



Metro Vancouver 2022 Budget Workshop

Tunnel boring machine for the
Second Narrows Water Supply Tunnel

Dean Rear, CPA, CA

Chief Financial Officer

Council of Councils – May 8, 2021

metrovancouver

BUDGET DELIVERABLES

- Approve annual budget and endorse 5 Year Financial Plan
- Rate and levy information for use by member jurisdictions
 - Early enough for member budget process
 - Consistent with their own Five Year Financial Plan requirements
 - Predictability
- Household impact on region for services provided

PROCESS AND TIMELINE

Apr 8

Board Budget Workshop

May 8

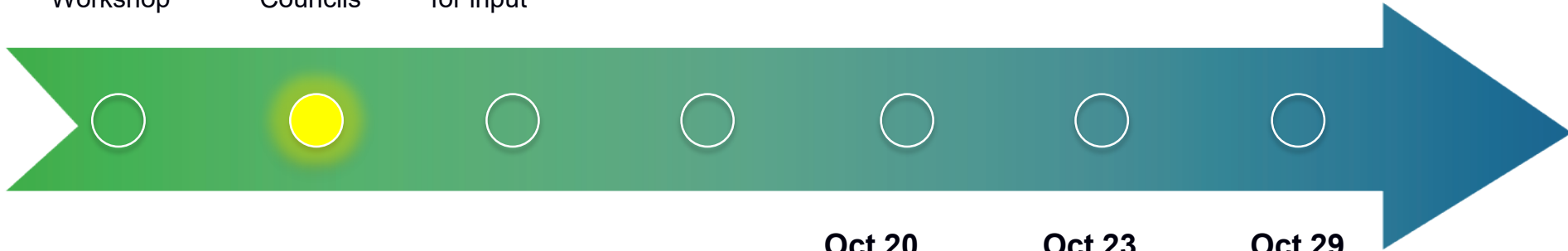
Council of Councils

June/July (new)

Proposed capital plan for input*

October

Recommended financial plan*



Oct 20

Board Budget Workshop

Oct 23

Council of Councils

Oct 29

Board meeting

*10 Standing Committees and
3 Advisory Committees (RAAC, RFAC, REAC)

Metro Vancouver Assets: Water Services



WATER SERVICES



5 dams, 2 treatment plants,
26 storage reservoirs,
19 pump stations and over
520 km of water mains

metrovancouver

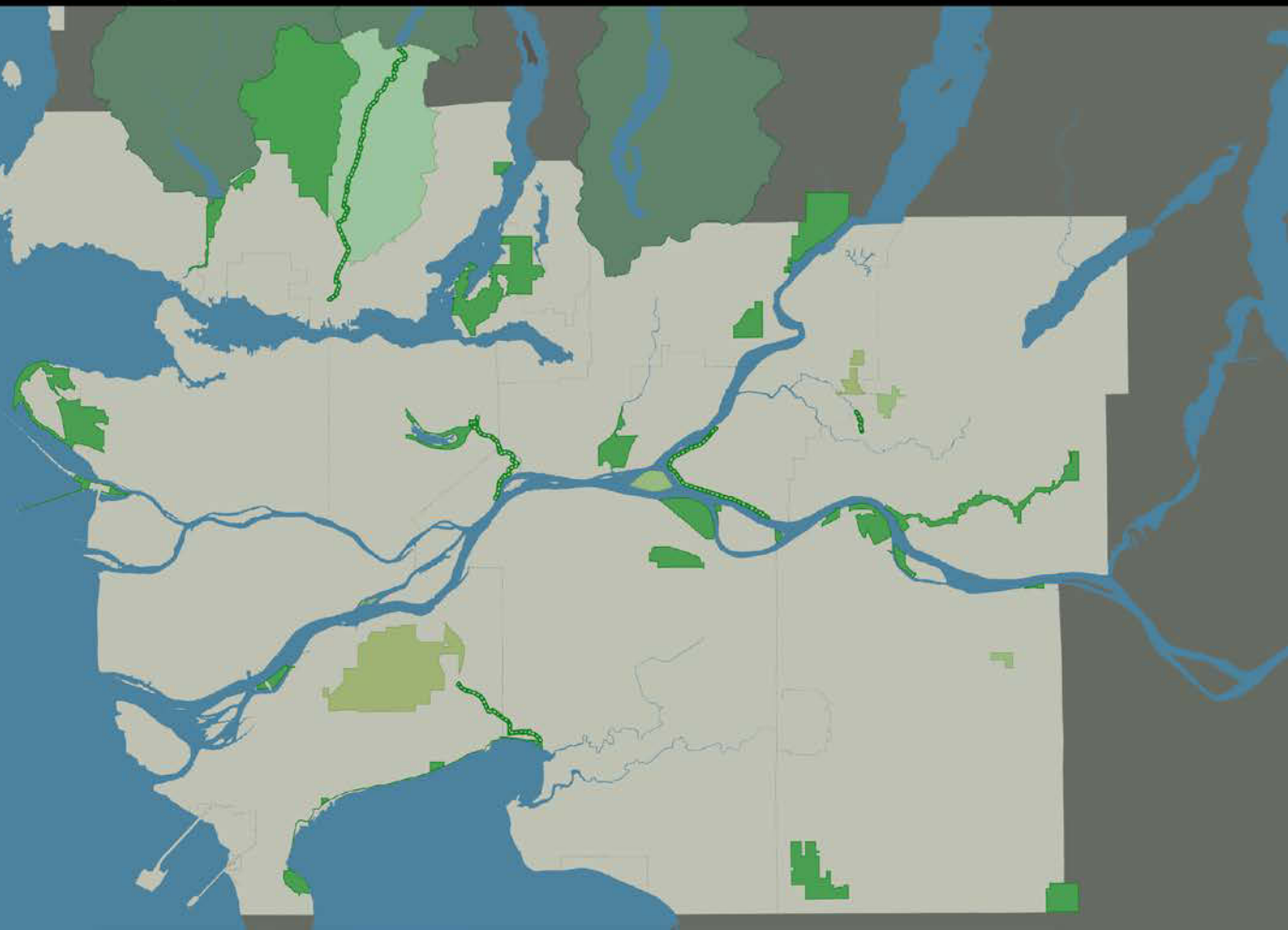
Metro Vancouver Assets: Regional Parks and Greenspace

REGIONAL PARKS AND GREENSPACE



23 regional parks, 2 park reserves, 2 ecological areas, 5 regional greenways, with park facilities and 360 km of trails

metrovancouver



Metro Vancouver Assets: Liquid Waste



LIQUID WASTE



5 wastewater treatment plants, 33 pump stations and over 500 kms of large diameter sewer mains

metrovancouver

Metro Vancouver Assets: Solid Waste

SOLID WASTE

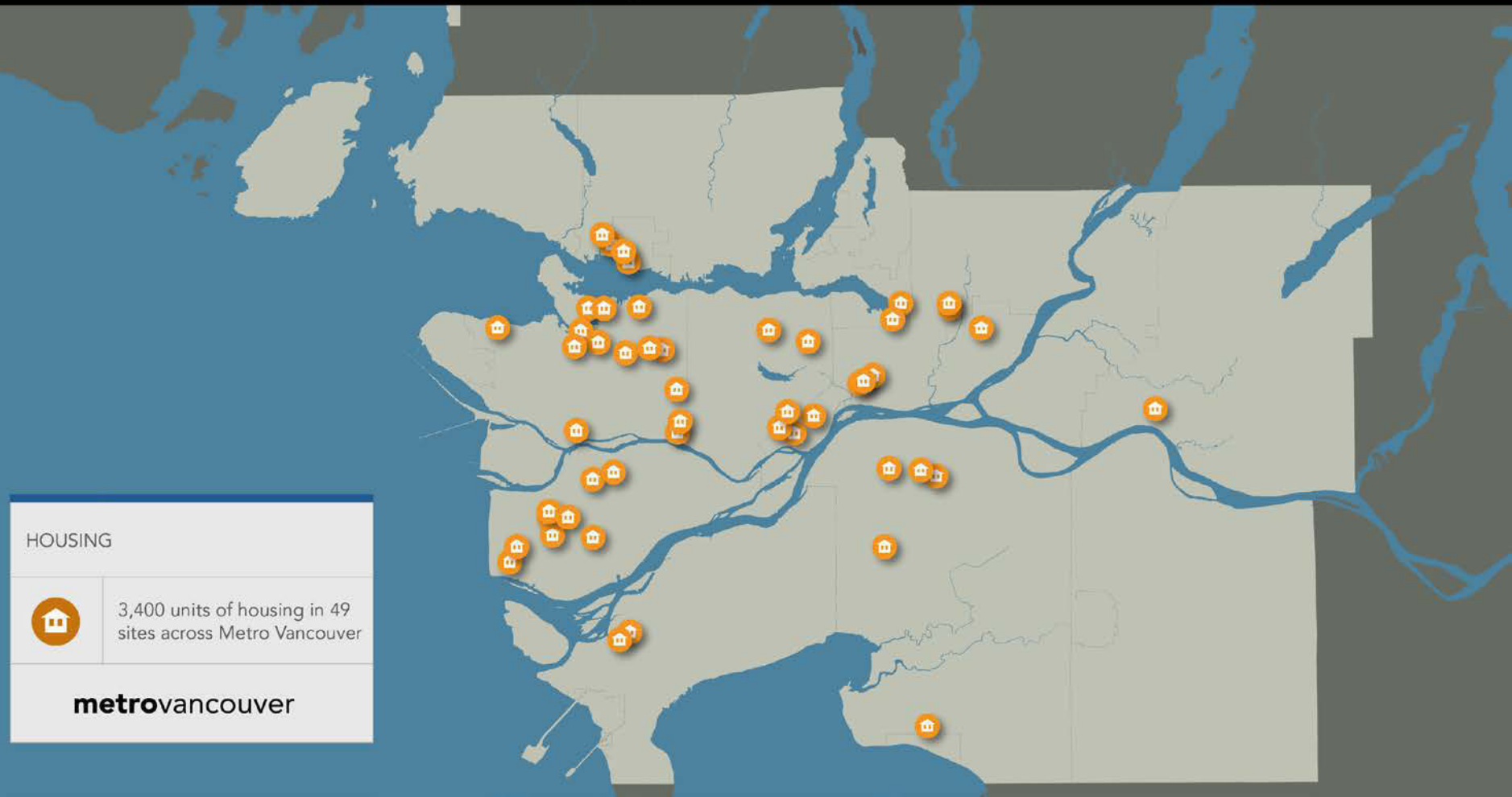


6 recycling and waste centres and 1 waste-to-energy facility

metrovancouver



Metro Vancouver Assets: Housing



HOUSING



3,400 units of housing in 49 sites across Metro Vancouver

metrovancouver

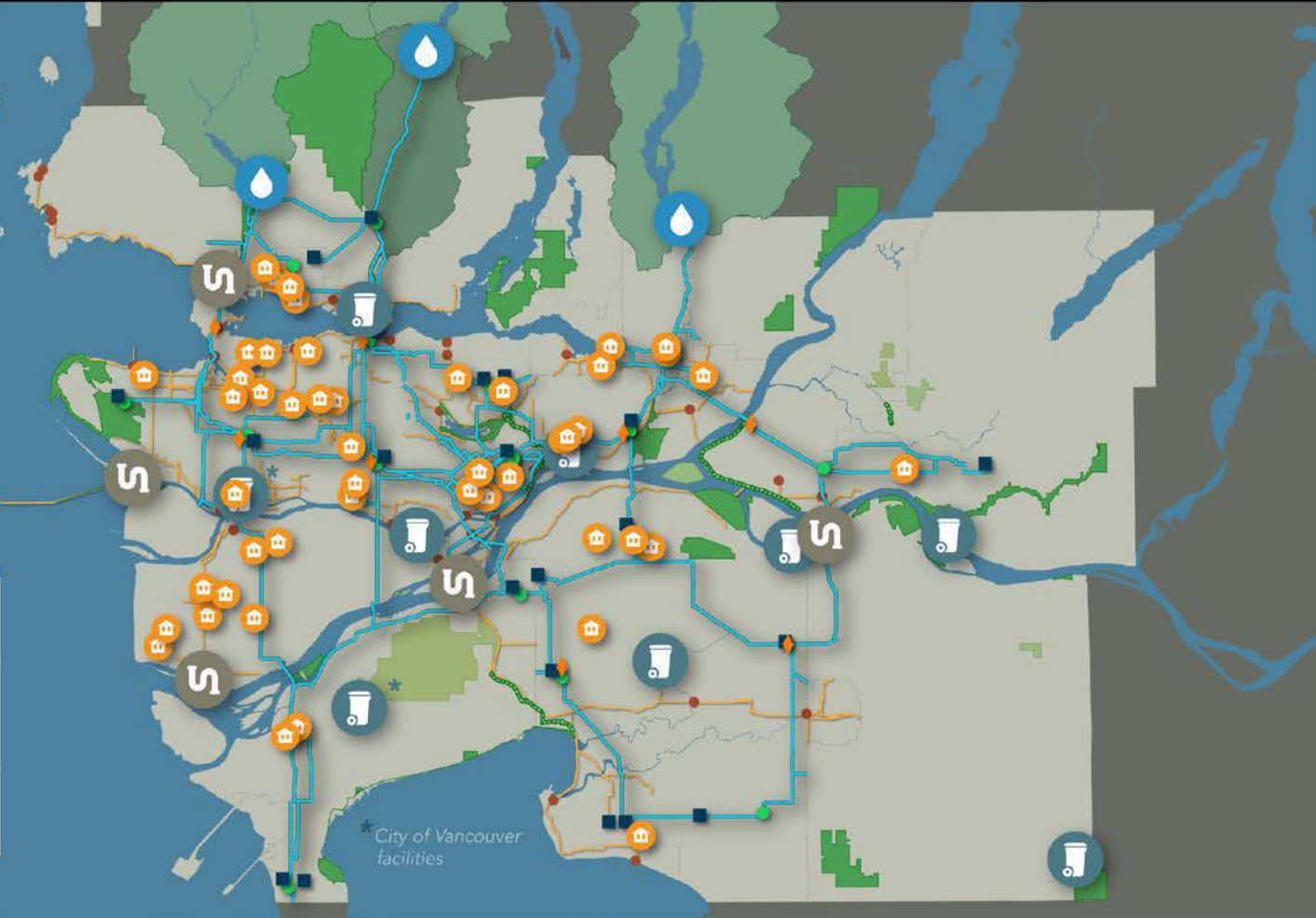
Metro Vancouver Assets

METRO VANCOUVER ASSETS



REPLACEMENT VALUE:
Tens of billions of dollars

metrovancouver



JUNE 2020 BOARD BUDGET WORKSHOP

Considering last year's discussion on the 2021 budget

Short-term relief for households

Leverage supported tools to create a short-term action plan (1-3 years)

Maintain current goals

Continue work on strategic and long-range plans

Realize new opportunities

Partner on projects to increase affordable housing

Reduce GHGs

Help drive economic recovery

2021 BUDGET AND 2021-2025 FINANCIAL PLAN

Overall household impact 2021-2025

	2021	2022	2023	2024	2025
Prior year forecast	\$602	\$655	\$708	\$755	N/A
Prior year % change	7.4%	9.0%	8.0%	6.7%	N/A
Endorsed household impact	\$577	\$615	\$659	\$716	\$789
Endorsed % change	3.2%	6.4%	7.3%	8.5%	10.4%

