibility of the District.• TransLink is more likely to invest in bus services where the local government has already made investments to improve transit reliability.
Invest in sustainable transportation infrastructure	<ul style="list-style-type: none">• Investing in infrastructure such as sidewalks and bike lanes will make walking and biking more appealing to residents
Continue to direct growth to Town and Village Centres	<ul style="list-style-type: none">• Building complete communities is the most effective way to lower trip distances, which in turn makes walking and cycling more attractive choices.• Complete, higher density communities also make it easier to provide frequent, reliable transit to more people, jobs, services, and destinations.• Growth in Town and Village Centres will increase the amount of housing within walking distance of public transit, which is expected to increase transit ridership.

NOTE: Specific potential actions related to the three directions provided above are listed in the White Papers. Council will decide which of the potential actions to include in the Action Plan.

⁵ Experiences regionally and throughout the world have shown that building more road capacity does not solve congestion. If a new 10-lane Ironworkers Memorial Bridge were to be built, the benefits would be expected to have almost entirely dissipated by 2045 (INSTPP, 2018).



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Targeted OCP Review

TRANSPORTATION WHITE PAPER

FEBRUARY 24, 2020



FOR WORKSHOP DISCUSSION



Prepared by Urban Systems Ltd.

for

the District of North Vancouver

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OFFICIAL COMMUNITY PLAN TRANSPORTATION GOAL

Provide a safe, efficient and accessible network of pedestrian, bike and road ways and enable viable alternatives to the car through effective and coordinated land use and transportation planning.

Source: Our Official Community Plan for a Sustainable Future, 2011



1. INTRODUCTION

As part of the District of North Vancouver's Targeted Official Community Plan (OCP) Review, White Papers have been developed for:



The purpose of each White Paper is to provide important background information on each topic area. Each White Paper also includes a list of possible actions the District could take to address key issues. District Council will use the White Papers to inform the development of an Action Plan.

TRANSPORTATION AFFECTS DISTRICT RESIDENTS IN MANY WAYS

District residents rely on the transportation network every day. Whether they are walking to the neighbourhood park, biking along the Spirit Trail, taking the bus to work, driving across town to a kid's soccer game, or receiving a home delivery, people are using the transportation system. Given that transportation is core to everything people do, it is no surprise that residents have identified transportation as the most important issue in the District (Mustel Group, 2019).

Transportation affects more than the ability to get around. Transportation also affects health and well-being. Walking, cycling, and transit have all been linked to positive health outcomes, while time sitting in traffic has been linked to negative impacts on personal well-being. The air contaminants and noise created by transport vehicles can also negatively affect public health. Moreover, our transportation choices have a significant impact on climate change. 52% of the District's greenhouse gas emissions are generated by transportation, 96% of which are from passenger vehicles (Integral Group LLC & District of North Vancouver, 2019).

TRANSPORTATION HAS EQUITY IMPLICATIONS

Transportation impacts affordability and quality of life. Car ownership, insurance, and fuel costs can be a high financial burden for some households. Time spent travelling – either due to congestion or to circuitous, unreliable, and / or infrequent transit – is time that cannot be spent with family, on work, or pursuing other interests. Residents who cannot afford to drive and who do not live near frequent transit may be captive to infrequent and unreliable transit routes. These residents often sacrifice more time to transportation, further reducing their time available for work, family, and other priorities.

DIFFERENT RESIDENTS HAVE DIFFERENT TRANSPORTATION NEEDS

Our transportation system must respond to transportation needs that vary from individual to individual. A senior might rely on transit because she no longer feels comfortable driving, a teen might use cycling as his primary mode of transportation, and someone in a wheelchair might rely on a complete and accessible sidewalk network.

RELIABLE AND EFFICIENT TRANSPORTATION IS KEY TO A STRONG ECONOMY

Reliable and efficient transportation is important for individuals and for the economy. Both employers and employees need effective transportation systems to keep businesses operating successfully. District residents enjoy the benefits of a strong local economy that provides local services and amenities. These benefits are at risk if businesses cannot retain employees due to transportation challenges. At the same time, the cost and reliability of goods movement can be a risk to local business. Mobile services and trades, such as plumbers and electricians, lose time (and money) when they are caught in congestion. Many industries rely on cost-effective just-in-time delivery to maintain a healthy bottom line.



2. KEY TERMS

Transportation choice

The number and quality of transportation options available. Transportation choice can be limited by the infrastructure and services available, travel distance, a person's ability, socio-economic conditions, or other factors.

All Ages and Abilities (AAA)

The idea that everyone – from ages eight to eighty-eight, of different abilities, and with different needs – can safely and comfortably travel. This idea is typically applied to the planning and design of walking and cycling infrastructure.

Reliability

The certainty with which you can travel between two points within an expected amount of time. If getting to work takes you 20 minutes some days, and 40 minutes other days, that trip is **not** reliable.

Delay

The difference between the acceptable or expected travel time and the actual travel time.

Mode share

The percentage of all trips completed by a given mode of transportation. For example, the transit mode share is the percentage of all trips within a given time period that were completed using transit. When multiple modes are used for a trip, the mode used for the longest portion of the trip is considered the primary mode and the whole trip is assigned to that mode share. For example, a person who walks to the bus stop and then takes the bus to work, their whole trip would be counted as part of the transit mode share.

3. CONNECTIONS TO OTHER TOPIC AREAS



HOUSING

Safe, comfortable, and reliable transit and active transportation connections increase housing affordability by decreasing the overall cost burden of housing and transportation.

Reliable public transit can reach more people when residential growth is concentrated in compact, connected centres.



ECONOMY & EMPLOYMENT LANDS

Businesses locate in areas where their employees can get to work easily and where they are able to get goods to market efficiently.

Lack of efficient and reliable transportation options (to and within the District) is cited by the business community as a key barrier to attracting and retaining employees.

Businesses are leaving the District because their employees can't get to work.



Transportation accounts for 52% of GHG emissions in the District, 96% of which is from passenger vehicles (Integral Group LLC, 2019).

Increased use of sustainable transportation choices will reduce GHG emissions.



CLIMATE EMERGENCY

4. CURRENT CONDITIONS AND PROGRESS SINCE 2011

Key Statistic ¹	What is Important to Know?
760 Casualty Collisions per 100,000 people (2017) 39 Casualty Collisions per 100,000 Vehicle Kilometres Travelled (VKT) (2017)	<ul style="list-style-type: none"> The number of casualty collisions per 100,000 people in the District has been increasing over the past 5 years, from 580 in 2013 to 760 in 2017. In 2017, there were 29 casualty collisions in DNV for every 100,000 vehicle kilometres travelled (VKT) by DNV residents. This is an increase of about 27% from 30 casualty collisions per 100,000 VKT in 2013. Casualty collisions per person increased at a higher rate than casualty collisions per VKT – this can be attributed to a higher number of vehicle kilometres travelled per resident. More kilometres driven typically leads to more collisions. In 2018 there were approximately 1,000 casualty crashes per 100,000 people across the Lower Mainland. The District's casualties are lower than the Lower Mainland average. (ICBC recorded 28,000 casualty crashes in the Lower Mainland and BC Stats reports a population of approximately 2.8 million).
11.2% Walk Mode Share in 2017	<ul style="list-style-type: none"> Up from 7.8% in 2011. This is approximately 15,000 new walk trips per day in the District. May reflect increasing density, investments in transportation infrastructure, and the impact of transportation demand management programs. Aligns with regional patterns – across Metro Vancouver, walk mode share increased from 10.0% to 13.9% from 2011 to 2017. By comparison, City of North Vancouver walk mode share was 16.2% in 2017.

¹ Sources of statistics in this table include: TransLink Trip Diary (mode share, number of trips by mode, vehicle kilometres travelled, trip distance, origins and destinations), ICBC (number of casualty collisions), BC Statistics (population), TransLink (bus boardings).



Key Statistic¹

What is Important to Know?

1.5% Bike Mode Share in 2017

- Up from 0.7% in 2011.
- Although this is still a small share of overall trips, it represents an increase of approximately 3,000 cycling trips per day by District residents.
- Regional average in 2017 was 1.6%, down slightly from 1.8% - this indicates that the District is one of the leading municipalities in Metro Vancouver in enabling growth in cycling by residents.
- Areas with higher bike mode share have typically made substantial investments in safe, comfortable bicycle infrastructure and have supportive land use patterns.

7.2% Transit Mode Share in 2017

- Down from 9.0% in 2011.
- The actual number of transit trips per day decreased from 24,000 to 23,000.
- Although both the transit mode share and actual number of transit trips per day by District residents decreased between 2011 and 2017, bus boardings² within the District have increased by about 9% between 2012 and 2017 (from around 6.5 million per year in 2012 to 6.9 million per year in 2017).
- Transit mode share in Metro Vancouver was 11.6% in 2017, down from 12.4% in 2011, although the actual number of trips per day increased by around 120,000.
- Areas with high transit mode share typically have frequent, reliable service and compact, complete communities.

62.5% Auto Driver Mode Share (i.e. percentage of trips taken as the driver of a private vehicle) in 2017

- Down from 65.5% in 2011.
- This is moving towards the District's goals, but the change in mode share is not sufficient to offset the growth in overall trips due to more trips per household and new households.
- Although the percent of all trips made by driving has decreased, the overall number of driving trips and the length of those trips has increased. The number of vehicle

² Bus boardings are the number of passengers who enter a bus. The annual number of bus boardings for the District is the total number of passengers who entered a bus from any stop within the District. If a single passenger took two buses within the District to make their trip – i.e. they boarded one bus near their house and then transferred to a second bus at Phibbs Exchange – that is counted as two bus boardings.



Key Statistic¹

What is Important to Know?

	<p>trips per capita by District residents increased from 3.1 in 2011 to 3.6 in 2017. As a result, the total number of vehicle trips by District residents increased from 174,000 to 199,000 (approximately 14%).</p> <ul style="list-style-type: none">• The District's mode share of 62.5% for driving a private vehicle is higher than the regional average of 55.3% in 2017.• The absolute number of auto driver trips per day in the region increased by 14% - this is the same growth rate as auto trips in the District.
17.1% Auto Passenger Mode Share in 2017	<ul style="list-style-type: none">• Up from 16.4% in 2011.• Slightly higher than regional average of 16.6%.• Increased auto passenger mode share reflects an increase in vehicle occupancy.
8 km Average Trip Distance in 2017	<ul style="list-style-type: none">• The average trip distance for all trips in the District was 8 km in 2017. This is a decrease of almost 5% from 8.4 km in 2011.• Most trips starting in the District stay within the District (52%) and even more stay on the North Shore (an additional 24%). Only around 24% of trips have destinations on the other side of the Burrard Inlet.• The percent of trips staying within the District and on the North Shore has been increasing over time – in 2011, 48% of trips starting in the District stayed in the District, while 26% of all trips starting in the District crossed the Burrard Inlet.
1.78 Million Total VKT per day in 2017	<ul style="list-style-type: none">• Up from 1.61 Million in 2011.• Increasing total VKT increases the overall demand on the road network.
VKT per capita of 19.9 km per day in 2017	<ul style="list-style-type: none">• Up from 18.7 km per person in 2011.• Higher than the regional average of 18.5 km per person.• The City of North Vancouver had a VKT per capita of 15.7 km in 2017.• Lower VKT per capita is a sign of complete, compact communities, and strong networks for non-auto modes.



5. COMMON MISCONCEPTIONS

MISCONCEPTION: Growth in population and employment in the District – including recent development in Town Centres – is a fundamental cause of worsening traffic congestion on the North Shore.

FACT: Although travel within the North Shore makes up a substantial component of traffic on Highway 1 (almost 25%), there are other drivers of growth in highway traffic volumes and delay throughout the District.

Increasing delay and variability on the road network predates occupancy of the new buildings in the Town and Village Centres and is not closely tied to overall population and employment growth, housing starts on the North Shore or occupancy of new buildings in the Town Centres. Analysis completed for the Integrated North Shore Transportation Planning Project (INSTPP) indicates that traffic over the Ironworkers Memorial Bridge and Lions Gate Bridge began to increase in 2012. Traffic volumes have increased 9% between 2013 and 2018 (equivalent to an increase of more than 10,000 vehicles per day). Housing starts were relatively stable until 2015 and do not correlate to increasing traffic volumes. This means that, although construction traffic may have contributed to congestion, it was unlikely to be a major component of increasing traffic volume on the bridges.

Residents of the Town and Village Centres are more likely to walk, bike, or take transit than residents in the rest of the District and therefore contribute fewer VKT per capita to congestion than people living outside of the Urban Centres.

Other factors have contributed to growing traffic volumes, delay, and decreasing reliability,

including more kilometres travelled per person by all District residents, including those living in historic single-family neighbourhoods. The number of VKT per capita by District residents increased by 6.4% from 18.7 km in 2011 to 19.9 km in 2017.

Other factors that have contributed to congestion include the growing populations of communities along the Sea-to-Sky Corridor, and growing ferry traffic. Daily traffic volumes on Highway 99 north of Horseshoe Bay increased by more than 30% between 2011 and 2017 (by approximately 5,000 vehicles per day).

MISCONCEPTION: A new 10-lane Ironworkers Memorial Bridge would have enough capacity to ‘solve’ congestion.

FACT: According to INSTPP, increasing the Ironworkers Memorial Bridge crossing to 10 lanes could reduce peak hour travel times by a few minutes in current conditions, but by 2045 the majority of benefits will have dissipated.

Increasing road capacity without travel restrictions or mobility pricing is known to increase travel demand. This increased demand can cause congestion in other areas of the network – without other changes, increasing the capacity of the Ironworkers Memorial Bridge would add even more pressure to the routes that connect to Highway 1, including Main Street, Dollarton Highway, Mount Seymour Parkway, East Keith Road, and Mountain Highway.



MISCONCEPTION: No one would ever choose to take transit, walk, or bike, if they have the option of driving.

FACT: There are many reasons that a person with access to a vehicle and the ability to drive might choose to take another mode, including to:

- Improve their health – walking and cycling contribute to reaching the recommended amount of daily physical activity. Driving is stressful and has been linked to negative health outcomes.
- Experience their community, connect to nature, or spend time with their loved ones while travelling.
- Reclaim their travel time to accomplish another activity – such as reading, working, sleeping, exercising, etc.
- Reduce their financial burden of transportation due to fuel, insurance, car payments, and parking.
- Minimize their personal environmental footprint.

6. KEY ISSUES

Key Issue	Why is it Critical to Address this Issue?
It is difficult for people to move around the District quickly and reliably.	<ul style="list-style-type: none"> • Effective, safe, accessible, and reliable transportation is central to getting people to work, to accessing services, to connecting communities, to recreating, to almost everything that people need to do to maintain a high quality of life for themselves and their families. • There is limited east-west road capacity across the North Shore. Because of this, Highway 1 serves a substantial component of local traffic – almost 25% of traffic on the Upper Levels Highway is internal to the North Shore (INSTPP Staff Working Group, 2018) – and the municipal and highway networks are highly interdependent. As a result, queues at the approaches to the Lions Gate and Ironworkers Memorial Bridges contribute to queues, congestion, delay and low reliability on municipal arterial roads – especially Main Street, Dollarton Highway, Mount Seymour Parkway, Mountain Highway, East Keith Road, Marine Drive, and Capilano Road. • Daily traffic volumes over the Ironworkers Memorial Bridge have increased by approximately 9% over the past five years (2013 to 2018), with most growth happening due to peak spreading, as the bridge is at capacity in both directions during the peak hours. Because of peak spreading, the time periods where travel speeds are slow and / or unreliable are longer now than they were in 2013. Daily traffic volumes over the Lions Gate Bridge have remained relatively stable over the past eight years.³ • Weekend traffic is getting worse, with more and more people travelling to and through the North Shore for recreation, errands, and other trips. Weekend traffic volume over the Ironworkers Memorial Bridge increased 4.5% between Fall 2016 and Fall 2017 while weekday traffic increased by only 0.5% in the same time period.⁴ • Based on analysis done for INSTPP, travel time from Lonsdale to Hastings on Highway 1 is approximately 22 minutes during the afternoon peak hour, compared to

³ Based on data from the BC Ministry of Transportation's Permanent Count stations.

⁴ Based on data from the BC Ministry of Transportation's Permanent Count stations.



Key Issue

Why is it Critical to Address this Issue?

	<p>around five minutes in free flow conditions. The travel time is also highly variable – small fluctuations in traffic volumes, incidents, and inclement weather conditions can result in much longer travel times (District of North Vancouver, 2019).</p> <ul style="list-style-type: none">• Because buses also use general purpose lanes on Highway 1 and on most municipal roads, transit travel times and reliability are also negatively impacted by slow and highly variable conditions (TransLink, 2019).
Unreliable transit service that does not compete with driving	<ul style="list-style-type: none">• Transit reliability is largely within municipal control – providing transit priority measures, such as transit lanes, transit queue jumps, transit signal priority, and other road network changes are the responsibility of the road authority. TransLink is willing to partner with municipalities on making transit reliability improvements.• For many people, transit is the only viable alternative to driving, especially for trips over 8 km in length. The average trip length of driving trips in the District in 2017 was 8.9 km; shifting mode share away from driving relies on growing the mode share for transit (TransLink, 2019).• Mode shift to transit can reduce congestion because frequent bus service can move more people per hour than private vehicles. Buses travelling along routes with effective transit priority can move more people, faster, and with more consistent travel times (TransLink, 2019).• For people with the option of driving, unreliable transit is not attractive – long and unpredictable wait and travel times make it difficult to choose transit for work, appointments, or other activities with fixed start times. Along with frequency and directness, improving reliability is one of the most important steps to making transit an attractive option for drivers that have other choices.• Transit is a key component of equity, affordability, and a strong economy. An accessible, reliable transit network allows residents, students, and employees to reach destinations on time in an affordable way. This is especially important for ‘captive’ transit riders.• Six of the top 20 least reliable transit corridors in Metro Vancouver impact District residents. Two of these six

Key Issue

Why is it Critical to Address this Issue?

corridors are within the District's municipal boundaries (Marine Drive / Main Street and Lonsdale Avenue) (TransLink, 2019).

- Transit that is caught in traffic congestion becomes unreliable and is expensive to provide. More buses per hour are required to maintain the same frequency of service when every trip takes longer due to congestion. Between 2014 and 2019, TransLink has added \$19.6 million in annual operating costs to offset the impacts of traffic congestion regionally. If the road network is not reliable due to congestion, more buffer time is required to maintain on-time schedules. 80% of bus routes provided by TransLink are slower today than they were five years ago, impacting as many as 85% of customers.
- The public wants more transit, more transit options, and more reliable transit.

Unfinished development in Town and Village Centres has delayed realization of transportation improvements.

- Meeting the District's transportation goal of "...enable[ing] viable alternatives to the car through effective and coordinated land use and transportation planning" hinges on building out the Town and Village Centres - there is no substitute. Concentrating development in these areas will:
 - Shorten trip distances because more people will live near complete communities. Shorter trips are more likely to be made by walking and cycling and cause less congestion and fewer emissions across all modes.
 - Significantly increase transit ridership because the Town and Village Centres (e.g., Lynn Valley) are located along the Frequent Transit and future RapidBus networks.
 - Improve equity because walking, cycling, and transit are affordable transportation choices that are accessible to people of a wide range of ages and abilities.
 - Improve the vibrancy and livability of communities because more people are using the public right-of-way outside of their cars over a smaller area.



Key Issue

Why is it Critical to Address this Issue?

