

# Cycling and Walking are Affordable Mass Transportation

## They need to be funded accordingly



Significant increases in the number of people cycling and walking in BC communities including Victoria, Whistler, North Vancouver, Kelowna and Vancouver, prove that cycling and walking are mass transportation solutions worthy of substantial investment and policy support.

### **Creating equitable, healthy, affordable, safer communities**

Unfortunately, many BC residents still don't have access to safe cycling routes for their daily trips. People like to live in areas where they can walk and cycle and are willing to pay more for housing to do so. Those with lower incomes including many families with children are forced to live in areas where it is difficult and dangerous to walk and cycle. The result is lower levels of physical activity, higher transportation costs, limited access to jobs & services and a higher risk of injury & death in motor vehicle collisions.

To enable everyone to be able to walk for their daily trips, we are proposing that the BC Government invest \$100 million per year for 10 years in cycling and walking facilities around the province. This, combined with matching funds from municipalities and the Federal Government will help ensure that our communities are more equitable and sustainable while providing people with healthy, safe and affordable transportation choices.

### **Cycling and walking are popular activities that many people want to do more often**

- 1,900,000 British Columbians ride a bicycle at least once a year
- 250,000 children walk or cycle to school; 130,000 children ride a bicycle at least once a year
- 2,300,000 adults indicate they would ride more if there were separated bike lanes that protected them from traffic.<sup>1</sup>
- 1,325,000 BC residents say walking (23%) or cycling (11%) would be their ideal commute.<sup>2</sup>
- 14% of adults 18-35 years old say cycling would be their ideal commute.<sup>3</sup>
- Cycling and walking are especially popular with young people, 18-35, with 8% cycling & 10% walking to work.<sup>4</sup>

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<sup>1</sup> Andrea O'Brian.

<sup>2</sup> Ibid.

<sup>3</sup> Insights West.

<sup>4</sup> Insights West, Survey on Commuting in British Columbia, May 24, 2016, [http://www.insightswest.com/wp-content/uploads/2016/05/CommutingBC\\_Tables.pdf](http://www.insightswest.com/wp-content/uploads/2016/05/CommutingBC_Tables.pdf)

### There is broad public support for cycling improvements

- 2,800,000 adults in BC support enhancing cycling infrastructure.<sup>5</sup>

### Building cycling & walking infrastructure creates more jobs than road projects

- 11.4 jobs are created for each \$1 million spent on cycling projects vs. 7.8 jobs for road projects<sup>6</sup>
- 22,800 jobs could be created by investing \$2 billion in cycling projects

### Where significant investments have been made, cycling has increased dramatically

- 11% of Victoria residents commute by bicycle .
- 128,000 cycling trips per day by City of Vancouver residents, up from 50,000<sup>7</sup>
- 10.5% of Vancouver residents now cycle to work, up from 4.4% in 2011.<sup>8</sup>
- In the Central Okanagan, daily cycling trips increased by 43% from 2007 to 15,400 in 2013.<sup>9</sup>
- 8% of Whistler residents commuted by bicycle in 2011, an increase of 31% since 2006.

### Many trips are within reasonable cycling distance

- In the Netherlands, electrically assisted cycling trips average a distance of 9.8 km each way, while regular cycling trips average 6.3 km.
- 42% of commutes are under 5 km according to the 2011 National Household Survey.
- 65% of commutes in BC are under 10 km, making them practical using an electric bicycle.

### Inadequate Funding - Active Transportation Deficit

Regions and communities across the province have produced extensive cycling network plans. Unfortunately, due to lack of funding, these cycling networks may not be complete for 30 to 50 years unless senior levels of government dramatically increase funding. For instance:

- In 2011, the *Capital Regional District's Pedestrian & Cycling Master Plan* estimated the cost of upgrading the bike network to attract people of all ages and abilities was **\$275 million**.<sup>10</sup>

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<sup>5</sup> Kirk & Co. Consulting Ltd. & Mustel Group, B.C. on the Move: Engagement Summary Report, January 2015, [http://engage.gov.bc.ca/transportationplan/files/2015/03/BCOTM\\_Summary-Report\\_March-2015\\_web.pdf](http://engage.gov.bc.ca/transportationplan/files/2015/03/BCOTM_Summary-Report_March-2015_web.pdf), page 57

<sup>6</sup> Pedestrian and Bicycle Infrastructure: A National Study of Employment Impacts, University of Massachusetts Political Economic Research Institute, <https://www.peri.umass.edu/publication/item/427-pedestrian-and-bicycle-infrastructure-a-national-study-of-employment-impacts>

<sup>7</sup> City of Vancouver, 2016 Transportation Panel Survey Report, March 2017, <http://vancouver.ca/files/cov/transportation-panel-survey-2016-final-report.pdf> Page iii

<sup>8</sup> Ibid.