Budget adjustments

	Prior Year Forecast	Approved
2021 Operating Budget	\$967.5 M	\$939.5 M
Increase for average household in 2021	\$42	\$17
Average annual costs for all Metro Vancouver services	\$602	\$577

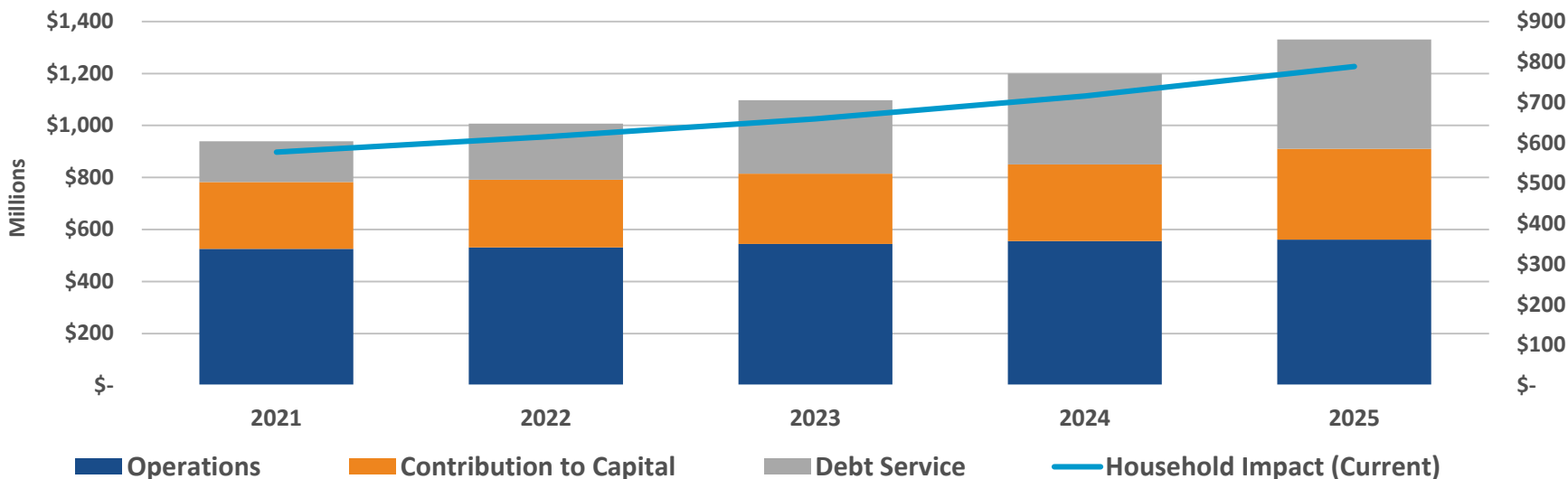
2021 – 2025 FINANCIAL PLAN - OPERATING

Overview:

- 2021 Operating Budget: \$939.5M
- \$28M less than previously projected for 2021

Drivers:

- Increase in operations averages 2.2% over 5 years
- Debt servicing reflective of the capital program, but favourable rates
- Easing contribution to capital in 2021/22/23 - refocusing in 2024/25



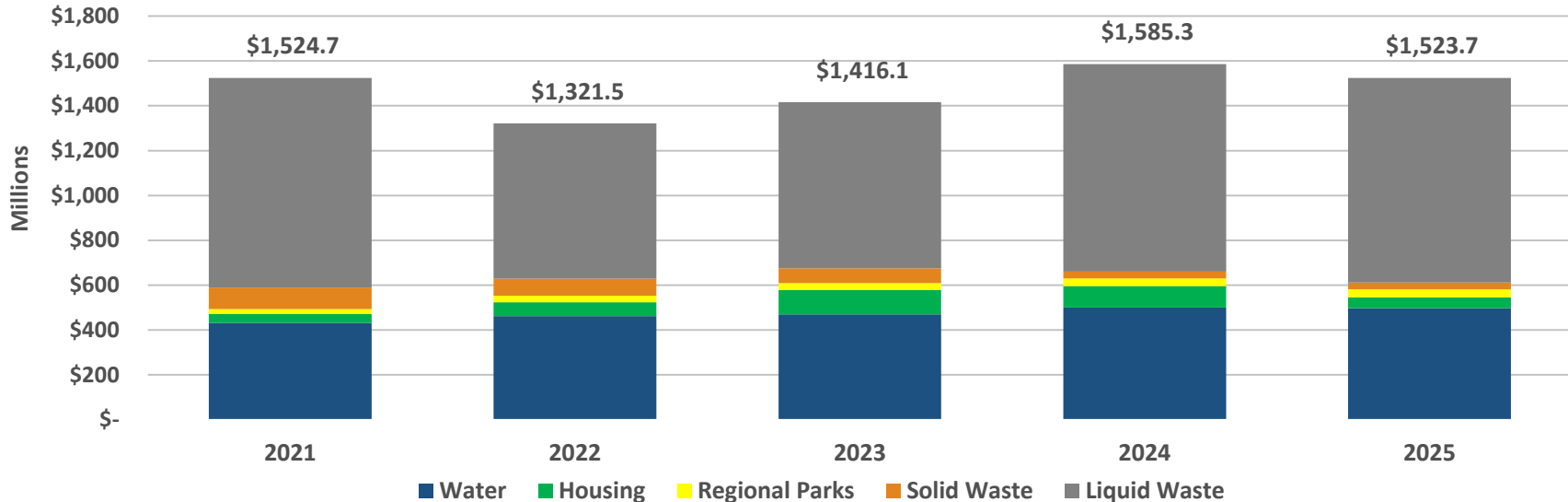
2021 – 2025 FINANCIAL PLAN - CAPITAL

Overview:

- 2021 Capital Budget: \$1.52B

Drivers:

- Capital project in progress carried forward
- Reviewed for deferrals and savings
- Project risks and scope provisions



CONTINUOUS IMPROVEMENT

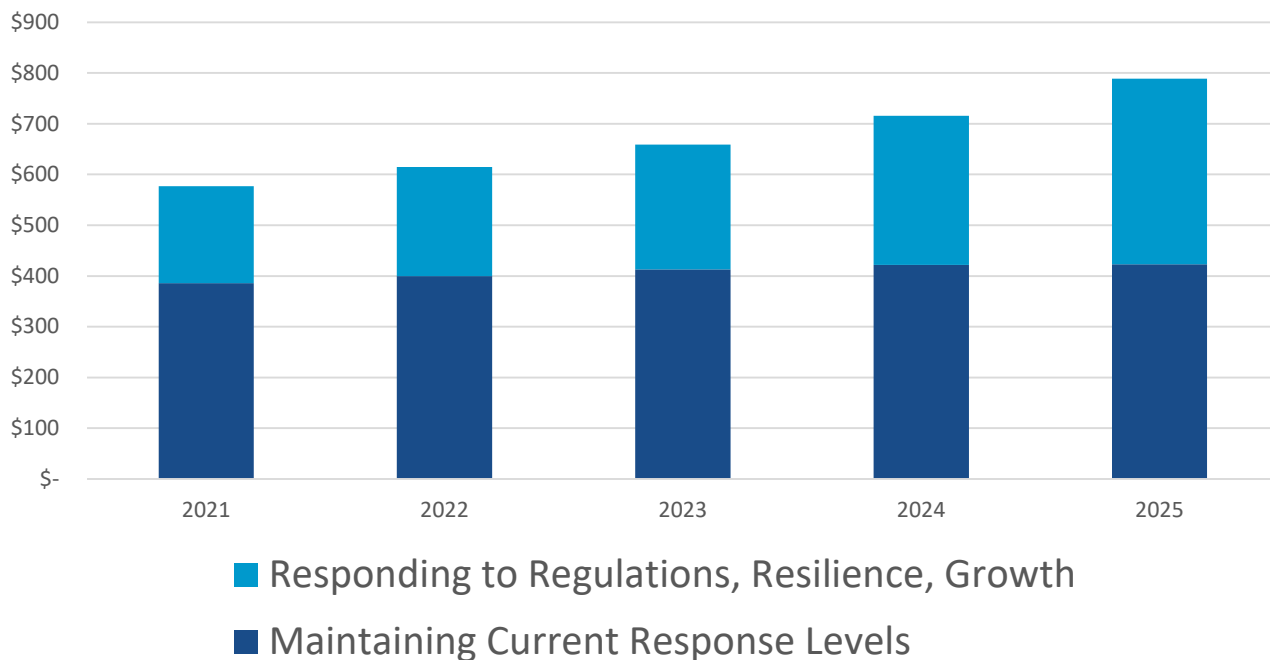
Initiative	Outcomes
Continued development of the Project Delivery Department	Best practice cost estimating framework, centralized major project governance, and creation of an Expert External Advisory Panel to add value and efficiency for major project completion
Lulu Island Wastewater Treatment Plant (LIWWTP) Effluent Heat Recovery Project	Renewable Natural Gas optimization - \$400,000/y new revenue and 1,000 tonnes of GHG reduction
Improve building energy efficiency and reduce energy consumption for Metro Vancouver Housing sites	Full building rehabilitations preserve affordable housing while improving energy efficiency and tenant comfort

2021 – 2025 ENDORSED FINANCIAL PLAN - HOUSEHOLD IMPACT

Regional Averages

	2021	2022	2023	2024	2025
Water District	\$174	\$182	\$191	\$207	\$226
Liquid Waste	\$272	\$297	\$326	\$361	\$411
Solid Waste	\$61	\$63	\$65	\$67	\$70
Regional District	\$70	\$73	\$77	\$81	\$82
Total Household Impact	\$577	\$615	\$659	\$716	\$789
\$ Increase	\$ 17	\$ 38	\$ 44	\$ 57	\$ 73
% Change	3.2%	6.4%	7.3%	8.5%	10.4%

HOUSEHOLD IMPACT – RESPONDING TO SERVICE NEEDS



TOOLBOX

MANAGE WHAT'S TO COME

Demand Side
Management

Increase
Contract Risk
Tolerance

Capital Plan
Deferrals

MANAGE WHAT'S IN PROGRESS

Use of
Reserves

Increase
Debt
Amortization
Term

Reduce
Pay-as-
you-go

Most immediate impact

2022 FINANCIAL PLANNING

Short-term relief for households

- Leverage supported tools to create a short-term action plan (1-2 years)
- Fully evaluate 30 Year amortization for NSWWTP

Maintain current goals and objectives

- Continue work on strategic and long-range plans
- Optimize capital plan timing and identify deferment opportunities
- Evaluate effects of more restrictive lawn watering regulations
- Explore demand side management options for liquid waste

Realize new opportunities

- Partner on projects to increase affordable housing
- Reduce GHGs
- Help drive economic recovery



City of Burnaby and North Shore mountains

Questions

Metro Vancouver 2022 Budget Workshop

metrovancouver
Together we make our region strong



North Burnaby

Planning for the Future

Jerry Dobrovolny, P.Eng., MBA

Commissioner / Chief Administrative Officer

Council of Councils – May 8, 2021

metrovancouver

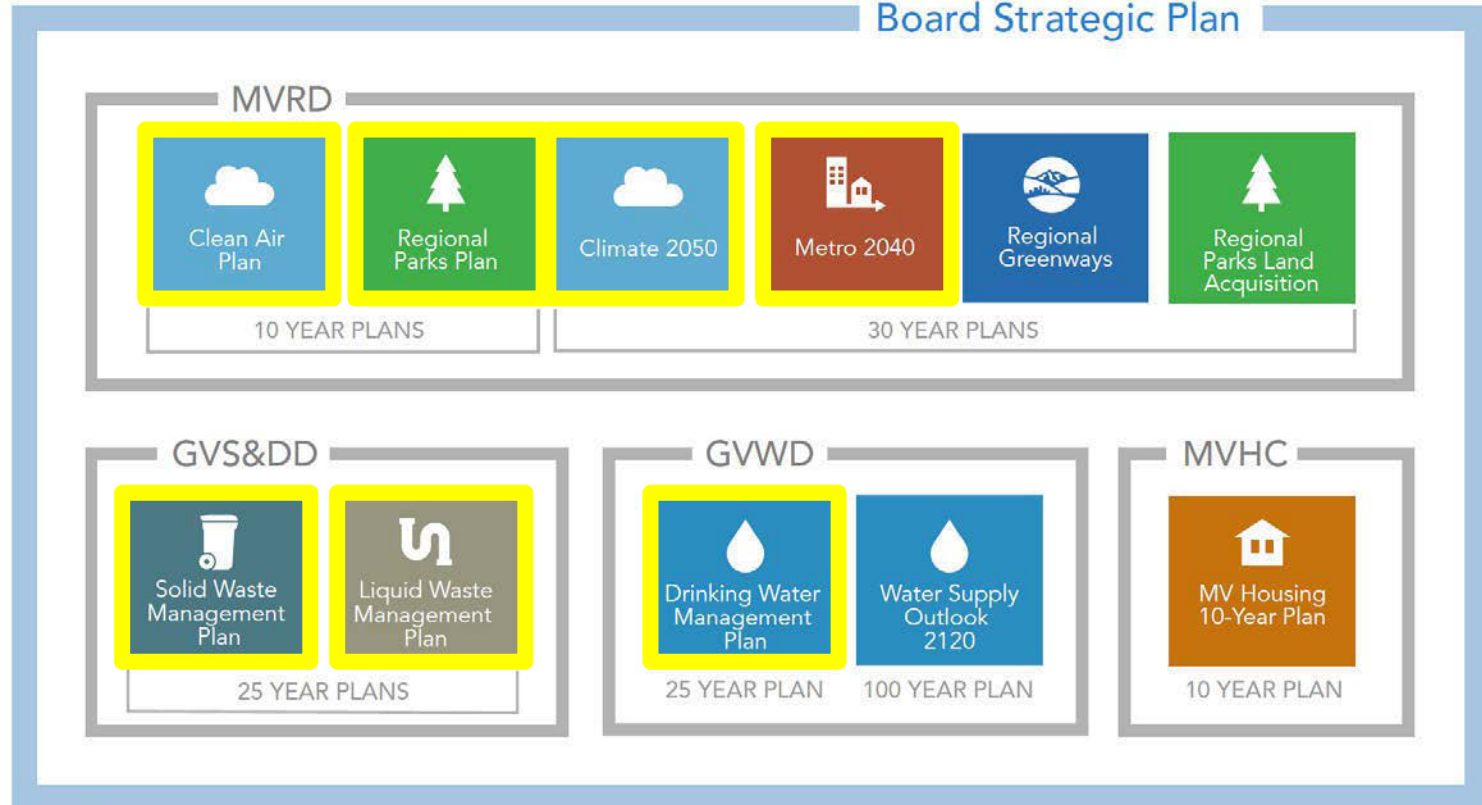
STRATEGIC PLAN THEMES



PLANS



PLANS



PHASES OF PUBLIC ENGAGEMENT

Including engagement with members

Recently completed	Underway now	Starting fall 2021	Starting early 2022
Regional Parks Land Acquisition Plan (2018)	Clean Air Plan	Solid Waste Management Plan	Drinking Water Management Plan
	Climate 2050	Liquid Waste Management Plan	
Housing 10-Year Plan (2019)	Metro 2050	Regional Parks Plan	
Water Supply Outlook (2020)			
Regional Greenways Plan (2020)			

CLEAN AIR PLAN

Status:	Second phase of engagement
Plan horizon:	10 years
Engagement start:	In progress
Final draft due:	2021
Last updated:	2011