	<ul style="list-style-type: none">• The full network planned in the Town Centre Transportation Plans and Functional Designs, as well as other needs that have been identified along important transit routes, cannot be delivered without fully realizing development in the Village and Town Centres. Redevelopment in the Town Centres allows the District to acquire land and funding to support transportation priorities, including AAA cycling and pedestrian networks, transit priority lanes, bus queue jumpers, signal improvements, turn lanes, and other improvements.
Public dissatisfaction with the transportation network is fueling concerns with the pace of change and conflicts between different stakeholders, demographics, and user groups.	<ul style="list-style-type: none">• Currently, District residents are dissatisfied with the transportation system, with 29% of residents ranking transportation as their biggest concern in 2019 (Mustel Group, 2016).• As concerns with increasing travel time and decreasing reliability have increased, some District residents have also become more actively opposed to development, density, tourism, and other activities. These activities bring other benefits to the District, including affordable and diverse housing options, job creation, and economic vibrancy.
Travel by walking, cycling, and transit seems unsafe, undesirable, and / or out of reach to many District residents.	<ul style="list-style-type: none">• Stakeholders consulted during the Targeted OCP Review reported that not feeling safe as a deterrent for walking and cycling for members of their community.• Between 37% and 60% of people are interested in cycling more, but are concerned about the safety of cycling. (British Columbia Ministry of Transportation and Infrastructure, 2019).

Key Issue

Why is it Critical to Address this Issue?

Lack of funding and land required to build the transportation infrastructure required to enable big shifts.

- Transportation infrastructure can be expensive and often requires additional right-of-way – either through land acquisition or the reallocation of road space (i.e. taking an existing travel lane and restricting it to transit only, or repurposing a travel or parking lane to build a protected bicycle lane). Since 2011, more than 4 km of sidewalk have been delivered inside the Town and Village Centres, which was largely made possible through development.
- Reallocating road space to transit and active transportation can result in a more efficient use of space. For example, in 2018 the City of Vancouver compared the people-moving capacity of various transportation modes on a 3-metre wide arterial travel lane, measured in persons per hour per direction. Private motor vehicles have a capacity of 700-1,100, whereas bus capacity is 1,000-2,000 for a regular bus and 2,000-4,000 for B-Line. A two-way protected bicycle lane has a capacity of 2,000-4,000 and a sidewalk can move up to 5,000-6,500 people per hour per direction (assuming a walkable surround land use).
- Land acquisition and road space reallocation is complicated by the fact that not all of the land or roads near the bridgeheads are under the District's jurisdiction, including Highway 1 and the Capilano Indian Reserve and Seymour Creek lands.
- Addressing funding and land requirements is foundational to making progress on the issues identified above.

7. KEY TRENDS AND EMERGING ISSUES

Key Trend/ Emerging Issue	Why is This Trend/Emerging Issue Important?
Regional and provincial partners are dedicated to helping address transportation issues on the North Shore, including accelerating funding and studies of regional infrastructure.	<ul style="list-style-type: none"> • There is currently strong interest in – and support for – sustainable transportation planning and infrastructure at the regional and provincial levels, making this an opportune time to partner with regional and provincial agencies to deliver meaningful improvements to the transportation network. • The District should continue to actively collaborate to achieve its priorities. • In the past five years, collaboration with regional and provincial partners has resulted in improvements to access to the Ironworkers Memorial Bridge and to the Lower Lynn Interchanges, among other projects. The North Shore's first RapidBus and an Express Bus over the Ironworks Memorial Bridge will be delivered in 2020. Other initiatives through INSTPP and other plans and priorities have the potential to maximize the District's ability to leverage funding and political will to meet transportation goals and objectives. • To maximize leverage, the District must continue to deliver on recommendations that are within its jurisdiction. This means following through with development in the District's Town Centres and reconfiguring the District's roadways to prioritize transit along key corridors. Currently, the District is collaborating with TransLink on transit priority improvements, which are key to delivering RapidBus on Marine / Main.
Emerging technologies and new mobility options offer an opportunity to allow residents to travel smarter, more efficiently, with more choice, and lower footprints – if governments can accelerate positive impacts and manage the potential for negative impacts.	<ul style="list-style-type: none"> • Technology is changing the way people and goods travel, and in ways that are not yet fully understood. • Micro-mobility options, including e-scooters and e-bikes will enable people to choose active modes for trips across longer distances and / or more challenging terrain. This has the potential to increase mode share. • Ride hailing and shared mobility present new opportunities and challenges to use infrastructure more efficiently, while limiting potential negative effects (e.g.,



Key Trend/ Emerging Issue

Why is This Trend/Emerging Issue Important?

including double-parking, increasing congestion and emissions, etc.).

- Travel is likely to become more fluid in the future – which means some old assumptions around choices and travel patterns may no longer apply.
 - This means transportation planning and policy delivery must be more nimble to fully monopolize on the potential for positive outcomes and mitigate the potential for negative impacts.
-

8. RELEVANT BEST PRACTICES

Best Practice	Why is This a Best Practice?
Leverage land use as the most important tool to solve transportation issues.	<ul style="list-style-type: none"> Complete communities are the most effective tool to lower trip distances, which in turn makes walking and cycling more attractive choices. Complete, higher density communities also make it easier to provide frequent, reliable transit to more people, jobs, services, and destinations.
Prioritize health and human life when making transportation decisions.	<ul style="list-style-type: none"> Vision 0 is emerging as a best practice internationally, including in Metro Vancouver.⁵ Safe transportation can be considered a fundamental human right.
Manage the road network to prioritize safety and reliability, including signal timing coordination, managing turning movements, and giving transit priority on the road network.	<ul style="list-style-type: none"> Roadways are a substantial public asset. Arterial and collector roadways should be managed to prioritize safety and reliability to reduce the need for expansion and reduce variability in travel times. Buses can effectively, efficiently, and reliably move more people per hour than private cars, provided they are not subject to the same congestion and delays. Prioritizing bus services is prioritizing equity – transit is accessible to people across all ages, abilities, and incomes. Prioritizing transit can reduce overall people-hours of delay. Effective and reliable transit serves the economy by allowing employees to reliably get to work on-time.
Identify high priority active transportation areas and corridors and deliver continuous, AAA active transportation infrastructure in those locations.	<ul style="list-style-type: none"> AAA infrastructure supports equity by allowing more people to safely and comfortably travel. AAA infrastructure is more attractive and comfortable – and therefore more likely to attract ‘choice’ walkers and riders. AAA infrastructure is aligned with other best practices, including prioritizing safety.

⁵ “Vision 0 is a strategy to eliminate all traffic fatalities and severe injuries, while increasing safe, healthy, equitable mobility for all” Source: Vision 0 Network <https://visionzeronetwork.org/about/what-is-vision-zero/>



Best Practice

Why is This a Best Practice?

Match funding to meet the values / objectives of the community.

- Historically, transportation funding has focused on delivering a network that is focused on highly efficient driving trips. From what was required of developers, to investments made by governments, cities have invested heavily in driving and – as a result – people are driving over other transportation modes.
- Matching funding to mode share goals is a best practice to achieve the desired changes in travel patterns.

Consider the curbside as valuable, dynamic, public property and allocate it accordingly, including pricing where appropriate.

- The curbside makes up a substantial component of publicly owned land (almost $\frac{1}{4}$ of a 20 m right-of-way) and is often underutilized.
- There are a number of competing demands for curb space, such as free or paid parking (including accessible parking), passenger pick-up and drop-off, goods and services loading zones, transit stops, bicycle facilities, micro-mobility parking, pedestrian facilities (i.e. wider sidewalks), and public space (e.g. parklets).
- It is important to consider the best use of this curb space depending on the type of street and the adjacent land uses. The curbside can be permanently or dynamically reallocated to different modes or uses at certain times of day and days of the week.

Act as a leader by minimizing the personal and community impacts of transportation by District corporate activities and District staff.

- Municipal governments are often major employers in their communities and can lead by showing that policies and programs have a positive impact on both corporate and employee well-being while reducing the organizations' footprint in the community and globally

Consider multi-modal needs and transportation improvements as part of all District infrastructure improvements, including utility projects that are in the road right-of-way.

- All transportation projects should consider the needs of all modes during early concept development – this includes walking, wheeling, cycling, transit, shared mobility, goods movement, driving, and emerging technologies. Not all modes need to be accommodated on all infrastructure, but consideration early in the planning and design processes allow for opportunities identification and all projects to reflect overarching District goals and objectives.
- When capital improvements are done without considering the potential for multi-modal transportation improvements, there is a lost opportunity in making the



Best Practice

Why is This a Best Practice?

	best use of public funding and to deliver multiple public benefits while minimizing construction impacts.
Work closely with partners and stakeholders to identify possible collaborations, funding opportunities, and leverage points.	<ul style="list-style-type: none">• Like risk, opportunities should be leveraged from those best able to provide them.• Local governments that best leverage partner funding are often those with well defined, 'shovel-ready' projects that are aligned with local, regional, and broader goals. Local governments who are willing to 'come to the table' with funding, land, population & jobs density, and / or other components in place are often more successful in securing more funding and infrastructure from partners.• Working with the development community as projects are conceptualized, designed, and delivered creates an opportunity to deliver high quality infrastructure that supports larger transportation goals.
Design road capacity improvements to focus on improving connectivity and prioritizing the movement of people and goods, while understanding that additional capacity without travel restrictions or mobility pricing is known to induce demand.	<ul style="list-style-type: none">• Prioritizing the movement of people and goods (instead of cars) makes the most efficient use of limited public resources – both land and capital.• Drastically improving travel times for driving alone is difficult and expensive – additional lanes require property and are expensive and disruptive to construct, especially over difficult terrain or water crossings. Further, history shows that additional capacity is quickly 'used up' in the absence of travel restrictions (like transit, HOV and / or truck lanes) or mobility pricing, as people adjust their travel patterns until demand meets supply. The Port Mann Bridge and Highway 1 capacity improvements are a local example of this pattern.

9. KEY INDICATORS

Indicator	Why is This Important to Measure?
Rate of people killed and seriously injured in collisions each year (casualty collisions per person, casualty collisions per (VKT)).	<ul style="list-style-type: none"> • Safe transportation is fundamental and aligned with the OCP goal of a safe transportation network. • Relatively easy to measure – statistics about casualty collisions (the total number of collisions resulting in injuries and / or fatalities) are available annually from ICBC. • Including this as a rate recognizes that the number of collisions is tied to exposure – i.e. more travel is likely to result in more collisions.
Mode share for walking, cycling, transit, and driving.	<ul style="list-style-type: none"> • This is a best practice and is a commonly understood metric. • At a regional and municipal scale, this metric is facilitated by TransLink's Regional Trip Diary (all trips) and the Census (for trips to work only). • Although it can be expensive to collect, mode share data can be determined for specific neighborhoods or even developments. The District is currently undertaking a travel survey that will provide this information at a more local scale. • It is included in the 2011 OCP as an indicator. • Measuring the share of trips by walking, cycling, and transit is a good indicator of how appealing those modes are – which is aligned with the larger goal of creating viable alternatives to driving.
Average trip distance.	<ul style="list-style-type: none"> • Shorter trip distances are a sign of complete communities. • Shorter trips are more likely to be made by walking and cycling. • Shorter trips by transit and driving have lower emissions and cause less congestion than longer trips by those same modes.



Indicator

Why is This Important to Measure?

	<ul style="list-style-type: none">• At a regional and municipal scale, this metric is facilitated by TransLink's Regional Trip Diary (all trips) and the Census (for trips to work only).• Although it can be a challenge to collect, average trip distance can be determined for specific neighborhoods or even developments. The District is currently undertaking a travel survey (in partnership with the City of North Vancouver and District of West Vancouver) that will provide this information at a more local scale.• Trip length by trip purpose and trip length at the neighbourhood level can indicate where and how to prioritize improvements to walking and cycling to maximize return on investment.
Delay / Lost Time due to Congestion	<ul style="list-style-type: none">• Lost time due to congestion is a real measure of the impact of transportation issues on people's lives, well-being, and the economy.• If the District decides to quantify lost time due to congestion at a network level, suggest that this be applied to people movement (i.e., aggregate over transit and driving trips) and goods movement (delay to truck trips, especially off-peak) instead of as solely a measure of vehicle delay.

*The table above focus on outcomes – indicators that show that the District's efforts are improving travel conditions and shifting travel behaviour. There are also many output indicators, a number of which were identified in the **Transportation Progress To-Date Implementing the 2011 OCP Memo**. These indicators are important and show that the District is building a network that aligns with the goals of the OCP; however, the number of indicators could overwhelm a document at the level of an OCP. These output indicators speak to the comfort, safety, and accessibility of the walking, cycling, and transit networks. Output indicators could be further divided into two types – one concerned with the basic provision of infrastructure and / or service (i.e. all transit coverage, sidewalk coverage, etc.) and the other concerned with the quality and accessibility of service (i.e. FTN and RapidBus coverage, accessibility of pedestrian crossings, etc.)*

In the long-term, the District should consider creating specific standards for 'high quality' infrastructure that meets set standards for lighting, accessibility, and amenities. This would create the opportunity to determine both the existence of infrastructure (e.g. does the road have a sidewalk?) and the quality of that infrastructure (e.g. lighting, benches, surface material, maintenance, accessibility of crossings, etc.). This can be applied to transit, cycling, walking, and 'new' modes. These types of indicators should be considered for future, more detailed studies.



10. ACTIONS TO-DATE

The District has already taken meaningful action on Transportation. The list below is not comprehensive, but does highlight the key actions the District has taken more recently.

Infrastructure & Transit Service

- Implemented portions of Spirit Trail.
- East 29th Street safety and mobility improvements.
- Lynn Valley Road bicycle lanes.
- Keith Road and Bridge replacement projects
- Montroyal Bridge replacement project.
- Delivered southbound bike lane on Lynn Valley Road under Highway 1.
- Upgraded signal infrastructure and improved signal coordination and operation.
- Expanded the sidewalk network by almost 16 km, built almost 4 km of trails, and made 136 crosswalks more accessible.
- Improved transit priority at bridgeheads of the Ironworkers Memorial Bridge and Lions Gate Bridge.
- Have worked with developers to plan, design, and build AAA cycling and walking facilities and end of trip facilities to be opened in 2020 and beyond.
- Lower Lynn Interchange and Connectivity Improvements (in progress).
- Express Bus Route 222 connecting Phibbs Exchange and Metrotown to be launched in 2020 (in progress).
- R2 – Main Street / Marine Drive RapidBus to be launched in 2020 (in progress).

Land Use

- Permitted delivery of mixed-use, higher density development in the Town Centres.

Education

- School travel planning.

Policy & Funding

- Secured reliable, annual source of active transportation infrastructure funding.
- Adopted policy on bike parking and end of trip facilities.
- Developed policy for parking reduction in Town Centres.

Studies & Plans

- Developed transportation plans and functional designs to guide the delivery of transportation infrastructure – including AAA cycling and walking infrastructure – in Town and Village Centres.
- Burrard Inlet Rapid Transit Study (ongoing).
- Upper Levels Corridor Study (ongoing).

Other

- Ironworkers Memorial Bridge Incident response initiatives have been implemented.
- Continued collaboration with road and transit authorities to identify priority actions for implementation.

11. POTENTIAL ACTIONS

The following list includes potential actions that Council could choose to advance in the short-term. Appendix A includes a more complete list of action items.

Potential Action	Description
Advocacy & Convening	<ul style="list-style-type: none"> Continue to advocate for the District's priorities within the recommendations of INSTPP, including: <ul style="list-style-type: none"> Fixed Link Rapid Transit Connection to the North Shore New inter-regional bus service between the Squamish-Lillooet Regional District and Metro Vancouver. Improved transit service to the north shore, including increasing the amount of FTN service. Continue to participate in and support the initiatives of NXSTPP (the INSTPP Steering Committee).
Transit priority	<ul style="list-style-type: none"> Work with TransLink, MoTI, and the City of North Vancouver to continue to enhance the speed and reliability of service along RapidBus route R2 Marine Drive. Work with TransLink, MoTI, the City of Burnaby, and City of Vancouver to continue to enhance the speed and reliability of Route 222 connecting Phibbs Exchange to Metrotown and to expand that service to a future RapidBus to Capilano University. Work with TransLink and the City of North Vancouver to accelerate development and delivery of the proposed RapidBus route connecting Lynn Valley to Downtown Vancouver, including implementing a bus on shoulder express bus southbound on Highway 1 to Phibbs Exchange. Work with TransLink and MoTI to improve bus access to the Lions Gate and Ironworkers Memorial Bridges. Prioritize adding a transit priority lane along Ironworkers Memorial Bridges northbound and on the Main Street westbound off-ramp to Phibbs Exchange, as part of Phase 3 of the Lower Lynn Interchange improvements.



Potential Action	Description
	<ul style="list-style-type: none">• Deliver transit priority measures within District jurisdiction along future RapidBus corridors.• Deliver transit priority measures within District jurisdiction at locations that negatively impact the speed and reliability of the FTN.• Deliver shelters and transit amenities at all bus stops on the FTN and confirm bus stop locations serve major employers and make best use of available infrastructure, including rail crossings.• Deliver enhanced shelters and transit amenities along RapidBus routes.• Develop a bus shelter and transit amenity improvement program for all bus routes.
Local Sustainable Transportation Infrastructure	<ul style="list-style-type: none">• Commit additional resources to ensure that sidewalks clear, accessible, and maintained year-round. Maintenance should include removal of landscaping that has intruded on the right-of-way.• Consider alternate delivery and funding mechanisms to prioritize delivery of active transportation infrastructure.• Complete the sidewalk network to a AAA standard on both sides of Arterial and Collector roadways in the Town and Village Centres by partnering with developers and using District funding where appropriate. (Convening / Capital)• Complete the sidewalk network to a AAA standard on both sides of Arterial and Collector roadways – as well as local roads in commercial and multi-family areas – within 400 m of the FTN or of an elementary school.• Deliver priority 1 bike routes:<ul style="list-style-type: none">○ Lynn Valley Town Centre to Lynn Creek Town Centre,○ Lynn Creek Town Centre to Maplewood Village, and○ Lions Gate Village to Lynn Creek Town Centre.• Deliver priority 2 bike routes:<ul style="list-style-type: none">○ Lynn Valley Town Centre to Edgemont,



Potential Action	Description
	<ul style="list-style-type: none"> ○ Edgemont to Lions Gate Village, and ○ Maplewood Village to Deep Cove. ● Deliver the complete Spirit Trail.
Education, training & transportation demand management	<ul style="list-style-type: none"> ● Support expansion of bike skills training at schools. Provide cost share funding to ensure Learn to Ride bike skills training is provided to all DNV students in grades 4 & 5 during the course of this pilot and potentially beyond. ● Encourage walking & cycling for students. Work with schools to promote ongoing walking/cycling encouragement programming. ● Provide real-time transit information at key locations throughout the District, including at the busiest bus stops and in municipal buildings. ● Develop a local travel education program. Develop a local travel education program as a resource for residents and employees who want to learn about non-auto transportation options.
New mobility, shared mobility, and mobility hubs	<ul style="list-style-type: none"> ● Explore first / last mile transportation service opportunities. Partner with TransLink to explore opportunities for Transit On-Demand service to improve last mile service in parts of the District. Explore other last-mile partnership opportunities. ● Apply to participate in the Province's micro-mobility pilot program to explore the potential of new and emerging transportation modes (i.e., zero-emission motorized personal mobility devices). ● Develop micro-mobility licensing framework. Introduce a micro-mobility licensing framework to allow micro-mobility service providers to establish operations in the District. ● Introduce mobility hubs. Establish mobility hubs which could include last mile goods movement (e.g., transloading from large trucks to smaller vehicles), bike / bus transfers, facilitate shared and micro-mobility, etc.

