

CITY OF VANCOUVER

ADMINISTRATIVE REPORT



CITY OF VANCOUVER

Report Date: July 8, 2008  
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Meeting Date: July 22, 2008

TO: Standing Committee on Transportation and Traffic  
FROM: General Manager of Engineering Services  
SUBJECT: 2008 Annual Bicycle Plan Update

**RECOMMENDATION**

THAT Council receive this report for information.

**COUNCIL POLICY**

The 1997 Transportation Plan, adopted by Council in May 1997, identifies cycling as the second-highest priority transportation mode within the City.

The 1999 Bicycle Plan, adopted by Council, identifies 12 action items to improve cycling in Vancouver, including a network of bicycle routes throughout the City.

In 2003, Council approved implementation of the Downtown Transportation Plan to improve downtown access and liveability by creating a balanced transportation system that includes, among other priorities, creating a network of bike lanes.

In April 2005, Council approved the Community Climate Change Action Plan that identified the critical importance of encouraging and supporting active transportation if Vancouver is to meet its greenhouse gas reduction target for 2012.

## SUMMARY

As bicycle facilities continue to expand and energy costs rise, more Vancouver residents are choosing to cycle to work and school and for recreational purposes. Given that over 80% of commute trips by Vancouverites are shorter than 10 km, there remains significant potential for more cyclists on Vancouver's streets.

The City continues to expand the bike network, augmenting the grid of local street bikeways, adding off-street pathways and arterial bike lanes, and increasing the number of marked shared-use lanes where feasible or necessary for network continuity. It is anticipated that the City will have more than 400 lane-kilometres of bikeways before year-end. This, together with complementary initiatives, such as improved bike parking and promotional activities, serve to better integrate cyclists into the existing transportation network and promote and encourage the use of bicycles as a safe and convenient mode of transportation.

In addition to the core City initiatives, staff continue to work with partner agencies to encourage cycling integration as part of the 2010 Winter Games, Canada Line and the TransLink Long-Range Regional Bicycle Master Plan.

Staff continue to apply for funding from external sources; the current Capital Plan includes \$5.2 million of bicycle facilities, more than 25% of which will be contributed by funding partners.

As the current Bicycle Plan is almost 10 years old, staff look forward to a comprehensive review of the 1999 Bike Plan in the coming years.

## PURPOSE

The purpose of this report is to update Council on recent trends in cycling, ongoing and planned development of the City's bicycle network, the bicycle monitoring program, and related programs and initiatives in which the City is engaged.

## BACKGROUND

The City of Vancouver Bike Program is aimed at better integrating cyclists into the existing transportation system and promoting and encouraging the use of bicycles as a safe and convenient mode of transportation.

The cycling program and route development in the City of Vancouver is based on the 1988 Vancouver Comprehensive Bicycle Plan, the 1992 Bicycle Network Study, the 1999 Bicycle Plan, and the more recent Downtown Transportation Plan. Although most routes are identified in these plans, some bicycle routes have been initiated through synergies with other City and regional projects.

The Bicycle Advisory Committee's 2005 Work Plan identified the Committee's vision to bring the City-wide cycling mode share up to 10% by 2010. Although Council supported this target in principle, complementary education, awareness, social marketing, financial and other incentives have not been fully developed. As a result, staff recommended in the 2006 Bicycle

Plan Update that a 5% mode share (100,000 trip/day) target for 2010 may be a more realistic goal.

## DISCUSSION

The use and continued augmentation of the City's bicycle network and program is based primarily on the 12 Action Items adopted in the 1999 Bicycle Plan. The following sub-sections provide more detailed discussion on recent trends and projects currently underway and planned. Included in Appendix A is a table that summarizes the status of each of the 12 Action Items.

### Cycling Trends

Various agencies collect data on transportation patterns and trends in the Metro Vancouver region. Council has received updates on many of the recent findings, and cycling-specific data are highlighted below.

As noted in previous updates, the *2004 Trip Diary Survey*, completed by TransLink and the Ministry of Transportation, showed that the number of daily bike trips within the City of Vancouver had nearly tripled since 1994. This 180% increase showed cycling to be the fastest-growing mode of travel in Vancouver, with approximately 60,000 trips made by bike every day. Approximately 2,700 trips into Downtown in the morning peak period are made by bike. This is equivalent to approximately 50-60 full transit buses. TransLink expects to complete another Trip Diary Survey in the Fall of 2008.

