

Better Community, Better Economy, Better Climate



Action Items

- Solicit participation and sponsorship in [State-City Collaboration on Clean Energy Transformations Conference](#), May 29-30
- Advance a local government lens in the Government of BC's CleanBC strategy
- Encourage strategic and systemic approaches in Climate 2050 that advance top policy priorities, e.g.
 - affordability
 - congestion management
 - zero waste
 - resilience

Emerging Opportunities



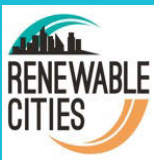
State-City Collaborations on Clean Energy Transformation



May 29-30

Climate Action Committee





State-City Collaborations on Clean Energy Transformation

May
29-30

Zero Emission Transport



*EV Charging
Roll Out*

*Zero Emission
Buses*

Norway, Netherlands
California, Quebec

Organic Waste Diversion & Renewable Natural Gas



*Separate & Aggregate:
Municipal Organics*

*Stimulate, Regulate,
Accelerate: Municipal
Feedstocks & RNG*

France, Korea, Sweden – TBC

Low Carbon Land Use, Mobility & Affordability



*Integrated Land Use &
Transportation*

*Land Use, Housing &
Affordability*

California,
Oregon

Clean Energy Ministerial - Mission Innovation Side Event

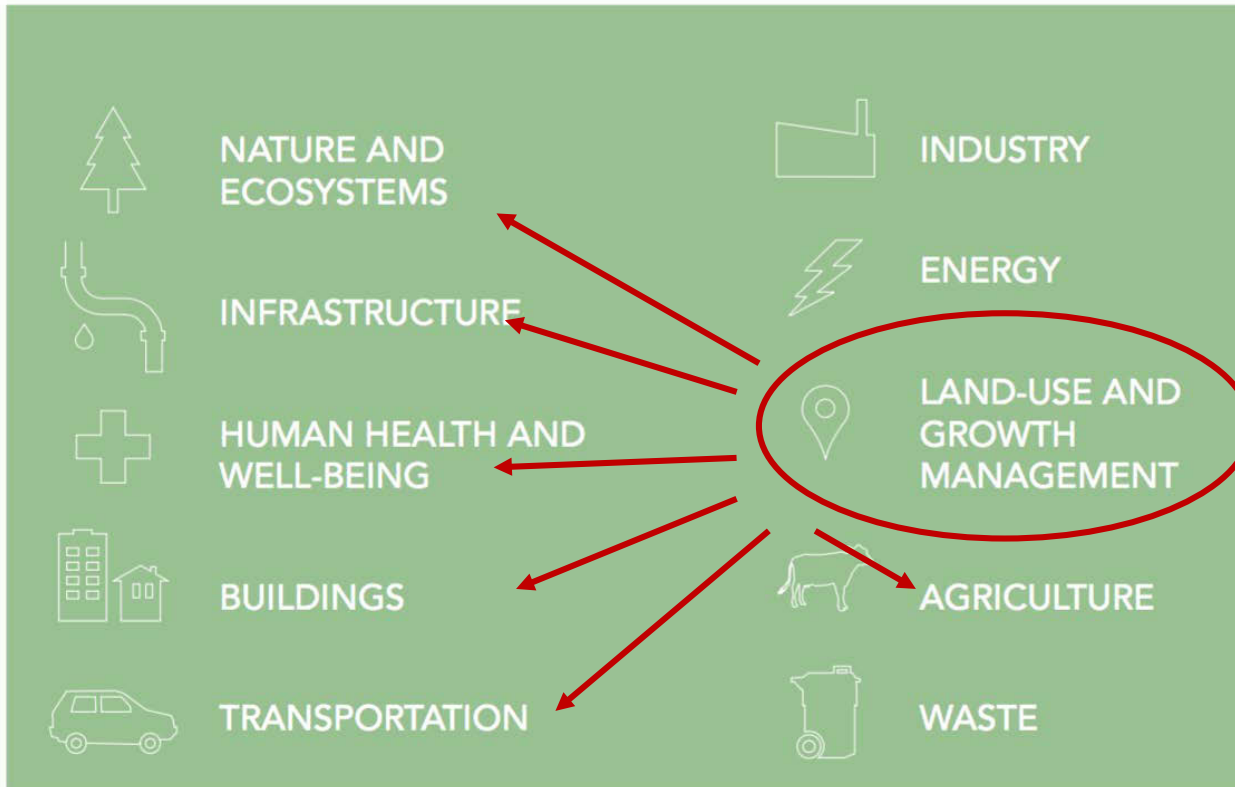
Natural Resources Canada

North Growth Foundation

City of Vancouver

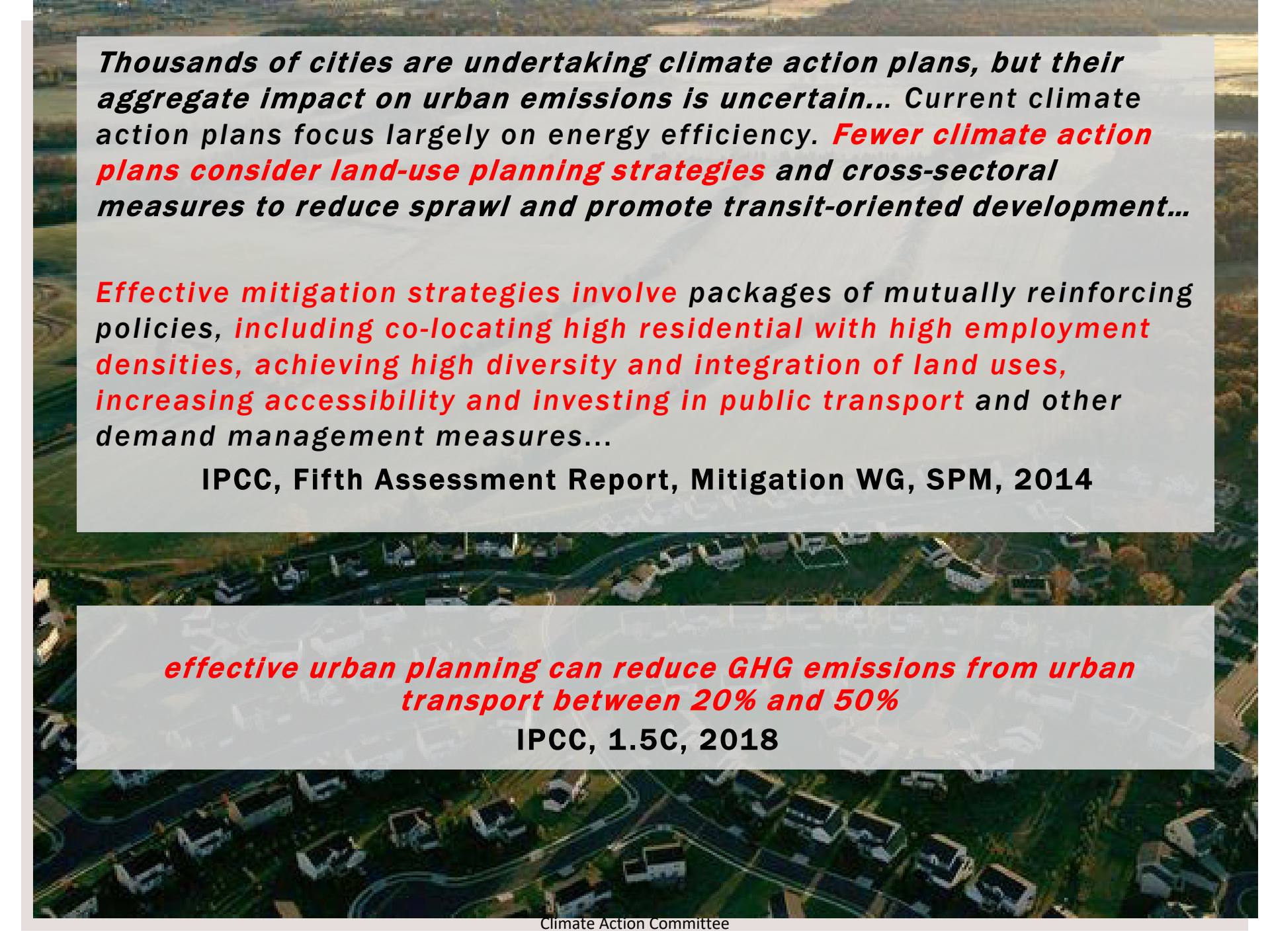
Sitka Foundation

Pacific Institute for Climate Solutions



LOW CARBON LAND USE





*Thousands of cities are undertaking climate action plans, but their aggregate impact on urban emissions is uncertain... Current climate action plans focus largely on energy efficiency. **Fewer climate action plans consider land-use planning strategies and cross-sectoral measures to reduce sprawl and promote transit-oriented development...***

