

Transport 2040 A Transportation Strategy for Metro Vancouver, Now and in the Future.

For the purposes of the BC South Coast British Columbia Transportation Authority Act, this document constitutes the long term strategy for the regional transportation system, prepared in 2008.







TransLink's official name was changed to the South Coast British Columbia Transportation Authority. Its governance structure was altered to meet the challenges of providing effective, sustainable transportation in a growing region.

New TransLink Governance Model

Metro Vancouver

Commissioner(s)

the Legislation

Appoints CEO boards & chairs

affairs of TransLink

strategic plans

implements it

consultation plans

Mayors' Council

- Composed of all mayors in
- Appoints chair of Mayors' Council Appoints TransLink board of directors
- Appoints Commissioner & Deputy
- Receives and approves transportation and financial plans as laid out in

TransLink Board of Directors

- Appoints chair of board of directors
- Establishes subsidiaries and appoints
- Supervises the management of the
- Prepares & implements long-term transportation strategies (30-year) & 10-year transportation and financial
- Proposes to the Commissioner a customer satisfaction survey process and conducts surveys annually
- Proposes to the Commissioner a customer complaint process and
- Publishes an annual report
- Holds a public annual general meeting
- Approves project & program public

REALIZING A VISION FOR SUSTAINABLE TRANSPORTATION

TransLink creates and implements plans to meet the transportation needs of Metro Vancouver

Commissioner

Advises whether parameters and assumptions (including financial estimates) in 10-year transportation and financial plans are reasonable

- Approves short-term fares
- Approves customer satisfaction survey process
- Approves customer complaint process
- Oversees sale of major assets
- Publishes an annual report and submits it to the Mayors' Council

TransLink is dedicated to creating and sustaining a transportation system that meets the needs of residents, businesses, and goods movers, in a manner that protects the environment and supports the economic and social objectives of the region.

Responsible for regional transit, cycling and commuting options, AirCare, and Intelligent Transportation System programs, TransLink also shares responsibility for the Major Road Network (MRN) and regional cycling with municipalities in Metro Vancouver.

Created in 1998, TransLink has increased transit ridership by 38 per cent between 1998 and 2007. TransLink's services are delivered through subsidiary companies and contractors including: Coast Mountain Bus Company Ltd., West Vancouver Blue Bus, B.C. Rapid Transit Company Ltd. (SkyTrain), and West Coast Express Ltd. Under legislation introduced by the provincial government in 2007, TransLink's governance structure was changed. It now has the ability to provide services under agreements with municipalities from Pemberton to Hope.

WHAT WE HEARD FROM SOME OF OUR STAKEHOLDERS

II Managing projected growth, while cutting emissions and improving the liveability of the region, are essential elements of the Gateway Council's vision of a sustainable Gateway transportation system. //

Gateway Council

Making communities more accessible to cycling, walking, and other transportation options is an important step to reducing emissions and creating healthy communities throughout the region.

Better Environmentally Sound Transportation

u With a much higher proportion of seniors in the regional population, there will be a growing need for accessibility in the transportation system. //

Vancouver Board of Trade

II Transportation investments will need to enhance and guide development, to support principles to contain urbanization, and reduce kilometres driven.

Fraser Basin Council

I While technological innovation over the next 30 years certainly will create efficiencies, the nations and cities which have adopted fundamentally more efficient land-use and transportation systems will have a significant competitive advantage. "

Smart Growth BC

II An accessible public transportation system is an essential aspect of social sustainability. It not only addresses individual needs but also impacts the community... and the inclusiveness of its civic engagement."

SPARC BC

I There should be adequate resources dedicated to the transportation network in the interests of the region, the province and the country. "

BC Chamber of Commerce



BC GOVERNMENT

CREATING A 30-YEAR STRATEGY TO MOVE GENERATIONS

Transport 2040 sets out strategies to meet the transportation challenges of the coming decades in a way that protects what we value the most

Together Creating a Sustainable Future



This document lays out the challenges facing the region over the next 30 years, identifies key goals, and proposes strategies to reach those goals while remaining true to our values. It will be implemented through rolling 10-year plans, which will be produced with input from full public and stakeholder consultation activities.

The Greater Vancouver Regional District, operating under the name Metro Vancouver, is currently in the process of updating its regional growth strategy, so it is timely that TransLink is also looking at its longrange plan. Both strategies are informed by a tradition of strategic thinking about transportation and land use in the region, and both address new challenges not contemplated by Transport 2021 and the Livable Region Strategic Plan of 1996.

In fall 2007, TransLink consulted with key stakeholder groups, local government representatives, and subject area experts to define the

challenges, identify goals, and develop strategies for the next 30 years. To ensure a diversity of views, TransLink commissioned perspective papers from eight stakeholder groups, met regularly with a Stakeholder Roundtable, and held consultation forums with participation from approximately 200 stakeholder groups, organizations and members of the public.

This document reflects that input, and its implementation will require coordination with agencies including Metro Vancouver municipalities, the Ministry of Transportation and Infrastructure, Transport Canada, airport and port authorities, and other transport and non-governmental organizations. Close coordination is required to ensure that public transit and other transportation infrastructure investments are consistent with and supportive of regional land use plans and environmental visions for the region.