The *2006 Census Journey-to-Work* data, recently released by Statistics Canada, shows that 3.8% of trips to work by Vancouver residents are made by bike. This is an increase of 15% in the mode share over the 1996 Census. In Kitsilano and the False Creek Flats area, over 6% of residents commute by bike. And in some parts of West Point Grey, South Cambie, and Grandview-Woodlands, over 10% of residents travel to work by bike. By comparison, in the rest of Metro Vancouver, fewer than 1% of residents commute by bicycle. Figure 1 shows the journey-to-work bicycle mode share for individual census tracts within the City.

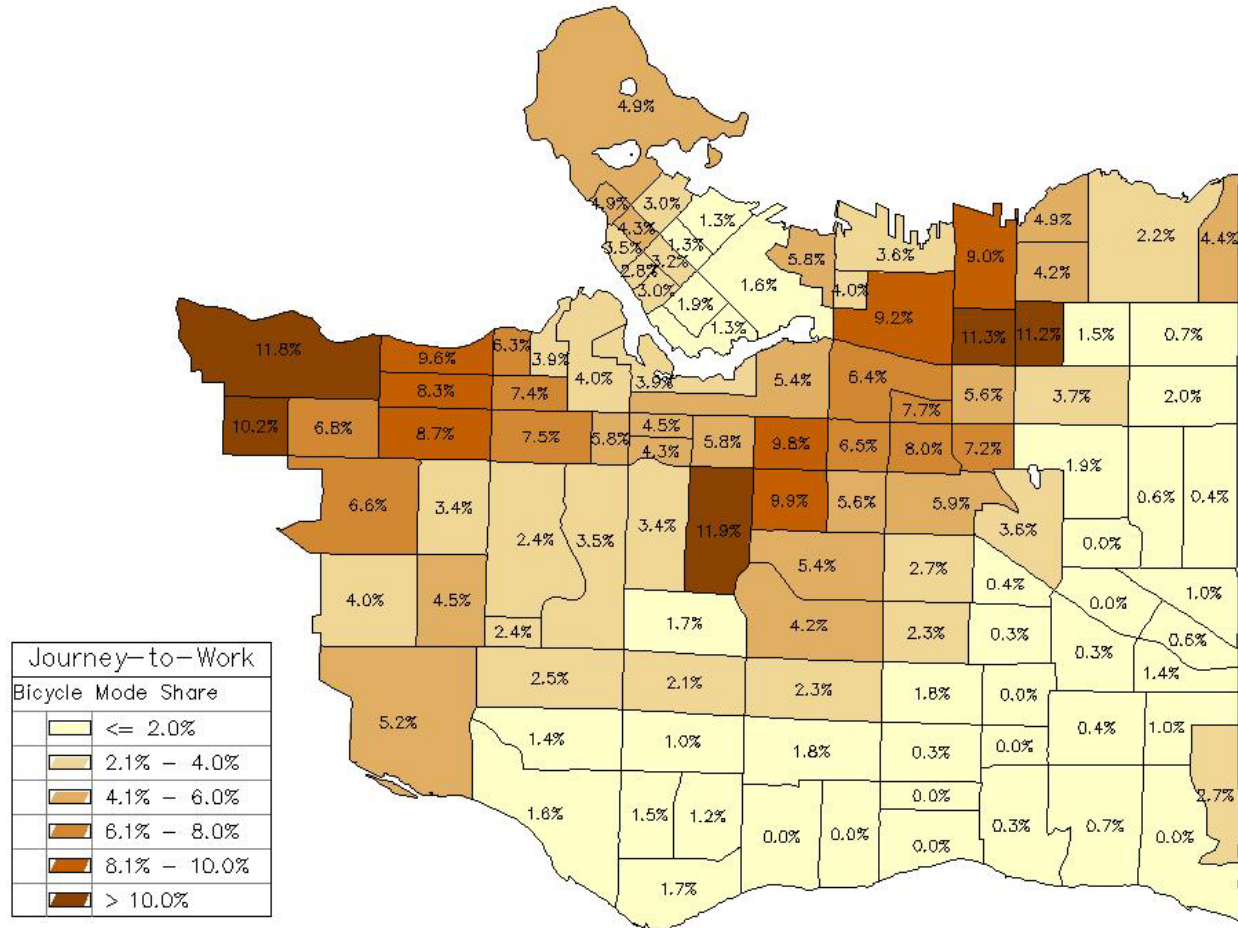


Figure 1: Journey-to-Work Bicycle Mode Share by Census Tract (2006 Census)

The Census data also indicate that 50% of commute trips by Vancouver residents are less than 5 km; over 80% are less than 10 km. Given that distances up to 10 km are considered ideal for cycling and competitive with driving, this indicates significant potential for cycling to accommodate even more commuting trips in Vancouver.