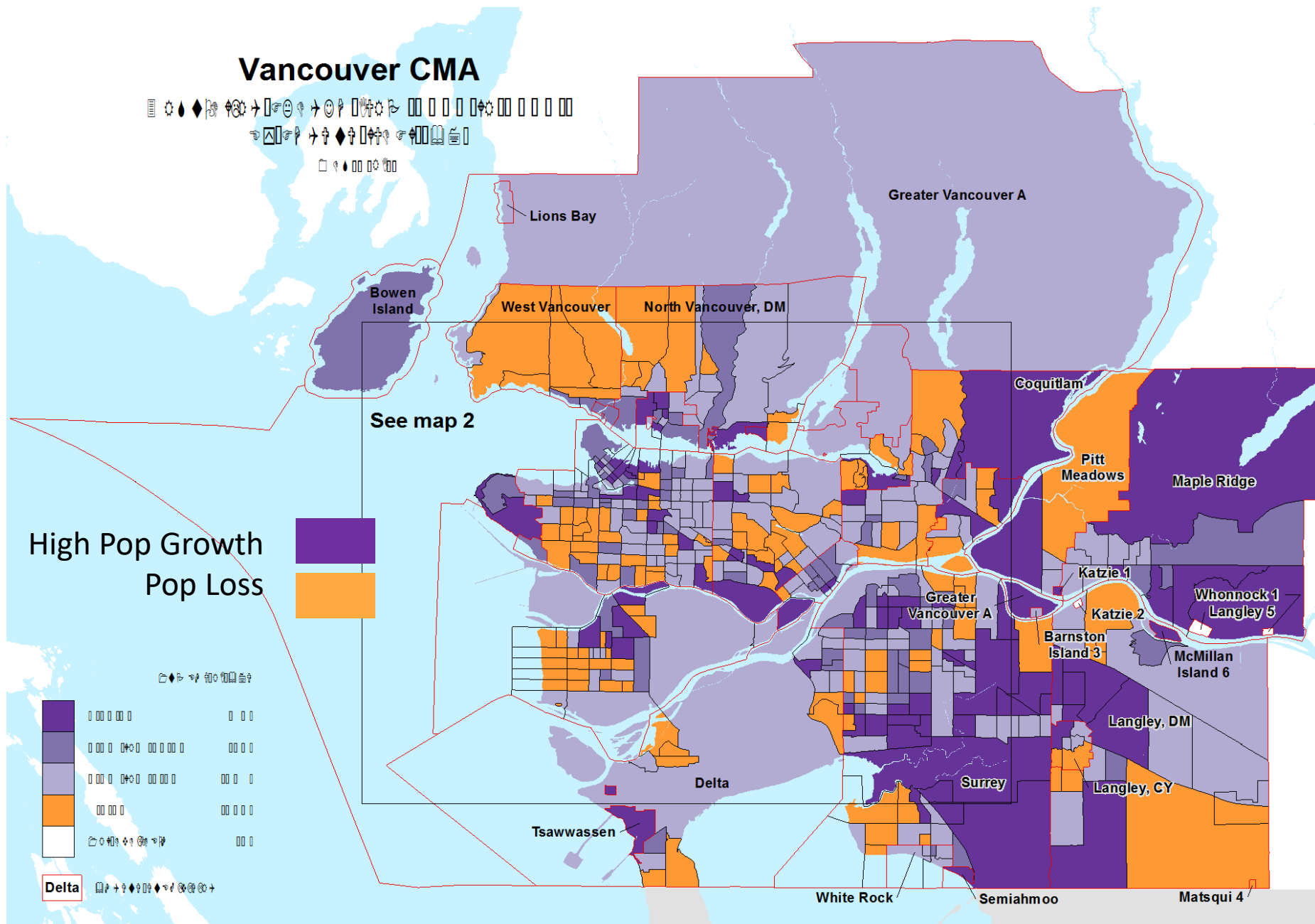
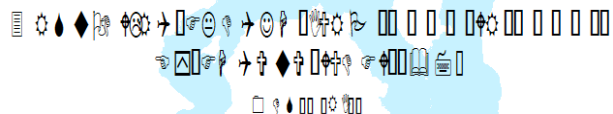
***Effective mitigation strategies involve** packages of mutually reinforcing policies, **including co-locating high residential with high employment densities, achieving high diversity and integration of land uses, increasing accessibility and investing in public transport** and other demand management measures...*

IPCC, Fifth Assessment Report, Mitigation WG, SPM, 2014

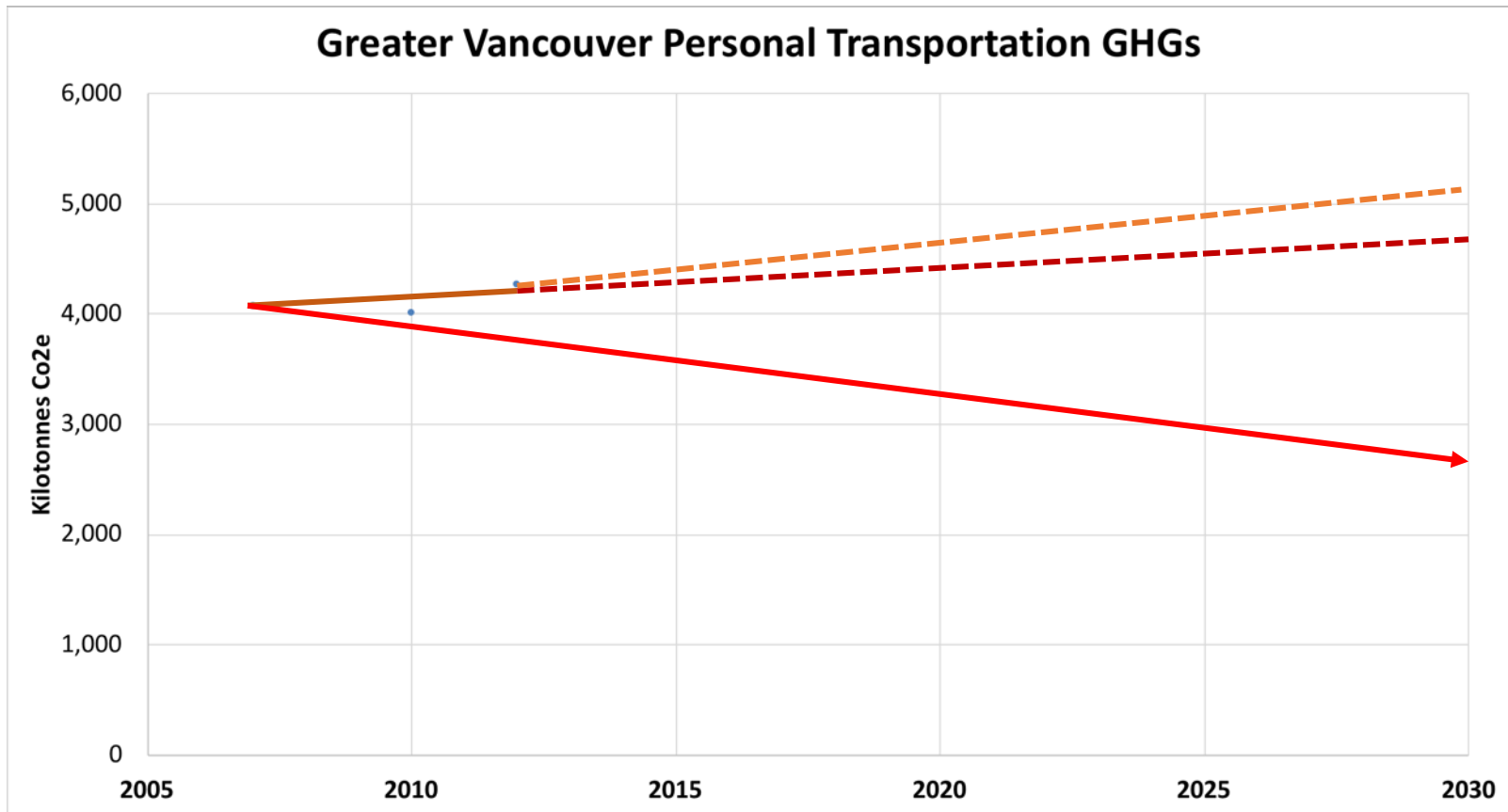
effective urban planning can reduce GHG emissions from urban transport between 20% and 50%