Metro Vancouver

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Metro Vancouver 2040 Employment & Population Projection

A growing population is a sign of success and the basis for a vibrant region with a strong economy. Our challenge in the next 30 years is to provide mobility for another 1 million people, so we can work and play in a way that makes us feel proud of this place.



02 Challenges and Groundwork

Population Growth: 2006-2040



By 2040, 1 million more people will live in the Metro Vancouver area.

Metro Vancouver Population Age Profile: 2006-2031

By 2031, almost a quarter of our

OUR DIVERSE POPULATION IS GROWING AND AGING

How we meet the challenge of keeping over 3 million people mobile will determine our success as a region, especially when one-quarter of the population will be over 65 years old in 2040

In 2006, the population of Metro Vancouver was 2.2 million. By 2040, that number could increase by onethird to more than three million, with about one-quarter of those residents aged 65 or older. These changes could greatly increase pressure on existing transportation infrastructure and systems if private vehicle use continues its growth trend.

Whether we are successful in keeping people moving while maintaining a vibrant economy, protecting air quality and greenspaces, and supporting the region's social needs will depend on how well growth is managed. If housing, jobs, and services are developed in locations that support public transit development, more trips can be made on foot, by bike, or on transit. Complete communities are more easily linked to other areas, reducing dependence on private vehicles.

For older people, this development pattern supports "aging in place" and independent living. An older population has greater need for localized and midday travel as well as the need for highly accessible transit services. With more people able to meet their travel needs using sustainable modes, including walking, streetscapes become more peopleoriented and attractive, and fewer people require private vehicles to get around.

Metro Vancouver contains one of the world's most diverse populations. In 2006, almost 40 per cent of the region's population were born outside Canada. In recent years, immigration has been the largest component of population growth in the region, signaling the importance of providing customer information about transportation services in a manner that transcends language barriers.



Average Household Expenditure (Excluding Personal Taxes)



Source: Vancouver CMA 2006 Statistics Canada



Source: Canada Census Journey to Work Data

Vancouver Metropolitan Core, 2006



Source: Canada Census Journey to Work Data

Owning a car is a significant household expenditure. Canadian Automobile Association estimates that the annual cost for a compact car is \$6,500 while a mini-van costs \$8,500.

growing four times faster than urban centres. If current trends continue. employment locations will become more dispersed, and it will be difficult to provide transportation options that are both cost effective and attractive.

DRAMATIC GEOGRAPHY PRESENTS OPPORTUNITIES AND CHALLENGES

More people are choosing housing in vibrant communities but many jobs are hard to reach on transit

The Lower Mainland of British Columbia is a region bounded by mountains, rivers, the Pacific Ocean, and the U.S. border. The dramatic geography is beautiful but presents significant transportation and development challenges.

For the last 40 years, regional policy favoured and continues to support concentrated development in a network of regional city centres, connected by high quality transit so that greenspaces and agricultural lands are protected. The strategy has been successful in part: the transit-friendly metropolitan core has seen a dramatic increase in residential development as have most neighbourhoods close to SkyTrain stations. While regional city centres have been successful in attracting high-density residential and commercial development, many of the region's new jobs have located in outlying business parks.

The number of office jobs in business parks in the region has grown dramatically over the past two decades, posing a significant challenge from a transportation perspective.

Business park locations are generally not within walking distance of places where people live, shop, or eat, and are difficult and time consuming to get to on public transit. As a result, the vast majority of people that work in business parks drive to work. Complicating matters further, the fastest growing areas are in southern and eastern communities, where the transit, cycling, and walking mode shares are currently relatively low.

Business parks and new residences are also competing with industry for space to expand, putting the squeeze on land and forcing industry to the edges of the region. This trend forces trucks to drive greater distances and frustrates attempts to increase transit mode share because so many job locations are outside city centres or other complete communities.



Source: TransLink

Metro Vancouver

1998



2007

We're riding transit more-ridership has gone up 38 per cent between 1998 and 2007 while population has increased by 13 per cent.

Source: TransLink

Metro Vancouver 24 Hour **Transportation Mode Share for 2004**



77% of all Metro Vancouver resident trips were by auto, either driver or passenger

11% 11% 2% Transit Walking Biking

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users

Annual Transit Ridership



124 million transit trips



173 million transit trips

TRAVEL PATTERNS REFLECT DEVELOPMENT

Trips are more diverse as population rises and people travel more

Metro Vancouver residents made an average of 6.4 million trips per day in 2004, up 17 per cent over 1999, even though the population grew by only six per cent in the same period.

While new job locations have become increasingly decentralized, the average commuting distances have decreased very slightly, due in part to the concentration of higher density residential growth in the metropolitan core and in regional city centres.

While transit ridership rose 38 per cent between 1998 and 2007, the number of private vehicle trips also grew. The most recent trip data indicate that a quarter of trips are by bike, walking, and transit and about three-quarters are by private vehicle.