Integrated Air Quality & Greenhouse Gas Management Plan



REGIONAL PARKS PLAN

Status: Pre-planning

Plan horizon: 10 years

Engagement start: Fall 2021

Completion: 2022

Last updated: 2016



Metro Vancouver Parks Day

SOLID WASTE MANAGEMENT PLAN

Status: Pre-engagement

Plan horizon: 10 years

Engagement start: Fall 2021

Completion: 2024

Last updated: 2011

Integrated Solid Waste & Resource Management Plan



North Vancouver transfer station

LIQUID WASTE MANAGEMENT PLAN

Status: Pre-engagement

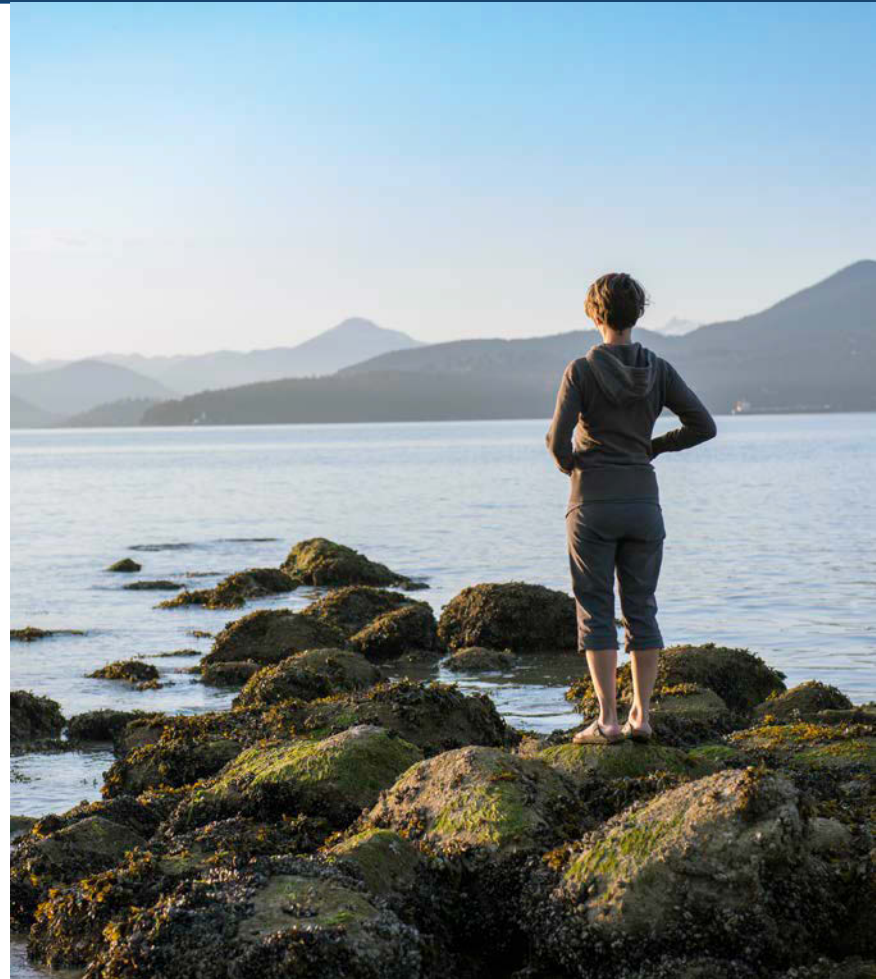
Plan horizon: 8 years

Engagement start: Fall 2021

Completion: 2024

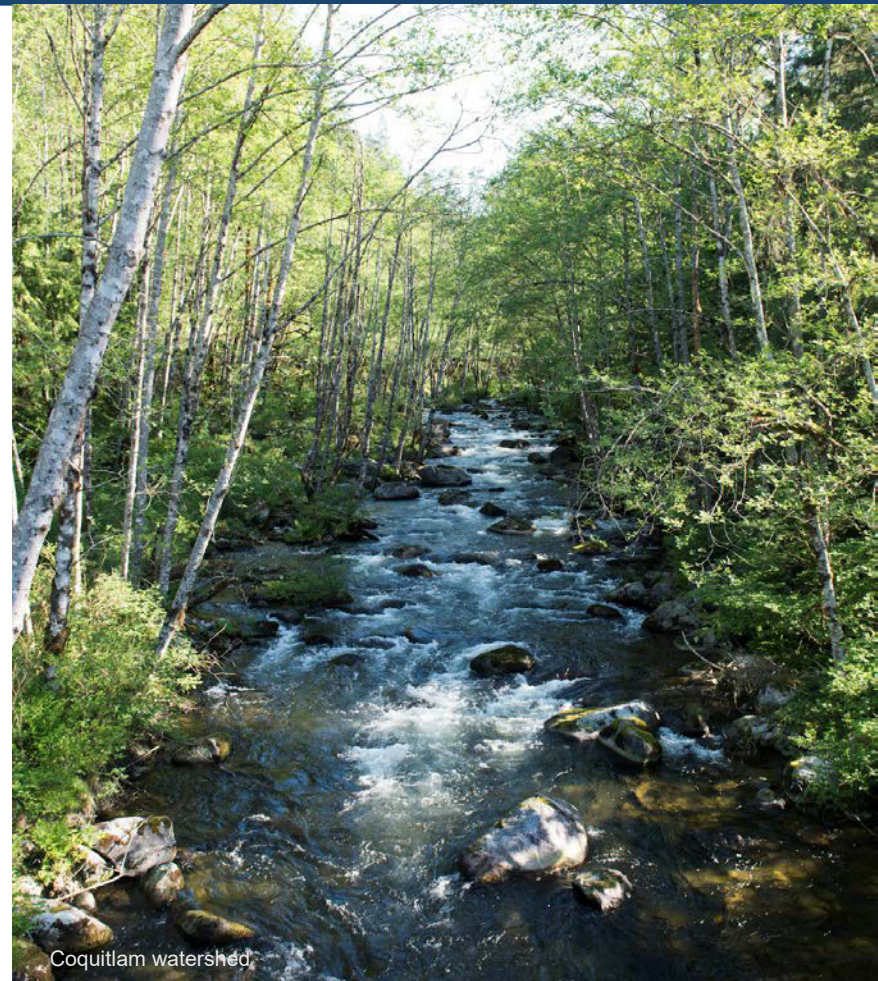
Last updated: 2011

Integrated Liquid Waste & Resource Management Plan



DRINKING WATER MANAGEMENT PLAN

Status:	Planning
Plan horizon:	5 -10 years
Engagement start:	Early 2022
Completion:	2024
Last updated:	2011



Coquitlam watershed

CLIMATE 2050 & METRO 2050





Aerial of Metro Vancouver

Questions

Planning for the Future

metrovancouver
Together we make our region strong



Burrard Inlet

Metro Vancouver's Climate 2050 Strategy

A PATHWAY TO A RESILIENT AND CARBON NEUTRAL REGION

Adriane Carr

Chair, Climate Action Committee

Council of Councils – May 8, 2021

Neal Carley, M.A.Sc., P.Eng.

General Manager, Parks & Environment

metrovancouver

CLIMATE 2050

Metro Vancouver demonstrates bold leadership in responding to climate change:

- **Carbon neutral region** by 2050
- Infrastructure, ecosystems and communities are **resilient to the impacts of climate change**

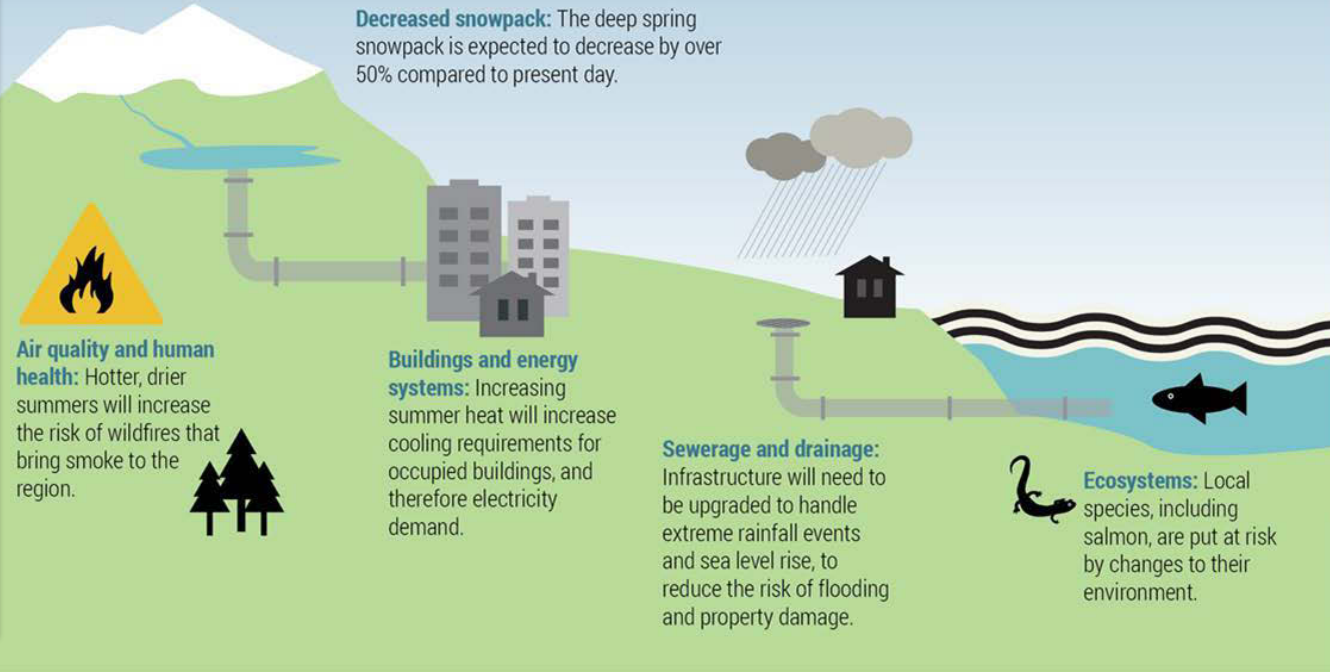


ANTICIPATED IMPACTS OF CLIMATE CHANGE IN THE REGION

metrovancover

Climate Projections for Metro Vancouver

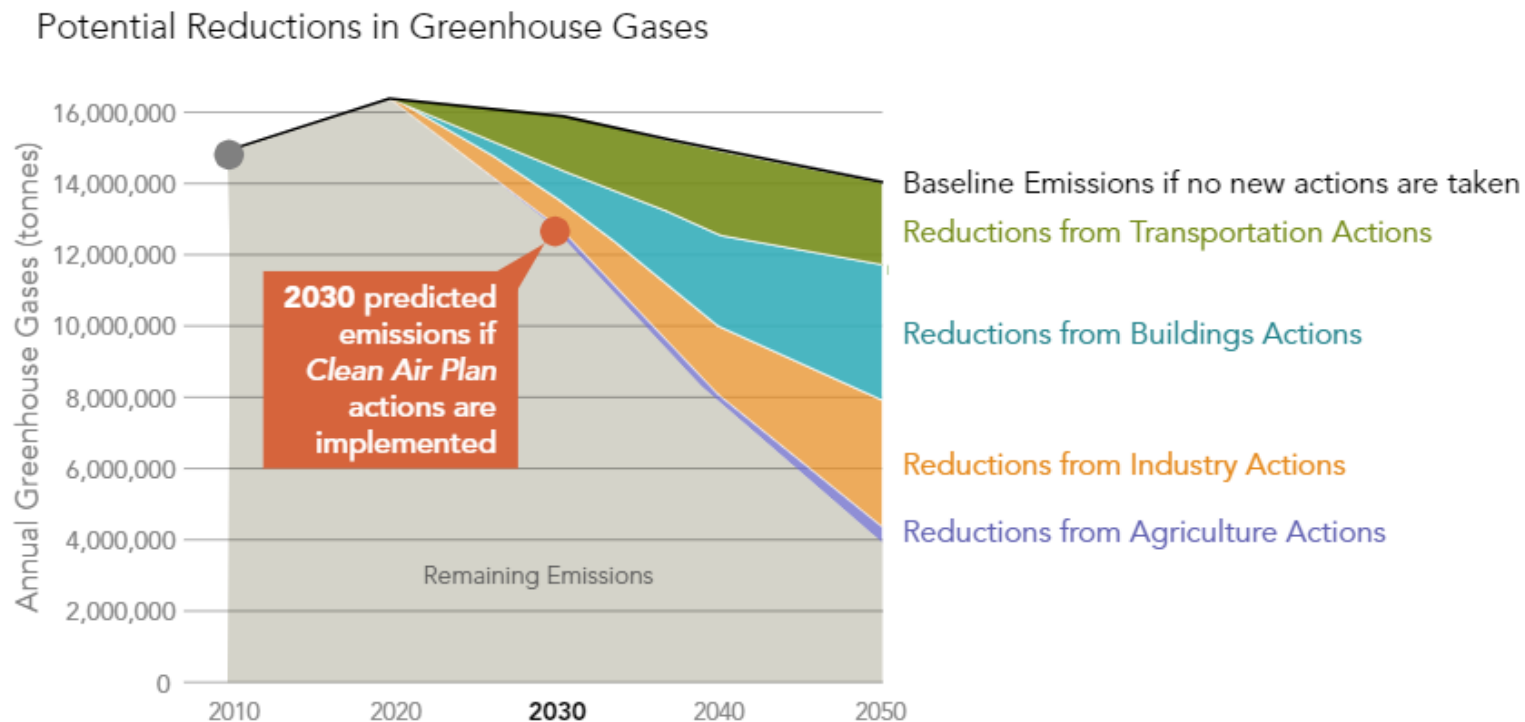
SERVICES AND SOLUTIONS FOR A LIVABLE REGION



CLIMATE 2050 DISCUSSION PAPERS



CURRENT PROJECTIONS OF EMISSIONS IMPACT



CLIMATE 2050 ROADMAPS

- Issue area goals
- Context and challenges
- Strategies and actions for emission reductions & resilience
- Sets the path ahead

Transportation



Buildings

BUILDINGS

Action Highlights

Zero Emission Buildings

- GHG Performance Requirements for Existing Large Buildings
- Increase Public Awareness of the Benefits of Zero Emissions and Resilient Buildings

Resilient Buildings

- Expand the Network of Public Buildings that can serve as Cool, Clean Air Centres
- Broaden Applications of Non-Potable Water Use in Buildings

TRANSPORTATION

Action Highlights

Zero Emission, Low Carbon Transportation

- Expand Electric Vehicle Charging in Buildings
- Support the use of bike and car sharing services