IPCC, 1.5C, 2018

Vancouver CMA



REGIONAL TRANSIT PLAN



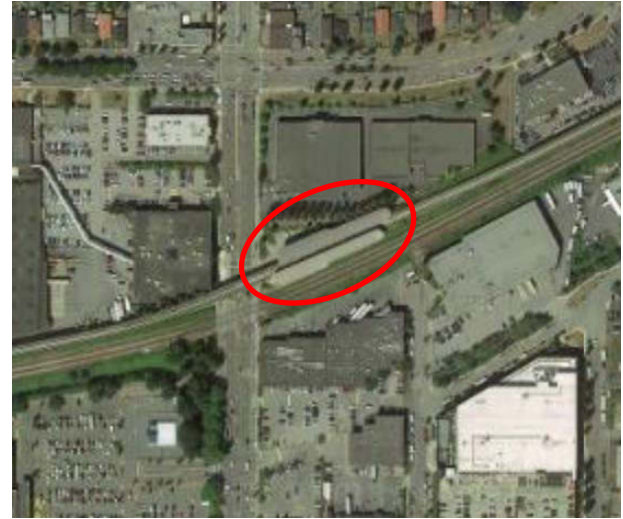
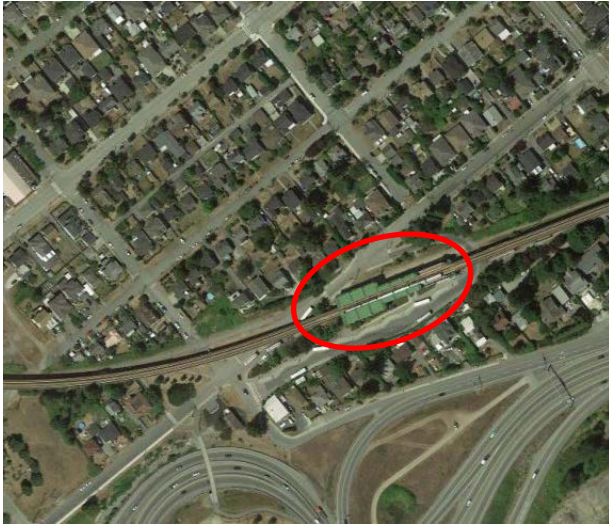
Inventory (BC Government)

Projection with \$8.5B Mayors' Vision Transit Plan (TransLink)

Projection without Mayors' Vision (TransLink)

GHG Targets (BC Gov, Metro Vancouver, TransLink)

“Zero Cost” Congestion & Carbon Management



Medium density intensification around underutilized existing SkyTrain stations

3 Rs for Single Detached Homes: Re-imagine, Retrofit, Renovate, Rebuild!



1960's
Home



Classic Energy
Retrofit



Classic Retrofit +
Suite/Strata Coach



Retrofit, Secondary
Suite/Strata + Coach



New Single Detached
Home or "Homeplex"