Transportation mode share varies markedly across the region. In the Vancouver/University Endowment Lands area, 40 per cent of trips are by sustainable modes-walking, cycling

and transit. In municipalities east of the Pitt River and south of the Fraser River, 90 per cent of trips are taken as a driver or passenger in a private vehicle. Because most population growth is occurring in these eastern and southern communities, increasing the mode share for sustainable transportation options will be a significant challenge.



Metro Vancouver **Commuting Modes and Greenhouse Gas Emissions (GHGs)**

Bicycle/walking

Electric trolley bus (20 passengers)

SkyTrain electric light rail car (20 passengers)

New hybrid diesel-electric bus (20 passengers)

> New diesel bus (20 passengers)

Two-person car pool (gasoline engine)

> **Driver travelling** alone in car (gasoline engine)

Driver travelling alone in SUV or van (gasoline engine)

> The transportation modes we choose and the distances we travel affect the amount of greenhouse gases emitted yearly.

Source: 2004 RWDI for TransLink Data

18% 13%





Metro Vancouver's Greenhouse Gas Emissions

CLIMATE CHANGE IS REAL

Transportation choices can make a difference: vehicles account for 35 per cent of greenhouse gas emissions in Metro Vancouver

The United Nations' International Panel on Climate Change, a group of 2,500 climate experts, says the evidence is undeniable that climate change is caused by burning fossil fuels. They warn that effects are already occurring and more severe effects are inevitable unless greenhouse gas (GHG) emissions are sharply reduced. Canadians are one of the world's highest per capita generators of GHG emissions - we need to do our part to tackle climate change.

In 2007, the B.C. government set targets to reduce greenhouse gas emissions in the province by 33 per cent by 2020 and by 80 per cent by 2050 from 2007 levels. Metro Vancouver adopted the same targets regionally and the federal government has adopted similar longterm targets. Light- and heavy-duty vehicles accounted for 35 per cent of greenhouse gas emissions in Metro Vancouver in 2005. With over half of the province's registered vehicles and population in Metro Vancouver, transportation in this region will clearly

need to lead the way in reducing provincial emissions.

TransLink can be part of the solution by helping people make smart transportation choices. There are three key ways to reduce GHGs from transportation:

- Lowering the amount of total vehicle kilometres travelled by reducing car trips through demand side management and encouraging walking, bike, or transit use
- New and emerging energy efficient and clean vehicle technologies
- Lower carbon transportation fuels

Cleaner engines and fuels will help reduce GHG emissions in the region, but are not sufficient on their own to meet provincial targets. Reducing the number of vehicle trips will be key to the success of transportation-based climate change solutions.

As a transportation provider, TransLink also needs to plan for changes to our local environment and region that might occur, such as changes to weather patterns and increased risk of flooding.

Source: 2005 Lower Fraser Valley Air Emissions Inventory, Metro Vancouver

Testing the Power of Tomorrow. echnology and Alternative Fuel Program

nuitee Bus Technology and Alternative Fuel Program



Source: 2005 Lower Fraser Valley Air Emissions Inventory, Metro Vancouver



Resources Canada

2005 Metro Vancouver **Smog-Forming Pollutant**

Sources

Annual Emissions From Different Types of Vehicles Driven for 16,000 km

CO, emissions in tonnes

Source: Fuel Consumption Guide 2008, Natural

Although metropolitan Vancouver's

air quality currently compares well to other major North American cities, some locations do not always meet air quality objectives. Emissions of such air contaminants as nitrogen and sulphur oxides can contribute to reduced visibility and pose adverse health effects, such as cardiovascular and respiratory problems.

Transportation, including light and heavy-duty vehicles, marine vessels, and non-road engines/equipment, is a major source of air emissions. In fact, light duty vehicles were the largest source of smog-forming pollutants in the region in 2005.

Metro Vancouver was the first Canadian metropolitan area to develop and implement an Air Quality Management Plan (AQMP) in 1994. Several initiatives in this AQMP yielded significant emission reductions over the past decade. However, emissions of some air contaminants, including particulate matter, are forecast to

increase due to growth in population, vehicle ownership and economic activity. Considering this forecast, as well as new information about climate change, air quality, and health effects, Metro Vancouver developed and adopted a new AQMP in 2005.

TransLink administers the AirCare light-duty vehicle emission inspection and maintenance program. This program has reduced emissions of hydrocarbons, carbon monoxide, and nitrogen oxides ranging from 11 to 25 per cent. One of the challenges of 2040 is to build on positive results to date, and continue to find new approaches to reduce transportation emissions or encourage use of more environmentally friendly modes in order to improve the region's air quality.

At the same time, TransLink's own fleet of vehicles, rail cars, and vessels is a direct source of criteria air contaminants. TransLink has therefore developed an emissions policy to

address its influence on the regionwide transportation system and its own fleet, and has been experimenting with the use of alternative fuels. TransLink strives to meet the challenge of reducing its own vehicle emissions in the pursuit of improved regional air quality while providing better transportation choices for regional residents.

AIR QUALITY NEEDS PROTECTION

Transportation is the largest single source of pollutants that cloud the air and affects people's health



Metro Vancouver





As of mid-2008, the price of oil has approached \$150 per barrel and the cost of gasoline in Metro Vancouver has exceeded \$1.50 per litre.