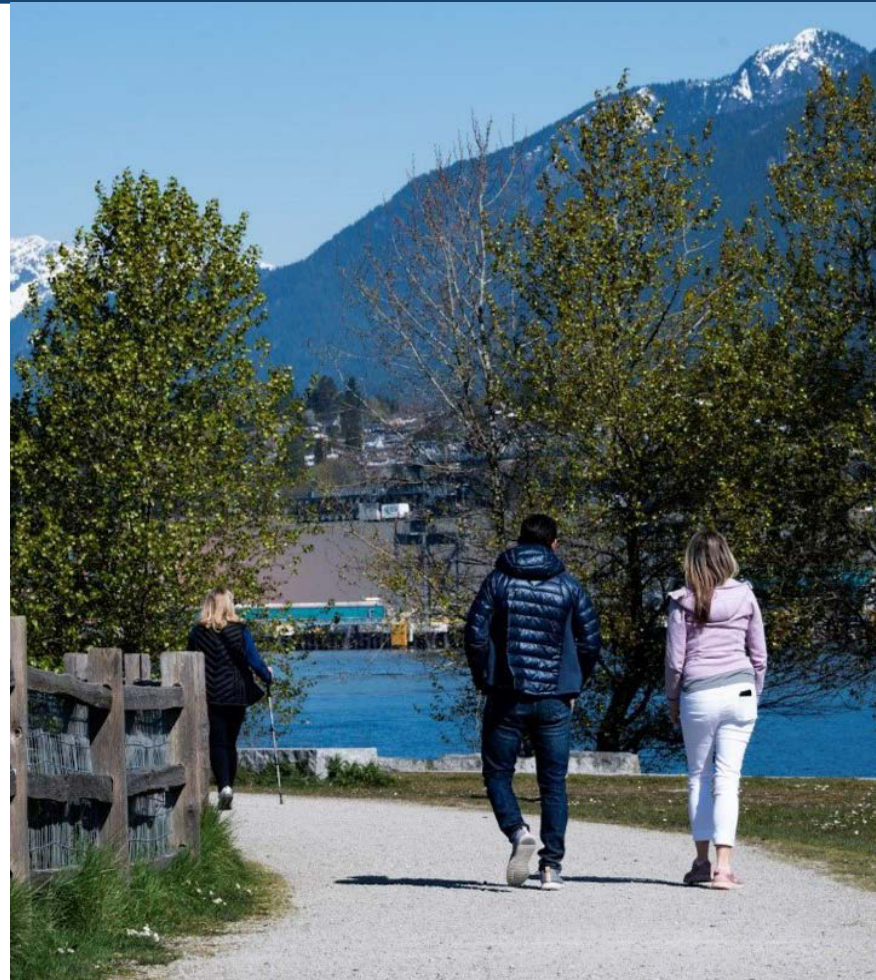
Resilient Transportation

- Protect Road Networks
- Create Flexible Transportation Networks

ACHIEVING CORPORATE CARBON NEUTRALITY

Leadership on Climate Action

- All member jurisdictions are signatories to the BC Climate Action Charter
- Metro Vancouver achieved carbon neutral status in 2019
- Demonstration of commitment and leadership by example





TAKING ACTION NOW

Leadership by Metro Vancouver and its Member Jurisdictions

- Adopt higher steps of the BC Energy Step Code
- Require EV charging in new developments
- Invest in active transportation infrastructure

YOUR FEEDBACK AND SUPPORT

- Feedback on the draft *Climate 2050* Transportation & Building Roadmaps
- Working collaboratively on implementation of *Climate 2050* to create a carbon neutral and resilient region



CLIMATE 2050 Roadmap

Buildings

A Pathway to Zero Emissions and Resilient Buildings

April 2021

DRAFT



City of Vancouver

Questions

Climate 2050 Update

metrovancouver
Together we make our region strong



metrovancover | METRO 2050

Metro 2050 Overview

REGIONAL GROWTH STRATEGY UPDATE

Jonathan Côté

Chair, Regional Planning Committee

Heather McNell

General Manager, Regional Planning and Housing Services

Metro Vancouver Council of Councils | May 8, 2021

metrovancover

PURPOSE OF TODAY'S PRESENTATION

1. Provide an update on *Metro 2050* - our collective vision for how to manage growth to our region in a way that reflects the federation's values
2. Prepare you to review and provide comments on the draft of *Metro 2050* during upcoming Comment Period (July – Nov 2021)



PRESENTATION OVERVIEW

- Why regional planning?
- Regional Growth Strategies
- *Metro 2040*
- Scope of update
- *Metro 2050* - Process & Timeline
- *Metro 2050* – What's Proposed
- Next Steps / Our request to you



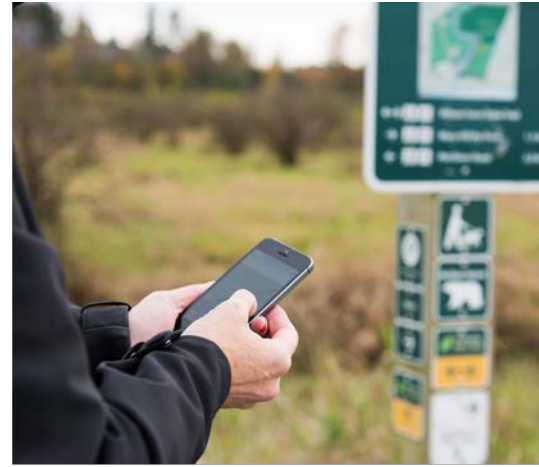
Technology
we're using
today



INTRO TO PIGEONHOLE

- Interactive tool to allow for large group participation
- Use your web browser or mobile phone
- Link is in the Chat
- Respond to questions in Pigeonhole as we post them
- See results in real time

phlive.at



TEST: PIGEONHOLE

Q: What issues facing your community are you most concerned about?

Select up to **3**



- Housing affordability
- Low rental vacancy
- Homelessness
- Access to Transit
- Traffic Congestion
- Active Transportation Options
- Climate Change
- Loss of Tree Canopy / Ecosystems
- Loss of Agricultural Land
- Loss of Industrial Lands
- Infrastructure Cost
- Sprawl

Metro Vancouver & Regional Growth Strategies



23 MEMBER JURISDICTIONS



POPULATION: **2.7** MILLION

53% OF THE POPULATION
OF BC



61% OF BC GDP

1.29 MILLION JOBS



WE'RE A GROWING REGION



2020

2.75 million

2050

3.8 million



1.1 million

1.6 million



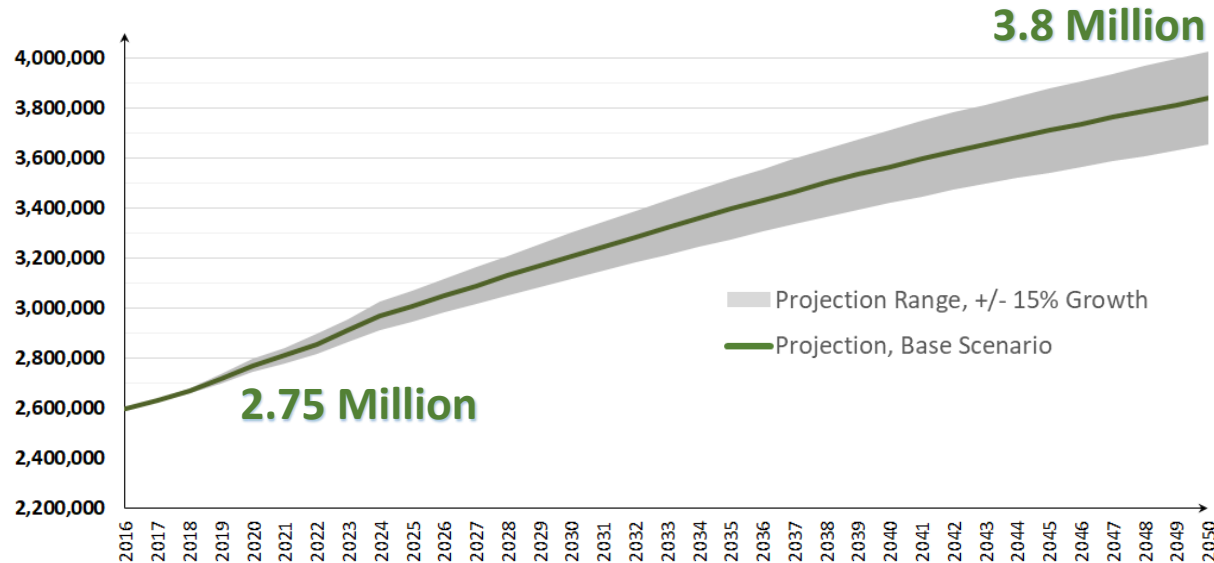
1.4 million

1.9 million

POPULATION PROJECTIONS

Average annual growth (2021 to 2050)

- ~35,000 / year (Baseline Scenario)

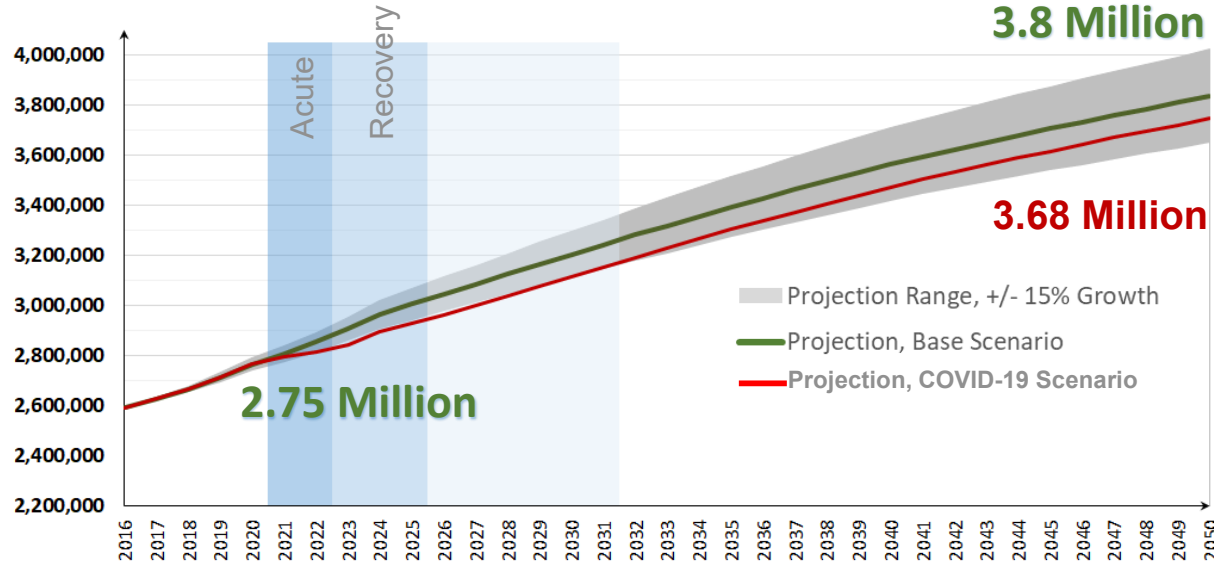


- Projections are scenario based and have a +/- 15% range built in
- Look at trends in immigration, migration within and between provinces and births / deaths
- This is not a target

POPULATION PROJECTIONS (COVID SCENARIO)

Average annual growth (from 2021 to 2050)

- 35,000 (Baseline Scenario)
- Acute (2 yrs) -75% immigration / non-permanent residents
- Recovery (3 yrs) -25%



- 2020 immigration to Canada down 46%
- 2021 aiming for 401,000 (up from 300,000)
- Covid-19 impact: could delay hitting 3.8 million by 3-4 years
- Minimal impact to long range planning - housing and services (e.g. Transit / Utilities)

WHY PLAN FOR THE LONG TERM, TOGETHER?



- Coordinate across municipal boundaries
- Protect what we value
- Support infrastructure planning (utilities, transit)
- Cost efficiencies

LEGISLATIVE FRAMEWORK

Local Government Act, Part 13



*“The legislation provides a framework for interactive planning that relies on a **cooperative process**, rather than hierarchy. It ensures that municipalities and regional districts work to prepare a regional growth strategy as **equal partners**.”*

Regional Growth Strategies: An Explanatory Guide



Metro 2040

METRO 2040

- Regional federation's long-term vision for collaboratively managing anticipated growth to the region
- Adopted by all member jurisdictions, FVRD, SLRD, TransLink and MVRD Board in 2011





REGIONAL PLANNING PRINCIPLES

- Put growth in the right places (centres and corridors)
- Protect important lands (agricultural, ecological, job)
- Support complete communities
- Create diverse and affordable housing, better mobility, prosperous economy
- Enable efficient urban infrastructure (utilities, transit)

Metro 2040



Goal 1 Create a Compact Urban Area



Goal 2 Support a Sustainable Economy



Goal 3 Protect the Environment and Respond to Climate Change



Goal 4 Develop Complete Communities



Goal 5 Support Sustainable Transportation Choices

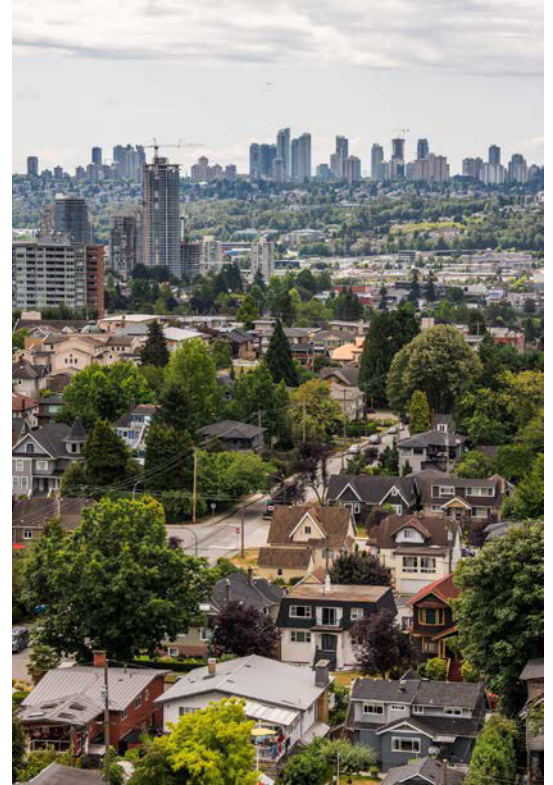
REGIONAL CONTEXT STATEMENTS

Primary tool for implementing the regional vision



WHAT'S WORKING WELL IN METRO 2040?

- Urban Containment Boundary
(98% of growth)
- Urban Centres and Frequent Transit Development Areas
(64% of housing growth)
- Regional Land Use Designations
(minor amendment process)
- Performance Monitoring Program
(projections, data, research)



Why Update?



SCOPE OF THE UPDATE

- Build on Success
- Extend strategy & projections to 2050
- Ensure integration with the Regional Transportation Strategy
- Respond to critical issues: climate action, social equity, affordable housing near transit, employment location, and environmental protection
- Integrate learnings and feedback from 10 years of implementation





Metro 2050 Process & Engagement

PROJECT TIMELINE



METRO 2050 ENGAGEMENT PLAN

Audience	Engagement Activity
<i>Metro 2050</i> Signatories	<ul style="list-style-type: none">• <i>Metro 2050</i> Intergovernmental Advisory Committee• Staff: meetings (projections, policy recommendations, draft plan)• Councils (scoping, policy recommendations, draft plan)• Council of Councils x 2• Regional Planning Committee and Board
Regional Stakeholders	<ul style="list-style-type: none">• Policy Reviews• Individual Meetings
First Nations	<ul style="list-style-type: none">• Individual Meetings• <i>Metro 2050</i> Intergovernmental Advisory Committee• Indigenous Working Group
General Public	<ul style="list-style-type: none">• <i>Metro 2050</i> Public Dialogues• Webinar• Online Comment Form



JOINT ENGAGEMENT – *TRANSPORT 2050*

- Phase 1 Community Survey (31,700)
- Stakeholder Forum (49)
- Rail~volution Regional Forum (200+)
- Joint engagement on input studies (Social Equity, Resilience, Major Transit Network, Climate Action)



POLICY REVIEWS (2019-2020)

- Urban Centres and FTDAs **endorsed**
- Agriculture **endorsed**
- Environment **endorsed**
- Industrial & Mixed Employment **received**
- Rural **endorsed**
- Housing **endorsed**
- Transportation **endorsed**
- Complete Communities **endorsed**
- Climate Change & Natural Hazards **endorsed**
- Implementation **endorsed with changes**
- Projections **endorsed**



POLICY REVIEW RECOMMENDATION SUMMARIES

metrovancover | REGIONAL PLANNING

POLICY REVIEW SUMMARY

Urban Centres and Frequent Transit Development Areas

About Metro 2050

Metro Vancouver is updating Metro Vancouver 2040: Shaping our Future (Metro 2040), the regional growth strategy. Since its adoption in 2011, Metro 2040 has been a strong and effective tool representing the regional federation's collective vision for livability and managing growth anticipated to come to our region over the long term.