Occupancy



or



Affordability /
Person



**Canadian national average existing building

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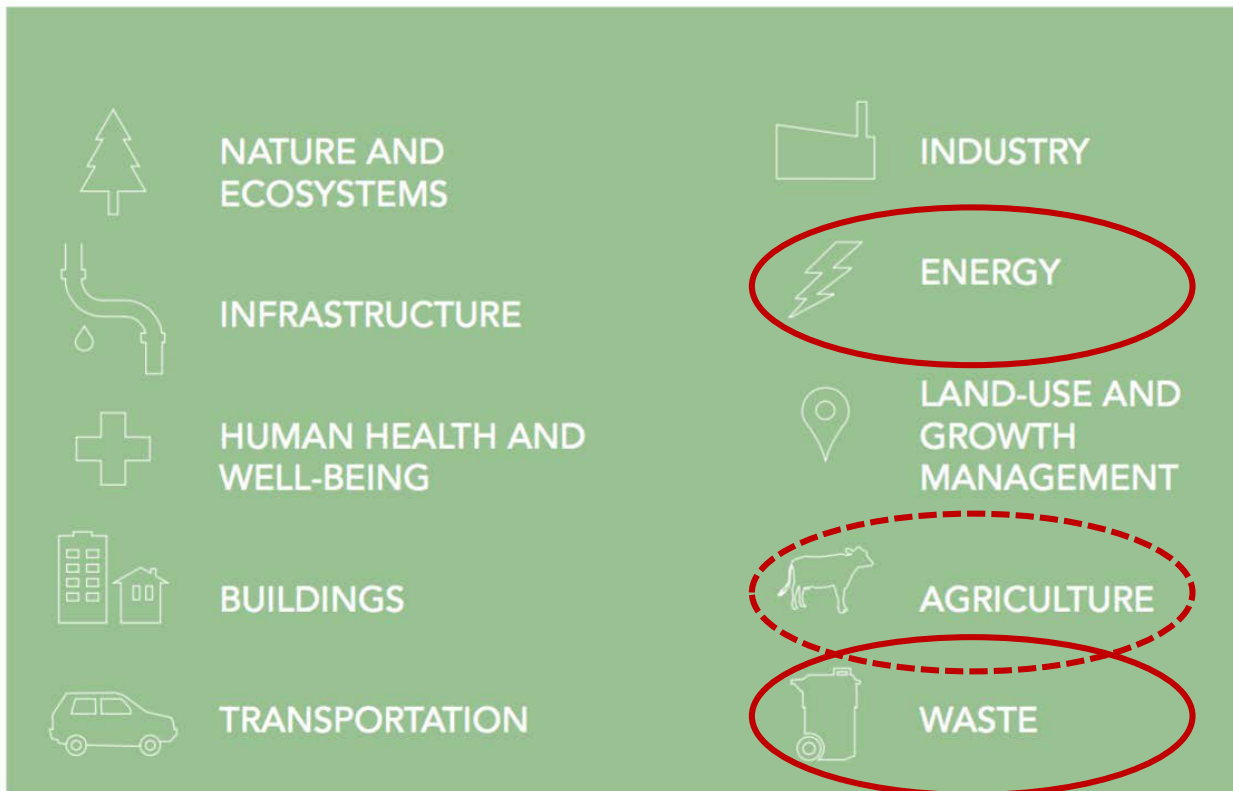
Boston Consulting: Policy Design
Housing Illustrations: UBC CALP

HIGH CARBON, HIGH COST GROWTH



Lightly Populated, Distributed Growth vs Smart Growth Hubs & Nodes

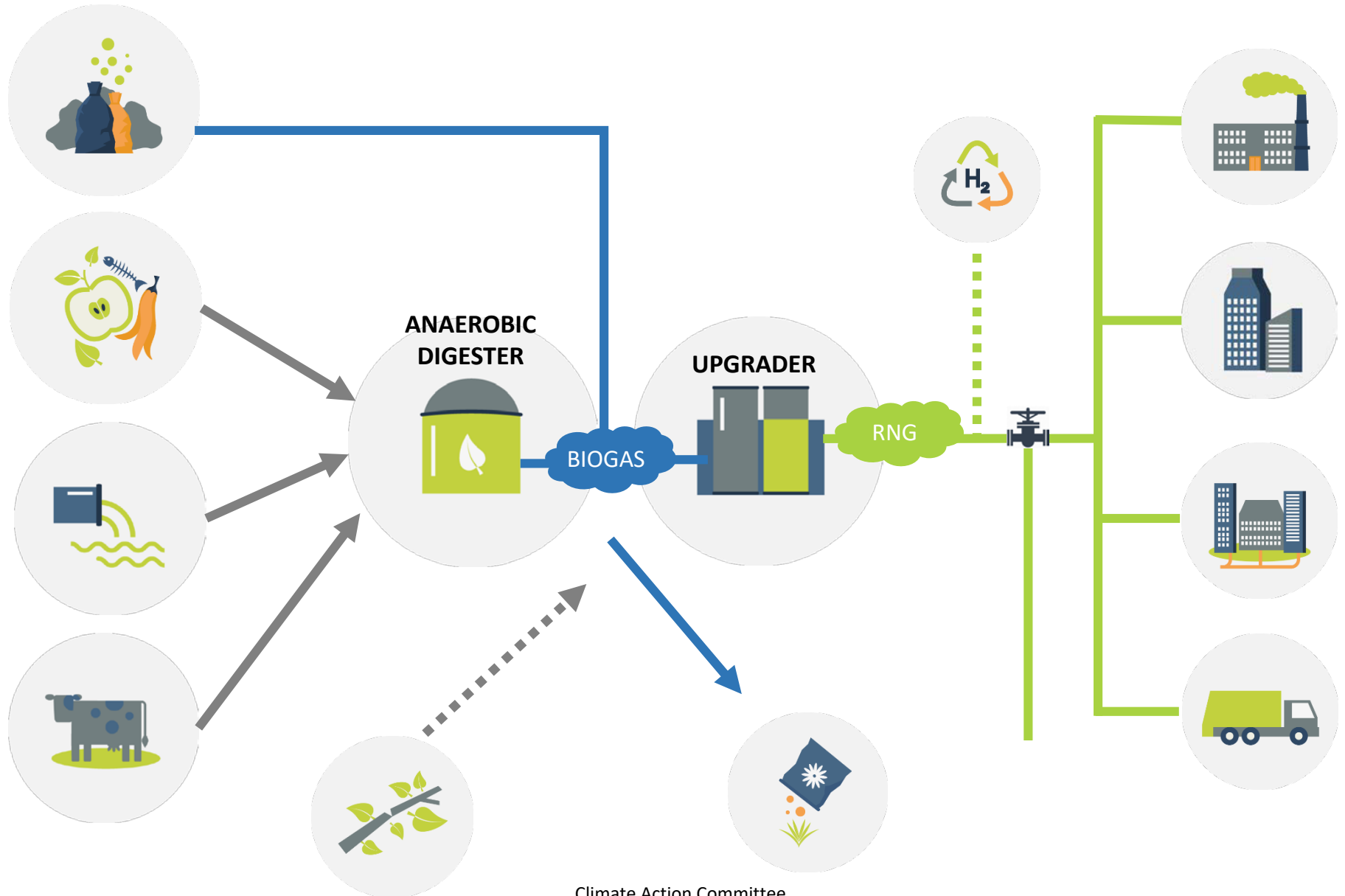
- Two to three-fold higher GHGs (Boston Consulting)
- Two-fold higher civic infrastructure costs (BC Ministry of Community Development, 2014)
- Two-fold higher transport costs, driving distances, travel times (Metro Van, 2015; Stats Can 2016)
- Majority are overweight based on walkscores (Coastal and Fraser Health Authorities, 2015)
 - #1 driver of farm land loss (Statistics Canada, 2014, 2017)
 - 2nd biggest driver of permanent forest loss, after oil and gas (NRCan, 2017)
- 70% of current of pop, 75% of current growth in Metro Van (David Gordon, 2018)