Potential Action	Description
	<ul style="list-style-type: none"> Study & implement improved curb-side management. Conduct a study to understand the highest and best use of the space between the travel lanes and the sidewalk and create a curbside management strategy that leverages the road right-of-way as a valuable public asset. (e.g., parking pricing, loading zones, replace parking with dedicated bus lanes, bike lanes, or wider sidewalks, etc.)
Land use	<ul style="list-style-type: none"> Land use: Approve developments in the Town Centres and leverage to provide sustainable transportation infrastructure and transportation demand management.

DISTRICT RESIDENTS CAN HELP ADDRESS TRANSPORTATION ISSUES BY...

Choosing to work from home one day per week.

Congested roadways are very sensitive to small changes in traffic volumes. If one third of drivers crossing the Ironworkers Memorial Bridge worked from home just one day per week, the small reduction in traffic volumes could have a more substantial impact on travel times.

Depending on the length of trip to work and other typical travel patterns, reducing just one commute day per week can result in a meaningful reduction in personal emissions.

Choosing walking or cycling for some local trips, especially school trips.

Residents should understand that it is not necessary to commit to walking or cycling EVERY day. Walking or cycling SOME days is very valuable.

Residents should target trips less than 2 km for walking – these trips can typically be completed in less than half an hour and can eliminate local traffic congestion, contribute to meeting daily physical activity recommendations, and facilitate community-building.

Trips to school can be especially meaningful – school traffic is very ‘peaky’ and high volumes of vehicles around schools during drop-off and pick-up contribute to safety challenges, localized congestion, and overall emissions.

Exploring the District by bus and educating others on the bus system.

Getting comfortable with transit is the first step to using it more regularly. Residents should consider bus adventures on weekends and holidays as a way to understand how the system works, the nearest bus stops and routes from their house, and where they can easily get to by bus.

Many children enjoy the bus and – as they get older – comfort and understanding of the transit network can provide early, safe independence that is important for mental health and development.

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APPENDIX A

Potential Actions – Additional Items

A.1 POTENTIAL ACTIONS – ADDITIONAL ITEMS

Category	Action
Regulations, funding, and policies	<ul style="list-style-type: none"> • Continue to pilot the recently developed parking and bicycle parking policies to align parking and loading requirements, bicycle parking and end-of-trip facilities, and transportation demand management approaches in new developments with current policies and overarching goals. • Commit additional resources to ensure that sidewalks clear, accessible, and maintained year-round. Maintenance should include removal of landscaping that has intruded on the right-of-way. • Update the District's maintenance standards and commit additional resources to ensure that the AAA bicycle network is fully accessible year-round. Maintenance should consider the removal of snow and other debris, in addition to any specialized facilities such as pavers on shared streets. • Consider alternate delivery and funding mechanisms to prioritize delivery of active transportation infrastructure.
Advocacy	<ul style="list-style-type: none"> • Continue to advocate for the District's priorities within the recommendations of INSTPP, including: <ul style="list-style-type: none"> ○ Fixed Link Rapid Transit Connection to the North Shore ○ New inter-regional bus service between the Squamish-Lillooet Regional District and Metro Vancouver. ○ Improved transit service to the north shore, including increasing the amount of FTN service. • Support regional implementation of mobility pricing as a way to manage transportation demand, improve network reliability, and provide stable, long-term funding for transportation infrastructure improvements.
Convening (partnerships)	<ul style="list-style-type: none"> • Continue to participate in and support the initiatives of NXSTPP (the INSTPP Steering Committee). • Continue to participate in the study of a Fixed Link Rapid Transit Connection to the North Shore and implement the



District's components of any forthcoming recommendations.

- Complete the sidewalk network to a AAA standard on both sides of Arterial and Collector roadways in the Town and Village Centres by partnering with developers and using District funding where appropriate. (Convening / Capital)
- Work with TransLink, MoTI, and the City of North Vancouver to continue to enhance the speed and reliability of service along RapidBus route R2 Marine Drive.
- Work with MoTI and TransLink to add a transit priority lane westbound on Dollarton Highway and extend RapidBus to Maplewood / Innovation District (pending development of the Innovation District).
- Work with TransLink, MoTI, the City of Burnaby, and City of Vancouver to continue to enhance the speed and reliability of Route 222 connecting Phibbs Exchange to Metrotown and to expand that service to a future RapidBus to Capilano University.
- Work with TransLink and the City of North Vancouver to accelerate development and delivery of the proposed RapidBus route connecting Lynn Valley to Downtown Vancouver, including implementing a bus on shoulder express bus southbound on Highway 1 to Phibbs Exchange.
- Work with TransLink and MoTI to improve bus access to the Lions Gate and Ironworkers Memorial Bridges. Prioritize adding a transit priority lane along Ironworkers Memorial Bridges northbound and on the Main Street westbound off-ramp to Phibbs Exchange, as part of Phase 3 of the Lower Lynn Interchange improvements.
- Work with TransLink and MoTI to improve cycling access to the Ironworkers Memorial Bridge.
- Partner with TransLink to deliver dynamic transit information at key stops and at District facilities (such as libraries, community centres, etc.)
- Support MoTI in delivering the Upper Levels Corridor Study and address any forthcoming recommendations that are within District jurisdiction. Advocate for improved active transportation crossings over Highway 1.
- Work with MoTI and north shore municipalities to deliver a permanent incident notification system for incidents on Highway 1.



- Work with partners to improve options to expedite incident clearing on the Lions Gate and Ironworkers Memorial Bridges.
- Facilitate a Walking School bus program for all elementary and middle schools within District.
- Work with School District 44 to provide local services, activities, and community-building centered around school sites.
- Work with School District 44 to deliver:
 - Bike education programs at every school in District at least once a year.
 - Safe routes to school program at every school in District once per year.
- Continue to partner with TransLink and municipalities across the region to deliver an e-bike share program.
- Work with large employers on TDM programs through community based social marketing and workforce attraction.

Capital (building things)

- Complete the sidewalk network to a AAA standard on both sides of Arterial and Collector roadways – as well as local roads in commercial and multi-family areas – within 400 m of the FTN or of an elementary school.
- Deliver the MBN within District Boundaries, in addition to the District's priority 1 and 2 bike routes (noted below). Road space reallocation will be required in order to build out the cycling network.
- Deliver priority 1 bike routes:
 - Lynn Valley Town Centre to Lynn Creek Town Centre,
 - Lynn Creek Town Centre to Maplewood Village, and
 - Lions Gate Village to Lynn Creek Town Centre.
- Deliver priority 2 bike routes:
 - Lynn Valley Town Centre to Edgemont,
 - Edgemont to Lions Gate Village, and
 - Maplewood Village to Deep Cove.
- Deliver the complete Spirit Trail.



- Deliver transit priority measures within District jurisdiction along future RapidBus corridors.
- Deliver transit priority measures within District jurisdiction at locations that negatively impact the speed and reliability of the FTN.
- Deliver shelters and transit amenities at all bus stops on the FTN.
- Deliver enhanced shelters and transit amenities along RapidBus routes.
- Develop a bus shelter and transit amenity improvement program for all bus routes.
- Continue to deliver traffic signal infrastructure improvements (fire pre-emption, coordination capability, transit priority) along with timing and coordination optimization on key corridors.
- Continue to deliver safety improvements at high priority intersections across the District.
- Locate municipal buildings in Town Centres and along transit and active transportation corridors.
- Require developers to create transit and active transportation friendly buildings, including standard TDM measures as well as creating accessible, street-oriented, and pedestrian-scale building frontages.
- Implement advance traveller information about lack of parking availability at key tourism destinations (Deep Cove, Lynn Canyon, Capilano Suspension Bridge) and alternative travel modes to those sites.

Programs

- Develop a local travel education program at the business and residential level to assist residents and employees that wish to learn about non-auto transportation options.
- Identify and implement an access to transit strategy for east of Seymour through park and ride, kiss and ride, or ride-hailing.

Leadership

- Implement a TDM program internally to show leadership as one of the largest employers in the District. This should include free and / or subsidized transit passes for all staff, a guaranteed ride home program and / or employee car share, priority parking for carshare, rideshare matching service, enhancements to cycling end-of-trip facilities,



employee bike-share memberships, flexible and / or compressed work schedules, and telecommuting options.

- Deliver pilot projects such as temporary street closures, pop-up bike lanes, educational events, and other tactical urbanism initiatives to expose residents and visitors to new street designs and transportation modes. Utilize District facilities such as libraries and community centres to host events and attract residents.

Studies / Policies

- Continue to expand and modernize transportation data collection and performance monitoring for all modes of transportation (big data, smart data, video detection).
 - Update the Transportation Master Plan and Active Transportation Plan to identify other high-priority walk, cycling, transit priority, road, and new mobility improvements required to meet transportation goals.
 - Create a curbside management strategy that leverages the road right-of-way as a valuable public asset.
 - Assess the feasibility of the Barrow St. – Spicer Road connector over the Seymour River south of the Main Street – Dollarton Highway corridor.
 - Assess the feasibility an expanded passenger ferry network across the Burrard Inlet.
 - Develop a strategy for management of tourism traffic, which should include consideration of expansion of the park pricing pilot and facilitation of tour bus travel and parking.
 - Require all District capital projects to consider multimodal transportation needs and opportunities.
 - Choose, plan, and design capital projects that align with partner funding opportunities.
 - Continue to consider safety in the identification of transportation projects and prioritize safety and accessibility in evaluation and design.
 - Further increase funding for transit priority, walking, and cycling and explore alternative funding and delivery mechanisms.
 - Consider 30 km/h speed limit on local roads to prioritize safety for vulnerable road users.
-



White Paper Snapshot

ECONOMY & EMPLOYMENT LANDS

OCP GOAL

Support a diverse and resilient local economy that provides quality employment opportunities.

PROGRESS SINCE 2011

New jobs

(OCP targets 36,000 jobs by 2030)

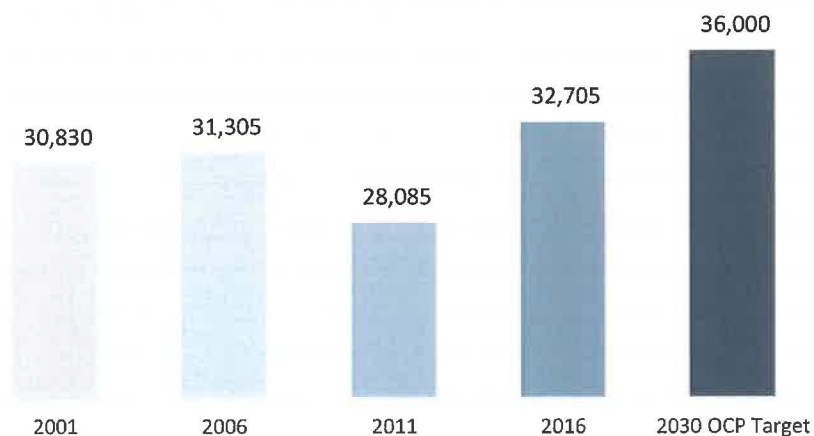
- As of 2016, there were 32,705 jobs in the District (Statistics Canada, 2017).
- The District has made good progress towards its target but may face setbacks if challenges are not addressed.
- In general, the economic profile of the District is quite diverse. No one sector accounts more than 11% of the total workforce (Statistics Canada, 2017).

New employment floorspace

(OCP targets increase of 33% by 2030)

- Total employment floorspace has grown by 104,600 ft² since 2011 (1.3% growth) (District of North Vancouver, 2017).
- District needs to grow by 2.3 million ft² by 2030 (approximately 155,700 ft² per year) to achieve OCP target.

Total Jobs in the District



KEY ISSUES

Employers find it difficult to attract and retain workers	<ul style="list-style-type: none"> The local business community cites this as a common constraint and leading reason why some businesses consider relocating outside the North Shore.
Businesses that want to grow have increasing difficulty finding floorspace/land to grow	<ul style="list-style-type: none"> The local business community notes recent examples of businesses not being able to find enough appropriate space to expand their operations.
Independent businesses are finding it increasingly difficult to survive	<ul style="list-style-type: none"> The local business community notes that small, independent businesses are having difficulties for a whole host of reasons. The vibrancy of the District's neighbourhoods depends on independent businesses.
Some businesses are not locating in preferred locations	<ul style="list-style-type: none"> Population-serving commercial uses (e.g. micro-breweries, commercial gyms, daycare facilities) locating in prime industrial and employment nodes undermines the intent of these areas. Non-retail businesses occupying space on retail main streets undermines the vibrancy of these areas.

KEY ISSUES (CONTINUED)

The District is not viewed by the business community as “open for business”	<ul style="list-style-type: none"> The local business community has communicated various frustrations, such as: general lack of responsiveness from the District; lengthy approvals processes; and lack of prioritization of economic issues.
---	--

WHAT IS CAUSING THESE ISSUES?

Lack of affordable housing and reliable, efficient transportation	<ul style="list-style-type: none"> Employers cite lack of affordable housing and lack of reliable transportation as the top reasons it is difficult to attract and retain employees.
Limited land supply for employment purposes	<ul style="list-style-type: none"> As of 2015, there was only 1 ha of vacant industrial land remaining in the District (Metro Vancouver, 2016). Competition for space is driving up rents and land values, putting pressure on existing businesses to relocate outside of the District, or shut down altogether.
Rising commercial and industrial property assessments	<ul style="list-style-type: none"> Current property tax assessment methods tie value to potential value of a site. These costs are often pushed down to tenants, creating a cost factor that may be contributing to business challenges and possible relocation – small businesses feel these impacts most.
Current land use regulations do not fully protect employment uses/ensure street vibrancy	<ul style="list-style-type: none"> Industrial areas should be protected for “dirty/noisy/messy” uses, particularly those that are unable to locate elsewhere in the District. Industrial users note increased competition for space with population-serving commercial uses (i.e. micro-breweries, commercial gyms, daycare facilities) in prime port-adjacent and trade-enabling industrial areas. Intensive employment uses should be directed to areas served by transit (e.g., Town Centres, commercial corridors).

WHAT IS CAUSING THESE ISSUES? (CONTINUED)

Current land use regulations do not fully protect employment uses/ensure street vibrancy

- The prevalence of certain non-retail businesses (gyms, daycares, offices) occupying space on the ground floor of retail main streets is perceived to be undermining vibrancy of these areas.
- The District's Zoning Bylaw has not had a major revision since 1995.

“

I'm struggling to find and keep employees because housing is too expensive and people don't want to commute here because of the traffic.

*Local business owner
(provided during early public
engagement in 2019)*

“

Transportation and housing must be addressed – these are fundamental to the economy. There are other issues, but they pale in comparison to the housing and transportation issues our employees face and we face as employers.

*Local business community
(provided during early public
engagement in 2020)*

HOW IS THIS TOPIC RELATED TO THE OTHERS?



HOUSING

Lack of affordable housing options is cited by the business community as a key barrier to attracting and retaining employees.



TRANSPORTATION

Businesses locate in areas where their employees can get to work easily and where they are able to get goods to market efficiently.

Lack of efficient and reliable transportation options (to and within the District) is cited by the business community as a key barrier to attracting and retaining employees.

Businesses are leaving the District because employees can't get to work.



CLIMATE EMERGENCY

Businesses can make operating decisions to reduce fossil fuel dependence.

Climate change will impact local businesses, particularly those located in areas subject to sea level rise.

Attracting clean tech businesses to the District is a strategic opportunity.

WHAT WILL MAKE A DIFFERENCE?

Improve housing and transportation options	<ul style="list-style-type: none"> • These are the biggest issues for the business community – see White Paper Snapshots on Housing and Transportation.
Improve cooperation and collaboration with economic partners (e.g., the North Vancouver Economic Partnership, port-related industries, independent businesses)	<ul style="list-style-type: none"> • Many communities establish formal municipal functions/roles to help facilitate connections with the business community. • The better connected the District is with the local business community, the better able it will be to respond to business needs.
Regularly update land use regulations	<ul style="list-style-type: none"> • Draft Metro Vancouver Industrial Lands Strategy recommends that municipalities regularly review land use regulations to ensure: <ul style="list-style-type: none"> ○ lands are protected for employment uses ○ land use conflicts are mitigated ○ employment uses locate in preferred areas ○ alignment with regional goals
Actively monitor and report on local and regional economic trends and development	<ul style="list-style-type: none"> • Economic trends tend to move quickly, resulting in demand shifts that may occur much faster than OCP update periods. • Active tracking of economic indicators and trends in real estate, employment, and land absorption will enable more proactive policy development at the municipal level.

NOTE: Specific potential actions related to these themes are listed in the White Papers. Council will decide which of the potential actions to include in the Action Plan.



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Targeted OCP Review

ECONOMY & EMPLOYMENT LANDS WHITE PAPER

FEBRUARY 24, 2020



FOR WORKSHOP DISCUSSION



URBAN
systems

HEMSON
Consulting Ltd.

Prepared by Urban Systems Ltd. and Hemson Consulting Ltd.

for

the District of North Vancouver



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OFFICIAL COMMUNITY PLAN

ECONOMY & EMPLOYMENT LANDS GOAL

Support a diverse and resilient local economy that provides quality employment opportunities.

Source: Our Official Community Plan for a Sustainable Future, 2011



1. INTRODUCTION

As part of the District of North Vancouver's Targeted Official Community Plan (OCP) Review, White Papers have been developed for:



The purpose of each White Paper is to provide important background information on each topic area. Each White Paper also includes a list of possible actions the District could take to address key issues. District Council will use the White Papers to inform the development of an Action Plan.

A HEALTHY LOCAL ECONOMY IS VITAL TO OUR COMMUNITY

A healthy local economy is fundamental to overall community well-being for many reasons. The most obvious is that it provides jobs that District residents rely upon. Local businesses provide a range of employment opportunities for all ages, levels of education, and skills.

Not only do local businesses provide job opportunities, they also make a significant contribution to the District's tax base. Business and industry collectively account for approximately 30% of the District's tax revenue, making them major contributors to the municipality's prosperity. Local businesses also play a key role as service providers. They provide residents with a wide range of goods and services. District residents have local access to everything from restaurants to automotive repair shops to medical offices.

2. KEY TERMS

Industrial

Per the District's OCP: Areas intended for a range of manufacturing, warehousing, transportation, service and port-related uses. Limited office, limited retail and residential caretaker units may be permitted, so long as they are accessory to the primary industrial use. The OCP also includes a variety of other Industrial land designations, including Light Industrial Artisan, Light Industrial Commercial, and Light Industrial – Innovation District, which allow a mix of commercial, and in some cases residential, uses in addition to ground floor Industrial uses.

Accessory Use

Uses that support or provide a secondary function to the intended land use (e.g., an office addition or retail showroom attached to a manufacturing facility).

Mixed-Use

Land use permissions which allow distinct uses to function in partnership on a development parcel (e.g., residential units above a ground floor commercial or industrial space).

Employment Intensification

Increasing the utilization of existing employment lands via a number of different methods including increased building potential (site coverage, building heights, additional floors, etc.) and increased functionality (increased labour activity, productivity, throughput, technological innovations, etc.).