Having a regional growth strategy allows Metro Vancouver and member jurisdictions to prevent urban sprawl by focusing growth (i.e. new homes and new jobs) in transit-oriented locations to support the development of livable neighbourhoods, with a range of housing, jobs, and amenities. The Strategy also protects the region's vital agricultural, ecologically important, and industrial lands. Through these efforts, the region is better prepared for the impacts of climate change, and supports the provision of affordable housing, a diverse economy, and mobility for all.

Metro 2040 was co-created and supported by all municipalities in the region, Tsawwassen First Nation, TransLink, adjacent regional districts, and the Metro Vancouver Board. The direction provided by the Strategy recognizes the region's collective vision for the future and the importance of cooperation among member jurisdictions to create that future together.

The regional growth strategy is being updated. Though many of the goals, actions and tools that are working well in Metro 2040 will remain unchanged, updates will extend the strategy to the year 2050 and allow the region to better respond to critical and emerging issues such as climate change, social equity, resilience and housing affordability, align the strategy with Transport 2050 (TransLink's new regional transportation strategy), and implement policy improvements in a number of areas. The updated strategy, anticipated to be completed in 2022, will be called Metro 2050.

Policy Review Summaries

Content for Metro 2050 is being developed through a series of 11 themed Policy Reviews scoped to address specific policy topics in the regional growth strategy like Agriculture or the Environment. Each Policy Review is looking at the current policies in Metro 2040 related to the topic area, identifying gaps and opportunities, engaging with stakeholders and others, and developing policy recommendations to be integrated into Metro 2050. On completion of each of the 11 Policy Reviews, Metro Vancouver will produce a Policy Review Summary to support a broad understanding by decision makers and interested stakeholders of the issues and updates proposed by each topic that will guide the drafting of amended and new policy directions for Metro 2050.

SERVICES AND SOLUTIONS FOR A LIVABLE REGION

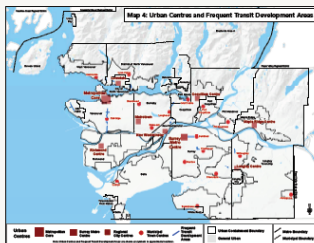
Urban Centres and Frequent Transit Development Areas

Urban Centres and Frequent Transit Development Areas (FTDAs) are the key focal areas for the connection between growth, development, and transit investment in the region. In Metro 2040 there are four centre types:

- Metro Centres
- Regional City Centres
- Municipal Town Centres
- Frequent Transit Development Areas

They, along with the Urban Containment Boundary, make up the region's growth framework, allowing Metro Vancouver and member jurisdictions to focus growth to a network of centres and transit-oriented corridors throughout the region, supporting the creation of livable, walkable communities and the efficient expansion of the transit network.

Updates to the Urban Centres and FTDAs framework will better reflect existing development, set the stage for more resilient neighbourhoods going forward, and make the policies easier to implement.



Metro 2040 Urban Centres and FTDA map

WHAT'S CHANGING

The following changes to the regional growth framework are recommended:

1. Include a Frequent Transit Corridor Network map to simplify the use of the FTDA tool
2. Update the Urban Centre and FTDA classifications
3. Introduce an Urban Centre and FTDA Type reclassification framework
4. Update the Urban Centre and FTDA targets to align with the 2050 growth projections
5. Strengthen neighbourhood and complete community policies to support climate change mitigation and adaptation efforts and other regional priorities

BENEFITS

These changes will provide the following benefits:

- Makes the regional growth strategy simpler to implement at the local level
- Clarifies the distinction between centre types and improve consistency with existing conditions
- Specifies the expectations, function, and location of each Urban Centre and FTDA
- Helps to better coordinate community planning with transit planning
- Clarifies the intended use of transit corridors by providing a map that identifies potential areas where FTDAs could be identified.
- Brings a stronger climate lens to growth planning to ensure regional resilience

Recommendation #1: Include a Frequent Transit Corridor Network Geography to Simplify the use of the FTDA Tool

The intent of the FTDA tool is to encourage more people to live and work along the Frequent Transit Network (FTN) across the region. Over the past decade, FTDAs have not been identified as quickly as desired, and have not always been aligned with a frequent transit corridor. This has made it hard to measure where growth is going. It also means the regional growth strategy hasn't provided consistent signals to developers and member jurisdictions about where growth should be directed.

This recommendation is to add a map in Metro 2050 that identifies the Frequent Transit Corridor Network and potential areas for growth (including housing and job growth), supports transit-oriented development, and increases ridership for transit. It will also improve and simplify regional growth monitoring.

Through the use of FTDAs, member jurisdictions will be asked to identify how much growth will be going to transit-oriented corridors over time and how they will be supporting transit oriented development along the Frequent Transit Corridor Network.



Recommendation #3: Introduce an Urban Centre Reclassification Framework

Metro 2040 has a process for adding or deleting Urban Centres and FTDAs, and a process to adjust the boundaries of Urban Centres and FTDAs, but it lacks a process for reclassifying centre types from one centre type to another. Since Recommendation #2 would add new subtypes to the typology a reclassification framework is needed.

This recommendation introduces a framework to guide the reclassification of one centre type to another. It outlines clear, fair, and standardized criteria by which a centre type reclassification could be evaluated as well as the amendment process required. The framework would only allow existing Urban Centres or FTDAs to be reclassified although new FTDAs are always encouraged provided they are located along the FTN.

Recommendation #2: Update Urban Centre and FTDA Typology

There are four "centre types" in the Metro 2040 typology: Metro Centres, Regional City Centres, Municipal Town Centres, and FTDAs. The typology is intended to reflect the different scales of intensity, roles, activity, and land uses in Urban Centres and FTDAs across the region. Over the past decade, the region has matured and Urban Centres and FTDAs have developed in different ways to the point where the typology no longer accurately reflects today's Urban Centres and FTDAs. FTDAs are also being used in different ways depending on the transit service. Member jurisdictions have requested more specific criteria and more explicit growth expectations for each centre type.

This recommendation would divide the Municipal Town Centre "type" into two "subtypes": Municipal Town Centres and High Growth Municipal Town Centres and divide the FTDA "type" into two "subtypes": Corridor FTDAs and Station Area FTDAs. There are also new criteria to define the general expectations, function, and locations of each centre type and subtype.

This will incorporate more nuance into the typology to reflect the variety of communities across the region. In addition, the updated typology provides clearer expectations for growth, location, and function of Urban Centres and FTDAs as well as a stronger relationship with transit service planning.

The reclassification framework has been defined using a "climate lens." This means that a member seeking reclassification to a higher order centre type would need to demonstrate that the area has high accessibility to jobs, has high density of jobs and residents, and is not in a known hazard area. This helps to focus new growth in areas where residents can walk, bike, or take transit for most trips and in areas that are resilient to the impacts of climate change.



An aerial photograph of the Metro Vancouver region, showing the city of Vancouver, its surrounding suburbs, and the surrounding water bodies and mountains. A red vertical line is drawn across the map, separating the current city area from the projected METRO 2050 boundary.

metro vancouver | METRO 2050

An aerial photograph of the Metro Vancouver region, showing the city of Vancouver, its surrounding suburbs, and the surrounding natural landscape including mountains and water bodies. The map is used as a background for the presentation of the Metro 2050 goals.

metrovancouver | METRO 2050

GOAL

1

Create a Compact Urban Area

GOAL

2

Support a Sustainable Economy

GOAL

3

Protect the Environment and Respond to
Climate Change and Natural Hazards

GOAL

4

Provide Diverse and Affordable Housing Choices

GOAL

5

Support Sustainable Transportation Choices

What's New / Proposed?

For each of the 5 Goals:

- What strategies are there to reach that goal together
- Why it is important to work at this goal collectively
- What's new / proposed for *Metro 2050*
 - ❑ Remember, as an 'update', most of the *Metro 2040* content is being ported directly into *Metro 2050*

GOAL 1: CREATE A COMPACT URBAN AREA

- Contain growth within the **Urban Containment Boundary**
- Focus growth in **Urban Centres** and along **Transit Corridors**
- Support the development of resilient, connected and **complete communities**



WHY IS STRUCTURING GROWTH REGIONALLY IMPORTANT?

- Impacts extend beyond municipal borders
- Development decisions today last decades
- Keep infrastructure costs low
- Protect important lands



WHAT'S PROPOSED - GOAL 1

New Urban Centre and Frequent Transit Development Area Types

Metro
Centres

Metro Core

Surrey Metro
Centre

Regional
Activity Hub

Regional
City Centre

Regional City
Centres

Subregional
Activity Hub

Municipal Town
Centres

High Growth
Municipal
Town Centre

Municipal
Town Centre

Municipal
Activity Hub

Frequent Transit
Development
Areas

Station Area
FTDA

Corridor
FTDA

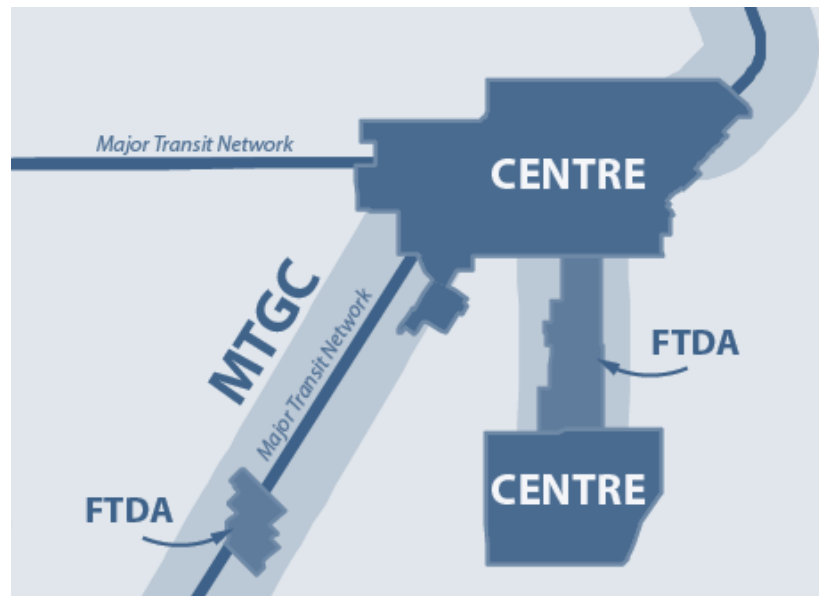
Mix of Transit-Oriented
Development Uses



WHAT'S PROPOSED - GOAL 1

MAJOR TRANSIT GROWTH CORRIDORS (MTGC)

- Intent is to align locations for growth with transit investment
- Areas along the Major Transit Network (T2050's)
- Municipalities identify FTDA's inside the MTGCs – phasing
- Greater certainty for communities, TransLink, and developers
- Framing and Monitoring tool



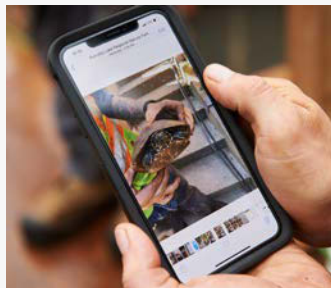
GOAL 1

Q: Of these tools / policies which could most help your community *put growth in the right places?*

(select one)



Pigeonhole



- Support for focusing growth in Centres & along Transit Corridors
- Support for aligning growth locations with transit (Major Transit Growth Corridors)
- All of the above
- None of the above

GOAL 2: SUPPORT A SUSTAINABLE ECONOMY

- Promote **land development patterns** that support a diverse regional economy and **employment opportunities close to where people live**
- Protect **industrial land**
- Protect **agricultural land**



WHY A REGIONAL APPROACH TO A SUSTAINABLE ECONOMY?

- Jobs close to home / protect local jobs
- Regional prosperity
- Land protection at a regional scale – federation agreed that agricultural and job lands need to be protected
- Long term food security



WHAT'S PROPOSED – GOAL 2

- Policies to **protect industrial land**
 - ❑ Stronger definition of 'Industrial'
 - ❑ Identify & protect Trade-Oriented Lands
- **Flexibility** near rapid transit
 - ❑ Allow residential on upper floors of "Employment" lands within 200m of rapid transit stations
- Agricultural policies - stronger emphasis on **local food production** and food security



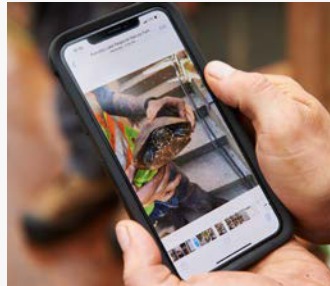
GOAL 2

Q. Of these tools / policies which could most help your community *support a strong and sustainable regional economy?*

(select one)



Pigeonhole



- Stronger, consistent definition for Industrial lands
- Tool to help identify & protect Trade-Oriented lands
- Flexibility allowing residential uses near rapid transit stations
- Protect Agricultural land with emphasis on local food
- All of the above
- None of the above

GOAL 3: PROTECT THE ENVIRONMENT AND RESPOND TO CLIMATE CHANGE AND NATURAL HAZARDS



WHAT CAN BE DONE REGIONALLY TO PROTECT THE ENVIRONMENT?

- **Protect**
Conservation and
Recreation lands
- Protect, restore, and
connect
ecosystems



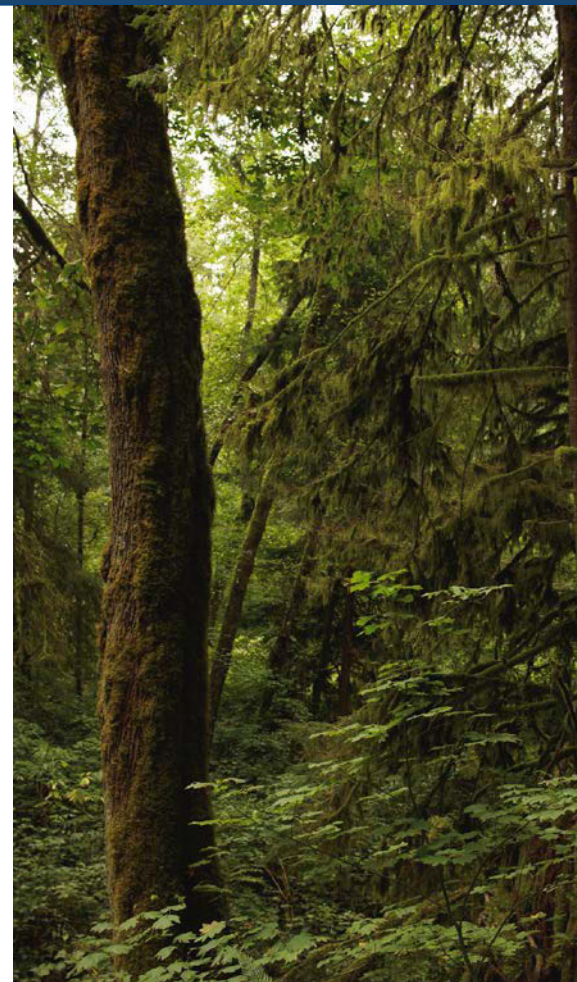
WHY A REGIONAL APPROACH TO PROTECTING THE ENVIRONMENT?