<sup>9</sup> Acuere Consulting, 2013 Okanagan Travel Survey Findings & Comparison to 2007 Baseline, <http://apps.kelowna.ca/CityPage/Docs/PDFs/iGo/smartTRIPS/2013-OkanaganTravelSurvey.pdf>

<sup>10</sup> Capital Regional District, Regional Pedestrian and Cycling Master Plan, [https://www.crd.bc.ca/docs/default-source/regional-planning-pdf/Pedestrian-Cycling-Master-Plan/appendix\\_h\\_funding\\_and\\_implementation.pdf?sfvrsn=2](https://www.crd.bc.ca/docs/default-source/regional-planning-pdf/Pedestrian-Cycling-Master-Plan/appendix_h_funding_and_implementation.pdf?sfvrsn=2)

- In order to meet its target of 10% cycling mode share, TransLink has estimated that completing all-ages cycling networks around the **Metro Vancouver** region will cost at least **\$850 million**.<sup>11</sup>
- **Kelowna's** cycling and walking Plan is estimated to cost **\$267 million**. While the city is currently putting money aside for the program, staff have warned that at the current level of funding, the city will only have approximately **\$90 million** to fund the plan.<sup>12</sup>
- **Squamish's** active transportation plan is estimated to cost **\$36 million**.
- **Surrey's** cycling plan includes over 400 km of additional bike lanes and paths. With current funding, it plans on completing around 12 km per year, but has indicated that additional funding from senior levels of government would speed-up the implementation of the plan.<sup>13</sup>

We estimate that around **\$2 billion** is required to complete **cycling** networks in BC communities.<sup>14</sup>

In our survey of Planning Institute of BC members, 70% of whom work for local government, the cost of infrastructure was identified by 74% as a challenge to implementing complete streets with protected bike lanes.

### **Impact of the \$2 billion investment**

- 475,000 people cycling every day if the \$2 billion investment enables a 10% cycling mode share.

### **Safer roads, fewer injuries, lower insurance costs**

- By reducing private car use, increases in trips by walking, cycling and public transport reduce the motor vehicle crash rate and associated insurance costs.<sup>15</sup>
- The *BC Communities Road Safety Survey* identified pedestrian and cyclist safety as top issues. For the 81 municipalities that responded, "The most commonly reported challenges to implementing road safety activities were funding and staff with expertise."<sup>16</sup>

### **A healthy, green economy**

Investing in cycling and walking will benefit the economy by increasing tourism, reducing healthcare costs, increasing workplace productivity, attracting talented workers, and reducing the societal costs of traffic fatalities and injuries. Protected bike lanes and other street safety improvements will help communities make the transition to automated vehicles.

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<sup>11</sup> TransLink, Regional Cycling Strategy Implementation Plan, [http://www.translink.ca/~media/Documents/cycling/regional\\_cycling\\_strategy/rcs\\_implementation\\_plan\\_june\\_2013.ashx](http://www.translink.ca/~media/Documents/cycling/regional_cycling_strategy/rcs_implementation_plan_june_2013.ashx)

<sup>12</sup> <http://www.kelownacapnews.com/news/366130081.html>

<sup>13</sup> <http://www.thenownewspaper.com/travel/Ambitious+strategy+aims+cycling+lanes/6991514/story.html>

<sup>14</sup> Appendix A

<sup>15</sup> BC Road Safety Strategy 2015, <http://www2.gov.bc.ca/assets/gov/driving-and-transportation/driving/publications/road-safety-strategy.pdf> Page 35

<sup>16</sup> Safe Roads & Communities Working Committee of the BC Road Safety Strategy, BC Communities Road Safety Survey, page 2. <http://www2.gov.bc.ca/assets/gov/driving-and-transportation/driving/publications/bc-communities-road-safety-survey-report.pdf>

## Healthier people, lower healthcare costs

- It is estimated that physical inactivity costs the British Columbia health care system \$335 million a year in direct costs (hospital, physician, drug, institutional and other costs).
- B.C.'s direct and indirect cost of physical inactivity is estimated at over \$1.1 billion dollars per year, or \$617 per person per year.<sup>17</sup>
- With no change in physical activity rates, the economic burden will exceed \$1.4 billion per year by 2031
- 1.5 million British Columbians age 12 and older are inactive<sup>18</sup>
- Only 34 per cent of B.C. children walk or cycle to school.<sup>19</sup>
- In the last 10 years, transport-related physical activity has declined<sup>20</sup>
- People are more likely to be physically active in communities with safe street crossings, adequate lighting, accessible parks, sidewalks, cycling lanes, a network of community trails, recreational facilities, and proximity between home, schools, workplaces and services.<sup>21</sup>