It is interesting to review data from one of Vancouver’s most popular commuter cycling facilities, the Adanac Bikeway. As presented in a report to Council in September 2007, bicycle counts were completed at key locations along the route and compared to historic data (see Figure 2); bicycles were then counted at the same locations during Bike to Work Week, 2008. Trends are easily evident and two key points should be noted:

1. Bicycle usage at each count location has been increasing over time, and
2. Volume of cyclists increases toward the downtown core

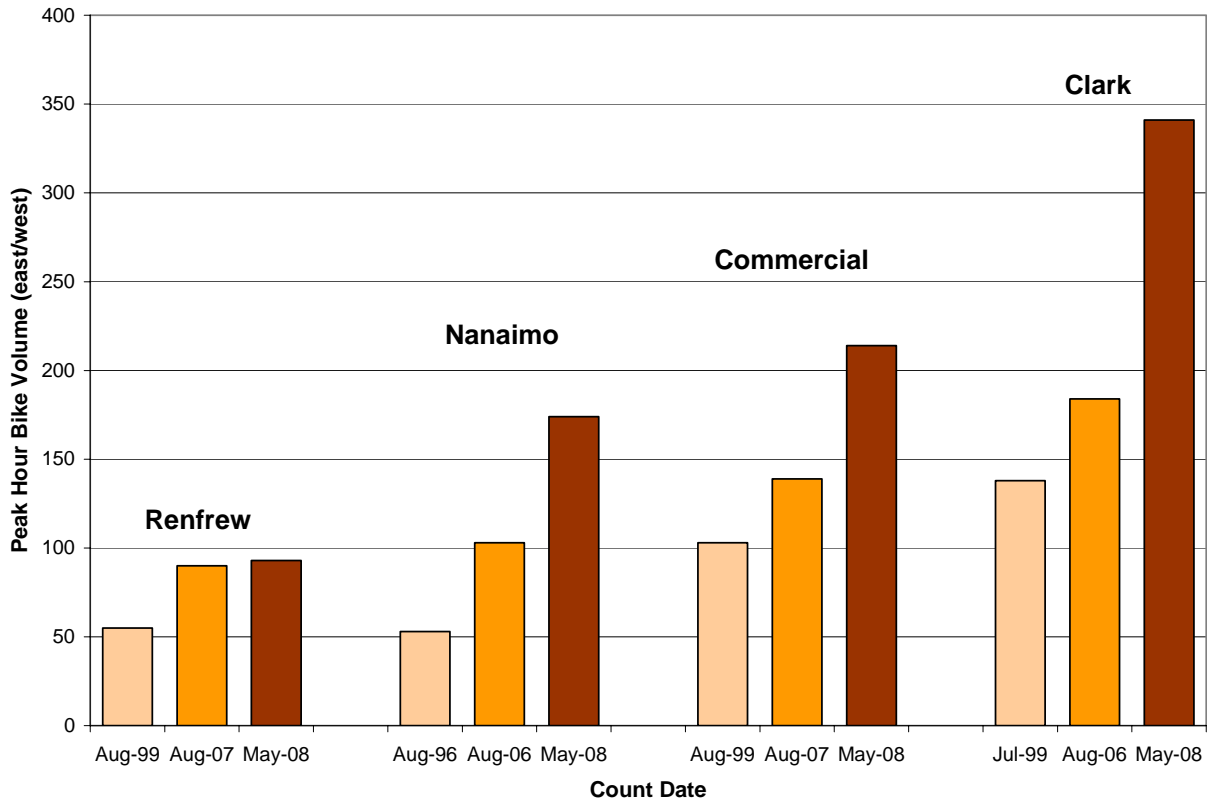


Figure 2: Adanac Bikeway Peak Hour Bicycle Volumes

**Bicycle Network Development**

The City of Vancouver bicycle network comprises four types of facility: local street bikeways, off-street bicycle paths, bike lanes on arterial routes and marked shared-use lanes. A grid network of local street bicycle routes, each approximately 1 km apart, is complemented by off-street pathways, arterial bike lanes and shared-use lanes where feasible or necessary for network continuity. This combination of facilities currently totals 316 lane-kilometres of bicycle routes, as illustrated in Figure 3.