- Ecosystems cross administrative boundaries
- Municipalities have different habitats, recreational opportunities and ecosystem services we *all* rely on
- Climate resilience



PROPOSED – GOAL 3 - ENVIRONMENT

- New aspirational 2050 targets:
 - ❑ **Protect 50%** of regional land base **for nature**
 - ❑ Increase **tree canopy cover** within the Urban Containment Boundary to **40%**
- Supportive policies:
 - ❑ Regional green infrastructure network
 - ❑ Sensitive Ecosystem Inventory Map



PROVIDING A REGIONAL FRAMEWORK FOR CLIMATE ACTION

Encourage land use, infrastructure, and settlement patterns that:

- **reduce energy consumption and GHG emissions**
- improve the ability to **withstand climate change impacts** and **minimize hazard risks**



WHY A REGIONAL RESPONSE TO CLIMATE CHANGE AND NATURAL HAZARD IMPACTS?

- Collective GHG emission reduction targets
- Transportation and Buildings make up 69% of GHGs
- Avoid loss of life, infrastructure destruction, relocation costs
- Long term resiliency



PROPOSED GOAL 3 - CLIMATE

- GHG emissions reduction target
 - ❑ **45% reduction from 2010 levels by 2030**
 - ❑ **Carbon neutral by 2050**
- GHG emissions monitoring
- Collaborate on resilience challenges:
 - ❑ protect communities from risks
 - ❑ encourage new growth in lower risk areas



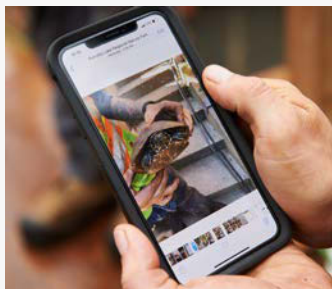
GOAL 3

Q. Of these tools / policies which could most help your community *protect the environment* and *take strong climate action*?

(select one)



Pigeonhole



- Regional target to *Protect 50% of the Land Base for Nature*
- Regional target to *Achieve a 40% Tree Canopy Cover* within the UCB
- Highlighting the regional *Sensitive Ecosystem Inventory*
- Region-wide, collective *GHG Emission Reduction Targets*
- All of the above
- None of the above

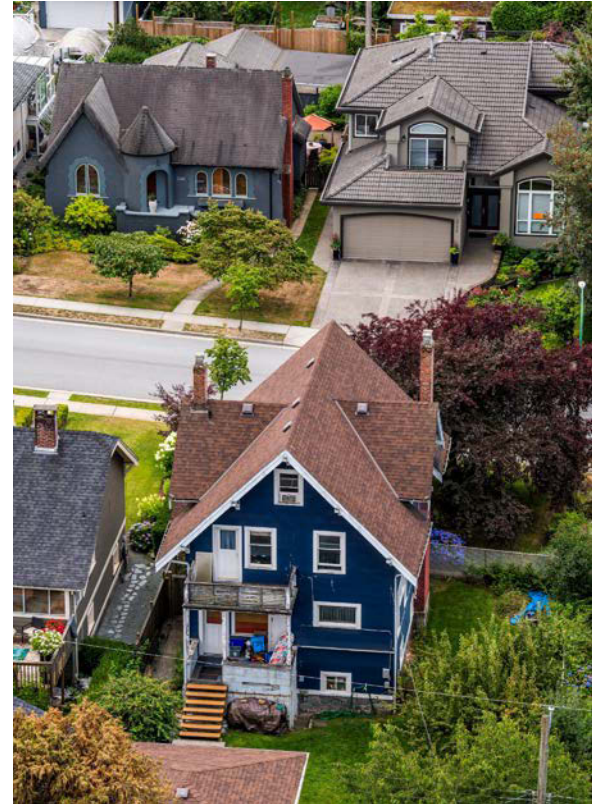
GOAL 4: PROVIDE DIVERSE AND AFFORDABLE HOUSING CHOICES

- Expand the **supply** and **diversity** of housing
- Increase **Rental** Housing Supply (affordable, near transit)
- Meet the housing needs of **lower income households** and **people experiencing homelessness**



WHY A REGIONAL ROLE IN PROVIDING HOUSING CHOICES?

- Leverage Regional Affordable Housing Strategy
- Provide data, research, best practices, convene for information and capacity sharing
- Metro Vancouver Housing 10 Year Plan



WHAT'S PROPOSED IN GOAL 4?

- Emphasize provincially required Housing Needs Reports as a tool for measuring progress
- Target for 15% of new and redeveloped housing in Urban Centres and FTDAs to be affordable, rental housing
- Suite of policies to encourage TOAH; increase stock and protect existing non-market rental



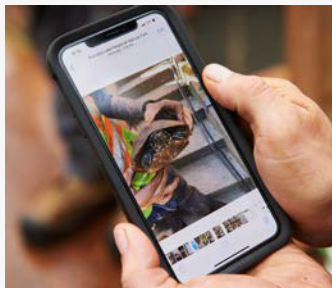
GOAL 4

Q. Of these tools / policies which could most help your community *provide more diverse and affordable housing*?

(select one)



Pigeonhole



- Strong, community based Housing Needs Reports
- Regional target for 15% affordable, rental housing in new & redeveloped sites in Centres & along transit corridors
- Policies to more strongly advocate for tenant protection
- All of the above
- None of the above

GOAL 5: SUPPORT SUSTAINABLE TRANSPORTATION CHOICES

Coordinate land use and transportation to:

- **encourage transit, multiple-occupancy vehicles, cycling and walking**
- support the **safe and efficient movement** of vehicles for passengers, goods and services



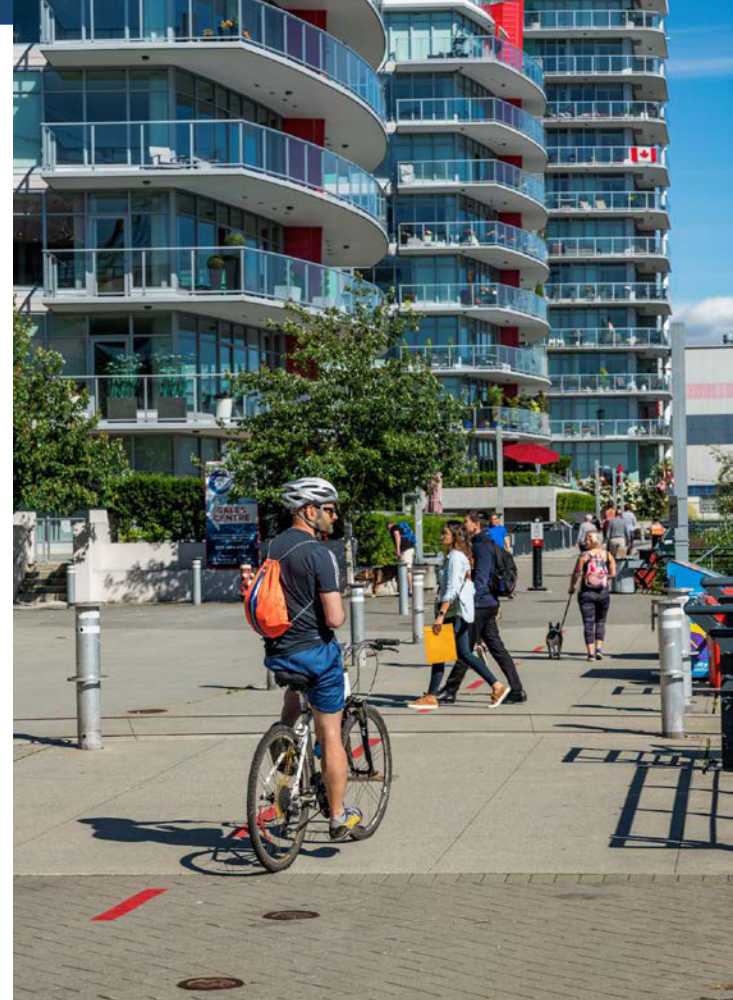
WHY TRANSPORTATION IN A LAND USE PLAN?

- The best transportation plan is a good land use plan
- Efficient service (where the ridership is, equity)
- Health outcomes of transit-oriented development



WHAT'S PROPOSED IN GOAL 5?

- Encourage transit expansion to support the *Metro 2050* growth framework
- Regional Parking Strategy
- Implement Regional Greenway Network
- Enhance resiliency and equity in transportation system
- Respond to new mobility and e-commerce



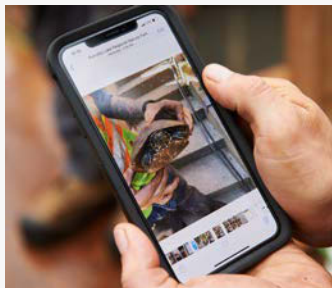
GOAL 5

Q. Of these tools / policies which could most help your community *support stronger transportation choices?*

(select one)



Pigeonhole



- Policies to align growth and transit investment
- Complete a Regional Parking Strategy
- Collective support for the Regional Greenways Network
- Supportive policies for new mobility and e-commerce
- All of the above
- None of the above

Next Steps



METRO 2050 NEXT STEPS

- Board refers draft *Metro 2050* refer for comment (Jun 2021)
- Comment Period (Jul-Nov 2021)
- Council presentations (Sept - Nov 2021) Optional Co-Hosted Public Information Meetings
- Incorporate feedback into final draft of *Metro 2050* and bylaw (Dec 2021)
- Board gives 1st and 2nd reading of *Metro 2050* bylaw (Jan 2022)
- Board holds Public Hearing (Feb 2022) and 3rd reading
- Referral for acceptance by councils (Mar – May 2022)
- Board adopts Bylaw (Jun 2022)

An aerial photograph of a suburban neighborhood. In the foreground, there are several houses with brown roofs and green lawns. A large, dark-colored building with a prominent green roof is the central focus. Behind it, a large parking lot filled with cars is visible, along with various commercial buildings and a road. The background is filled with trees and a clear blue sky with scattered white clouds.

Our Request to You

THIS IS YOUR PLAN

- We're listening - draft policies reflect 24 months of engagement and requests from your staff and other regional stakeholders
- Nobody knows your community better than you
- Collaborative planning is the key to shared regional success
- *Metro 2050* must be accepted by all affected local governments



SHAPE THE REGIONAL VISION

- Review the draft of *Metro 2050*
- Send us questions if you're unclear or need more information
- Invite Metro Vancouver to a Council meeting (Sept - Nov 2021)
- Co-host a public information meeting for your residents (Sept -Nov 2021)
- Submit formal comment letter on behalf of your jurisdiction by **November 26, 2021.**





metrovancouver | METRO 2050

PLANNING NOW FOR FUTURE GENERATIONS

metrovancouver.org/metro2050

metrovancouver
Together we make our region strong



City of Vancouver

Questions

Metro 2050 Update

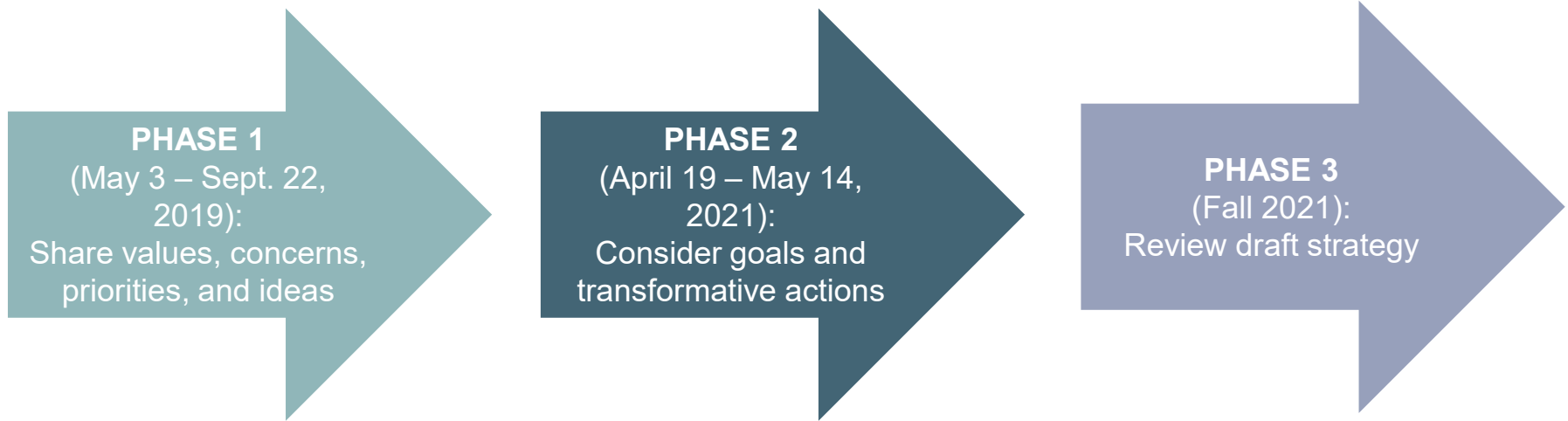
metrovancouver
Together we make our region strong



TRANSPORT 2050

Council of Councils
May 8, 2021

Transport 2050 Process



Building the Strategy

- Regional Transportation Strategy in development
- Comprehensive set of actions to improve transportation for everyone
- Principles: reconciliation, equity, and resilience



Draft Goals



Convenient Choices

We all have abundant, universally accessible choices allowing us to conveniently connect to opportunities without needing to rely on a car.



Reliable Choices

We all have reliable choices that get us where we need to go on time.



Affordable Choices

We all have affordable choices so that people of all incomes can easily live and move in this region.



Safe & Comfortable Choices

We all have safe and comfortable choices that make us healthier and happier.








Carbon-Free Choices

We all have carbon-free choices enabling us to achieve our Provincial and regional climate action targets.

Are we on the right track? Would you add or remove anything?



Access for Everyone				
We all have real choices	that we can count on,	that we can afford,	and that we can safely enjoy.	
1 / Convenient Choices for Everyone 	Reliable Choices for Everyone 	3 / Affordable Choices for Everyone 	4 / Safe & Comfortable Choices for Everyone 	5 / Carbon-Free Choices for Everyone 
Active and shared transportation mode share of 50%	20% less time stuck in congestion than today*	No one needs to spend more than 45% of their income on housing & transport	No serious traffic injuries or fatalities, with reduction every year	2030: lower GHG emissions by nearly half 2050: zero emissions
1.1 Make active transport the convenient choice for most shorter trips	2.1 Increase bike, bus, and freight reliability with traffic-priority measures	3.1 Increase supply of transit-oriented affordable housing	4.1 Make motor vehicles safer and more comfortable for everyone	5.1 Reduce the energy intensity of the transport system
1.2 Make transit a convenient choice for most longer trips	2.2 Reduce traffic and Increase driving reliability with travel planning and incentives	3.2 Increase supply of most cost-effective and affordable modes	4.2 Make streets and public spaces safer and more comfortable for everyone	5.2 Support cleaner fuels and engines
1.3 Provide convenient access to cars , without needing to own one	2.3 Make driving and parking more reliable with a real-time mobility management system	3.3 Ensure that transport taxes and fees are affordable for everyone	4.3 Make the transport experience safe and stress-free for both users and adjacent communities	5.3 Support the transition to fully electric transportation powered by clean, renewable energy
1.4 Increase convenient access to everything with digital tools (trip sub, MaaS, e-commerce, freight hubs)	2.4 Increase road & transit reliability by maintaining infrastructure in a state of good repair	3.4 Increase incomes by supporting good jobs and local economic development	4.4 Safely respond to and recover from disruptions & disasters	5.4 Reduce upstream and downstream emissions in the transport system supply-chain

*"Today" refers to congestion levels pre-COVID in 2019, which will be the baseline for comparison going forward. This level of congestion reflects Phase 1 engagement results indicating congestion as a priority issue, and is notionally deemed unacceptable and warranting further exploration of road usage charging.