JUNK TO JOULES



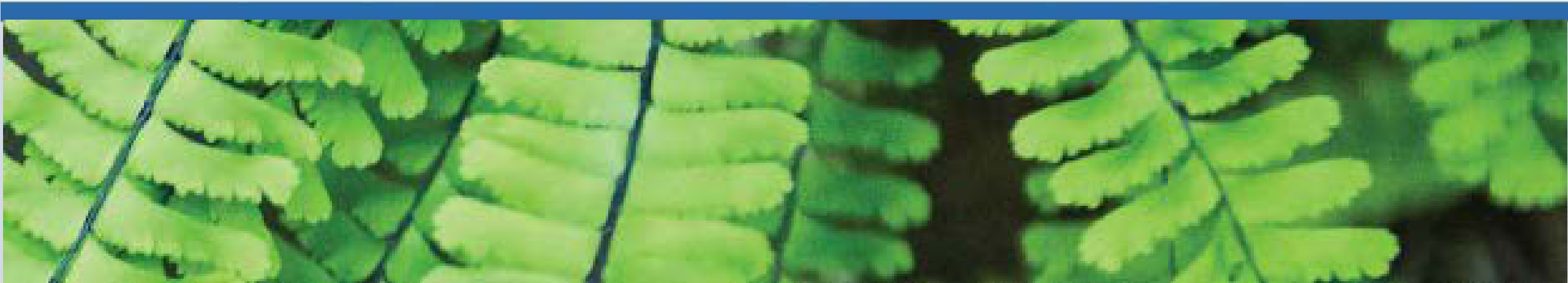
RNG: Junk to Joules Essentials



Action Opportunities

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Climate 2050 Roadmaps

DEVELOPMENT PROCESS AND ENGAGEMENT APPROACH

Conor Reynolds

DIVISION MANAGER

AIR QUALITY AND CLIMATE CHANGE

Jason Emmert

SENIOR PLANNER

AIR QUALITY AND CLIMATE CHANGE

Sheryl Cumming

AIR QUALITY PLANNER

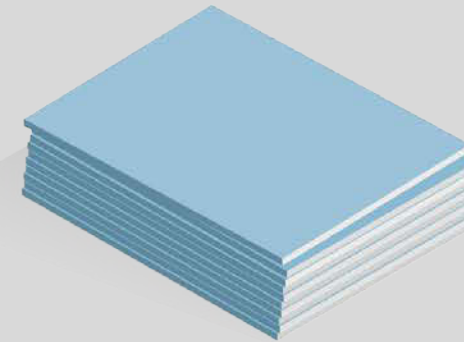
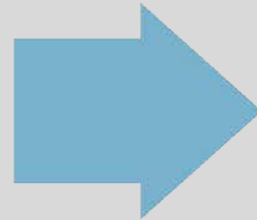
AIR QUALITY AND CLIMATE CHANGE

Climate Action Committee, March 15, 2019



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metrovancover | CLIMATE 2050 STRATEGY