Source: Natural Resources Canada



Historical Average Fuel Prices

1990 2000 2001 2002 2003 2004 2005 2006 2007 2008

Triple Challenge to TransLink

RISING FUEL PRICES ARE A NEW REALITY

As fuel prices increase, people change their transportation behaviour – a reality we need to plan for

The rate of oil production is forecast to peak and begin declining, while global demand for oil continues to grow. Projections for the timing of peak oil vary from imminent to several decades from now. Given this uncertainty, it is prudent to anticipate significantly higher fuel prices and start planning for a future where fossil fuels are less available.

If there is any good news arising from these serious challenges, it is that changing our transportation choices and behaviours to reduce greenhouse gas emissions will generate other spin-off benefits, including a cleaner environment, a more globally competitive economy, less congestion, safer roads, more complete communities and better health. In this future, public transit, as well as walking and cycling, will play a larger role in our daily lives.

TransLink receives 12 cents per litre from fuel sales in Metro Vancouver, regardless of the price at the pump.

When prices rise, many people look to alternative modes of travel, or forgo trips, to save money. TransLink also pays higher rates for fuel to operate the bus fleet, which is growing larger to meet demand for more transit service throughout the region. Instead of getting more money to pay for transit when fuel gets more expensive, TransLink gets less revenue and pays out more to cover rising costs and meet demand.

Fuel taxes are a transportation revenue source, and many people believe that transportation-based revenue sources are the appropriate way to fund transit. However, to fund public transportation - both current and expanded service stable and secure funding sources are needed. Fuel taxes are becoming less secure in this world of high fuel prices.



Metro Vancouver-**Canada's Trade and**



Asia-Pacific economies.

Traffic



Port Metro Vancouver projects container traffic to grow substantially by 2020.

KEEPING THE

ECONOMY MOVING

IN A GROWING REGION

As Canada's gateway to the Asia-Pacific, Metro Vancouver relies on transportation to move people

and goods in a way that promotes a healthy economy,

Tourism Gateway to Asia-Pacific Economies



Metro Vancouver is Canada's trade and tourism gateway to

Port Metro Vancouver **Projection for Container**



Metro Vancouver's economy accounts for over 55 per cent of the

provincial Gross Domestic Product and is home to more than half the province's population. Service industries account for more than 80 per cent of employment in the region, which has emerged as Canada's primary gateway to the Asia-Pacific. As a gateway, the region contributes significantly to regional, provincial and national economies, both through the movement of goods on rail and roads and due to the value of international passenger travel.

With container traffic projected to grow, we are challenged to ensure efficient access for trucks to key gateway facilities, including Port Metro Vancouver, Vancouver International Airport, and the four U.S. border crossings.

At the same time, Metro Vancouver has become a centre for high-tech industries, and our reputation as a

highly livable city attract highly mobile knowledge-workers. To ensure our region remains economically attractive, and to protect the region in times of economic instability, we need to maintain the high quality of life here.

environment and quality of life

A key part of supporting the economy and keeping the region a great place to live is ensuring that transportation is efficient, effective and affordable. After housing, transportation is generally a household's largest expense. To reduce the financial burden of transportation on people and businesses, we need to create a region where owning a car is an option and not a necessity.

Transportation infrastructure is key to a healthy economy, but much of what we rely on is starting to age and will need significant maintenance or rehabilitation by 2040. As infrastructure reaches or surpasses its life expectancy, the region will have to decide how to replace what has worn out and how to build new facilities

to meet the demands of a growing economy and population. Across Canada, the size of the infrastructure deficit-the gap between what is needed and the resources available to fund roads, bridges, transit and other essential investments-is growing. The Conference Board of Canada estimates the infrastructure deficit for urban transit systems at \$23 billion over the next few years; the urban road and bridge infrastructure deficit is pegged

at \$66 billion and growing.



TransLink must be well prepared for emergencies and natural disasters, so it can respond quickly and efficiently, in coordination with other emergency services.

MITIGATING AND RESPONDING TO RISK

Safety from accidents, and security in the face of uncertain times and environmental realities, demand priority focus

The safety and security of the region's inhabitants and visitors will continue to be a priority over the coming 30 years as our region becomes more populous. A leading safety issue now is the loss of life from traffic accidents, a continuing challenge despite advances in vehicle safety technology. Transit is inherently safer than private vehicle travel, so a widespread shift away from automobiles onto transit would benefit public safety.

Public safety would also benefit if the needs of pedestrians and cyclists were better met. Cycling and pedestrian safety solutions will require innovation and partnerships as the issues are complex and their implications can be far reaching.

TransLink must continue to be vigilant and proactive to ensure vehicle technology and facility design, operator training, and operating procedures keep the system safe for transit users. Ensuring passengers feel safe and secure is always important, and will continue to be the subject of continuous improvement.

Security-the prevention of injury from aggression or terrorism-has become a greater concern in the world since attacks on New York City in 2001, Madrid in 2004, and London in 2005. Since these events, security has been increased in transit systems, airports, ports, and border crossings globally, and will remain a key consideration when planning transportation systems in the future.