Phase 2 Engagement: Three Transformative Actions



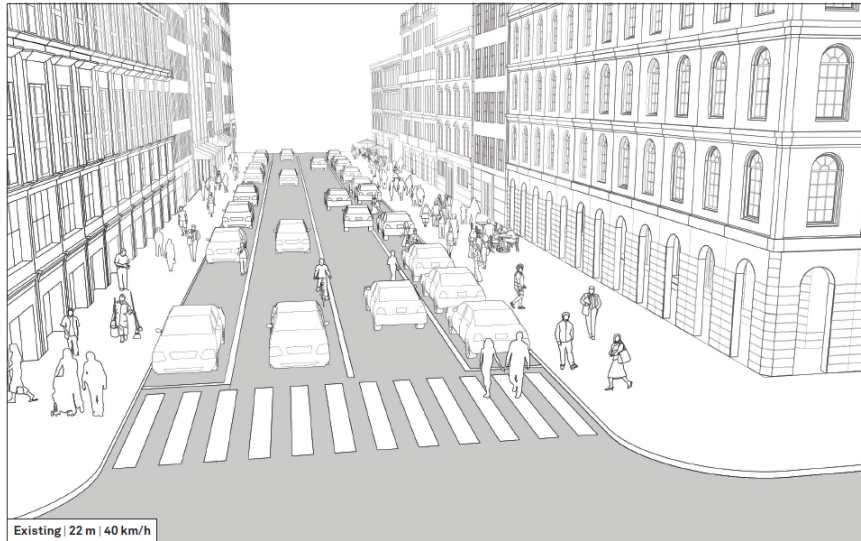
Action 1: People-First Streets That Invite Walking, Biking, and Rolling

More People Want to Walk, Bike, and Roll

- Proximity to fast-moving traffic and poor design are deterrents
- 100 fatalities per year from motor vehicle crashes (40 of whom are on foot or bike)
- Number one factor in cause of death: speed



In Urban Centres: Expand Area for Pedestrians

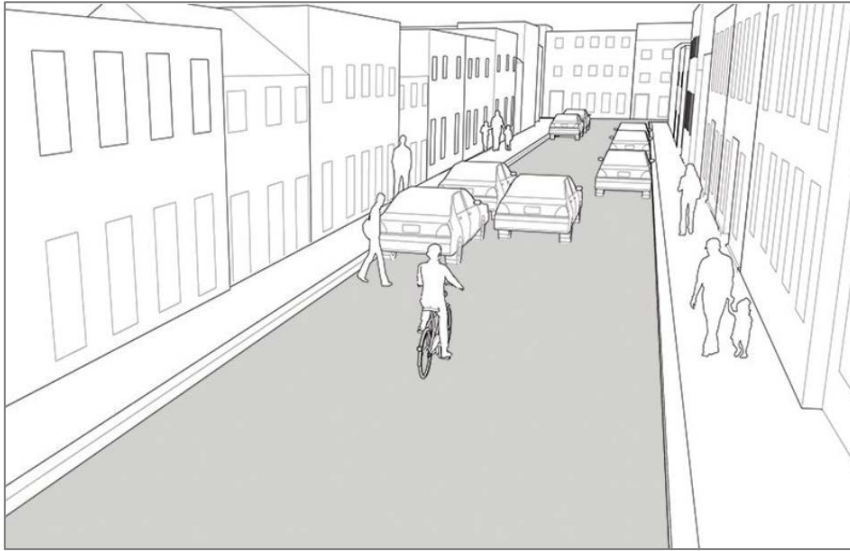


BEFORE: 50km/h street lined with parked cars

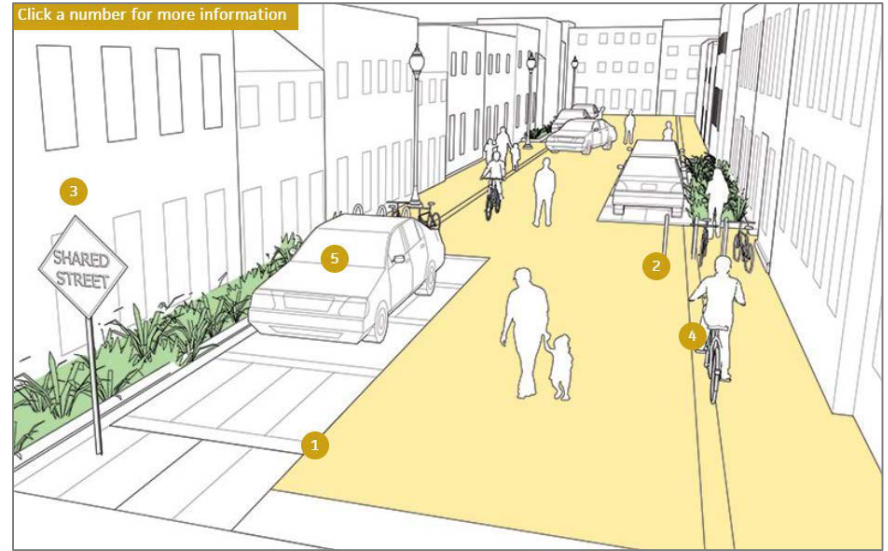


AFTER: 10km/h zone with ample pedestrian space and room for occasional low-speed shuttles to serve people with mobility challenges

In Neighborhood streets: Reduce Speeds and Prioritize Walking, Biking, and Rolling

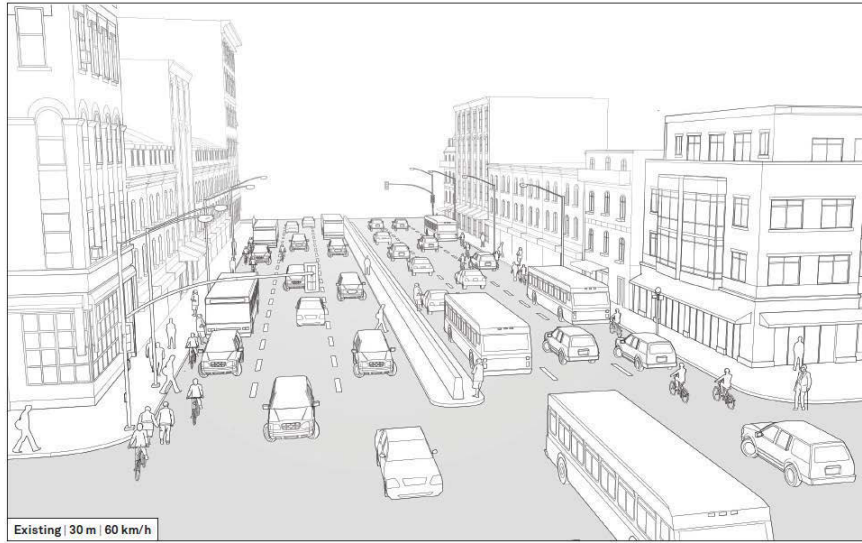


BEFORE: 50km/h street lined with parked cars and little comfortable space for walking and cycling

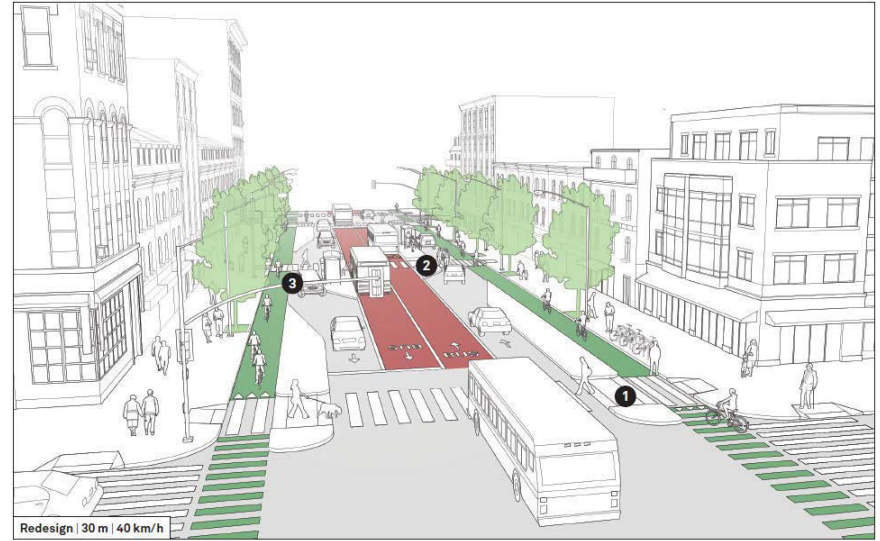


AFTER: 20km/h street furniture, landscape design, and limited street parking reduce overall speeds. Cars are welcome as guests but only if travelling to or from a destination in the zone

On Urban Boulevards: Wider Sidewalks and traffic-protected cycle tracks



BEFORE: 60km/h boulevard with three general purpose lanes in each direction



AFTER: 40km/h boulevard with wider sidewalks and shortened crossings, traffic-protected cycle-tracks, and transit priority lanes.



Action 2: Fast and Frequent Rapid Transit That's a Competitive Choice for Most Longer Trips

Transit Service in the Region



HandyDART	Local Transit	Frequent Transit Network	Express & Interregional	Rapid Transit
Ensures everyone has access to safe and accessible mobility	Extensive coverage to different origins and destinations. Focus is access	Provides high transit frequency for spontaneous trips. Focus is convenience	Reduces reliance on cars for longer distance travel, including to neighbouring regions	Connects the region, supports longer trips. Fast, frequent, and reliable.

What Could the Future of Rapid Transit Look like?

Above or below street level

SkyTrain or similar services running on elevated guideways or in tunnels.



Street level in dedicated lanes

Bus-rapid transit (BRT), light-rail transit (LRT), and other emerging forms of automated, electrified rapid transit



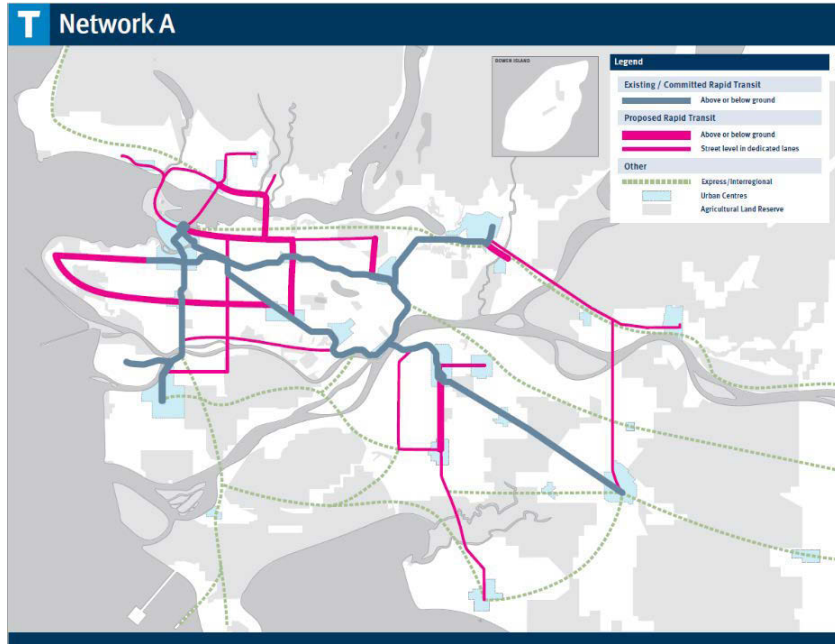
Two Illustrative Concepts Provide “Bookends”

	Network A	Network B
What’s the Idea?	Build more rapid transit above and below street level	Build more rapid transit at street level in dedicated lanes
	Both approaches would provide fast, frequent, and reliable rapid transit	
Advantages	<ul style="list-style-type: none"> Moves people quickly between town centres High passenger capacity during peak periods 	<ul style="list-style-type: none"> Cheaper to build: larger network for given investment – rapid transit for more people Supports all-day travel within sub-regions
Trade-offs	Requires tunneling and constructing rail guideways above ground, which is expensive	Requires dedicating some road space, currently used for autos, towards rapid transit
Network expansion	<p>200 more kilometres than today</p> <p>SkyTrain: 100 kms BRT and LRT: 100 kms</p>	<p>400 more kilometres than today</p> <p>SkyTrain: 50 kms BRT and LRT: 350 kms</p>

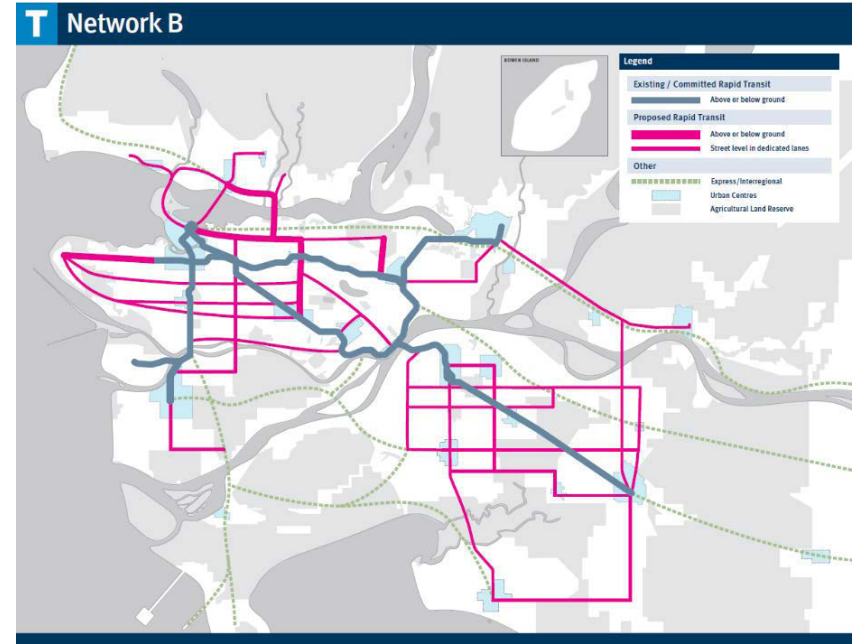
Current SkyTrain network is 100 kilometres long, with Surrey-Langley and Arbutus extensions

Two Illustrative Concepts Provide “Bookends”

200 more kilometres than today



400 more kilometres than today



These maps represent potential major corridors for future rapid transit expansion. Specific routes and projects would be determined through further study and public engagement



Action 3: Automated Vehicles That Provide Convenient Access to Car Trips, Without Adding to Congestion

Automated Vehicles: Opportunities and Considerations



Benefits

- Safer travel
- Better mobility for people who don't or can't drive
- Fewer cars on the road – opportunities to use space differently



Risks

- Could lead to more car travel
- Longer trips – or trips with zero passengers
- More congestion and sprawl

Transformative Action: Automated Vehicles

Transformative action: manage how automated vehicles are used in the region. Ensure they provide convenient travel options without overwhelming the transportation system.

Specific elements:

- **Promote car sharing.** Create incentives to make the sharing of vehicles easier, cheaper, and more convenient.
- **Reduce the number of empty cars on the road.** For automated vehicles, introduce fees to discourage trips without any passengers.
- **Reduce congestion.** For automated vehicles, introduce fees for passenger pick-ups and drop-offs in congested areas (i.e. downtowns, entertainment districts, etc.).