Trade-Enabling Land Uses

Specific employment land uses that fulfill region serving business activities, such as the movement of goods, large scale manufacturing, and other heavy industrial uses. These uses tend to have specific locational needs (i.e., large sites, access to waterways, rail and highway infrastructure), which only exist in a few specific locations in the region.

3. CONNECTIONS TO OTHER TOPIC AREAS



CLIMATE EMERGENCY

Businesses can make operating decisions to reduce fossil fuel dependence.

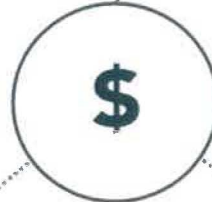
Climate change will impact local businesses, particularly those located in areas subject to sea level rise.

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HOUSING

Lack of affordable housing options is cited by the business community as a key barrier to attracting and retaining employees.



Businesses locate in areas where their employees can get to work easily and where they are able to get goods to market efficiently.

Lack of efficient and reliable transportation options (to and within the District) is cited by the business community as a key barrier to attracting and retaining employees.

Businesses are leaving the District because their employees can't get to work.

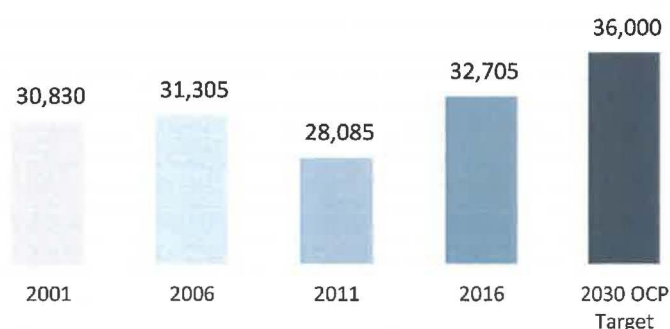


TRANSPORTATION

4. CURRENT CONDITIONS AND PROGRESS SINCE 2011¹

Key Statistic	What is Important to Know?
<p>Total jobs in the District was 32,705 in 2016 (Statistics Canada, 2017)²</p> <p>(OCP targets 36,000 jobs by 2030)</p>	<ul style="list-style-type: none"> • Total jobs increased by 4,620 between 2011 and 2016. • Recent (2011 to 2016) job growth in the District (16%) surpassed that in Metro Vancouver (8%), West Vancouver (8%), and the City of North Vancouver (-4%). • Following a decline in 2011³, job growth improved to align with the trend observed over the 2001 to 2006 period.

Total Jobs in the District



- The District has made good progress towards its goal, but may face setbacks if challenges are not addressed.
- Job totals comprise three components:
 - Those with a regular place of work located in the District: 21,970 (78%).
 - Those that worked from home (in the District): 5,495 (17%).
 - Residents of the District with no fixed place of work⁴: 5,240 (16%).
- The District's job growth targets are not broken down by sector.

¹ These statistics are based on the latest data available. The District has not completed analysis to generate more current statistics.

² All statistics in this section refer to Census 2016 statistics, unless otherwise noted. All changes are for 2011 to 2016.

³ The observed 2011 decline in jobs may be attributed to a number of factors, including the lingering effects of the 2008-09 global recession, as well as potential Census response issues associated with the voluntary nature of the 2011 National Household Survey.

⁴ Jobs with no fixed place of work refers to jobs held by District residents that report to different work sites on any given day, such as contractors, construction workers or film crews. These workers may not necessarily be reporting to job sites located within the District. Data taken from Statistics Canada Census.

Key Statistic

What is Important to Know?

- The economic profile of the District is quite diverse. No one sector accounts for **more than 11% of the total workforce**. Leading sectors in 2016: Professional, Scientific and Technical Services (3,570 - 10.9%), Retail Trade (3,310 - 10.1%) and Education Services (3,305 - 10.1%).
- Almost all sectors grew over the past Census period.
 - Biggest growth sectors were Accommodation and Food Services (+1,020 jobs), Manufacturing (+790 jobs), Health Care and Social Assistance (+630 jobs), and Transportation and Warehousing (+605 jobs).
 - Only Finance and Insurance (-60 jobs) and Public Administration (-35 jobs) experienced minor losses (less than 1% each).
- A significant portion of the District's **workforce (17%) works from home**. This segment grew by 670 since 2011 and 31% of this segment is in the Professional, Scientific, and Technical sector.
- Following a Canada-wide period of decline in the Manufacturing sector, the District has shown signs of a significant resurgence in this sector (33% growth between 2011 and 2016), far above Metro Vancouver-wide growth of 5%. The District also experienced stronger-than-regional growth in Wholesale Trade over this same period (33% vs. -8%) and Transportation and Warehousing (61% vs. 13%). Much of this has to do with shipbuilding activities and employment gains specific to Seaspan and port-related business activities.
- Geographic breakdown of employment growth (by type) at a sub-geographic level will provide more insight; however, this will require a custom data run request from Statistics Canada.

Total floor space in employment lands has grown by 104,600 ft² between 2011 and 2016 (1.3% growth) (District of North Vancouver, 2017)

(OCP targets an increase of 33% in built square feet in employment lands by 2030)

- The OCP does not identify floor space targets by type . Ultimately, this would require an employment land capacity analysis examining all employment land use types.
- The District needs to grow by an additional 2.3 million ft² by 2030 (approximately 155,700 ft² *per year*) to achieve the OCP target.
- **Industrial growth can be 'lumpy'** (i.e., one or two major projects can move the needle significantly).
- According to the most recent inventory, there is only 1 ha of vacant industrial land remaining in the District (Metro Vancouver, 2016),

Key Statistic

What is Important to Know?

meaning most industrial floor space growth will likely need to occur via industrial intensification on existing sites.

- More analysis is required to determine where this additional floor space is likely to be built and whether current land use regulations will permit this level of growth.
- This statistic does not account for redevelopment of older space.

Estimated \$355 million of visitor tourism spending on the North Shore (the District, City of North Vancouver, and West Vancouver) (Larose Research & Strategy, 2019).

- Tourism is a significant contributor to the North Shore economy.
- While tourism activity does represent a key economic sector, there are related challenges (e.g., traffic congestion, ecosystem damage) that require ongoing tracking and mitigation.

5. COMMON MISCONCEPTIONS

MISCONCEPTION: The reasons for local business struggles can be boiled down to rising property taxes and/or redevelopment pressures.

FACT: The reasons why a local business might struggle, close, or relocate are varied. District businesses of all sizes face myriad challenges, including difficulties attracting and retaining employees due to housing and transportation issues.

Property tax issues – particularly the taxing of **property at that property's highest and best use** and triple net leases (which pass these property tax costs to business tenants) – also present operational difficulties for local businesses.

Many other factors beyond housing, transportation and occupancy costs can contribute to issues. These include retirement/ownership succession, competitive pressures from other industry players or platforms (e.g., ecommerce), and a lack of reinvestment or repositioning to respond to shifting customer preferences.

MISCONCEPTION: Certain employment activities (e.g., super-regional industrial uses such as the Port of Vancouver) create little local (i.e., District / local resident) benefit.

FACT: Port-related activity is estimated to be directly responsible for 4,600 jobs in the District, contributing approximately \$290 million in wages in 2016 (InterVISTAS, 2017).

MISCONCEPTION: Certain broader economic trends (e.g., growth in e-commerce, automation, international trade) can be meaningfully influenced at the local level.

FACT: Most economic trends occur globally, driving demand and changing where and how we work. Trends include changes in the type of space we need for different types of work (Metro Vancouver, 2019). Municipalities do not influence these trends; however, they do control land use regulations, which determine whether new ways of using land for employment uses are permitted.

6. KEY ISSUES

Key Issue	Why is it Critical to Address This Issue?
Employers are struggling to find and keep workers	<ul style="list-style-type: none"> • Businesses are considering relocating outside of the District, or shutting down entirely, due to challenges finding and retaining staff. • Cost and lack of local childcare spaces limit some parents' ability to return to work. • This issue is closely linked to challenges facing the transportation system and the lack of affordable housing options in the District, both of which are noted as primary factors resulting in staff shortages.
Limited opportunities for growth (floorspace and land) is affecting affordability and leading to displacement	<ul style="list-style-type: none"> • Competition for space is driving up rents and land values, putting pressure on existing local businesses (particularly independent businesses) to relocate outside of the District or shut down. • The District is potentially missing out on opportunities to strengthen its economic diversity, and may miss out on opportunities to grow the local non-residential tax base.
Businesses occupying employment areas for which they were not intended or are not compatible	<ul style="list-style-type: none"> • Industrial users note increased competition for space with population-serving commercial uses (i.e., micro-breweries, commercial gyms, daycare facilities) in prime port-adjacent and trade-enabling industrial areas. • These non-industrial uses not only compete for space, but may be creating increased traffic issues, as industrial areas are often not well served by transit or sidewalks. • The prevalence of certain non-retail businesses (gyms, daycares, offices) occupying space on the ground floor of retail main streets is perceived by some to be undermining the general vibrancy of these areas.

7. KEY TRENDS AND EMERGING ISSUES

Key Trend/ Emerging Issue	Why is This Trend/Emerging Issue Important?
Changing demographics (i.e., aging of the District population)	<ul style="list-style-type: none"> • Growing proportion of the local resident population is approaching retirement age, which will impact the size of the local labour force. • If housing options are not available for families and young professionals, the District could experience a serious labour shortage, or rely even more on in-commuting workers – putting additional pressure on the local transportation network. • Aging members of the population still require goods and services – people are required to fill the jobs that serve these needs.
Rising commercial and industrial property assessments	<ul style="list-style-type: none"> • Current property tax assessment methods tie value to the potential value of the site. Consequently, as competition between uses increases (along with potential to mix uses or increase flexibility of use), property tax bills are expected to increase for many existing industrial and commercial properties. • Taxes are often pushed down to tenants, creating a cost factor that may contribute to business challenges and possible relocation – these challenges are most notable for small businesses. • As tracked by BC Assessment, this trend is not unique to the District, but is occurring all across Metro Vancouver and other high growth markets in Canada. • The Province has committed to bringing forth legislation in the spring that will allow municipalities to exempt a portion of the value of sections of commercial properties from taxation for the 2020 tax year (Ministry of Municipal Affairs and Housing, 2020).
Disruptive technologies (e.g., ecommerce, automation)	<ul style="list-style-type: none"> • Emerging technologies could have a significant impact on the types of jobs required by the District, and the types of space that are necessary to accommodate those jobs.

Key Trend/ Emerging Issue	Why is This Trend/Emerging Issue Important?
	<ul style="list-style-type: none"> Changes are often felt most significantly in certain sectors (e.g., automation of production in manufacturing, e-retailing), but may create demand in others (e.g., robot repair and programming, distribution centres).
Growth in global trade is driving demand for local port-related activity and land	<ul style="list-style-type: none"> Increased globalization and changes in supply chains (e.g., ecommerce) are changing how and where we get our goods. Port of Vancouver has identified significant demand for land to accommodate projected port activities by 2025, with a pressing need for further investment in capacity at port facilities if the region is to meet anticipated demand (Ocean Shipping Consultants, 2016).
Depletion of regional industrial / employment land supply is increasing competition and driving up local rents / values	<ul style="list-style-type: none"> Metro Vancouver is projected to run out of its remaining supply of vacant industrial lands between 2030 and the early 2040s (Metro Vancouver, 2019). Increased competition for space will result in increased costs for existing uses, and may raise potential for developing multi-storey industrial buildings.
Growth in the sharing economy	<ul style="list-style-type: none"> The sharing economy, where people share goods and services on a peer-to-peer basis, could help the District become more sustainable.

8. RELEVANT BEST PRACTICES

Best Practice	Why is This a Best Practice?
<p>Locate jobs near transit AND encourage development of jobs at sufficient densities to support transit</p> <p>(Note: It may not be possible to densify all types of employment uses as some uses, such as industrial uses, inherently have low employment densities.)</p>	<ul style="list-style-type: none"> • It is easier to attract and retain employees if jobs are located near efficient and reliable transit. • i.e., Can co-locate services to develop attractive economic hubs for various sectors (agglomeration economics). • Town Centres and commercial corridors present leading opportunities for transit supportive densities. • Local routes should seek to serve employment areas and major employers (e.g., Seaspam) where feasible.
<p>Update employment land use regulations to reflect changing nature of work and space needs, while ensuring intended employment activity is protected</p>	<ul style="list-style-type: none"> • Many municipal zoning regulations are decades old, and do not recognize the changing nature of work (e.g., new uses like data centres, vertical warehousing). • Draft Metro Vancouver Industrial Lands Strategy (Metro Vancouver, 2019) recommends that municipalities conduct a zoning review for industrial areas to ensure lands properly protect employment uses, while enabling appropriate uses.
<p>Improve buffering and conflict mitigation standards for industrial uses and encroaching residential uses</p>	<ul style="list-style-type: none"> • As communities intensify, there are more and more instances of sensitive uses (i.e., residential) being developed adjacent to industrial areas, potentially undermining business activities. • Standards for conflict mitigation, including buffering, noise, odor and light minimization, and safety standards help to reduce conflict between these uses. • Standards should put the onus on both expanding industrial uses and encroaching residential/other uses.
<p>Actively monitor and report on local and regional economic trends and development</p>	<ul style="list-style-type: none"> • Economic trends tend to change quickly. • These trends often need to be tracked annually, which is much more frequently than 5-year Census periods permit. • Active tracking of economic indicators and trends in real estate, employment, and land absorption helps enable more proactive policy development at the municipal level.

Best Practice

Why is This a Best Practice?

Integrate economic development with land use planning

- Land is a key economic input.
- Having a professional on municipal staff with experience related to economic development and land use planning helps align land use planning with economic objectives.
- This role provides an important linkage between economic development partners (i.e., those tasked with attracting investment to the District), District planning staff, and the business community.

9. KEY INDICATORS

Key Indicator	Why is This Important to Measure?
Change in distribution of District jobs by NAICS code and geography	<ul style="list-style-type: none"> • Standard metric for tracking employment using Statistics Canada Census Employment and Labour Force Survey data. Differentiates between different employment types (2-digit – general categories, 3-digit – specific categories). • Can use special run data requests from Statistics Canada to assess change in number and types of jobs at sub-municipal level for specific policy areas, including: <ul style="list-style-type: none"> ○ Town Centres ○ Industrial Areas ○ Commercial Corridors ○ Other areas • Enables apples-to-apples comparison to other jurisdictions over similar timeframes. • Effective for many land use types but may not encapsulate all categories (e.g., Film industry and 'high tech' related activities can occur in multiple NAICS categories).
Net change in floorspace by type (i.e., Industrial, Office Retail) and geography	<ul style="list-style-type: none"> • Commonly used by municipalities and Metro Vancouver (via inventories and building permits – where available) and major commercial and industrial brokerages (e.g., Colliers, CBRE, JLL) to track change in total supply over time. • Distinguishes between different types of built space relative to general needs of different businesses.
Local employed labour force (% by census place of work)	<ul style="list-style-type: none"> • Tracked as part of Statistics Canada Census every 5 years. • Provides a high-level snapshot of changes over time. • Supplements transportation and commuting data.

Key Indicator	Why is This Important to Measure?
Market health Indicators (e.g., vacancy, absorption, net rental rates)	<ul style="list-style-type: none"> Provides good indication of availability, desirability, and competitiveness of local space compared to other parts of the region and other markets. Typically tracked by major commercial brokerages on a quarterly basis by market area (geographies that may not align directly with municipal boundaries – e.g., North Shore for industrial and office tracking by Colliers).
Building permit activity by value range and location	<ul style="list-style-type: none"> Provides a general idea about the level of business investment and reinvestment (i.e., renovations, improvements to existing space) in the local market. Indicates health of economic activity in cases even when net new floor space is not being developed. Typically tracked at a municipal level and reported to CMHC and Statistics Canada for comparison over time and geography (often monthly).
Tax revenue by type of employment use	<ul style="list-style-type: none"> Provides a clear indication of contributions businesses make to the municipal tax base and enables assessment of change over time.

10. ACTIONS TO-DATE

The District has already taken meaningful action on Economy & Employment Lands. The list below is not comprehensive; however, it does highlight key actions the District has taken more recently.

- A stated commitment to protect and enhance employment lands (OCP Policies 3.1 – 3.5).
- Adjusted land-use regulations to encourage new investments and opportunities for jobs and businesses, including new land use designations in the Maplewood area.
- Completed local area planning initiatives (e.g., Maplewood Village Centre Plan, Lynn Creek Town Centre) designed to support more complete, compact communities when rezonings are undertaken in these areas.
- Council Directions for 2019-2022 have identified the economy as a key issue, including a commitment to:
 - Assess the impact of plans and policies on retaining and attracting employment opportunities
 - Increase business friendliness in process and services
 - Advocate with other levels of government for provincial policy tax fairness
 - Retain and grow the full spectrum of businesses within the District
 - Build towards a complete community of jobs and housing

11. POTENTIAL ACTIONS

Category	Action
Plans and Strategies	<ul style="list-style-type: none"> • Prepare an Employment Lands Strategy Study to: <ul style="list-style-type: none"> ○ Review whether current Industrial land use designation and permitted uses under Zoning Bylaw are appropriate to protect current and future trade-enabling industrial and port-related activities in key locations, in line with recommendations of the Regional Industrial Lands Strategy ○ Review whether an update to the Zoning Bylaw is required to ensure non-industrial uses (e.g., gyms and non-accessory retail) are not permitted in core (i.e., trade-enabling) industrial areas, while also permitting appropriate density and heights, where appropriate ○ Review market factors for why non-retail uses (daycares, gyms) are occupying prime frontages on retail main streets to determine what actions are necessary to ensure the vibrancy of these areas (tighter use restrictions, maximum unit sizes, alternative land use locations), including possible changes to the Zoning Bylaw ○ Review guidelines for form and character in Development Permit Areas (Schedule B of the OCP) to ensure buffering requirements are reasonable, while also ensuring that sufficient requirements are placed upon encroaching sensitive uses (i.e., residential) so that these uses do not hinder current operations or future intensification opportunities for neighbouring industrial areas • Conduct a commercial (office, retail, and service commercial) study to: <ul style="list-style-type: none"> ○ Determine if current planned residential densities and development patterns are sufficient to support local-serving commercial uses in the Town Centres and along commercial corridors ○ Review and update land use regulations to encourage/require new multi-family developments to include work-share space in addition to or in lieu of traditional amenities (e.g., commons room, billiards room, theatre) ○ Review and update land use regulations to better support smaller businesses especially along main streets where

Category	Action
	<p>community character and vibrancy is important (e.g., consider restricting size of store fronts)</p> <ul style="list-style-type: none"> ○ Investigate the potential to attract and accommodate innovative population supporting businesses (e.g., local food production,)
Regulations (bylaws and policies)	<ul style="list-style-type: none"> • See actions under Plans and Strategies
Incentives	<ul style="list-style-type: none"> • Investigate feasibility of financial and development potential (i.e., density bonuses) incentives designed to encourage preferred forms of development in appropriate locations (e.g., Multi-storey industrial, live work units, etc.) • Consider incentives, land use policy, or investment on municipally owned land to encourage the development of incubator space for smaller local businesses and District-based start-ups • Consider asking applicants for Community Grants to show how they contribute to the sharing economy • Consider incentives to encourage employers to provide childcare.
Advocacy	<ul style="list-style-type: none"> • Continue to petition, through UBCM, revisions to BC Assessment's practice of assessing property value on the basis of highest and best use
Convening (i.e., partnerships)	<ul style="list-style-type: none"> • Provide improved clarity on how local businesses can support community initiatives (i.e., economic promotion, transportation initiatives, environmental initiatives) • Collaborate directly with the North Shore Economic Partnership to ensure enhanced and up-to-date understanding of local business needs • Coordinate with Metro Vancouver's new Regional Economic Prosperity Service to attract preferred forms of investment to the region and to support and share in relevant economic and employment data and research • Work with developers to identify ways to provide more commercial space and employment opportunities in mixed-use developments • Coordinate with TransLink to encourage more frequent transit service and routes to employment areas and nodes

Category	Action
	<ul style="list-style-type: none"> • Work with Port of Vancouver, Gateway Council, and Urban Freight Council to identify and secure funding for priority projects related to port-adjacent business activity and safe and efficient goods movement
Internal staffing and process	<ul style="list-style-type: none"> • Create position for a staff planner responsible for land use planning with an economic development and business facilitation lens • Conduct an internal review of the development approvals process and business licensing process to determine how the District compares to other Metro Vancouver municipalities and identify if any measures to improve timelines and efficiencies would be appropriate or feasible

NOTE: Please see the White Papers on Transportation and Housing for additional actions that have an impact on Economy & Employment Lands.