Coastal British Columbia, located in a seismically active zone, faces other difficult realities. While the probability of a major earthquake is low, the associated risk is extremely high, because of the concentration of human habitation in this region. Also, longterm impacts associated with climate change may become a threat to the region, such as the risk of sea-level rise and potential for increased flooding. TransLink must be well prepared for emergencies and natural disasters, so it can respond quickly and efficiently, in coordination with other emergency services, if required.

Transportation plays an important part in creating a resilient region that is able to withstand and adjust to short- or longer-term disruptions in our region.



A sustainable transport system is one that allows the basic access and development needs of individuals, companies, and societies to be met safely and in a manner consistent with human ecosystem health, and promotes equality within and between successive generations.

It is affordable, operates efficiently, offers choices of transportation, and supports a competitive economy as well as balanced regional development.

It limits emissions and waste within the planet's ability to absorb them, uses renewable resources at or below their rates of generation, and uses non-renewable resources at or below the rates of development of renewable substitutes while minimizing the impact of the use of land and the generation of noise.

Source: adopted by the Ministers of Transport of the European Union, 2001

A BRIGHT FUTURE TOMORROW DEPENDS ON OUR VISION TODAY

The decisions we make today will determine how attractive, vibrant, and sustainable our region is 30 years from now

Our vision for 2040 is built on a desire to balance the needs of a healthy economy with environmental protection, social equity, and support.

In 2040. TransLink is seen as a sustainability enabler and has deployed every possible method to make travel smarter: expanded infrastructure and services; innovative technologies; enhanced priority to non-automobile alternatives; convenient access to transit, especially for people with mobility or cognitive challenges; easyto-use travel information and massive public outreach.

Greenhouse gas emissions from transportation sources have been greatly reduced. TransLink has adopted low and zero-emissions technologies and implemented full life-cycle cost principles for decision making. Trips by private vehicle are far less common and less necessary, as land use and transportation plans are integrated and people live in more complete communities.

Transportation and land use decisions have changed lives and lifestyles, having drawn people to vibrant residential areas where it is easy to get around on foot or by bike, vehicles are available for sharing and the Frequent Transit Network is close at hand. This network provides frequent, reliable transit service on designated corridors throughout the day, everyday. It serves all the key employment, educational, commercial, and recreational destinations for residents and visitors. Rapid transit lines are well maintained, refurbished, and have been extended to serve developed areas.

A host of measures - new technology, system design, policing, and information services - ensure that we enjoy one of the safest and most secure transportation systems in the world. With a population of more than three million people, one-quarter of whom are over 65 years old, safety and accessibility are critical to ensure mobility, both physical and social.

The economy is flourishing, supported by the efficient transportation system that ensures goods and workers are transported quickly, reliably, and affordably around the region and its gateways. The Pacific Gateway seaports and airports are thriving and are a powerful economic engine as the region takes its place at the forefront of the global transition to cleaner economies. Our transportation practices have been crucial to this leadership position, especially the strategic investments in road and rail, superb critical incident management, and road priority for transit and trucks.

In 2040, we have maintained our global position as one of the best places in the world to live, because we acted in ways that valued the environment and the people of this beautiful region.

GOAL 1

Greenhouse gas emissions from transportation are aggressively reduced, in support of federal, provincial and regional targets

GOAL 2

Most trips are by transit, walking and cycling

GOAL 3

The majority of jobs and housing in the region are located along the Frequent Transit Network

GOAL 4

Traveling in the region is safe, secure, and accessible for everyone

GOAL 5

Economic growth and efficient goods movement are facilitated through effective management of the transportation network.

GOAL 6

Funding for TransLink is stable, sufficient, appropriate and influences transportation choices.

OUR FUTURE CAPTURED IN SIX STRATEGIC GOALS

After several months of consultation and planning, TransLink has developed a set of six broad goals to serve as the framework for future actions. Our Transport 2040 goals reflects transportation's critical relationship reflect a desired future for the region, where with goals for the environment, the challenges have been addressed through effective strategies that, in turn, translate into a series of linked plans.

The goals expressed in Transport 2040 go beyond simply meeting the region's transportation needs. Our strategy also economy and our society. It is not enough to just provide transportation, but we must do it in such a way that it also addresses all these goals.

STRATEGIES TO ACHIEVE OUR 2040 GOALS

STRATEGY 1

STRATEGY 2

assets and keep

STRATEGY 3

Build and operate and accessible

STRATEGY 4

sources and pursue

TransLink's strategies to achieve our goals for the next 30 years are closely aligned with one another, meaning that by achieving one goal, we also make progress in achieving another.

the major benefit.

There is an important reason behind the connectedness of our 2040 strategies. Many of the looming concerns such as climate change, congestion, sprawl, and increasing fuel prices point to the need for a different approach to moving people and goods around the region. Every one of our proposed strategies reflects this vision of a quantum change to a new definition of "normal" in our transportation behaviour. To fulfill

HOW WE WILL GET THERE

For example, when we improve quality of life in the region through developing more complete communities along a Frequent Transit Network, we also reduce greenhouse gas emissions and smog-forming pollutants through fewer automobile trips-just to name

the expectations of all sectors for a sustainable transportation system, we are therefore responding with an integrated web of broad strategies, most of them addressing more than one goal. Each strategy will provide the context for its own specific range of strategic initiatives.