Next Steps

- **Engage!** Until May 14, take the survey at transport2050.ca or email feedback to transport2050@translink.ca
- **Phase 2 report:** we'll share we heard in this round of engagement
- **Phase 3:** we'll share a draft, comprehensive strategy for comment (Fall 2021)





TRANSPORT
2050



TRANS  LINK

transport2050.ca

Cleveland Dam Public Warning System

OVERVIEW AND COMMUNICATIONS

Marilyn Towill, P.Eng.

GENERAL MANAGER, WATER SERVICES

Council of Councils – May 8, 2021

Orbit 45225423



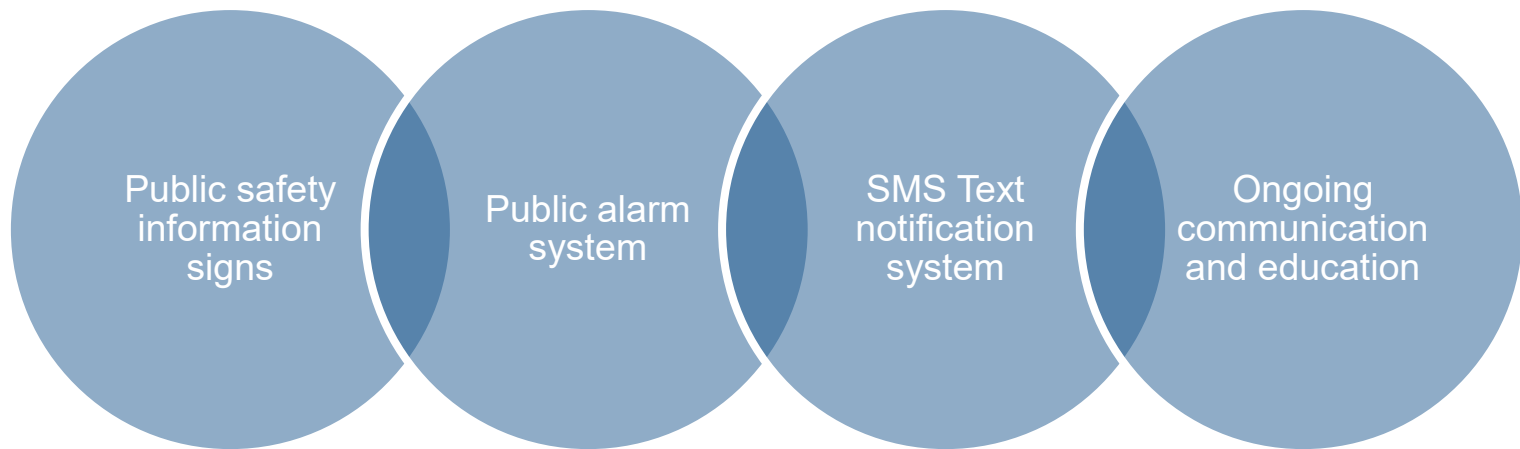
PROJECT OBJECTIVES

Implement an enhanced public warning system for the Cleveland Dam to protect public safety and the environment and maintain recreation in the park.

Capilano River at Cleveland Dam

PUBLIC WARNING SYSTEM ENHANCEMENTS

A suite of tools

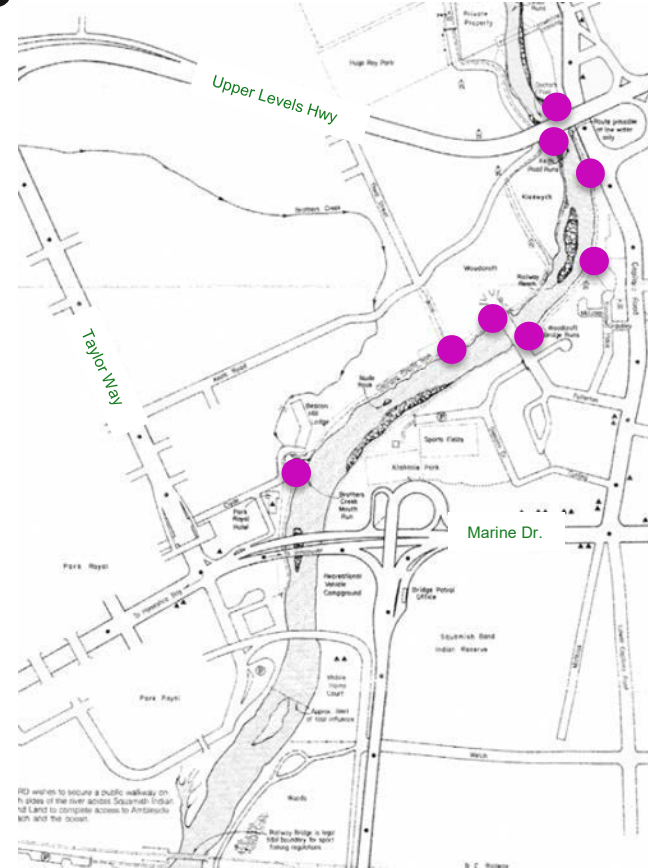
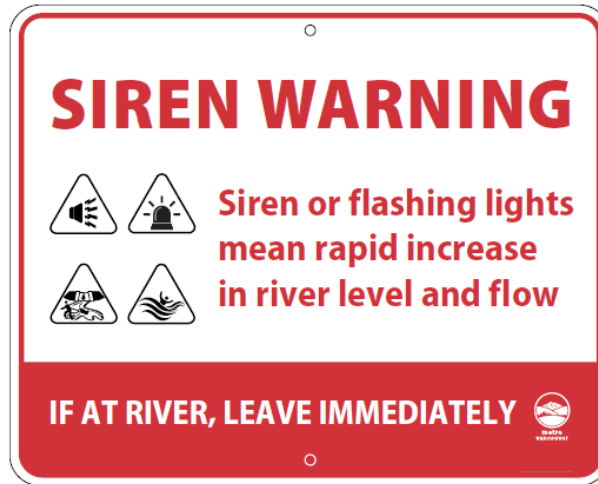


New additions – spring 2021

Public Safety Signs



Public Alarm Signs



PUBLIC ALARM SYSTEM

Initial installation

- Six locations along Capilano River
- Lights, sirens and public address loudspeaker
- For use in a dam-related emergency
- Could be adjusted for the long-term
- Regular testing and maintenance



OPT-IN SMS/TEXT ALERTS

- Used during:
 - Alarm testing
 - Dam-related emergency
- Sign up via:
 - Metro Vancouver website
 - Text message to phone number
- Promoted on information signs and website



Text JOIN to 604-757-0900 to complete your subscription.

LONG-TERM PUBLIC SAFETY ENHANCEMENTS

Further public warning system improvements based on analysis and input



Planned implementation by late 2022

- Incorporating best practices under the Canadian Dam Association (CDA) guidelines
- Optimization of location and speaker configuration
- Automated alarm triggers
- Ongoing communication and education



Informed by:

- Additional technical analysis
- Feedback on interim measures
- Input on potential new measures

ENGAGEMENT AND COMMUNICATIONS

Ongoing communication



Spring 2021

Feedback on interim system;
Ideas and interests for long-term;
Ideas on how to be involved



Early 2022

Feedback on draft new long-term
public safety measures

*Public engagement period
May 13–Jul 30, 2021*





Capilano Reservoir

Questions

Cleveland Dam Update

metrovancover
Together we make our region strong



North Shore Wastewater Treatment Plant Program

COUNCIL OF COUNCILS

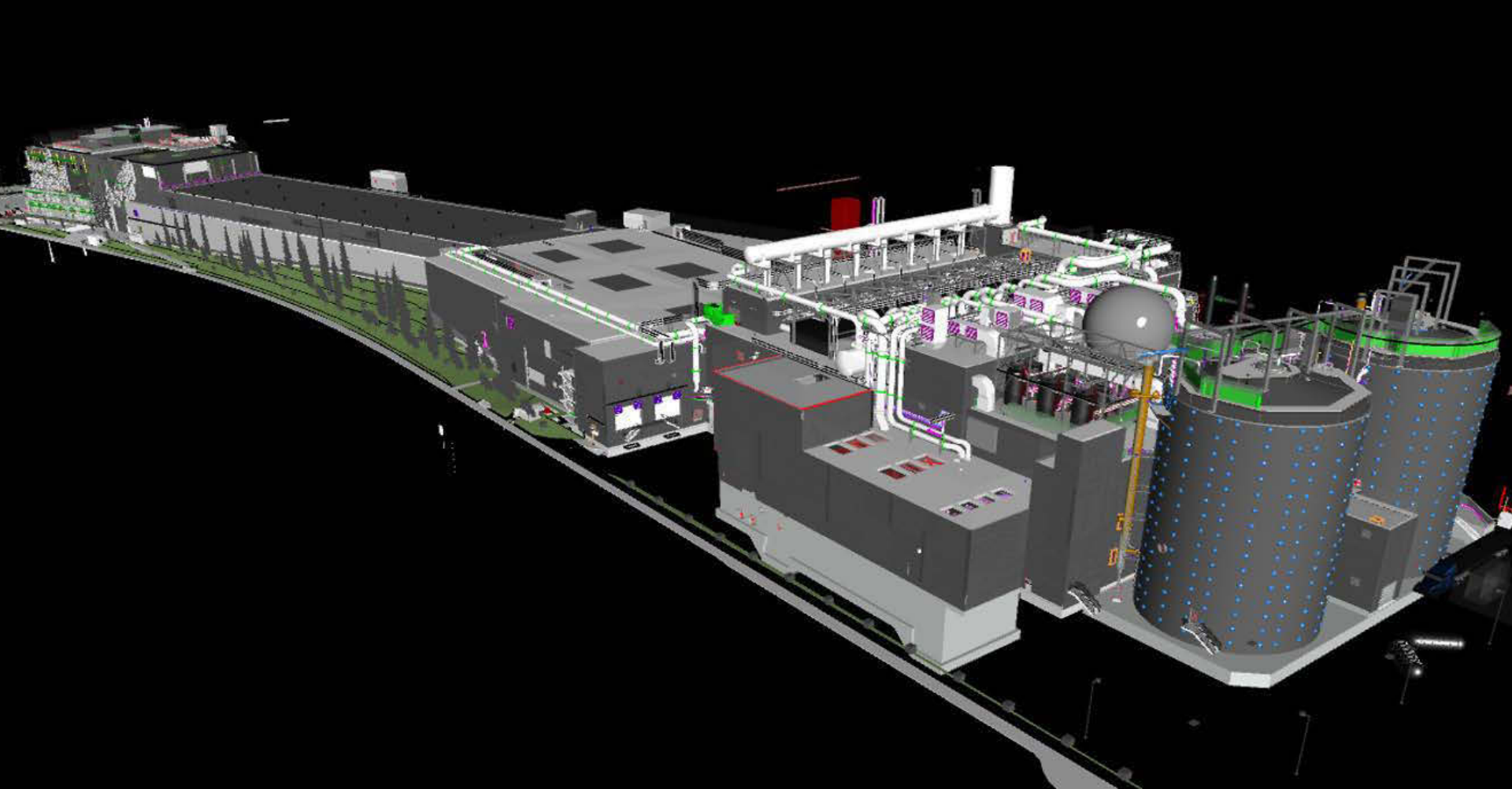
Cheryl Nelms, P.Eng., Ph.D.

General Manager, Project Delivery

Council of Councils – May 8, 2021

44630057

metrovancouver



COST AND SCHEDULE

- \$1.058 billion
- Project Definition: 2012–2013
- **Design and Construction: 2014–2024**
- Plant Operational: 2024



VIEW OF WWTP SITE LOOKING EAST



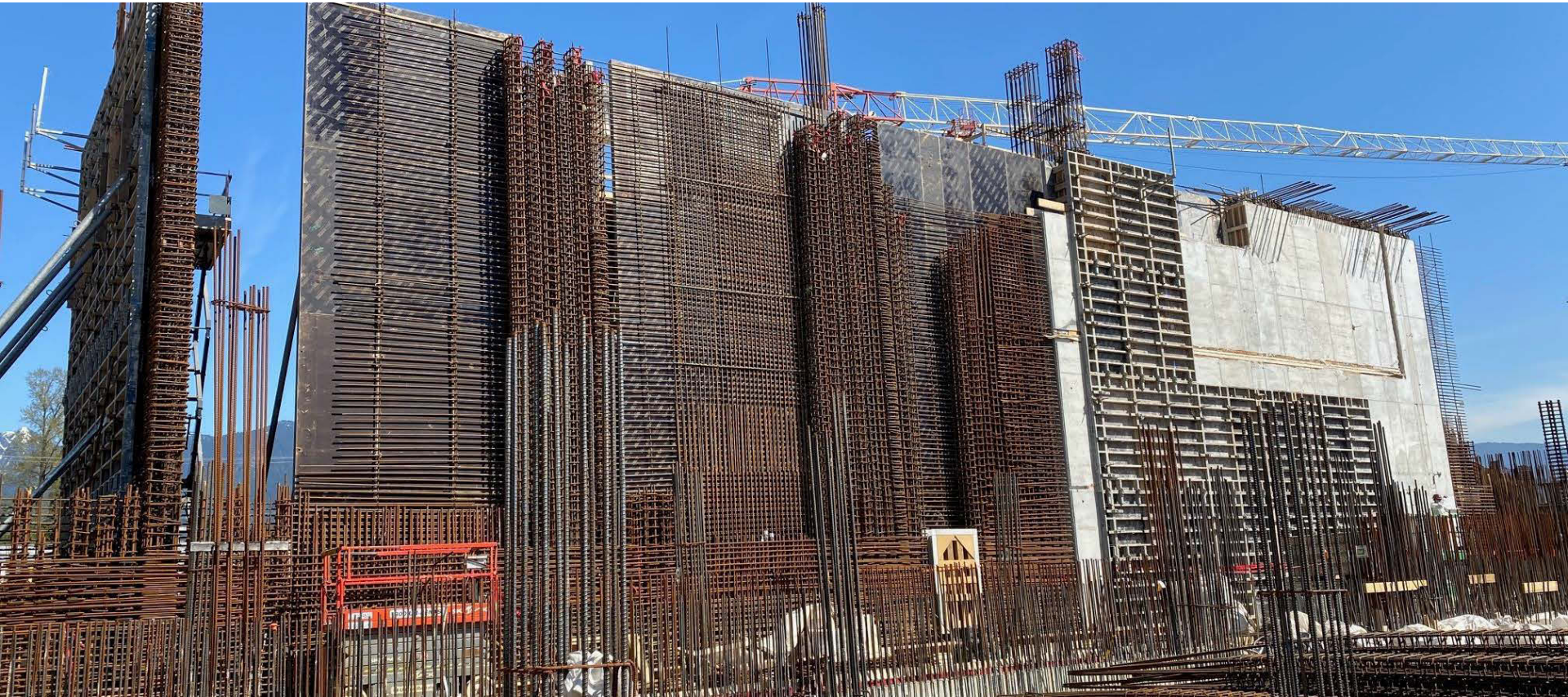
SECONDARY CLARIFIERS, DIGESTERS



INFLUENT PUMPING STATION



ACTIVATED SLUDGE TANKS BUILDING



FIRST NARROWS PUMP STATION



TERTIARY TREATMENT





Questions

North Shore Wastewater Treatment Project

metrovancouver
Together we make our region strong