DISTRICT RESIDENTS/BUSINESSES CAN HELP BY...

Offering transit passes to employees, providing company shuttles, or offering incentives to carpool.

Improves congestion and reduces GHG emissions from commuters, while encouraging higher transit usage - attracts/retains employees.

Advocating for and providing support to local community events and initiatives.

Encourages support and cooperation between business and community interests. Promotes the District of North Vancouver as a desirable place to live and do business.

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White Paper Snapshot

HOUSING

OCP GOALS

Encourage and enable a diverse mix of housing type, tenure and affordability to accommodate the lifestyles and needs of people at all stages of life.

Foster a safe, socially inclusive and supportive community that enhances the health and well-being of all residents.

PROGRESS SINCE 2011

New affordable housing units
(OCP targets a net increase in affordable housing units by 2030)

- Since 2011, the District has approved 288 net new non-market housing units and 462 net new market rental units (District of North Vancouver, 2019 A; District of North Vancouver, 2019 B).
- The District has made progress, but affordable housing remains an immediate crisis. The extent of these needs should be determined through a housing needs assessment.

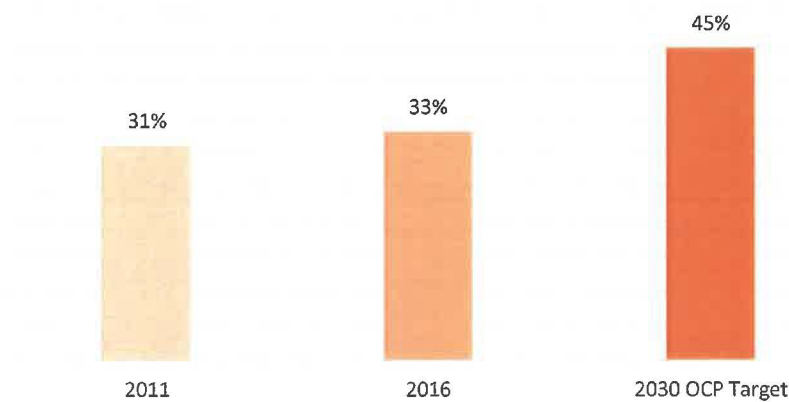
Housing diversity
(OCP targets a housing mix of 45% attached and 55% detached residential units by 2030)

- Between 2011 and 2016, the percentage of total housing stock that was attached increased from 31% to 33% (District of North Vancouver, 2017).
- To reach the OCP target, the pace of development of attached housing units will need to increase.

Homelessness
Regionally homelessness increased by about 30% between 2014 and 2017 (BC Non-Profit Housing Association; Thomson, M., 2017)

- While the Metro Vancouver Point-In-Time Homeless Count showed a decline from 122 to 100 counted individuals between 2011 and 2017 (the most recent count conducted) this methodology has limitations (Regional Steering Committee on Homelessness, 2011; BC Non-Profit Housing Association; Thomson, M., 2017). A new Homeless Count is being conducted in March 2020.
- Based on a survey conducted in 2016 of homeless service providers on the North Shore, there were 300 individuals experiencing homelessness on the North Shore. This statistic provides an accurate reflection of client-load for those organizations (District of North Vancouver, 2017).

Attached Housing as Percentage of Total Housing Stock



KEY ISSUES

Increasing housing unaffordability

- The percentage of households that are in core housing need remained at 11% between 2011 and 2016. This is lower than Metro Vancouver's 18% (Statistics Canada, 2019).
- In 2016, housing costs deemed affordable for a renter household earning the median income for the District were \$1,484 per month (Statistics Canada, 2017) while the median rent for purpose-built rental was \$1,375 (CMHC, 2020). However, median rents increased by 24% between 2016 and 2019, to \$1,707 (CMHC, 2020), likely outpacing growth in median renter incomes.
- Housing unaffordability is putting pressure not only on low-income households, but also moderate- and middle-income households.
- Housing unaffordability is likely starting to impact community demographics - between 2011 and 2016, the proportion of young adults aged 25 to 39 remained at 14%, which was lower than the regional average of 22%. There was a decrease in adults aged 40-54 and growth in ages 55+ (Statistics Canada, 2017).

KEY ISSUES (CONTINUED)

Lack of housing diversity
(form and tenure)

- In 2016, 67% of the District's housing stock was detached housing; 33% was attached housing (District of North Vancouver, 2017).
- From 2011 to 2016, renter households increased by 2% to 21% of all households while owner households decreased from 81% of all households to 79% (Statistics Canada, 2011; Statistics Canada, 2017)
- Different segments of the population need different types of housing and these housing needs typically change over one's lifetime.

"Missing middle" of residents
ages 25 to 39.

- Between 2011 and 2016, the proportion of young adults aged 25 to 39 remained at 14%, which was lower than the regional average of 22% (Statistics Canada, 2017).
- If external factors do not change, the District will be populated mainly by those who were fortunate enough to purchase housing before the market changed, and by affluent households who can afford real estate.

"I grew up in North Vancouver and wanted to stay, but it was too expensive."

*Former resident
(provided during early public
engagement in 2019)*

"I live with six friends in a two-bedroom house in Lynn Creek. It's the only way I can afford rent. We'll probably have to move soon as our house will be knocked down for new development. Not sure what I'll do next."

*Resident
(provided during early public
engagement in 2019)*

WHAT IS CAUSING THESE ISSUES?

Diversification of housing stock is too slow	<ul style="list-style-type: none"> • Non-market and market rental units are not being developed fast enough to reduce the number of District residents who live in core housing need or to improve affordability in moderate- and middle-earning households. • In 2016, there were 3,105 households in Core Housing Need (Statistics Canada, 2017). • There is a shift towards multi-family housing, but more significant changes will be needed to achieve 2030 targets.
Lack of funding	<ul style="list-style-type: none"> • The District dedicates \$500,000/year to a reserve for affordable housing. However, the District does not currently dedicate a specific portion of CACs to that reserve – doing so could significantly increase available funds.
Aging rental housing stock	<ul style="list-style-type: none"> • Much of the existing stock of non-profit, co-op and purpose-built rental housing is older; without maintaining or replacing this older stock of housing, housing challenges will be exacerbated.

HOW IS THIS TOPIC RELATED TO THE OTHERS?



ECONOMY & EMPLOYMENT LANDS

Lack of affordable housing options is cited by the business community as a key barrier to attracting and retaining employees.



TRANSPORTATION

Safe, comfortable, and reliable transit and active transportation connections increase housing affordability by decreasing the overall cost burden of housing and transportation.

Reliable public transit can reach more people when residential growth is concentrated in compact, connected centres.



CLIMATE EMERGENCY

We can build and heat our homes in ways that reduce GHGs.

Many District homes are subject to natural hazards exacerbated by extreme weather.

Reliable public transit can reach more people when residential growth is concentrated in compact, connected centres. This will reduce vehicle use and GHGs.

WHAT WILL MAKE A DIFFERENCE?

Initiate municipal investments in affordable housing	<ul style="list-style-type: none"> • The District can provide active contributions (land and/or capital) to increase affordable housing supply. • Affordable housing advocates cite provision of land as the most significant action municipalities can take to support affordable housing.
Partner with senior governments and not-for-profit organizations	<ul style="list-style-type: none"> • Partnerships are an opportunity to take advantage of programs offered by other levels of government. • Partnerships with not-for-profit organizations in the housing industry, such as Habitat for Humanity, can help the District deliver affordable housing.
Enact land-use plans and regulations that facilitate the development of a diverse housing supply in the right locations	<ul style="list-style-type: none"> • Local governments can regulate both housing form and tenure. • To best support affordability (and sustainable transportation), residential growth should be directed to Town and Village Centres. • District land use and housing plans should consider housing plans in neighbouring communities, including First Nation communities.
Leverage private sector development to acquire affordable housing	<ul style="list-style-type: none"> • This strategy has been successfully adopted in many other municipalities. • Municipalities can secure affordable housing without incurring significant financial cost. • Municipalities can also provide incentive packages such as expedited approval processes, mixed market buildings, density bonuses, parking reductions, DCC waivers or reductions, and housing agreements that lock in housing affordability over the long-term to facilitate the development of affordable housing.

NOTE: Specific potential actions related to these themes are listed in the White Papers. Council will decide which of the potential actions to include in the Action Plan.



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Targeted OCP Review

HOUSING WHITE PAPER

FEBRUARY 24, 2020



FOR WORKSHOP DISCUSSION



Prepared by Urban Systems Ltd. and Urban Matters CCC

for

the District of North Vancouver



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OFFICIAL COMMUNITY PLAN

HOUSING GOALS

Encourage and enable a diverse mix of housing type, tenure and affordability to accommodate the lifestyles and needs of people at all stages of life.

Foster a safe, socially inclusive and supportive community that enhances the health and well-being of all residents.

Source: Our Official Community Plan for a Sustainable Future, 2011



1. INTRODUCTION

As part of the District of North Vancouver’s Targeted Official Community Plan (OCP) Review, White Papers have been developed for:



The purpose of each White Paper is to provide important background information on each topic area. Each White Paper also includes a list of possible actions the District could take to address key issues. District Council will use the White Papers to inform the development of an Action Plan.

HOUSING PRESSURES ARE GROWING

Low-income households have long struggled to find affordable housing in the District, but housing unaffordability is now beginning to affect nearly everyone. Middle- and higher-income households are increasingly facing challenges finding housing that meets their needs, whether they are looking to rent or own. Diverse housing options are needed to serve all groups throughout all stages in life.

The lack of affordable housing options has wide reaching implications. It makes attracting and retaining employees challenging for local businesses – the business community identifies housing and transportation as their top challenges. It also threatens critical public services that rely on trained professionals (e.g., home care workers, nurses, teachers, police) who are finding it difficult to afford living in the District. Lack of housing options also results in broader social impacts, as residents who grow up in the District may not be able to stay or afford to return, extended families and friends become dispersed, and others are forced to live in inappropriate housing.

2. KEY TERMS

Affordable housing

Housing is considered affordable if no more than 30% of before-tax household income is spent on housing (District of North Vancouver, 2019).

Primary and secondary rental markets

The primary rental market consists of units in privately initiated, purpose-built rental structures of three units or more. The secondary rental market covers single-detached houses, secondary suites, townhouse/row houses, accessory apartments, and condominium apartments offered for rent (CMHC, 2020).

Core housing need

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 it would have to spend 30% or more of its total before-tax income to pay the median rent of alternative local housing that is acceptable (meets all three housing standards) (CMHC, 2017)

Low income households

Households with 2019 before-tax incomes up to \$30,000/year, depending on unit size (District of North Vancouver, 2019).

Low-to-moderate income households

Households with 2019 before-tax incomes ranging from \$30,001 to \$85,170 (District of North Vancouver, 2019).

Middle income households

Households typically having 2019 before-tax incomes up to \$71,200 (for homes with fewer than two bedrooms) or up to \$104,000 (for homes with two or more bedrooms) (District of North Vancouver, 2019).

Market housing

Private (non-subsidized) housing.

Non-market housing/below-market rental housing

Below-market rental housing is housing with rents equal to, or lower than, average rates in private-market rental housing (BC Housing, 2020). Average market rental rates are measured by CMHC and include both older and newer rental buildings and are generally far lower than rental rates for newly constructed rental units. These units would have agreements in place to ensure that rents stay affordable or at the low-end of the market over the long-term.

- **Social housing:** Housing that a government or non-profit housing partner owns and operates. This includes supportive housing (District of North Vancouver, 2019).
- **Supportive housing:** A type of housing that provides on-site supports and services for those who cannot live independently. This housing is typically for people who are homeless or at risk of being homeless (District of North Vancouver, 2019).



Rental zoning

In 2018 the Government of BC introduced amendments to the *Local Government Act* to allow municipalities to enact zoning bylaws that require all or a portion of new housing in residential areas to be developed as rental, or to preserve existing areas of rental housing. Rental zoning can only be used where multi-family residential use is a permitted use (Government of British Columbia, 2018).

3. CONNECTIONS TO OTHER TOPIC AREAS

CLIMATE EMERGENCY

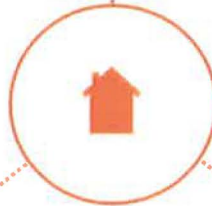
We can build and heat our homes in ways that reduce fossil fuel dependence, thereby reducing GHG emissions.

Many District homes are subject to natural hazards exacerbated by extreme weather.

Reliable public transit can reach more people when residential growth is concentrated in compact, connected centres. Residents living in those centres will be able to reduce their dependence on passenger vehicles, thereby reducing GHG emissions.

ECONOMY & EMPLOYMENT LANDS

Lack of affordable housing options is cited by the business community as a key barrier to attracting and retaining employees.



Safe, comfortable, and reliable transit and active transportation connections increase housing affordability by decreasing the overall cost burden of housing and transportation.

Reliable public transit can reach more people when residential growth is concentrated in compact, connected centres.

TRANSPORTATION

4. CURRENT CONDITIONS AND PROGRESS SINCE 2011

Key Statistic¹

What is Important to Know?

Between 2011 and 2016, the proportion of households in Core Housing Need remained constant at 11%.

- This is lower than Metro Vancouver's 18% (Statistics Canada, 2019).
- District renters are more likely than owners to be in Core Housing Need – 6% of owner and 27% of renter households were in Core Housing Need in 2016 (Statistics Canada, 2019).

A high household income or a significant amount of equity is required to afford an average single-detached house in the District.

The average price of a single-detached house in the District is \$1.68M (District of North Vancouver, 2019)

- The single-detached house is the least affordable housing type in the District, however it makes up 67% of the housing stock in 2016.
- Households with existing home equity are far better equipped to meet their housing needs, as well as the housing needs of their children, compared to households without access to equity.
- Median household income is significantly higher for owners (\$119,465) than renters (\$59,344) (District of North Vancouver, 2019), but is not high enough to purchase an average-priced single-detached dwelling in the District without access to substantial equity.
- When residents overspend on housing, it decreases the amount they can spend on necessities (e.g. groceries, school supplies, clothing). Housing costs reduce disposable income, which could be spent in the local economy.

Market rental costs are unaffordable for renters with median household income

- In 2016, housing costs deemed affordable for a renter household earning the median income for the District were \$1,484 per month (Statistics Canada, 2016) while the median rent for purpose-built rental was \$1,375 (CMHC, 2020). However, median rents increased by 24% between 2016 and 2019, to \$1,707 (CMHC, 2020), likely outpacing growth in median renter incomes.

¹ This section reflects the latest available data, the District will need to conduct additional analysis to generate more current statistics.

Key Statistic¹

What is Important to Know?

	<ul style="list-style-type: none"> • More research is needed to determine how secondary rental market rent costs compare to the primary rental market, as this data is not readily available.
<p>There are out-migration trends for individuals aged 18-34, and the District has a relatively low proportion of individuals aged 25-39.</p>	<ul style="list-style-type: none"> • There was negative net migration out of the District for the 18-34 age group between 2011 and 2016 (Metro Vancouver, 2020). • Between 2011 and 2016, the proportion of young adults aged 25 to 39 remained at 14%, which was lower than the regional average of 22% (Statistics Canada, 2016). There was a decrease in adults aged 40-54 and growth in ages 55+ (Statistics Canada, 2016). • The 25 to 39-year-old cohort represents workforce aged individuals and families. Slow growth of this age range can have ripple effects on the economy, school district enrolment, and other key areas.
<p>Percent of attached housing units increased by 2% between 2011 and 2016</p> <p>(OCP targets a housing mix of 45% attached and 55% detached residential units by 2030)</p>	<ul style="list-style-type: none"> • Between 2011 and 2016, the proportion of attached housing in the District increased from 31% to 33% (District of North Vancouver, 2017). • This statistic includes secondary suites and does not measure the <u>type</u> of attached units built (e.g. apartments, duplexes, and townhouses). • The District will need to accelerate the approval of multi-family stock to meet the OCP target. There is an estimated demand for 13,701 attached units in 2030, not including secondary suites (District of North Vancouver, 2018). • Increasing the number of attached dwellings is important because more compact forms of housing and development are more efficient in terms of servicing, more affordable, and help reduce GHG emissions (by reducing reliance on cars).
<p>Between 2011 and 2016, the percent of apartments has increased by 5.2% and townhouses has increased by 0.2% (District of North Vancouver, 2017).</p>	<ul style="list-style-type: none"> • Housing types have diversified with gains in apartments and townhouses, but detached housing still encompasses 67% of the District's housing stock (District of North Vancouver, 2017), meaning that those more affordable

Key Statistic¹

What is Important to Know?

	<p>multi-family units are not coming on line as quickly as anticipated to serve the missing middle age cohort.</p> <ul style="list-style-type: none"> Comparatively, the 2016 Census indicates that this detached housing figure was 33% for the City of Vancouver, 23% for the City of North Vancouver, 64% for the District of West Vancouver and 77% for the City of Delta (Statistics Canada, 2016).
<p>Rental vacancy rates have remained low (0.4%-2.6%) from 2011 to 2019 (CMHC, 2020).</p>	<ul style="list-style-type: none"> This is consistent with low vacancy rates in the Metro Vancouver region (0.7% to 1.8%) during the same time period, meaning there is considerable pressure on renters in the housing market (CMHC, 2020) because there is a lack of rental stock. Healthy vacancy rates are considered to be 3-5%. A vacancy rate of 2.6% in the primary rental market is equivalent to 36 vacant units in the District, measured at a point in time.
<p>462 net new market rental units were approved through rezoning and development permits between 2011 and 2019 (District of North Vancouver, 2020).</p> <p>(OCP targets a net increase in rental housing units as a % of total housing units by 2030)</p>	<ul style="list-style-type: none"> From 2011 to 2016, renter households increased from 19% to 21% of all households while owner households decreased from 81% of all households to 79% (Statistics Canada, 2011; Statistics Canada, 2016). As there is an aging rental stock in the District, many units need to be renovated or renewed (CMHC, 2020) and this could have a long-term impact on rental availability. In 2030, there is expected to be demand for 2,885 market rental units (not including seniors care and disability care units) (District of North Vancouver, 2011).
<p>288 net new non-market housing units approved through rezoning and development permits between 2011 and 2018 (District of North Vancouver, 2020).</p> <p>(OCP targets a net increase in affordable housing units by 2030)</p>	<ul style="list-style-type: none"> This statistic tracks the number of non-market housing units that received zoning and development permits. The number of units occupied may differ slightly as construction may take several years. In 2030, there is expected to be demand for 2,262 non-market housing units (not including seniors care and disability care units) (District of North Vancouver, 2011).