## Reducing GHG emissions

A *Global High Shift Cycling Scenario (HSC)*<sup>22</sup> confirms the significant potential for cycling and electric bicycles to reduce GHG emissions while providing significant cost savings to individuals and government. For Canada, the report projects a HSC cycling mode share of 12% for 2030 and 16% for 2050. Since British Columbia has a relatively mild winter where most people live, and our 2011 cycling commute mode share is 60% higher than the national average, we expect the potential HSC cycling mode share of BC to be greater than that of Canada as a whole.

## Norway

Internationally, other jurisdictions are committing to significant increases in cycling. Norway, whose population is only slightly larger than B.C.'s, is planning to invest \$1.25 billion in Cycling Highways to link suburbs to city centres.

## Comprehensive Active Transportation Strategy

We recommend that the Province develop a comprehensive **Active Transportation Strategy**. It should include mode share & GHG reduction targets, infrastructure funding, improved standards, increased maintenance, education, promotion, motor vehicle speed reductions and changes to the Motor Vehicle Act. This will be a key component of a complete multi-modal transportation system for people of all ages and abilities.

We are encouraged that both the BC NDP and Green Party of BC have committed to developing an Active Transportation Strategy in their responses to our survey in Spring 2017. Many of our peer jurisdictions have cycling strategies including Ontario, Washington and Oregon.

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<sup>17</sup> <http://www.health.gov.bc.ca/library/publications/year/2015/active-people-active-places-web-2015.pdf> P 7

<sup>18</sup> Ibid. P 8

<sup>19</sup> Ibid. P 3

<sup>20</sup> Ibid. P 8

<sup>21</sup> Ibid. P 16

<sup>22</sup> Institute for Transportation & Development Policy and the University of California, Davis)

## Recommended Actions

### 1. Accelerated provincial investment in walking and cycling, totalling \$1 billion over ten years

We recommend that the Provincial Government accelerate its cycling and walking investment to **\$100 million per year for the next 10 years**. This, along with investment from the communities and the Federal Government will enable communities to build out their cycling networks by 2027. This funding could come from Carbon Tax revenue or the reallocation of funds in the transportation budget. The benefits of Investing in cycling, walking and safety improvements in communities across the province will be far greater than the benefits of large highway projects.

This investment would enable the benefits of cycling to be realized sooner and result in significantly greater cumulative reductions in GHG emissions. By providing people with great alternatives to driving, this investment will help reduce the level of Carbon Tax needed to meet Provincial targets and thus lower the cost to individuals and businesses.

We recommend that accelerated provincial investments be directed toward:

- a. Provincial Roads and Bridges - Dedicated funding for upgrading cycling and walking facilities;
  - b. Bike BC and Complete Streets - Increased Bike BC cost sharing funding to complete cycling networks in communities and new cost sharing funding for complete streets with all-ages cycling facilities that are also safer and more comfortable for walking;
  - c. Funding for Safe and Healthy Routes to School; and
  - d. Cycle Tourism - Funding for trails and paths used by cycling and walking visitors and residents.
- ### 2. Maintenance
- a. Improved standards & increased funding for maintenance & hazard removal on roads & paths used for cycling;
- ### 3. Built Environment and Community Planning
- a. **Prioritize and accelerate transportation investments in transit, cycling and walking that encourage development in compact mixed-use communities that enable people to drive less;**
  - b. Incentives and policies to encourage high quality cycling and walking networks in new developments; and
  - c. Land use policies that encourage compact mixed-use communities that enable walking and cycling to be practical transportation choices for the majority of trips.

### 4. Education and Marketing

Cycling education and promotion leverage investments in cycling facilities by increasing their use, improving safety and decreasing conflicts between road users.

- a. **Universally available cycling safety skills training for children and adults with provincial funding;**
- b. Improved and integrated **cycling and driver education;**
- c. Update and increase the distribution of cycling education material including Bike Sense; and
- d. **Increase funding for cycling marketing programs including Bike to Work Week.**

## 5. Develop Super Cycleways

Super Cycleways are high quality bicycle routes designed to reduce travel times and thus facilitate long distance (5-20 km) cycling trips. They would connect communities and major destinations including residential areas, concentrations of jobs, schools and public transit.