CLIMATE 2050
ROADMAPS

CLIMATE 2050
ONLINE TOOL



NATURE AND
ECOSYSTEMS



INFRASTRUCTURE



HUMAN HEALTH AND
WELL-BEING



BUILDINGS



TRANSPORTATION



INDUSTRY



ENERGY



LAND-USE AND
GROWTH
MANAGEMENT



AGRICULTURE

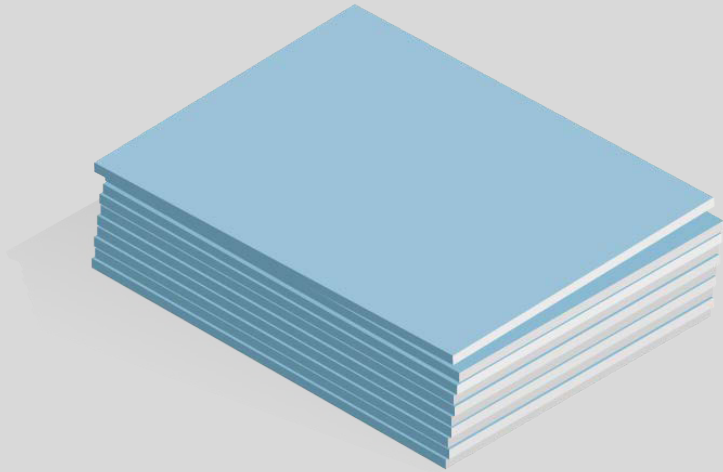


WASTE

Purpose of Roadmaps

- Describe the pathways to a low carbon, resilient region
- Integrate climate action across Metro Vancouver
- Link to climate policies and plans of other governments
- Respond to emerging opportunities and challenges

What's in a Roadmap?



CLIMATE 2050
ROADMAPS

- Background information
- Roles and Responsibilities
- Links to other plans and policies
- Goals and Targets
- Strategies and Actions
- Performance Indicators

CLIMATE 2050 ROADMAPS PROCESS

What is happening now?	Where do we want to go?	What do we want to do?	What should we do?	How will we do it?	Are we doing it?
Conduct research and analysis to gather evidence	Formulate goals and targets Define performance metrics	Explore potential actions Identify alternatives and linkages to other plans and policies	Prioritize strategies and actions	Identify climate action projects as part of work planning and budgeting	Monitor and report progress towards Climate 2050 goals

2019-2020

IMPLEMENTATION
ONGOING

INCLUDES EDUCATION AND ENGAGEMENT ACTIVITIES

Engagement Approach

- Recognizes the reach of the Climate 2050 Roadmaps
- Accesses a range of expertise and perspectives
- Considers internal and external / technical, strategic and cross-issue levels
- Reflects a range of voices for support and buy in
- Integrates with the development of other plans and policies



Feedback and Questions



Cannabis Production Operations

CONSULTATION ON REGULATING AIR EMISSIONS

Esther Bérubé

DIVISION MANAGER,
BYLAW & REGULATION DEVELOPMENT

Climate Action Committee Meeting, March 15, 2019

28879632

Kathy Preston

LEAD SENIOR ENGINEER

Climate Action Committee

Julie Saxton

AIR QUALITY PLANNER



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Air Emissions from Cannabis Production

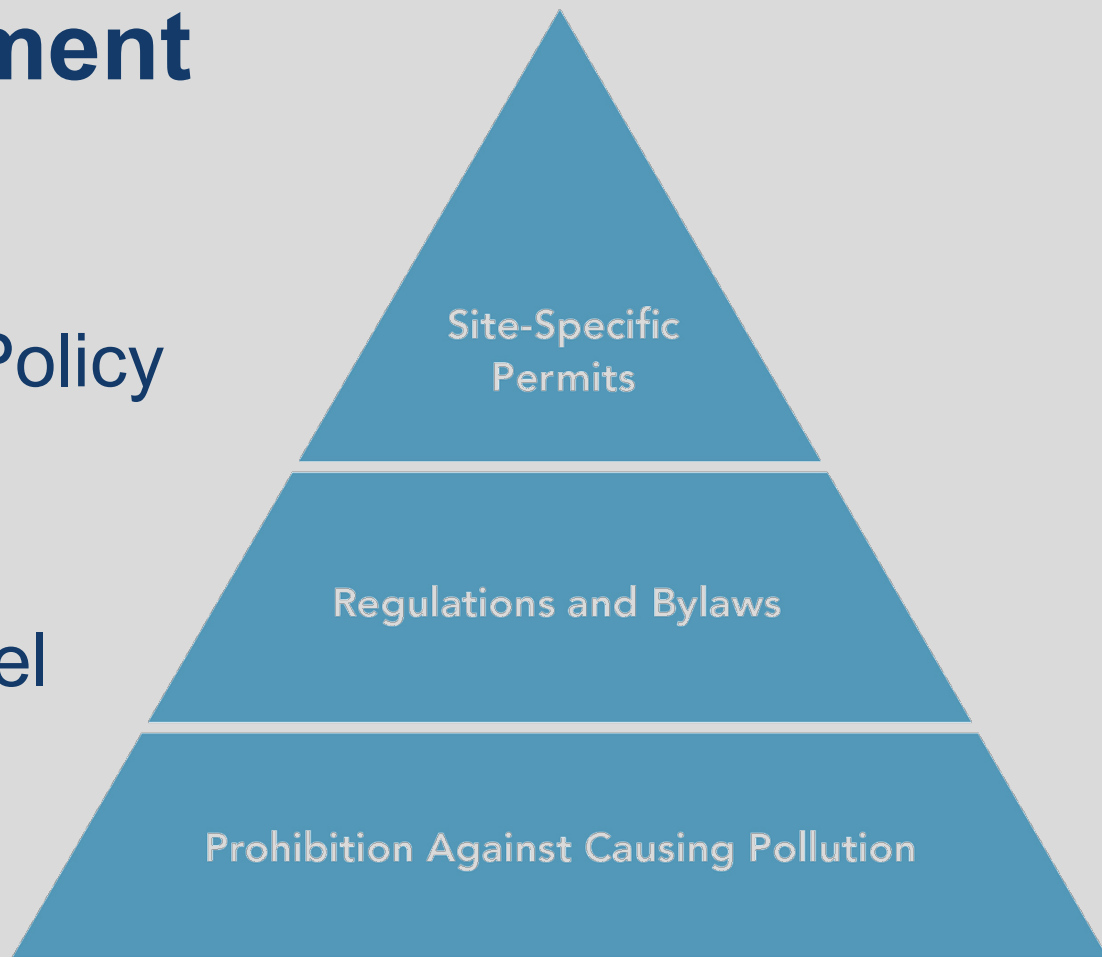
- Volatile organic compounds
 - Ground-level ozone formation
 - Particulate matter formation
 - Odorous air contaminants
- Combustion emissions