Land use shapes the trips people have to make to get to work, to shop, and for social interaction, thereby affecting the transportation network over time. At the same time, transportation networks can help to shape land use; for example a SkyTrain station increases the access to regional destinations, making a neighbourhood more attractive, and encourages more people to live nearby. Planning for transportation needs to consider land use plans, and vice versa. TransLink's Transport 2040 and Metro Vancouver's updated Regional Growth Strategy have been drafted in parallel, with the two strategies closely tied together and mutually reinforcing.

The proposed land use objectives and policies of the Regional Growth Strategy include development of a compact urban form with complete communities and growth concentrated in the Metropolitan Core, Regional City Centres, and along a Frequent Transit Network with the main concentrations of development linked together by high quality transit service. The result of this settlement pattern is that average urban densities are higher and jobs, shopping, and services tend to be located closer together, facilitating access by pedestrians or by cycling, or along corridors that are served by high quality transit. This land use pattern is supportive of travel by walking, cycling, and transit. The key concept is that people are not solely reliant on private automobiles for their trips and have a range of transportation choices to meet their mobility needs.

Transportation investments need to be supportive of the region's desired land use pattern. For example, high quality transit infrastructure between Regional City Centres and the Metropolitan Core supports and reinforces the proposed corridors and centres concept of the proposed Regional Growth Strategy.

TransLink will continue coordination with Metro Vancouver on the Regional Growth Strategy to ensure that the development and implementation of the two strategies are consistent and mutually supportive.

Achieving the vision and goals of Transport 2040 cannot be accomplished by TransLink alone. It will take a coordinated and concerted effort among all levels of government, stakeholders, the private sector and the public.

STRATEGY 1 MAKEEARLY INV/FSTMENTS THAT ENCOURAGE DEVELOPMENT OF COMMUNITIES DESIGNED FOR TRANSIT, CYCLING, AND WALKING

Priority must be placed on investments that fill system gaps to improve bicycle, pedestrian, and transit access, and connect modes of travel."

Strategy 1:

in transit:

a) Add capacity on existing services to serve existing demand and attract new ridership

b) Invest in new rail and bus infrastructure and accelerate a phased implementation of the Frequent Transit Network.

c) Coordinate transit investment with land use development plans to serve and stimulate high density and mixed use areas and reinforce a compact region.

levels.

b) Improve integration of cycling and transit.

05 Strategies

Better Environmentally Sound Transportation

1.1 Make substantial investment

1.2 Provide significant support for walking and cycling:

a) Initiate and support expansion of cycling infrastructure, facilities and programs at both local and regional



c) Improve walking and pedestrian facilities to destinations along and within the Frequent Transit Network.

d) Upgrade access to key transit stations and facilities.

1.3 Support improvements to inter-regional travel alternatives.

1.4 Develop TravelSmart program to encourage and assist people in making sustainable travel choices, including trip reduction and increased use of transit, walking, ride-sharing, and cycling.

1.5 Complete strategic road projects that facilitate goods movement.

Land use takes shape over long periods of time, and therefore the foundation has already been laid. To be ready to meet the transportation demands that 2040 will bring, we must invest now. Accommodating a larger population, addressing global warming, and securing our economic growth means investing to shape new patterns of living, working, and moving.

The region has long recognized the importance of using transit to both serve and shape land use. There is an increasingly urgent need to be more proactive in linking transit to land use. A key concept of Transport 2040 is the timely development of the Frequent Transit Network in creating and serving transit-supportive communities. By working with municipalities to better integrate transportation and land use, we can create a Frequent Transit Network that helps attract a large portion of the population, influences their choices in homes and jobs, and encourages the creation of complete

communities within the region. The Frequent Transit Network concept will provide transit service every 15 minutes or better from morning to evening, every day of the week on corridors with densities and land uses that promote maximum ridership. Areas that do not have transit supportive development can not expect these levels of investment.

Good pedestrian and cycling infrastructure builds livable communities, encourages transit use and makes walking and cycling real and attractive options for people.

While giving priority to transit, cycling, and walking, we also need to make strategic investments in roads to support goods movement that is central to much of our economy.

STRATEGY 2 OPTIMIZE THE USE OF THE REGION'S TRANSPORTATION ASSETS AND KEEP THEM IN GOOD REPAIR

" Convenience and efficiency of service in terms of travel times are key considerations for the vision of regional transportation in 2040. Substantial growth of ridership for public transit will depend on this."

Strategy 2 :

agencies:

a) Manage road capacity to prioritize buses, trucks, and other high priority vehicles.

measures and intelligent transportation systems.

c) Develop price incentives to shift travel behaviour (e.g. encourage off-peak travel and trips by walking, cycling, and transit).

d) Implement critical incident processes to reduce delays and congestion on both the road and transit networks.

e) Encourage use of rail and marine for goods movement.