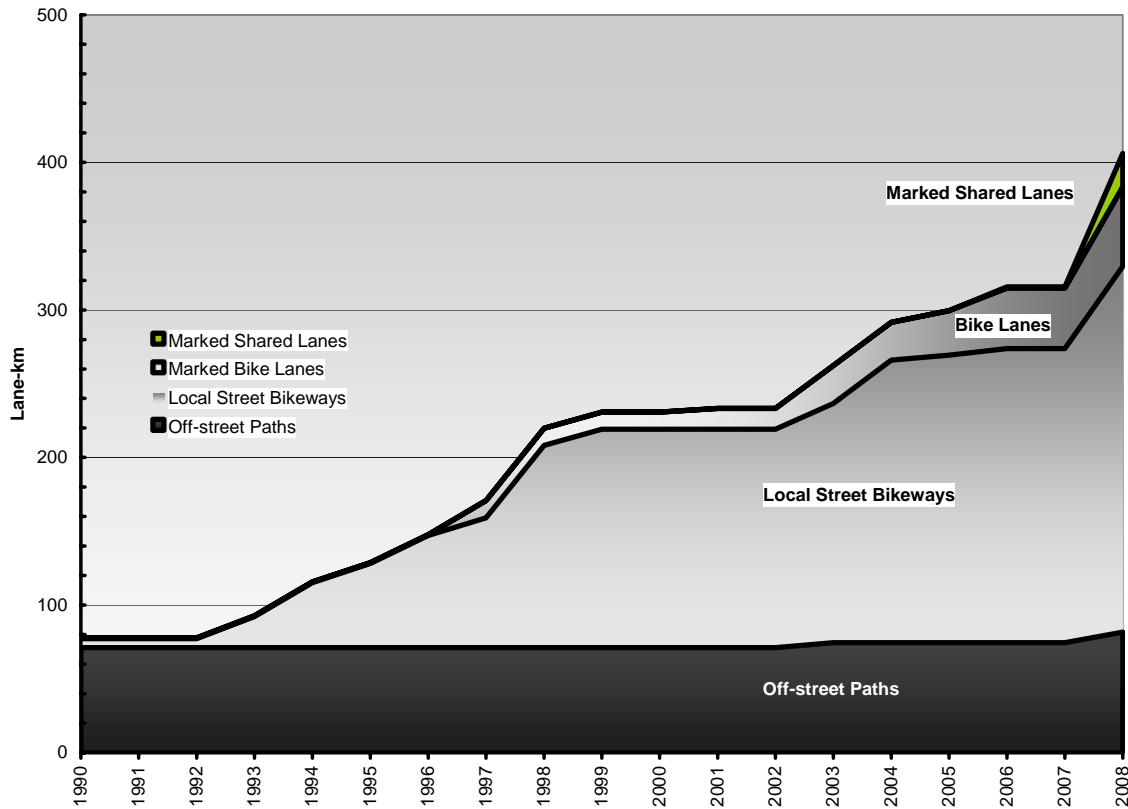


Figure 3: Development of the City's Bicycle Network Since 1990

The network has seen steady growth since 1992. However, no routes were completed in 2007 due to the work stoppage. In 2008, staff anticipate the implementation of a number of new bike routes previously approved by Council, including several that were highlighted in the 1999 Bicycle Plan. With implementation of these routes, the City will have over 400 lane-kilometres of bicycle facilities by the end of 2008. Table 1 summarizes the current status of several routes identified in the 1999 Bicycle Plan.

Table 1: Current Status of Several Bicycle Routes in the 1999 Bicycle Plan

Route	Status
Hudson Bikeway	Not initiated
Heather Bikeway Extension	Under construction
Ridgeway West	Final design underway
14 <sup>th</sup> /15 <sup>th</sup> Avenue Bikeway	Not initiated
59 <sup>th</sup> Avenue Bikeway	Conceptual design underway
Dunbar Bike Lanes	Conceptual design underway
22 <sup>nd</sup> Avenue Bike Lanes	Conceptual design underway
King Edward Bike Lanes	Not initiated
49 <sup>th</sup> Avenue Bike Lanes	Mostly complete west of Ontario

Although not part of the 1999 Bicycle Plan, several additional routes have been developed through opportunities that have arisen from other projects underway in the City, such as Canada Line (Yukon Bikeway), the Blenheim Street reconstruction (Balaclava Bikeway) and

water/sewer work on Kerr Street and Rupert Street. The facilities arising from these synergies, but not included in the 1999 Bicycle Plan, are provided in Table 2.