Policy Development Drivers

Odour Management Policy
Development Plan

Regional Ground-Level
Ozone Strategy



Emission Management Approaches

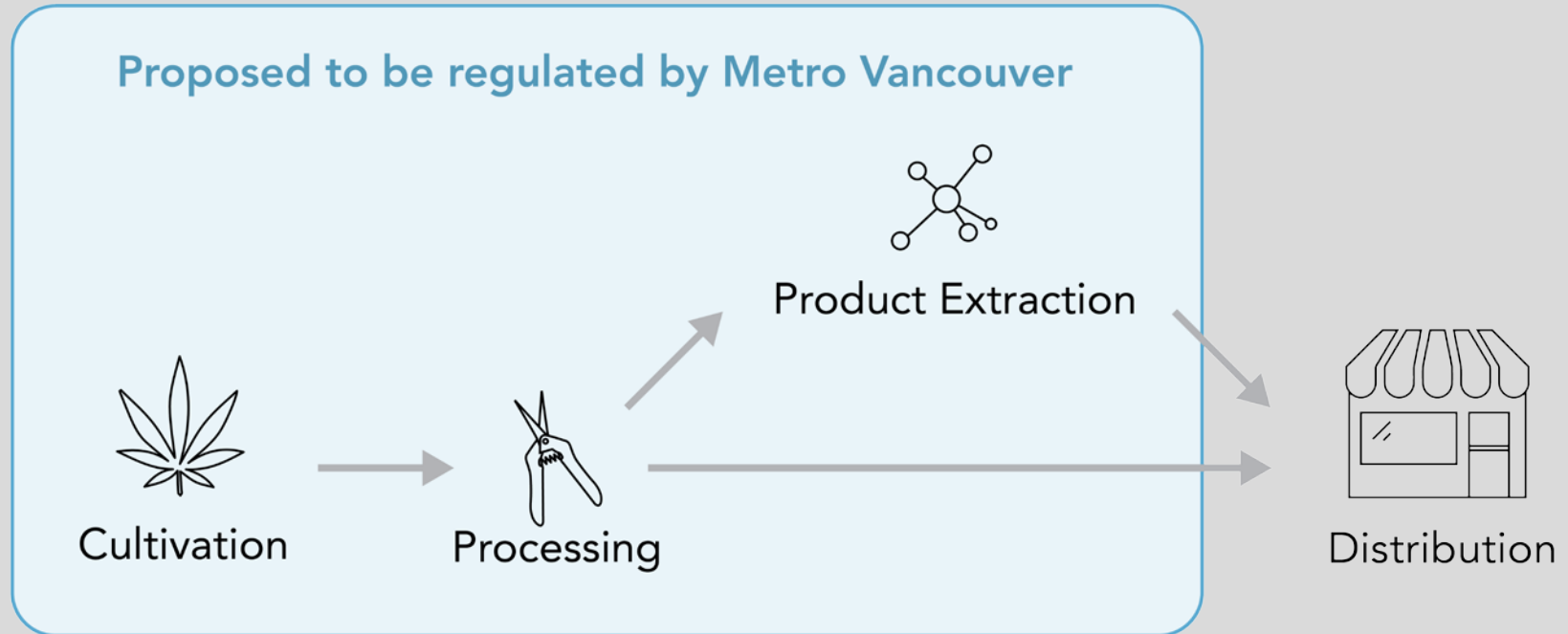
- Criteria for emissions released at the facility
- Criteria for concentrations beyond the facility
- Technology and management practices
- Economic instruments

Current Regulatory Approach For This Sector

- Emission Regulations
 - Agricultural Boilers
- Site-specific Permits
 - Cannabis cultivation
 - Reciprocating engines



Scope of Proposed Regulation



Proposed Requirements

- Enclose or contain key emissions sources
- Treat air with activated carbon
- Prevent release of fugitive or uncontrolled emissions
- Obtain approval of emissions management plan
- Avoid outdoor use of odour masking or neutralizing agents
- Prevent impacts near sensitive receptors and during degradation of airshed air quality

Engagement Plan

- April and May 2019
- Key audiences
 - Cannabis sector
 - Professional and industry associations
 - Government staff
 - Public
- Meetings, webinars, questionnaires





Thank you

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