Key Statistic¹

What is Important to Know?

Majority of new housing units are built in Town Centres and Village Centres (District of North Vancouver, 2017).

- Shows that the OCP is directing growth to the Town Centres, per its policies, and there is little change in existing single-family neighbourhoods.

Regionally, homelessness increased by about 30% between 2014 and 2017 (BC Non-Profit Housing Association; Thomson, M., 2017).

- The demand for emergency and permanent housing options is growing, and the number of emergency and affordable housing options are not keeping up with this demand.
- While the Metro Vancouver Point-In-Time Homeless Count showed a decline from 122 to 100 counted individuals between 2011 and 2017 (the most recent count conducted) (Regional Steering Committee on Homelessness, 2011; BC Non-Profit Housing Association; Thomson, M., 2017). This methodology has a number of limitations that can impact accuracy, and is only intended to provide a snapshot on a given day of visible homelessness. A new Homeless Count is being conducted in March 2020.
- Based on a survey conducted in 2016 of homeless service providers on the North Shore, there were 300 individuals experiencing homelessness on the North Shore, that provides an accurate reflection of client-load for those organizations (District of North Vancouver, 2017).

Secondary suites have grown by an average of 8.5% per year (261 suites) from 2011 to 2016 (District of North Vancouver, 2017).

- It is estimated that roughly a third of single-detached dwellings have secondary suites (Metro Vancouver, 2019). In 2017, there were 5,060 secondary suites.
- In 2030, there is expected to be demand for 6,930 secondary suites and 80 coach houses in the District (District of North Vancouver, 2011). This means that the District needs to build 1,870 secondary suites from 2017 to 2030 to meet this target.

5. COMMON MISCONCEPTIONS

MISCONCEPTION: Private development is always profitable (with any number of non-market units), and that non-market housing units can always be achieved without development partnerships.

FACT: Nearly all developments require a mix of market and non-market units to be profitable – it is usually not possible to build only non-market units and remain profitable. In most communities with high land values, developers play a central role contributing to non-market housing assets. Most non-profit housing developments require significant senior government grants, public land, and/or partnerships with private developers to make new non-market housing financially feasible.

MISCONCEPTION: Non-market housing is only for low-income households, and that these households bring social issues to the community.

FACT: Non-market housing is increasingly needed by low-to-moderate income and middle-income households. Household income does not determine how a resident contributes to the community.

MISCONCEPTION: No non-market housing has been approved in the District since 2011.

FACT: Between 2011 and 2018, 288 net new non-market units received zoning approval.

MISCONCEPTION: New development and intensified land uses will create traffic congestion that will negatively impact neighbourhoods across the District.

FACT: Well-designed town centres can mitigate the impacts of growth on traffic congestion by creating ‘complete communities’ that allow a range of functions in a walkable neighbourhood, support cycling, and are served by frequent transit.

MISCONCEPTION: All units in a non-market building should be deeply subsidized to achieve affordability.

FACT: Senior government funders are increasingly integrating market and non-market units into the same building to ensure that the revenue from market units helps subsidize the affordable units. As housing has become increasingly unaffordable, a diverse range of households require support in the housing market—some deeply subsidized and others minimally subsidized.

6. KEY ISSUES

Key Issue	Why is it Critical to Address This Issue?
Increasing housing unaffordability	<ul style="list-style-type: none"> Households overspend on housing costs or live in housing that does not meet their needs in order to stay in the community. As housing costs escalate, workers commute from further away, causing traffic congestion. This increases gas emissions and makes it more difficult for the District to meet its GHG reduction targets. Local hiring and retention challenges due to lack of affordable housing options within the District. Key professionals (teachers, police, healthcare workers) may be unable to afford living in the District. This can have significant short- and long-term impacts on services due to an inability to attract and retain these professionals. Increases disparity in the community. A contributor to homelessness across the North Shore.
Insufficient range of appropriate housing at different levels of affordability	<ul style="list-style-type: none"> Due to housing unaffordability, there is an increasing demand for housing options (diversity and affordability) that serve middle-income household needs. Middle-income earners are not currently served by subsidized and non-market options even though market housing may be unattainable for this group. Without an appropriate range of housing options, community demographics will shift toward higher-earning households. This might result in an increased proportion of older households in the District and lead to a decline in overall household diversity. Much of the existing stock of non-profit, co-op and purpose-built rental housing is older; without maintaining or replacing this older stock of housing, housing challenges will be exacerbated. While senior government is investing in non-market housing options, it is unclear if this investment will meet all community needs or continue over the long-term. Long-term operating costs can impact feasibility and affordability of a project. Energy efficiency in new construction can reduce utility costs and non-profit operating costs, while helping lower long-term GHG emissions.

7. KEY TRENDS AND EMERGING ISSUES

Key Trend/ Emerging Issue	Why is This Trend/Emerging Issue Important?
The Metro Vancouver and North Shore subregions' population will continue growing to at least 2041.	<ul style="list-style-type: none"> The North Shore is projected to grow by an estimated 1,954 residents per year. Of this share, the District is projected to grow by approximately 877 residents per year (Metro Vancouver, 2017). Limited housing options or a lack of development of new stock will impact the District's ability to accommodate population growth. As with growth management, housing planning needs to be considered alongside infrastructure (e.g. public transit and climate change infrastructure) and employment lands.
The Metro Vancouver region is facing a housing affordability crisis.	<ul style="list-style-type: none"> The gap between incomes and housing costs in the region has widened, particularly over the last 15-20 years, due to rising housing costs (District of North Vancouver, 2019). Housing demand occurs at a regional level that transcends municipal borders. Generally, those who can no longer afford to live in the District move to neighbouring municipalities, but the high cost of living across the Metro Vancouver region make it difficult for households to live nearby. The District's land values have increased significantly in recent years.
The housing stock in the District is aging (both rental and owner-occupied).	<ul style="list-style-type: none"> 61% of houses in the District were built around 1950-1980 (District of North Vancouver, 2017). Aging housing stock, combined with rising housing prices, puts pressure on owners to redevelop properties. For single-detached houses, if they are redeveloped into the same housing type, the housing costs significantly increase due to high construction costs, land values, and changes in expectations around house size and features.

Key Trend/ Emerging Issue

Why is This Trend/Emerging Issue Important?

"Missing middle" of residents ages 25 to 40.

- Older rental buildings are under pressure to redevelop into condominiums, which are more profitable in the short-term.
- There is a missing age demographic (25 to 40) in the District. Typically, this age group has accumulated less wealth than older age groups; the smaller proportion of residents aged 25 to 40 may be due to the high cost of housing in the District.
- In the long-term, the "missing middle" can lead to low enrollment numbers in public schools and sports organizations, lack of workers in service industries, and fewer entrepreneurs and businesses.
- If external factors do not change, the District will be populated mainly by those who were fortunate enough to purchase housing before the market changed, and by affluent households who can afford real estate.

8. RELEVANT BEST PRACTICES

Best Practice

Why is This a Best Practice?

Establish OCP and Neighbourhood Plan policies that promote diverse housing types and forms, in combination with clear targets and definitions.

- Most Metro Vancouver municipalities cited this as an effective tool to support market and non-market housing development (Metro Vancouver, 2012).
- OCP and Neighbourhood Plans connect higher-level policies to local contexts and provide the framework for facilitating non-market and market affordable housing at the neighbourhood level.
- While the District has Town Centre Plans, these do not currently provide clear housing type and form targets.
- Policies and plans need to be used in conjunction with clear targets so that it is transparent for developers and the public. **Affordability level targets and feasibility studies** can be used to determine if the market can build the non-market housing needed, meaning the public can have clear expectations on what developers are expected to provide and developers will understand what needs to be incorporated into a development in early concept phases.

Foster partnerships across the housing system, including with the private sector, non-profits, and senior governments – this is key to ensuring the right mix of housing is built.

- Alongside regulatory planning frameworks, partnerships are viewed as an essential measure for supporting affordable market and non-market housing projects. (Metro Vancouver, 2012).
- Municipal government contributions can range from active contributions (land or capital) to incentive packages that include expedited approval processes, density bonusing in specific locations, mixed market buildings, parking reductions, DCC waivers or reductions, to protective tools such as housing agreements that lock in housing affordability over the long-term.
- The appropriate regulatory and incentive package to encourage specific developments is highly contextual, dependent on local land economics, housing demand, and in some cases, availability of funding from senior governments.

Best Practice

Why is This a Best Practice?

	<ul style="list-style-type: none"> Local governments signal willingness to encourage diverse and affordable housing through the regulations and incentives they put in place.
<p>Locate all types of new housing close to current and planned transit routes, and ideally within complete communities.</p>	<ul style="list-style-type: none"> Access to frequent transit reduces the need to own a car and makes it easier for households to bear the burden of the high cost of housing (Metro Vancouver, 2015). Directing growth to complete communities with access to frequent transit has even greater benefits for residents (e.g., proximity to services, access to cycling and walking networks, and access to employment opportunities). Limits traffic growth resulting from a growing population, since people living in these areas are less likely to drive for most of their trips.
<p>Consult with neighbouring First Nations and municipalities on land-use plans and housing policies.</p>	<ul style="list-style-type: none"> Since housing is a regional issue, it is critical to consult with neighbours when developing land use plans and housing policies. Consultation may uncover regional trends/data that need to be considered or might identify opportunities for partnership.

9. KEY INDICATORS

Indicator	Why is This Important to Measure?
Net new housing units constructed, by type and size.	<ul style="list-style-type: none"> Provides insight on whether a similar mix of housing units by type, size and tenure are being built relative to comparable Metro Vancouver communities. Can be used to determine if the housing created is meeting OCP goals and growth targets. Already tracked by the District but could be tracked with additional detail regarding housing type and including comparisons to other jurisdictions in Metro Vancouver. Can be measured by building permits issued by the District during the calendar year. Can include: <ul style="list-style-type: none"> Tenure type (non-market, market rental, ownership) Size (bedrooms) Type (single family, townhouse, etc.) Number of accessible or adaptable units Will be calculated by subtracting demolition permits issued for housing units lost.
Benchmark home prices, by dwelling type, and conduct post-occupancy surveys.	<ul style="list-style-type: none"> Demonstrates demand for different housing forms and can be combined with post-occupancy surveys conducted by the District to understand affordability over time. Post-occupancy surveys provide data for understanding the affordability of different housing types, what is currently selling, demographics of who is moving in. Benchmark home prices tracks the cost of ownership in a detailed way that shows both demand for different housing types and the average cost of purchasing. Differentiates average sales prices by unit type (single family, townhouse, condominium) and volume of sales. Tracked by the Greater Vancouver Real Estate Board for the District and North Shore region. Post-occupancy surveys are tracked by the District.

Indicator

Why is This Important to Measure?

Primary rental market indicators (vacancy, median rents, rental universe).

- Measures the state of the primary rental market and how this is changing over time (i.e. are there improvements to the vacancy rates or fluctuations in the rents?)
- Shows trends over time from at least 2010.
- Tracked by CMHC on an annual basis.

Secondary rental market indicators (i.e. number of units, average rents).

- Secondary rental market (rentals in private condominiums) data available in the Metro Vancouver Housing Data Book.
- The primary rental market accounts for less than a quarter of all rental households in the District (Statistics Canada, 2016; CMHC, 2020). Better information about the secondary market will allow the District to monitor pressures across the rental market as a whole.
- Average rents in secondary rental market are not available through CMHC and will require long-term tracking by District staff.
- Secondary suites and coach houses can be tracked by permits issued by the District.

Proportion of new housing units built in OCP growth areas, by unit type, number of bedrooms, and affordability.

- Allows the District to understand whether the units being built within the Town Centres or near transit meet OCP goals.
- By tracking building permits and occupancy permits the District can understand what growth is occurring between Census periods and where this growth is taking place, and therefore how it contributes to OCP goals
- Number of building permits issued for new housing units in Town and Village Centres.
- Number of occupancy permits issued within walking distance (400m) of public transit corridors.

Number and type of new non-market units, by needs served, on the housing continuum.

- The housing continuum includes all forms of housing that may be available, ranging from non-market housing (including emergency support, non-market rental, co-operative housing and affordable ownership) to market

Indicator

Why is This Important to Measure?

	<p>housing (which includes primary and secondary rental units, and a diversity of ownership types).</p> <ul style="list-style-type: none"> Identifies what components of the housing continuum are and are not being addressed and what needs remain. Information is publicly available in publicly funded projects.
Housing indicators, core housing needs, and social housing waitlist	<ul style="list-style-type: none"> Allows the District to determine whether housing affordability is deteriorating or improving, what the immediate waitlist need is, and provides a clear comparison to other communities regionally and nationally. Tracked regularly by Statistics Canada and Metro Vancouver Housing Data Book.
Statistics on homelessness	<ul style="list-style-type: none"> Provides a basis for understanding whether homelessness is increasing or decreasing within the District. Point-in-time counts, while not perfect, provide insight into long-term trends in homelessness across the region. Social service providers may also track indicators (e.g. emergency shelter usage rates and turn-aways) that can provide insight into how homelessness is changing within the community.

10. ACTIONS TO-DATE

The District has already taken meaningful action on Housing issues. The list below is not comprehensive, but does highlight the key actions the District has taken more recently.

Regulations and Policies

- Amendment of Development Procedures Bylaw to allow for temporary housing options during phased rental developments (2017)
- Tenant Relocation Assistance Policy (2016)
- Accessible Design Policy for Multi-Family Residential Apartments (2015)
- Coach House How to Guide (2015; updated in 2019)
- Amendment of the zoning bylaw to allow for Coach Houses (2014)

Plans and Strategies

- Establishment of a Rental, Social and Affordable Housing Task Force (2019-2021)
- Rental and Affordable Housing Strategy (2016)

Monitoring

- Tracking affordability of housing by segments of the housing continuum

Incentives and Financial Support

- Leveraging District-owned land for affordable housing
- Waiving DCCs on a case-by-case basis for market rental and non-market housing built by private developers (\$369,465 from 2011 to April 2018)
- Forfeiting CACs on a case-by-case basis to incentivize non-market housing units built by developers (\$45.6M from 2011 to 2018. \$20.6M for market rental, \$25.0M for non-market housing)
- Earmarking CACs from housing built by private developers for affordable housing (\$110,000 for Lynn Valley in March 2018)

11. POTENTIAL ACTIONS

Potential Action	Description
Regulations (bylaws and policies)	<ul style="list-style-type: none"> As parking requirements can add significant costs to new developments and do not always reflect a particular project's needs, review minimum parking requirements across residential zones to identify neighbourhoods where requirements could be decreased because of existing and planned transit service options. Research alternative parking requirements that look to reducing the number of stalls required (e.g., through the provision of car share service). Pre-zone land for the creation of housing. Amend the OCP and Zoning Bylaw to allow sensitive infill, including the allowance of smaller lots, where appropriate to reflect demographic and economic changes in the District since the last OCP was completed. Allow row and townhouse zoning in more areas. Initiate a review of secondary suite and coach house regulations due to recent Building Code changes (i.e. Secondary suites now permitted in multi-family buildings). Enact bylaws to protect existing purpose-built rental buildings, renters, and to meet the Rental and Affordable Housing Strategy policy goals, such as: <ul style="list-style-type: none"> Strengthen existing Residential Tenant Relocation Assistance Policy. Introduce demolition policies to replace purpose-built rental units lost through redevelopment. Update the Standards of Maintenance Bylaw. Monitor and evaluate the District's Residential Tenant Relocation Assistance Policy. Review regulations on temporary housing to allow for temporary modular housing for individuals experiencing homelessness. Develop requirements for more family-friendly multi-family units (e.g., require a certain percentage of new

Potential Action	Description
	<p>units in a development to have three bedrooms or more or require family-friendly amenity spaces).</p> <ul style="list-style-type: none"> • Explore potential impacts and benefits of rental only zoning for lots that have been historically purpose-built rental. • Review regulations/approvals processes to make it easier to allow manufactured/mobile homes in designated areas.
Incentivize Non-Market and Other Desired Forms of Housing	<ul style="list-style-type: none"> • Make amendments to the DCC bylaw to waive or reduce fees on non-market housing projects. • Create a streamlined and expedited development approvals process for non-market housing projects. • Create a property tax exemption program for non-market housing developments. • Offer incentives on a sliding scale depending on the level of affordability and support achieved – i.e., deep affordability housing for individuals and families would receive the highest level of incentives, while near-market rental may receive a lower level of incentives. • Update the zoning bylaw to introduce new density bonusing and/or inclusionary zoning requirements, including either unit contributions or cash-in-lieu to reserves for affordable housing. • Where incentives, grants, or other benefits are provided by the District, use land covenants or housing agreements to secure affordable housing and supportive housing in perpetuity or for a defined period of time (depending on the project). • Encourage developers to employ more innovative TDM measures for affordable housing sites near transit to encourage residents to (for example) sell a car and obtain 3 years of free transit and a discount on the purchase price or rent – this helps make units more affordable.

Potential Action	Description
Advocacy and Monitoring	<ul style="list-style-type: none"> • Coordinate activities completed under this OCP review with the Rental, Social and Affordable Housing Task Force. • Undertake a cost analysis of social housing development costs to District taxpayers for District land versus developer-built with District of North Vancouver incentives. • Track the number of housing units that are built by segments of the housing continuum and housing types built, including the level of affordability achieved and which incentives were provided by the District. • Report progress on housing across the continuum annually to Council and the public. • At regular intervals, evaluate incentive programs based on the number of units and level of affordability achieved.
Plans and Strategies	<ul style="list-style-type: none"> • Create a development evaluation checklist or scorecard to guide decision-making on proposed developments. • Develop a comprehensive Housing Needs Report to identify current and future priority housing needs for District Residents. This is now a provincial requirement and needs to be completed by April 2022. As part of the Housing Needs Report, identify needed affordability levels. • Create a housing strategy for the District. • Create case studies of sample development projects that can work in the District and encourage implementation. • Set targets for rent and unit types, based on Town Centre economics and District goals for feasible 'asks' of developers, that provide clarity to staff and developers.
Convening	<ul style="list-style-type: none"> • Partner with non-profits and senior government to deliver mixed market developments. • Explore opportunities to partner with Squamish Nation and Tsleil-Waututh Nation on shared housing challenges. • Celebrate success by highlighting the creation of new housing of all types.

Potential Action	Description
	<ul style="list-style-type: none"> • Provide support for non-profit housing developments pursuing BC Housing and CMHC housing opportunities. • Advocate to senior levels of government the need for financial and other resources for non-market housing in the District.
Governance	<ul style="list-style-type: none"> • Explore governance options for delivering/managing affordable housing (e.g., a housing authority or arms-length not-for-profit housing corporation).
Capital/Land	<ul style="list-style-type: none"> • Municipalities can contribute or lease land for housing projects that meet OCP goals (e.g., community or municipal land trust, land leases, etc.). Identify District-owned and other public lands that are currently underutilized or awaiting redevelopment to identify opportunities for development rapid response housing to homelessness (e.g., modular housing, deep affordability rental, supportive housing). • Municipalities can provide cash contributions (e.g. from CACs or reserves) for building housing. • The District dedicates \$500,000/year to a reserve for affordable housing. However, the District does not currently dedicate a specific portion of CACs to that reserve – doing so could significantly increase available funds. <ul style="list-style-type: none"> ○ Amend the Community Amenity Contributions policy to earmark a certain percentage of CACs for affordable housing. Review the policy to ensure the District is capturing maximum value. • Create supportive housing.
Education Programs	<ul style="list-style-type: none"> • Building awareness through communication activities such as public education workshops, on topics such as housing affordability and common misconceptions or the role of private land developers in providing housing. • Create a guiding document for developers and non-profits on non-market housing incentives that may be available.