05 Strategies

Vancouver **Board of Trade**

2.1 Optimize the capacity and reliability of the existing transportation network in collaboration with partner

b) Implement transit priority



2.2 Work with the public and private sectors to achieve land use patterns that support transportation goals:

a) Create and support dense, vibrant communities around the Frequent Transit Network where walking, cycling, and transit are the main modes of travel.

b) Locate public sector investments on the Frequent Transit Network.

c) Increase densities at rapid transit stations and hubs.

d) Develop supportive parking policies.

2.3 Keep infrastructure in good condition with regular maintenance and make renewal a priority:

a) Ensure the transit system (vehicles, infrastructure, facilities) is kept in good working condition.

b) Keep the Major Road Network and other regional roads and bridges well maintained and replace/rehabilitate as necessary.

c) Upgrade existing transit stations to ensure optimal usage.

2.4 Reduce emissions, noise and adverse environmental impacts from TransLink's operations, services and infrastructure.

Funding and resources will always be limited so we must focus on making the best use of what we already have - and on ensuring that what we build is efficient and effective, and as well used as possible.

Although much of our system is working at capacity already, we must actively pursue innovative ideas to increase its use. Flexible work hours or innovative pricing of transportation infrastructure can be used to encourage people to shift their travel times to less congested periods. Telecommuting can be encouraged.

About 90 per cent of the vehicles on the major roads are private automobiles.

By reducing vehicle use, we reduce the need for road capacity - and the most effective tool for reducing auto use is land use planning. When people live near the Frequent Transit Network, they will drive less because amenities are closer - and that will ensure adequate road space for trucks, buses, and emergency vehicles.

To enable more people to get around by walking, cycling, and taking transit, we must offer highly effective facilities and services that compete with the auto in convenience and travel time.

Our existing investments in critical infrastructure must also be protected and upgraded. Transit infrastructure will need to be maintained at high levels. And by 2040 or sooner, many water crossings and road and rail infrastructure will need to be replaced or undergo significant rehabilitation. Significant investments in our transportation network have already been made, and will continue to be made, so it makes financial sense to preserve what we already have.



Planned Provincial Highway Planned Federal Authority TransLink Bridge Main Rail Line Metropolitan Core Proposed Surrey Metro Centre Regional City Centre Port Ferry Terminal Border Crossing Protected Areas, Agriculture and Open Space

Major Road Network (2009)

BOWEN

Concept of Potential Frequent Transit Network

The Concept of Potential Frequent Transit Network Map conceptualizes a future transit network for Metro Vancouver, centered on a Frequent Transit Network that will provide frequent, reliable service on designated corridors throughout the day, everyday. This map demonstrates the extent of the Frequent Transit Network envisioned for the region when most trips are by walking, cycling and transit.

Proposed rapid transit investments identified on this map are technology independent, and include rail, bus, and rail convertible corridors. Rapid transit, with both bus and rail technologies, will be developed to provide a consistently high standard of capacity, reliability, frequency, and customer service amenities.

The specific corridors of the Frequent Transit Network will be developed with communities through ongoing planning and consultation processes and will require agreements between TransLink and municipalities on supportive land uses to ensure success in achieving our goals.



Major Roads, Highways and Gateways

The Major Roads, Highways and Gateways Map illustrates the regional road network in 2009 and includes the commitments for the South Fraser Perimeter Road and the North Fraser Perimeter Road. The map displays key gateway locations in the region, including the ports, border crossings, airports, and ferry terminals. Together, the major roads, highways, and main rail lines identify the significant goods movement corridors in the region. The Major Road Network is currently under review.

STRATEGY 3 BUILD AND OPERATE A SAFE, SECURE, AND ACCESSIBLE TRANSPORTATION SYSTEM

" A successful structure would strategically invest in accessible, affordable, safe, multi-modal transportation systems, built to fit the community, for movements of people, goods and services." Fraser Basin Council



Strategy 3 :

3.1 Make transit, walking, and cycling appealing by ensuring they are safe, attractive, easy to use, and provide good value.

3.2 Optimize the safety, security, and usability of the transport system through design, enforcement and policing, technology, and information.

3.3 Implement Access Transit and achieve full accessibility of the transit system to meet the range of needs and abilities of users.

3.4 Improve the resilience of the transportation network and provide integrated emergency and risk management systems with prevention, preparedness, response, and recovery.

3.5 Plan for natural hazards and for adaptation to climate change impacts.

3.6 Develop strategies to ensure a skilled and gualified labour force to plan, build, operate and maintain the transportation system.

It is vital that people feel safe and secure regardless of the transportation mode they use, no matter when and where they travel. The design and maintenance of the road network must ensure the safety of all road users, including pedestrians, cyclists, passengers and drivers. For transit, actual and perceived personal safety and security for the entire trip are of paramount importance to making transit an attractive transportation choice.

Creating a secure transportation system is also important. In light of heightened concerns about security and dealing with emergencies, a host of improvements will optimize the safety of the system for everyone.

Looking to the challenges posed by potential disasters both near term and in the future, TransLink will amplify its focus on developing preparedness plans to make the entire transportation system as resilient as possible.