Table 2: Bicycle Facilities Arising from Other Projects

Route	Status
Yukon Bikeway	Under construction
29 <sup>th</sup> Avenue Bikeway	Final design
Alberni Bike Lanes	Construction pending
Cambie Bike Lanes	Under construction
Balaclava Bikeway	Final design
Carrall Street Greenway	Under construction
Central Valley Greenway	Tendering process complete
Haro Bikeway	Under construction
Main Street Shared Bike Lanes	Final design
Valley Bikeway	Final design
45 <sup>th</sup> /46 <sup>th</sup> Avenue Bikeway	Concept under development
Kerr Street Bike Lanes	Final design; Waterworks construction underway
Rupert Street Bike Lanes	Final design; Metro Vancouver waterworks construction underway

All of these facilities will contribute to the development of a finer-grained network of a variety of facility types throughout the City. The map included in Appendix B provides a graphical illustration of the remaining gaps in the network, and suggests priority areas for future bikeway development.

### Support Measures

An effective bicycle program includes not only infrastructure, but also measures to encourage and support cycling as a viable mode of transportation. The City is working to improve supporting measures for cycling in a number of ways:

- Council recently approved changes to the bicycle parking requirements for new developments, increasing the number of bicycle parking spaces required and upgrading the quality of facilities required.
- The City continues to deploy bicycle racks on municipal rights-of-way and will be focusing this year on placing racks into several local commercial areas that are currently lacking short-term bicycle parking.
- The City is participating in a feasibility study for a potential “bike station” in the downtown core. This facility would be a destination for cyclists to provide secure, staffed parking facilities and ancillary services such as a repair shop, change rooms, showers and lockers.
- The City continues to participate in promotional activities such as *Bike to Work Week* and *Bike Month*. This year, staff led rides and distributed cyclist surveys and reflective ankle bands at “celebration stations” around the City.

- The City continues to distribute approximately 60,000 fold-out bicycle maps every year to local residents and tourists from many other countries planning visits to Vancouver.
- The Bicycle Hotline (e-mail and phone) is well used by both residents and visitors to the City wishing to learn more about cycling in Vancouver, requesting bike maps, or identifying maintenance issues.

## Monitoring

### Bicycle Count Program

Monitoring bicycle movements is an important step in deciding where to put new facilities and how to improve existing ones. Bicycle count data also helps to validate or challenge assumptions on bicycle route usage.

Bicycle counts have been integrated into the City's program of manual traffic counts since 1993. These data provide information about the number of cyclists passing through an intersection during the peak hours for vehicle traffic. Bicycle counts were also integrated into the City's pedestrian study for the first time in 2007, and will be included in all subsequent pedestrian studies.

In addition, staff have recently initiated a bicycle count methodology for all major bikeways in the City. The methodology includes: 1) regularly scheduled peak period counts at intersecting bikeways to help determine peak hour volumes; 2) automatic counts between arterials and at entry and exit points on bikeways to help determine daily variations in bicycle movements and the "peak hour factor", and; 3) use of permanent counters to help determine seasonal variations in bike route usage. The first permanent bicycle counter was recently installed on the Ontario Bikeway just north of 11<sup>th</sup> Avenue.

### Cyclist Survey

As part of June's *Bike Month*, staff developed and distributed a cyclist survey. The survey will help staff to identify cycling patterns, demographic characteristics, and current attitudes toward cycling in Vancouver. It is hoped that this survey will establish a baseline against which to evaluate trends in cyclists' opinions over years to come.

## Related Initiatives

There are several large projects underway that have implications for cycling in Vancouver and in which the City is taking an active role. These include:

- *Vancouver 2010 Winter Games*. The City is leading planning efforts for cycling during the 2010 Winter Games, including identifying options for bike parking at venues and temporary re-routes where the network will be affected. TransLink is reviewing options for bike parking at SkyTrain stations and regional information sharing and trip planning.
- *Canada Line*. Staff are finalizing designs for bicycle connections between our existing network and Canada Line stations within Vancouver to support multi-modal travel. Options for short- and long-term bicycle parking at or near the stations are also being explored.
- *TransLink Long-Range Regional Bicycle Plan*. Staff are actively participating in the development of a new region-wide bicycle plan, which will identify priority routes of regional significance and desirable facilities to attract a broader range of cyclists.