DISTRICT RESIDENTS CAN HELP ADDRESS HOUSING ISSUES BY...

Attending a public workshop on housing options.

Residents who are existing homeowners may not be aware of housing options available to them (e.g. coach houses for retirees or secondary suites), or services that are available (e.g., community organizations that connect seniors with potential tenants).

Attending public workshops and open houses on housing affordability in the community.

These venues raise awareness of housing affordability challenges and provide an opportunity for community members to listen, ask questions, and share opinions.

Engaging in this dialogue helps ensure housing solutions reflects a diversity of perspectives.

Attending Public Hearings in support of housing projects

Public Hearings are formal opportunities for the public to communicate with Council and can have a significant influence on the approvals process.

Renting out extra bedrooms to students, seniors, singles, or other renters.

Renting out extra bedrooms helps combat loneliness for those who live by themselves and provides financial support to owners. This approach provides rental opportunities for those who need subsidized rent (e.g. students or retired seniors).

Converting unused space to a secondary suite.

Secondary suites act as mortgage helpers for owners and provide rental opportunities for long-term tenants.

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White Paper Snapshot

CLIMATE EMERGENCY

OCP GOAL

Develop an energy-efficient community that reduces its greenhouse gas (GHG) emissions and dependency on non-renewable fuels while adapting to climate change.

PROGRESS SINCE 2011

Community GHG emissions

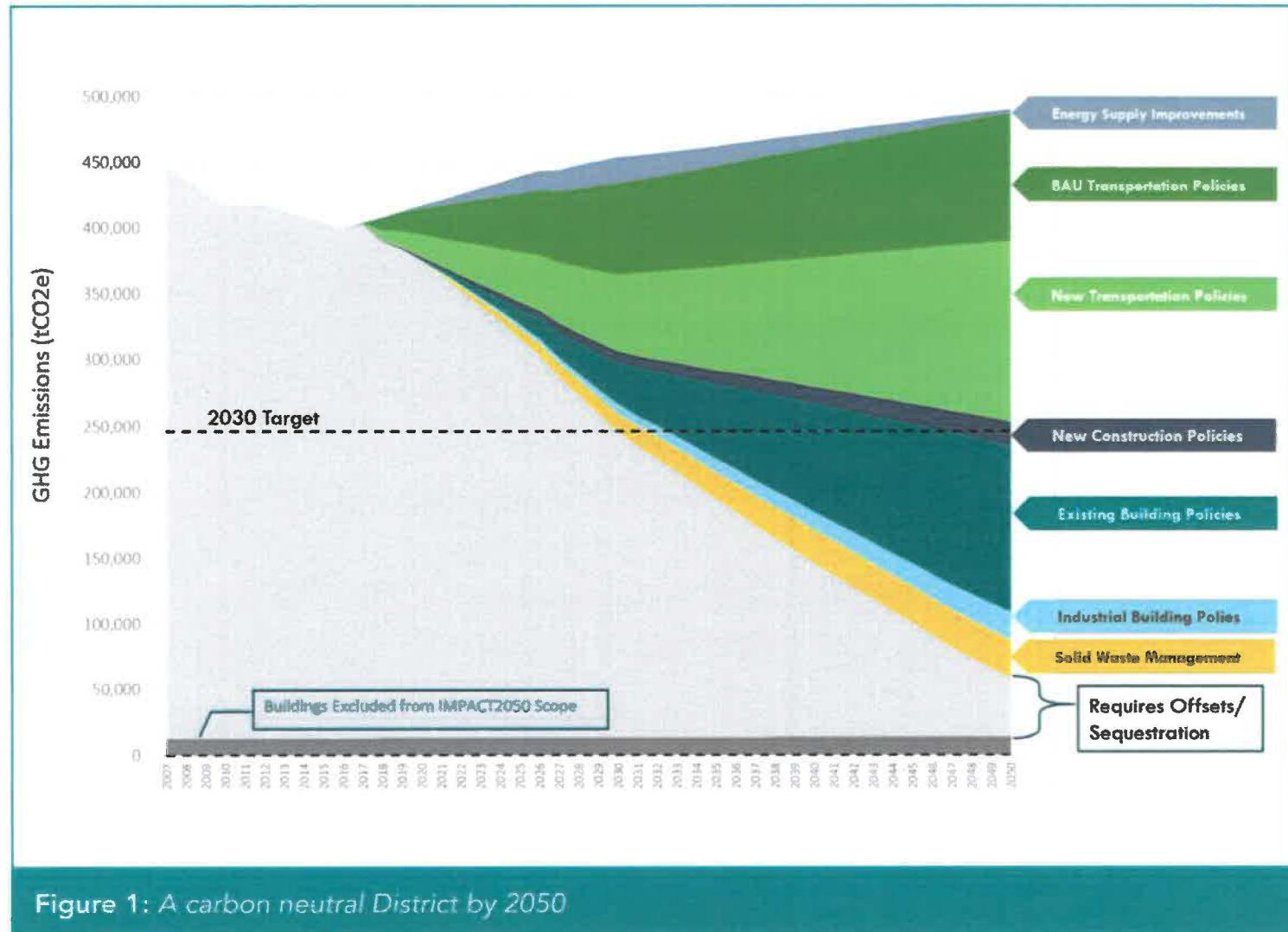
(OCP targets 33% reduction in community GHG emissions by 2030)

- Between 2007 and 2016, community emissions decreased by approximately 10% (Integral Group LLC, 2019).
- This trend is in the right direction, but if the “business as usual” scenario continues, emissions will increase by 19% by 2050 (Integral Group LLC, 2019).

Corporate GHG emissions

(OCP Implementation Review targets reduction of corporate GHG emissions)

- Between 2012 and 2018, District corporate emissions decreased by approximately 10% (District of North Vancouver, 2019).



Source: Integral Group LLC & District of North Vancouver (2019).

KEY ISSUES

Extreme weather	<ul style="list-style-type: none"> Since 2014, the District has experienced heat wave warnings, extreme drought conditions that have reduced reservoir levels, large regional wildfires that have affected air quality, and intense rainfall events that have caused flooding and debris flow.
Rising sea levels	<ul style="list-style-type: none"> Since much of the District borders the ocean, rising sea levels will impact its land base. This may include industrial lands as well as residential lands. Under the current scenario, Metro Vancouver's sea level is projected to rise by 1m by 2100 and 2m by 2200 (District of North Vancouver, 2020). Adaptation measures will be costly; however, the cost of inaction will be even higher.
District residents are dependent on fossil fuels for transportation and heating	<ul style="list-style-type: none"> Fossil fuel use is the largest contributor to GHG emissions in the District (>90% of emissions) (Integral Group LLC, 2019). Dependence on fossil fuels must be reduced in order to meet the District's GHG reduction targets.

“ People are concerned about the environment but aren't willing to change their behaviour and drive less.

Resident
(provided during early public engagement in 2019)

“ Climate is the link to everything. Jobs close to housing reduces emissions.

Resident
(provided during early public engagement in 2019)

WHAT IS CAUSING THESE ISSUES?¹

District residents depend on fossil fuels to heat their homes and businesses	<ul style="list-style-type: none"> • We are still dependent on fossil fuels for heating our buildings. • Buildings account for over 40% of the District's total GHG emissions (Integral Group LLC, 2019).
District residents predominantly use passenger vehicles fueled by fossil fuels to get around	<ul style="list-style-type: none"> • Transportation accounts for 52% of the District's total GHG emissions, of which approximately 96% comes from passenger vehicles (Integral Group LLC, 2019). • In 2017, nearly 80% of trips were made by passenger vehicles (TransLink, 2019). • Lack of sustainable transportation choices and dispersed development patterns exacerbate the issue.
There is a misconception that individual actions don't have a significant impact	<ul style="list-style-type: none"> • For some, the climate emergency seems so large that they believe individual actions have no impact (good or bad). • In fact, individual actions are key to reducing GHGs – the cumulative impact of individual choices can lead to significant GHG reductions.

HOW IS THIS TOPIC RELATED TO THE OTHERS?



HOUSING

We can build and heat our homes in ways that reduce GHGs.

Many District homes are subject to natural hazards exacerbated by extreme weather.

Directing residential growth to compact, connected centres, reduces reliance on cars.



TRANSPORTATION

Transportation accounts for 52% of GHG emissions in the District, 96% of which is from passenger vehicles (Integral Group LLC, 2019).

Increased use of sustainable transportation choices will reduce GHG emissions.



ECONOMY & EMPLOYMENT LANDS

Businesses can make operating decisions to reduce fossil fuel dependence.

Climate change will impact local businesses, particularly those located in areas subject to sea level rise.

Attracting clean tech businesses to the District is a strategic opportunity.

¹ It is well accepted that climate change impacts (i.e., extreme weather and sea level rise) are the result of increases in greenhouse gas emissions.

WHAT WILL MAKE A DIFFERENCE?

<p>Increase energy efficiency of homes and buildings AND switch to non-carbon energy sources</p>	<ul style="list-style-type: none"> • 61% of houses in the District were built between 1951-1980 (District of North Vancouver, 2017). There is a significant opportunity to improve the energy efficiency of the District's homes. • Funding is currently available at the federal and provincial levels to help address fossil fuel dependence and fuel switching. Municipal top-up funding would help to further incentivize fuel switching.
<p>Get more people walking, biking, and taking transit AND shift to electric vehicles</p>	<ul style="list-style-type: none"> • The best way to reduce GHG emissions from transportation is to get more people travelling by sustainable modes of transportation. • Switching to electric vehicles will also help reduce GHG emissions. • To encourage these changes, the District will need to design complete communities that support walking, cycling, and transit use, while also providing charging stations for electric vehicles.
<p>Increase the resiliency of municipal assets (built and natural) to climate change</p>	<ul style="list-style-type: none"> • It is now best practice to consider climate change when managing infrastructure and community assets. • The District will likely need to reassess how it designs, builds, operates, and maintains infrastructure to account for climate change. • It will also be important to identify and protect natural assets.

NOTE: Specific potential actions related to these themes are listed in the White Papers. Council will decide which of the potential actions to include in the Action Plan.

REFERENCES

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Targeted OCP Review

CLIMATE EMERGENCY WHITE PAPER

FEBRUARY 24, 2020



FOR WORKSHOP DISCUSSION



Prepared by Urban Systems Ltd.

for

the District of North Vancouver



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OFFICIAL COMMUNITY PLAN

CLIMATE EMERGENCY GOAL

Develop an energy-efficient community that reduces its greenhouse gas (GHG) emissions and dependency on non-renewable fuels while adapting to climate change.

Source: Our Official Community Plan for a Sustainable Future, 2011



1. INTRODUCTION

As part of the District of North Vancouver's Targeted Official Community Plan (OCP) Review, White Papers have been developed for:



The purpose of each White Paper is to provide important background information on each topic area. Each White Paper also includes a list of possible actions the District could take to address key issues. District Council will use the White Papers to inform the development of an Action Plan.

THE CLIMATE EMERGENCY – RISKS THAT CANNOT BE IGNORED

The District is currently experiencing challenges related to extreme weather and expects climate change to exacerbate these **challenges** in the future. In recent years, the District has experienced: heat waves; extreme drought conditions that have impacted reservoir levels to the point that water use had to be restricted; large regional **wildfires** that have impacted air quality; and intense rainfall events that have caused flooding and debris flow.

The financial costs of climate change are rising, undeniably affecting District residents, businesses, and institutions. Inaction today will place an even greater burden on future generations. Action on the climate emergency must be far reaching and multifaceted, involving collective and individual efforts.



2. KEY TERMS

Climate

The average weather in a given region over a long period of time (i.e. 30 years or more).

Climate change

Statistically significant variations in the climate, which can be caused by human activity (e.g. greenhouse gas emissions and changes in land use).

Climate adaptation

The process of adjustment to actual or expected climate and its effects.

Climate mitigation

Efforts to reduce or prevent greenhouse gas emissions.

Corporate emissions

The greenhouse gas emissions of a corporate entity, such as the District of North Vancouver, which includes its buildings and vehicle fleet.

Greenhouse gas (GHG)

Gases that trap heat in the atmosphere, including carbon dioxide (CO₂).

3. CONNECTIONS TO OTHER TOPIC AREAS



HOUSING

We can build and heat our homes in ways that reduce fossil fuel dependence, thereby reducing GHG emissions.

Many District homes are subject to natural hazards exacerbated by extreme weather.

Reliable public transit can reach more people when residential growth is concentrated in compact, connected centres. Residents living in those centres will be able to reduce their dependence on passenger vehicles, thereby reducing GHG emissions.

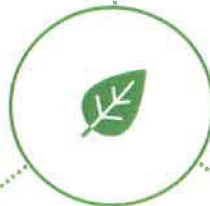


ECONOMY & EMPLOYMENT LANDS

Businesses can make operating decisions to reduce fossil fuel dependence.

Climate change will impact local businesses, particularly those located in areas subject to sea level rise.

Attracting clean tech businesses to the District is a strategic opportunity.



Transportation accounts for 52% of GHG emissions in the District, 96% of which is from passenger vehicles (Integral Group LLC, 2019).

Increased use of sustainable transportation choices will reduce GHG emissions.



TRANSPORTATION

4. CURRENT CONDITIONS AND PROGRESS SINCE 2011

Key Statistic

What is Important to Know?

Between 2007 and 2016, community emissions decreased by approximately 10%.

(OCP targets reducing community emissions by 33% by 2030)

- This trend is in the right direction, but if the “business as usual” scenario continues, emissions are expected to increase by 19% by 2050 (Integral Group LLC, 2019).

Between 2012 and 2018, District corporate emissions decreased approximately 10% (District of North Vancouver, 2019).

(OCP Implementation Review targets reduction of corporate GHG emissions)

- **This trend is in the right direction, which demonstrates that the District is demonstrating corporate climate leadership that can be used as an example to the broader community.**

Transportation accounts for 52% of the District’s total GHG emissions (Integral Group LLC, 2019).

- It is typical for transportation to account for the majority of a community’s total GHG emissions. Most of these emissions are from personal vehicles and are, in part, a result of commuting across low-density single-family areas.

Since 2007, transportation emissions have become a proportionately higher contributor to overall District emissions (Integral Group LLC, 2019).

- This may be attributable to greater improvements being made in the buildings sector versus the transportation sector.
- Daily auto driver trips per capita in the District increased from 2.02 in 2011 to 2.22 in 2017 (TransLink, 2019).

Of the District’s transportation related emissions, approximately 96% comes from passenger vehicles and 4% from commercial vehicles (Integral Group LLC, 2019).

- It is typical for passenger vehicles to outweigh commercial vehicles in terms of overall GHG emissions.
- This points to the importance of focusing on residents and their passenger vehicles.

Energy use in buildings account for 40% of the District’s total GHG emissions (Integral Group LLC, 2019).

- It is common for energy use in buildings to be a major contributor to a community’s total GHG emissions. Additional embodied carbon emissions related to building

Key Statistic

What is Important to Know?

materials further increase opportunities to reduce emissions (this isn't part of the 40% statistic).

- Energy consumption and emissions from single-family homes outweighs that from multi-family dwellings. Single-family homes are responsible for 43% of the District's energy consumption (Integral Group LLC, 2019).
- Carbon based heating systems in buildings, embedded carbon in construction materials, and emissions from construction create a significant opportunity to reduce emissions from this sector through new programs such as retrofitting, fuel switching and/or waste management.

Of the District's 16,000 hectares, more than 2,000 hectares is District managed parkland (District of North Vancouver, 2009)

- Existing parkland provides sinks for carbon to be sequestered.
- Parkland helps to maintain and enhance biodiversity within the District.

5. COMMON MISCONCEPTIONS

MISCONCEPTION: Climate change is a problem for the future.

FACT: The impacts of climate change are already being experienced around the globe and in the District. In order to mitigate and adapt to climate change, immediate action is required.

MISCONCEPTION: As individuals, we cannot make an impact on slowing or reversing climate change.

FACT: Individuals have a large role to play in slowing or reversing climate change. Individual behaviours and daily decisions can significantly influence one's carbon footprint.

MISCONCEPTION: I need an electric vehicle and solar panels in order to make a difference.

FACT: While technological solutions like electric vehicles can help reduce one's carbon footprint, other actions, such as walking, cycling or taking transit, are just as effective. Furthermore, solar photovoltaic (PV) panels do not reduce one's carbon footprint as it simply displaces hydroelectricity in BC. Solar hot water panels, on the other hand, can reduce one's carbon footprint as it usually displaces fossil fuels.

MISCONCEPTION: I already recycle so I don't need to do more for the environment.

FACT: While recycling is important, other actions can have a more significant impact on improving the environment and reducing one's carbon footprint. Actions related to "waste" do not reduce one's carbon footprint as much as actions related to transportation and energy use (e.g. heating) in buildings. Additionally, the other R's (i.e. reducing, reusing) should take precedence over recycling.

MISCONCEPTION: My gas furnace is good for the planet.

FACT: There are greenhouse emissions associated with using one's gas furnace. Other heating solutions, like high-efficiency electric heat pumps, are better for the planet as they have very limited greenhouse gas emissions.

6. KEY ISSUES

Key Issue	Why is it Critical to Address this Issue?
District residents depend on fossil fuels to heat their homes and businesses.	<ul style="list-style-type: none"> • Generally speaking, we are still dependent on fossil fuels for the heating of our buildings. • Heating buildings accounts for approximately 40% of the District's total GHG emissions. • Funding is currently available at the federal and provincial levels to help address fossil fuel dependence and fuel switching. Municipal top-up funding would help to further incentivize fuel switching. • Without changes in this area, the District will not meet its GHG targets.
District residents predominantly use passenger vehicles fueled by fossil fuels to get around.	<ul style="list-style-type: none"> • Transportation accounts for 52% of the District's total GHG emissions (Integral Group LLC, 2019). • Of the District's transportation related emissions, approximately 96% comes from passenger vehicles and 4% from commercial vehicles (Integral Group LLC, 2019). • In 2017, 80% of trips were made by passenger vehicles (TransLink, 2019). • Passenger vehicle dependence is, in part, due to land use and density in the District as well as a lack of transit and active transportation options. • Funding is currently available at the federal and provincial levels to help address fossil fuel dependence and fuel switching. Funding is also currently available to build public transportation infrastructure and to advance active transportation options. • Without changes in this area, the District will not meet its GHG targets.
Extreme weather	<ul style="list-style-type: none"> • The District is currently experiencing challenges related to extreme weather and anticipates these impacts to amplify in the future with climate change.

Key Issue

Why is it Critical to Address this Issue?