Our 30-year strategy will consider a full range of complex issues and needs, including a major focus on risk assessment, contingency planning, emergency preparedness, and developing the required capacities and resilience.

TransLink's new Access Transit program, reflecting a major consultation effort in 2007, will enable more people to ride transit more often, with a system that is fully accessible. The goal is to create, as soon as possible, a highly accessible, inclusive, and safe system that ensures we can welcome all members of our diverse communities to transit.

It is also a forward-thinking initiative that will simultaneously prepare us to capture and serve the access needs of the baby-boomer generation as it reaches retirement age.

STRATEGY 4 DIVERSIFY REVENUE SOURCES AND PURSUE NEW AND INNOVATIVE WAYS TO FUND TRANSPORTATION

Funding sources should be broadened to include both transportation related sources and general sources – they may include measures such as agency investments, public private partnerships, tolling, tax exempt bonds, and make full use of TransLink's assets for revenue generation." **Gateway Council**

05 Strategies



Strategy 4 :

4.1 Ensure a diverse mix of funding sources, including transportation-related sources.

4.2 Anticipate and develop alternatives to manage risk in revenue sources, including securing new sources of operating revenue.

4.3 Raise national profile of municipal infrastructure needs and continue to pursue funding from senior levels of government.

4.4 Broaden non-transportation revenue base - from real estate, advertising, and commercial partnerships - in a way that supports desired transportation outcomes.

4.5 Price the road and transit systems to provide incentives to shift travel patterns (e.g. time, place, mode) and to generate revenue for improvements.

Current funding streams will not provide sufficient resources to achieve our 30-year strategy-or even basic operations, and urgently needed improvements and expansion. New and stable revenue sources must be developed that reflect the value created for residents, businesses, and transportation system users. TransLink will pursue with vigour a broad-based funding system that includes user fees set in proportion to usage, appropriate tax revenue allocated by all levels of government, and other revenues derived from real estate, advertising, and commercial partnerships.

TransLink's current main sources of revenue include income from transit services (largely fares and advertising), property tax, and fuel tax. Property taxes reflect the fact that the region as a whole benefits from an effective transportation system. It is also important that funding of transportation be related to usage of the system. In transit this is reflected through transit fares. Fuel taxes are a form of user-fee for the road system. Other cities also draw on revenue from other transportation-related sources, such as vehicle levies and road or congestion pricing. These sources can create flexibility by obtaining the required levels of funding as well as offering the possibility of influencing travel behaviour.



THE PUBLIC, GOVERNMENTS, AND STAKEHOLDERS ARE KEY TO MAKING TRANSPORT 2040 OUR FUTURE REALITY

Transport 2040:

Minimization of our environmental impact, especially related to carbon use

Full lifecycle cost accounting and good value for money

Willingness to consider new approaches and concepts and ask tough questions about assumptions

Maximization of benefits to society

Respect for prevailing social values

Transportation use pays for transportation services and projects

Focus on needs of transit users and general public first

MOVING FORWARD MEANS WORKING TOGETHER

Governments, stakeholders, and the public are key to making Transport 2040 our future reality

The Principles Behind

Commitment to sustainability social, economic, and environmental

Commitment to partnerships and collaboration with relevant agencies and stakeholders

From Vision to Reality

Transport 2040 submitted to TransLink board of directors, Mayors' Council and Commissioner Summer 2008

2009 10-Year Transportation and Financial Plan (TFP) submitted to TransLink board for approval Summer 2008

Public, stakeholder, and government dialogue Fall 2008

2010 10-Year Transportation and Financial Plan Winter 2008

2010 10-Year TFP submitted for approval **Summer 2009**

Prepare 10-Year TFP Annually

Update the 30-Year strategy **Every 5 years**

TransLink will coordinate the

initiatives that arise from Transport 2040 with Metro Vancouver's updated Regional Growth Strategy and the Air Quality Management Plan to ensure that transportation and land use are integrated effectively. We will also work closely with regional municipalities to encourage land use decisions that support public transit and encourage walking and cycling. To ensure the best use of resources, we will coordinate our efforts with provincial transportation plans for the region, and work with Transport Canada, the Ministry of Transportation and Infrastructure, airport and port authorities, and non-governmental agencies on appropriate strategies, plans, and initiatives to support the goals identified in this strategy.

The manner in which we move forward will help determine our success. That is why TransLink is committed to engaging with stakeholders, governments, and the public in a way that is meaningful and effective.

To that end, the process to achieve this strategy, translating the strategies into specific policies, programs and projects, will include development of 10-Year plans with comprehensive public education and engagement. Beginning with the 2010 10-Year Plan, TransLink will identify the financial and other resources required to implement the projects and services outlined in the plan.

There is no question that the task ahead will require considerable resources and ingenuity if we are to meet the challenge of creating a transportation system that truly meets our needs for the future.

The history of the people of this region includes innovators and leaders who have changed the world and put us on the map. Our task is to focus that wealth of talent, energy, and ability towards making this great place even better. Together we will translate the vision of Transport 2040 into reality.