- a. Develop guidelines and best practices for Super Cycleways;
- b. Work with regions and municipalities to design, plan and implement Super Cycleways;
- c. **Provide cost-shared funding for designing and building Super Cycleways.**

## 6. Encourage the Use of Electric Bicycles

Electric bicycles can increase the number and length of cycling trips people make and enable people with physical challenges to cycle for transportation.

- a. **Eliminate the PST on Electric Assist Bicycles;**
- b. **Introduce a rebate or other financial assistance for electric bicycles.** This could be means tested;
- c. Develop policies to encourage or mandate recharging outlets in bicycle parking facilities; and
- d. Conduct research to determine the potential of electric bicycles to reduce motor vehicle trips and kilometres driven.

## 7. Cycling and Transit

Cycling and walking complement transit by providing low-cost pollution free access to stations and stops. Replacing short transit trips with walking and cycling can free up funding for services to enable people to replace longer motor vehicle trips with transit.

- a. Improve cycling and walking access to transit hubs and stops; and
- b. Provide secure bicycle parking areas at all major transit hubs.

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## About the British Columbia Cycling Coalition

The British Columbia Cycling Coalition and our 20 member organizations represent approximately 50,000 supporters across B.C. We work with governments, businesses and organizations to enable everyone in B.C. to safely cycle for their daily trips.

### Our Members

AMS Bike Co-op	BC Randonneurs Cycling Club	Streets For Everyone
Comox Valley Cycling Coalition	Cross Canada Cycle Tour Society	Cycling Abbotsford
Trails BC	Greater Nanaimo Cycling Coalition	Greater Victoria Cycling Coalition
HUB Cycling (Metro Vancouver)	Island Pathways	Juan De Fuca Cycling Coalition
Kelowna Area Cycling Coalition	North Shore Safety Council	Oceanside Cycling Coalition
Penticton and Area Cycling Association	Powell River Cycling Association	North Okanagan Active Transportation Coalition

### Our Programs

Bike Sense - The British Columbia Bicycle Operator's Manual

Kids on Wheels - An innovative program that gives preschool children hands on experience with balance bikes

CyclotouringBC - Our initiative to engage with government and business to promote and enable bicycle tourism

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## Appendix 1 - Cycling and Walking Cost Estimates

To the best of our knowledge, the Government of B.C. has not produced estimates of the cost of building out cycling and walking networks in communities or upgrading walking and cycling facilities on provincial roads and bridges.

In previous years, we have attempted to estimate the cost of building out cycling networks based on regional and community plans covering around 60% of the population of B.C. assuming the cost per capita is the same for the remainder of the the province. Note that many of these plans may do not include the cost of higher quality all ages and abilities cycling facilities so the cost may be higher if such facilities are built. We encourage municipalities to update their plans to include ages and abilities cycling facilities. This year, our estimate for cycling networks is **\$1.89 billion**. This does not include many provincial roads and bridges. If these were included, we expect the cost to easily exceed **\$2 billion**.

We had not yet found estimates for walking networks last year. This year, we have found these estimates for four communities with the average per capita being \$530. If this average holds for other communities, the cost of building out cycling networks would be around **\$2.4 billion**. Added to the \$2 billion we have estimated for cycling, the total cost of building out cycling and walking networks would be **\$4.4 billion**.

In 2016, the City of Kelowna and the District of Squamish approved new active transportation plans with implementation costs of around \$2,000 per capita. If the cost of new active transportation plans in other communities around the Province proves to be similar, the total cost for all of B.C. would be over \$9 billion. Note that the Kelowna plan includes active transportation corridors that often the rebuilding of streets with high-quality materials in addition to greatly improving them for cycling and walking. While more costly than required for simply making walking and cycling safer and more comfortable, these street improvements also have multiple other community, social and business benefits.

### Recommendation

We encourage the Government of B.C. to work with municipalities and regional districts to produce more refined estimates of the cost of building out cycling and walking networks in communities and upgrading walking and cycling facilities on provincial roads and bridges.

<b>Cycling Network Estimates</b>			
Jurisdiction	Population	Cost (millions)	Total \$/capita
Metro Vancouver	2,300,000	\$850	\$370
CRD	360,000	\$275	\$764
City of Chilliwack	78,000	\$27	\$346
City of Kamloops	86,000	\$13	\$153
City of Mission	36,426	\$5	\$140
Salt Spring Island	10,234	\$9	\$908
Total	2,870,660	\$1,180	\$411
Rest of Province Estimate	1,729,340	\$711	\$411
<b>Total for BC</b>	<b>4,600,000</b>	<b>\$1,890</b>	<b>\$411</b>