	<ul style="list-style-type: none"> Some impacts of climate change and extreme weather in the District could include: <ul style="list-style-type: none"> Increased flooding, debris flow, slope instability, property damage, decreased reservoir levels, and impacts to recreation opportunities related to changes in precipitation patterns. Increased risk of wildfire, ecosystem risk, increased invasive organisms, longer drier summers, and public health impacts due to air quality, temperature increases, and temperature extremes.
Rising sea levels ¹	<ul style="list-style-type: none"> Since much of the District borders the ocean, rising sea levels will impact its land base. This may include industrial lands as well as residential lands. Adaptation measures will likely be costly; however, the cost of inaction will likely be even higher. Rising sea levels will have an impact on all topic areas. Planning and preparing for rising sea levels cannot be avoided. There is federal funding available to help communities prepare for rising sea levels and other related climate adaptation activities.
The misconception that individual actions don't have a significant impact.	<ul style="list-style-type: none"> Many individuals and businesses want to take action but are overwhelmed and unsure about what are the most effective actions, as well as what resources are available. The collective impact of relatively small changes by individuals can be transformational in terms of reducing overall GHGs in the community. Key actions involve integrating more climate friendly behaviours into daily life (commuting, shopping, heating, travel, eating, etc.).

¹ Information about the District's developing Sea Level Rise Strategy can be found here: <https://www.dnv.org/sea-level-rise-strategy>

7. KEY TRENDS AND EMERGING ISSUES

Key Trend/ Emerging Issue	Why is This Trend/Emerging Issue Important?
Without proactive and aggressive climate action, population and employment growth are predicted to increase overall District emissions by 19% by 2050 (Integral Group LLC, 2019).	<ul style="list-style-type: none"> • This creates a significant ‘emissions gap’ of nearly 500,000 tonnes of carbon dioxide equivalent (CO₂e) between the District’s projected emissions and the targeted goal of achieving carbon neutrality in 2050 (Integral Group LLC, 2019). • The OCP (Town and Village Centres model), transportation actions, and retrofits/fuel switching will all have a significant positive influence on the District’s emissions trend.
Escalating extreme weather events and associated impacts in the District.	<ul style="list-style-type: none"> • Since 2014, the District has seen heat waves, extreme drought conditions impacting reservoir levels, large regional wildfires that impact air quality, intense rainfall events that cause flooding and debris flow. • Landslides, and other extreme weather events, have a high potential for injury and loss of life (e.g. Berkley landslide).
Increasing awareness and public pressure on institutions to take action on the climate emergency.	<ul style="list-style-type: none"> • Public awareness has been building locally and globally. Action is being demanded of all levels of government. • This trend creates an opportunity for the District (insofar as there is growing public support to act), but it comes with closer scrutiny; the District will be held accountable.
Increasing consideration of climate equity and social co-benefits.	<ul style="list-style-type: none"> • It is important to ensure that climate actions support a full range of people in the community, and are available to people from diverse backgrounds, ages, incomes, and abilities. • This approach ensures identified actions do not disproportionately impact vulnerable populations while also addressing other important community needs, including physical, social and mental well-being.



Key Trend/ Emerging Issue

Why is This Trend/Emerging Issue Important?

Funding is increasingly tied to Climate Lens Assessments.

- In order for the District to access much of the available federal and provincial funding, projects must be assessed through a climate lens, including mitigation and adaptation/resilience.

8. RELEVANT BEST PRACTICES

Best Practice	Why is This a Best Practice?
Take immediate and simultaneous action on climate mitigation and adaptation.	<ul style="list-style-type: none"> • There is scientific consensus that immediate action is required to avoid significant and irreversible climate change. • Communities also need to prepare for (and adapt to) the impacts of climate change. • Numerous actions address both mitigation and adaptation (e.g. planting trees).
Prioritize actions that reduce demand for energy and fossil fuels.	<ul style="list-style-type: none"> • Follow the energy management hierarchy by prioritizing demand side management (i.e. reducing demand for energy) before supply side management (i.e. supplying lower carbon forms of energy). This is recommended as demand side management is more cost-effective than supply side management. • This would relate to the District's housing and building stock (e.g. reducing energy waste by weather-stripping a building) in addition to transportation (e.g. driving less versus buying a new electric vehicle).
Complete technical and risk-based analysis to understand which areas are most vulnerable to climate related events, (e.g. sea level rise, slope instability) and take action.	<ul style="list-style-type: none"> • This relates to the good work that the District has already initiated: climate adaptation strategy, sea level rise analysis, and development permit areas. • The District is already following many best practices in this area.

9. KEY INDICATORS

Indicator	Why is This Important to Measure?
Greenhouse Gas Emissions (tonnes of carbon dioxide equivalent, tCO ₂ e)	<ul style="list-style-type: none"> This indicator gives insight into how a community is meeting climate mitigation (GHG reduction) targets (e.g. the District reduced emissions by XX tCO₂e).
Energy Consumption (kWh or GJ)	<ul style="list-style-type: none"> This indicator gives insight into how much energy is being used in the community and whether a community is meeting energy reduction targets (e.g. the District consumed XX kWh of electricity and XX GJ of fossil fuels).
Vehicle-Kilometers Travelled (VKT)	<ul style="list-style-type: none"> This indicator gives insight into how a community is reducing its vehicle dependency (and, consequently, reducing its reliance on fossil fuels). The utility of this indicator in this context will have to be assessed further.

10. ACTIONS TO-DATE

The District has already taken meaningful action on Climate Emergency issues. The list below is not comprehensive but does highlight key actions the District has taken more recently.

General

- 2015 District Corporate Strategic Energy Management Plan (SEMP) – updated annually including 2019 version which was endorsed by Executive
- 2017 Climate Change Adaptation Strategy (CCAS)
- 2019 Climate and Ecological Emergency Declaration
- 2019 Community Energy and Emissions Plan (CEEP), “IMPACT2050”
- Climate Action Revenue Incentive Program (CARIP) monitoring and reporting mechanism. Note that the 2018 CARIP report includes a detailed list of actions taken across the organization that contribute to both emissions reductions and climate adaptation
- 2012 Energy and Water Conservation and Greenhouse Gas Emission Reduction Development Permit Areas (DPA)
- Green Building Policy – Private Sector Developments
- Initiated the North Shore Sea Level Rise Risk Assessment and Adaptive Management Strategy (not yet complete)
- 2018 BC Energy Step Code adopted
- Initiated North Shore Resilience Strategy (not yet completed, led by North Shore Emergency Management)
- Initiated Integrated Stormwater Management Plan, ISMP (not yet completed)
- Initiated Climate and Innovation Reserve Fund (not yet completed)
- Initiated Carbon Budget (not yet completed)

Transportation & Land Use

- Completed Plans for Lynn Creek, Lions Gate, Lynn Valley, Maplewood and Edgemont for complete, compact and an energy efficient network of centres in the community
- Continued work on the North Shore Spirit Trail, a multi-use pathway from Horseshoe Bay to Deep Cove
- Completed segments of numerous bike lanes, including: Lynn Valley Road, Highland Boulevard, and E. 29th Street bike lanes
- Laid the groundwork for a Rapidbus extension across the North Shore (Park Royal to Phibbs Exchange), representing an additional 14km of bus service
- Continued detailed design work with TransLink and the Province on the Phibbs Exchange project to support additional transit ridership
- Completed a range of walking and biking safety infrastructure improvements to encourage active transportation



- Introduction of U-Pass at Capilano University, in conjunction with TransLink and the District

Buildings

- Energy retrofit of the Karen Magnussen Community Recreation Centre, and other District facilities, representing the majority of Corporate emissions - ongoing
- Adopted the BC Energy Step Code on December 11, 2017 (effective July 1, 2018), with requirements to build to Step 3 for Part 9 residential buildings (three storeys or less)
- Continued support for BC Hydro's Appliance Rebate program, including financial support to residents

Waste

- Participated in Metro Vancouver's North Shore Wastewater Treatment Plant project, which will lead to an approximate GHG reduction of 300 tonnes CO₂ for the District - opening 2021
- Supplied standardized carts for waste collection and provided incentives for waste reduction, including decreased utility fees for those using smaller garbage containers - ongoing

Urban Forestry

- Restoration planting plans for both the Streamside, and Protection of Natural Environment Development Permit Areas
- Required new street trees as part of Development Permits and subdivision applications
- Updates to the Community Wildfire Protection Plan (CWPP) - 2019
- Treatment of a total of 54 ha of the 70 ha of high-risk interface areas identified in the Community Wildfire Protection Plan (CWPP)

11. POTENTIAL ACTIONS

The following list includes potential actions that have been grouped into categories that Council could choose to advance in the short-term. Appendix A includes a more complete list of action items. Also please note that transportation actions are more fully addressed in the Transportation White Paper.

Potential Action	Description
Establish a Building Retrofit Program	<ul style="list-style-type: none"> • Focus on existing buildings and heating. CEEP shows that approximately 40% of emissions are associated with the heating of existing buildings • Provide information, resources, incentives, and financing support to encourage building owners/occupants to improve the energy efficiency of existing buildings with a particular focus on heating <ul style="list-style-type: none"> ○ Example 1: To switch from gas-based heating systems to high efficiency electric systems (e.g. heat pumps) ○ Example 2: To improve the energy performance of building envelopes (insulation, weather-stripping doors/windows, etc.)
Strengthen Municipal Assets	<ul style="list-style-type: none"> • In the context of a changing climate and more extreme weather events, develop a comprehensive strategy to improve and increase the resiliency of: <ul style="list-style-type: none"> ○ built assets (buildings, roads, water/sewer systems, lighting) ○ natural assets (forests, coastline, wetlands, waterways, soil) ○ green infrastructure (bio swales, rain gardens, urban parks)
Zero Carbon Mobility	<ul style="list-style-type: none"> • Strive for a zero-carbon transportation system • Implement measures to: <ul style="list-style-type: none"> ○ Reduce/eliminate personal vehicle trips (e.g. parking permits or pricing); ○ Increase transit and active transportation (e.g. cycling, walking, rolling); and/or ○ support electric mobility options (e.g. electric scooters, bikes, and vehicles).



Potential Action	Description
Carbon Conscious Governance	<ul style="list-style-type: none">• Ensure that corporate decisions consider carbon and ecological impacts and advance climate goals<ul style="list-style-type: none">○ Example 1: Carbon budgeting, carbon-based decision-making at the corporate level○ Example 2: Working with other levels of government - advocating for low carbon vehicle fuel standards, and/or mobility pricing.
Explore 'Indirect' GHG Emissions	<ul style="list-style-type: none">• Explore examples of best practices that support residents and businesses to reduce their 'indirect' GHG emissions from:<ul style="list-style-type: none">○ The consumption of goods and services (e.g. low carbon options for food choice and shopping).○ Embodied emissions (e.g. building materials - concrete versus wood)• Explore negative emissions technologies (e.g. carbon capture and storage).
Compact, Complete Communities	<ul style="list-style-type: none">• Advance low carbon, compact, and 'complete' town and village centres with a range of services within walking/cycling distance (e.g. amenities, transit, housing, employment, and recreation opportunities).• Ensure the ability to live, work and play within a short distance
Integrate Climate Equity	<ul style="list-style-type: none">• This action could apply to all other actions• Ensure climate actions support a full range of people in the community, and are available to people from diverse backgrounds, ages, incomes, and abilities.• Apply a climate equity lens on decision-making frameworks

Potential Action	Description
Climate Action Outreach	<ul style="list-style-type: none"> • This action could apply to all other actions • Provide information, resources, and/or financial support for community members to take action in their homes or businesses <ul style="list-style-type: none"> ○ Example 1: Installing electric vehicle charging infrastructure, building retrofits/upgrades and other energy conservation measures ○ Example 2: Managing stormwater, enhancing the health of private trees

NOTE: District energy (DE) systems are often identified as a solution to provide low-carbon energy to a group or cluster of buildings. District energy has been examined by the District and has been found not to be viable or feasible. This could change if the District were to alter land use and densities to improve the business case for district energy.

DISTRICT RESIDENTS CAN HELP ADDRESS THE CLIMATE EMERGENCY BY...

- Choosing low-carbon transportation options such as public transit, walking, or cycling a few days per week.
- Organizing carpools with others if they choose to drive (including travel for work and children's activities)
- Converting gas furnaces to lower carbon alternative such as an electric heat pump
- Shopping for locally-made goods instead of goods shipped from overseas
- Switching from gasoline or diesel-powered vehicles to electric vehicles
- Commuting by electric bikes or scooters
- Choosing to live in more compact forms of housing
- Taking shorter showers
- Choosing staycations over carbon intensive flights
- Choosing reusable products over disposable ones (reusable water bottles, food containers, bags, utensils, straws, razors, etc.)
- Shifting to a more plant-based diet
- Planting trees on their property
- Insulating their homes and weather-stripping doors and windows

12. REFERENCES

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APPENDIX A

Potential Actions – Additional Items

A.1 POTENTIAL ACTIONS - MITIGATION

Category	Action
Regulations (bylaws and policies)	<ul style="list-style-type: none"> • Ensure new developments are designed to contribute to ‘complete communities’ that allow residents to live, work, and play in the same place. • Improve building energy efficiency in new residential construction projects by accelerating to higher steps in the BC Energy Step Code (note: opportunities in new construction are not as great as opportunities in existing buildings) • Improve building energy efficiency in new institutional, commercial and industrial construction projects, as introduced in the BC Energy Step Code • Reduce the amount of organics and recyclables sent to landfill from construction, land clearing and demolition companies by requiring a site waste diversion plan and audit system.
Plans and Strategies	<ul style="list-style-type: none"> • Establish an Urban Forestry Management Strategy that protects and enhances the District’s urban forest for years to come. This could be linked to a Natural Asset Management Strategy or Green Infrastructure Strategy. • Reduce the number and length of single occupancy car trips in the District using Transportation Demand Management (TDM) strategies (e.g. parking policies/fees, bicycle facilities, transit subsidies, advocacy)
Incentives	<ul style="list-style-type: none"> • Implement a Building Retrofit program to improve the energy efficiency and comfort of the existing building stock in the District (including both publicly and privately owned residential and non-residential buildings). • Reduce or eliminate our dependence on fossil fuels by switching away from fossil fuel-based sources of energy (e.g. fossil gas), towards the use of electricity in all buildings. Use heat pumps to electrify existing fossil gas furnaces and hot water heaters to reduce overall energy use and limit increased utility costs. Incentives may be required to advance this action item.

Category	Action
	<ul style="list-style-type: none"> • Transform select Town Centres into energy leaders by targeting net-zero ready levels of energy performance in all new buildings. This may involve negotiations with developers and/or providing specific incentives (e.g. energy efficiency density bonusing) • Internal Transportation Demand Management – bus passes for staff, bike share, car share, guaranteed ride home, telecommuting, etc.
Advocacy and Monitoring	<ul style="list-style-type: none"> • Lobby federal and provincial government for improvements in fuel efficiency standards for gasoline powered vehicles and zero-emission vehicle (ZEV) standards. • Encourage efforts to electrify Port operations. • Advocate for an increase in methane capture from landfills to reduce emissions from waste. • Support regional efforts for mobility pricing (bridge crossing), provincial/national low carbon fuel standards • Support regional efforts to manage congestion using mobility pricing (e.g. parking fees, transit fares, level of service, road usage charges, etc.). • Continue to encourage Metro Vancouver’s wood waste bans to reduce landfill methane.
Capital (Building things)	<ul style="list-style-type: none"> • Support electric vehicle adoption by increasing the availability of electric vehicle charging infrastructure and electric bike charging infrastructure. • Improve the transit network’s efficiency and accessibility to enhance residents’ transit experience. • Improve residents’ access to non-automotive transportation systems (e.g. allocate more curb space to transit stops and bicycle facilities). • Improve walking and cycling safety through the addition of new infrastructure (e.g. separated bike lanes, and traffic calming infrastructure, such as intersection diverters).

Category	Action
	<ul style="list-style-type: none"> • Install multi-stream waste containers (e.g. organics, recyclables, and garbage) at all streetscape waste locations. • Plant large tree species to provide shading for buildings, which helps keep buildings cool during summers and warm during winters, improving occupant comfort and reducing energy use. • Plant large tree species to provide shading along active transportation routes, which will help keep pedestrians and cyclists cooler during summer months. • Provide high capacity EV charging on municipal lands, replacing fleet vehicles with low or zero-emissions vehicles, etc. • Continue aggressive retrofit program of District assets/buildings, develop construction standards for Corporate construction (small & large buildings)
Services and Programs	<ul style="list-style-type: none"> • Expand organics and recycling collection programs (e.g. to multi-unit residential buildings, commercial buildings). Explore opportunities to divert organics locally on the North Shore, shift to a bi-weekly garbage collection schedule, or explore other options to reduce residential waste at its source. • Implement a Building Retrofit program to improve the energy efficiency and comfort of the existing building stock in the District (including both publicly and privately owned residential and non-residential buildings).
Education Programs	<ul style="list-style-type: none"> • Internal and external education program around fuel-switching in buildings • Update Mayor/Council with CEEP implementation, build understanding of potential trade-offs (parking fees, more construction/density equates to lower emissions), ongoing research (e.g. embodied emissions), integrating carbon into municipal decision-making, carbon budget

A.2 POTENTIAL ACTIONS - ADAPTATION

Potential actions reflect those in the 2017 Climate Change Adaptation Strategy.

Category	Action
Regulations (bylaws and policies)	<ul style="list-style-type: none"> • Create and implement a Coastal Hazard Development Permit Area to protect people, property, and foreshore ecosystems from coastal impacts • Review and strengthen building and development policies to require the consideration of climate change over the life cycle of a structure • Within a Biodiversity Conservation Strategy, generate area-specific guidelines to acquire sensitive areas, restore existing lands with native species, and increase connectivity between biodiversity hubs
Plans and Strategies	<ul style="list-style-type: none"> • Strengthen the capacity to respond to and recover from extreme weather events and provide continuity of essential municipal services by: <ul style="list-style-type: none"> ○ Completing a Continuity of Operations plans to ensure delivery of priority services ○ Developing and implementing additional technological tools to assist in situational awareness and emergency response communication ○ Providing targeted training for clerks to ensure emergency service requests and concerns are responded to in a timely manner • Plan for the distribution of alternative potable water supply during an emergency • Increase the resiliency of municipal assets to extreme weather events, changes in precipitation and temperature, and sea level rise by: <ul style="list-style-type: none"> ○ Completing the Integrated Stormwater Management Plan and implement recommendations to maintain watershed health and reduce the impacts of extreme runoff ○ Updating the Community Wildfire Protection Plan and implement recommendations to reduce

Category	Action
	<p>wildfire risk and strengthen the capacity to respond</p> <ul style="list-style-type: none"> ○ Identifying eco-assets, conduct risk assessment under climate change conditions, and include these in the Asset Management Plan ○ Implement recommendations in the Debris Geohazard Risk and Risk Control Assessment for debris flood/flow creeks by integrating them into the Asset Management Plan ● Implement the Invasive Plant Management Strategy to manage harmful invasive plants on public and private land ● Identify critical functions that are vulnerable to power outages and further develop priority response and power restoration protocols
Advocacy and Monitoring	<ul style="list-style-type: none"> ● Assign specific indicators for each adaptation action to help monitor progress ● Integrate Required Actions into existing plans and decision-making processes to increase the likelihood of completion
Convening	<ul style="list-style-type: none"> ● Seek opportunities for interagency coordination to minimize adverse health impacts to staff, responders, and the public during heat waves and air quality advisories
Capital (Building things)	<ul style="list-style-type: none"> ● Invest in backup power equipment for critical functions and develop a fueling strategy
Services and Programs	<ul style="list-style-type: none"> ● Develop and implement programs for rainwater and grey water collection and recycling ● Proactively manage all District-owned forested areas to increase forest resilience, health, and structure and reduce other natural hazards ● Create more opportunities for heat refuge areas
Education and Incentive Programs	<ul style="list-style-type: none"> ● Develop and implement an education and incentive program to encourage more resilient choices for the design, maintenance, and renewal of private development