### Active Transportation Network Estimates

Jurisdiction	Population	Cost (millions)	Total \$/capita
City of Kelowna	123,500	\$267	\$2,162
District of Squamish	19,000	\$36	\$1,909
Total	142,500	\$303	\$2,128
Rest of Province Estimate	4,457,500	\$9,486	\$2,128
<b>Total for BC</b>	<b>4,600,000</b>	<b>\$9,790</b>	<b>\$2,128</b>

### Walking Network Estimates<sup>23</sup>

Jurisdiction	Population	Cost (millions)	Total \$/capita
City of Castlegar	7,259	\$2	\$272
City of Mission	36,426	\$36	\$988
District of North Vancouver	84,412	\$37	\$438
District of Squamish	19000	\$8	\$421
Total	147,097	\$83	\$564
Rest of Province Estimate	4,452,903	\$2,511	\$564
<b>Total for BC</b>	<b>4,600,000</b>	<b>\$2,594</b>	<b>\$564</b>

### Sources

	Page	URL
Metro Vancouver	4	<a href="http://www.translink.ca/~media/Documents/cycling/regional_cycling_strategy/rc:_implementation_plan_june_2013.ashx">http://www.translink.ca/~media/Documents/cycling/regional_cycling_strategy/rc:_implementation_plan_june_2013.ashx</a>
CRD	9	<a href="https://www.crd.bc.ca/docs/default-source/regional-planning-pdf/Pedestrian-Cycling-Master-Plan/appendix_h_funding_and_implementation.pdf?sfvrsn=2">https://www.crd.bc.ca/docs/default-source/regional-planning-pdf/Pedestrian-Cycling-Master-Plan/appendix_h_funding_and_implementation.pdf?sfvrsn=2</a>
City of Kelowna	43	<a href="http://apps.kelowna.ca/CityPage/Docs/PDFs//Policy%20and%20Planning/PBMP%20Final%20Draft.pdf?t=020717692">http://apps.kelowna.ca/CityPage/Docs/PDFs//Policy%20and%20Planning/PBMP%20Final%20Draft.pdf?t=020717692</a>
City of Castlegar	ES 5	<a href="http://www.castlegar.ca/pdfs/Pedestrian_Bicycling_Master_Plan.pdf">http://www.castlegar.ca/pdfs/Pedestrian_Bicycling_Master_Plan.pdf</a>
City of Chilliwack	34	<a href="http://www.chilliwack.ca/main/attachments/Files/2192/Bicycle_Transportation_Plan_March_21_2014.pdf">http://www.chilliwack.ca/main/attachments/Files/2192/Bicycle_Transportation_Plan_March_21_2014.pdf</a>
City of Kamloops		<a href="http://www.kamloops.ca/transportation/pdfs/bikeplan/10-05-31-BMP.pdf">http://www.kamloops.ca/transportation/pdfs/bikeplan/10-05-31-BMP.pdf</a>
City of Mission	7-10	<a href="http://www.mission.ca/wp-content/uploads/Transportation-Master-Plan.pdf">http://www.mission.ca/wp-content/uploads/Transportation-Master-Plan.pdf</a>
Salt Spring Island	41	<a href="https://www.crd.bc.ca/docs/default-source/regional-planning-pdf/Pedestrian-Cycling-Master-Plan/pcmp-ssi-edition.pdf?sfvrsn=0">https://www.crd.bc.ca/docs/default-source/regional-planning-pdf/Pedestrian-Cycling-Master-Plan/pcmp-ssi-edition.pdf?sfvrsn=0</a>
District of North Vancouver	ES 10	<a href="https://www.dnv.org/sites/default/files/edocs/pedestrian-master-plan.pdf">https://www.dnv.org/sites/default/files/edocs/pedestrian-master-plan.pdf</a>
District of Squamish	85-86	<a href="http://squamish.ca/assets/Active-transportation-plan/2016-09-19-Squamish-ATP_FINAL.pdf">http://squamish.ca/assets/Active-transportation-plan/2016-09-19-Squamish-ATP_FINAL.pdf</a>

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<sup>23</sup> As we could only find a few communities who have estimated the cost of their walking network, we encourage the BC Government to work with municipalities on walking network cost estimates.

## **Appendix B - Key Projects**

Some of the key projects that require more funding are:

- A province-wide cycle highway network
- Okanagan Rail Trail
- BC Parkway Upgrades
- Central Valley Greenway Upgrades including extension to Port Mann Bridge
- Portside Greenway from Ironworkers Memorial Bridge to downtown Vancouver
- North Shore Spirit Trail
- Lochside Trail
- E&N Rail Trail
- Biketoria network
- Lakeside Trail
- The Trans Canada Trail
- Alex Fraser Bridge path and access