- *Public Bike System.* Staff recently participated in a feasibility study undertaken by TransLink for initiation of a Public Bike System (PBS) in Metro Vancouver, similar to existing systems in Paris, Barcelona, and Lyon (among others). The study supports the implementation of a high-quality PBS with a fleet of approximately 3,500 bicycles located initially throughout the Metro Core area. Staff are now considering various funding and operational models in cooperation with TransLink.

### Funding

Funding for bicycle facilities is provided in the City of Vancouver 3-Year Capital Plans. In addition, staff apply for external funding through the following bicycle cost-sharing programs:

- TransLink - Municipal block allocation (based on population)
- TransLink - Regional allocation (based on regional significance of proposed routes)
- Provincial Cycling Infrastructure Partnerships Program (CIPP)
- Provincial LocalMotion Program
- ICBC Road Safety Program
- Route-specific cost-sharing opportunities (e.g., Vancouver General Hospital for a section of the 10<sup>th</sup> Avenue bikeway)

Table 3 shows the City's historic and future financial commitments to bicycle facility development, including funding from external sources.

Table 3: Bicycle Network Approved Funding <sup>1</sup>

	2000 to 2002	2003 to 2005 <sup>2</sup>	2006 to 2008 (budget)
<b>Gross Expenditures</b>	<b>\$2 million</b>	<b>\$ 3.4 million</b>	
<i>CoV Actual</i>	\$1.1 million	\$ 2.2 million	
<i>Funding from External Sources</i>	\$0.9 million	\$ 1.2 million	
<b>Gross Budget</b>			<b>\$ 5.2 million</b>
<i>CoV share</i>			<i>\$ 3.8 million</i>
<i>Funding Partners' Share</i>			<i>\$ 1.4 million</i>
<b>% of total budget recovered from cost sharing programs<sup>2</sup></b>	46%	35%	27%

<sup>1</sup> The figures included in this table do not include funding from the Greenways budget that applies to bicycle facilities.

<sup>2</sup> Outstanding claims will increase funding from external sources to approximately \$1.8 million, raising the proportion of total budget recovered from cost-sharing programs for 2003-2005 to approximately 53%.

As shown in the table above, the City's budget for bicycle facilities is increasing with each Capital Plan, as is the funding received through cost-share programs.

### Bicycle Plan Review

The Bicycle Plan is now almost 10 years old, and many of the Plan's objectives have been achieved or are well underway. Others need to be revised to reflect changing realities and new objectives. For example, the previous plan did not envision the Canada Line and the new pedestrian/bicycle bridge across the Fraser River.

Staff are planning for a review of the Bicycle Plan, and this work will begin following completion of the updates to both Metro Vancouver's Sustainable Region Initiative and TransLink's Transport 2040 Plan and Long-Range Bicycle Master Plan.

In the meantime, however, staff are compiling ideas and input from various sources to work towards a potential "end-state" bicycle network that achieves the City's goal of a 1-km grid of local street bikeways and arterial bike lanes. A review of the Bicycle Plan will further refine this "end-state" network.

### **BAC Consultation**

This report was presented to the Bicycle Advisory Committee (BAC) at its meeting on June 18, 2008. The BAC passed a motion (Appendix C) in support of the City's work toward implementation of the 1999 Bicycle Plan, encouraging the City to continue expanding, monitoring and upgrading the network. The BAC also recommends continued work from the City on cycling promotion and education to further encourage the use of sustainable modes of transportation.

### **FINANCIAL IMPLICATIONS**

There are no financial implications.

### **CONCLUSION**

Staff continue to develop the City's bicycle network and undertake other action items outlined in the 1999 Bicycle Plan. The bicycle network is expanding, supportive measures are being improved, and partnerships with other funding agencies have been successful. As a result, the City is seeing an increasing amount of bicycle travel and strong indicators to support future growth. Staff will continue to work on the expansion of the bicycle network in partnership with other agencies, the Bicycle Advisory Committee, and the general public, and look forward to undertaking an update to the Bicycle Plan in the coming years.

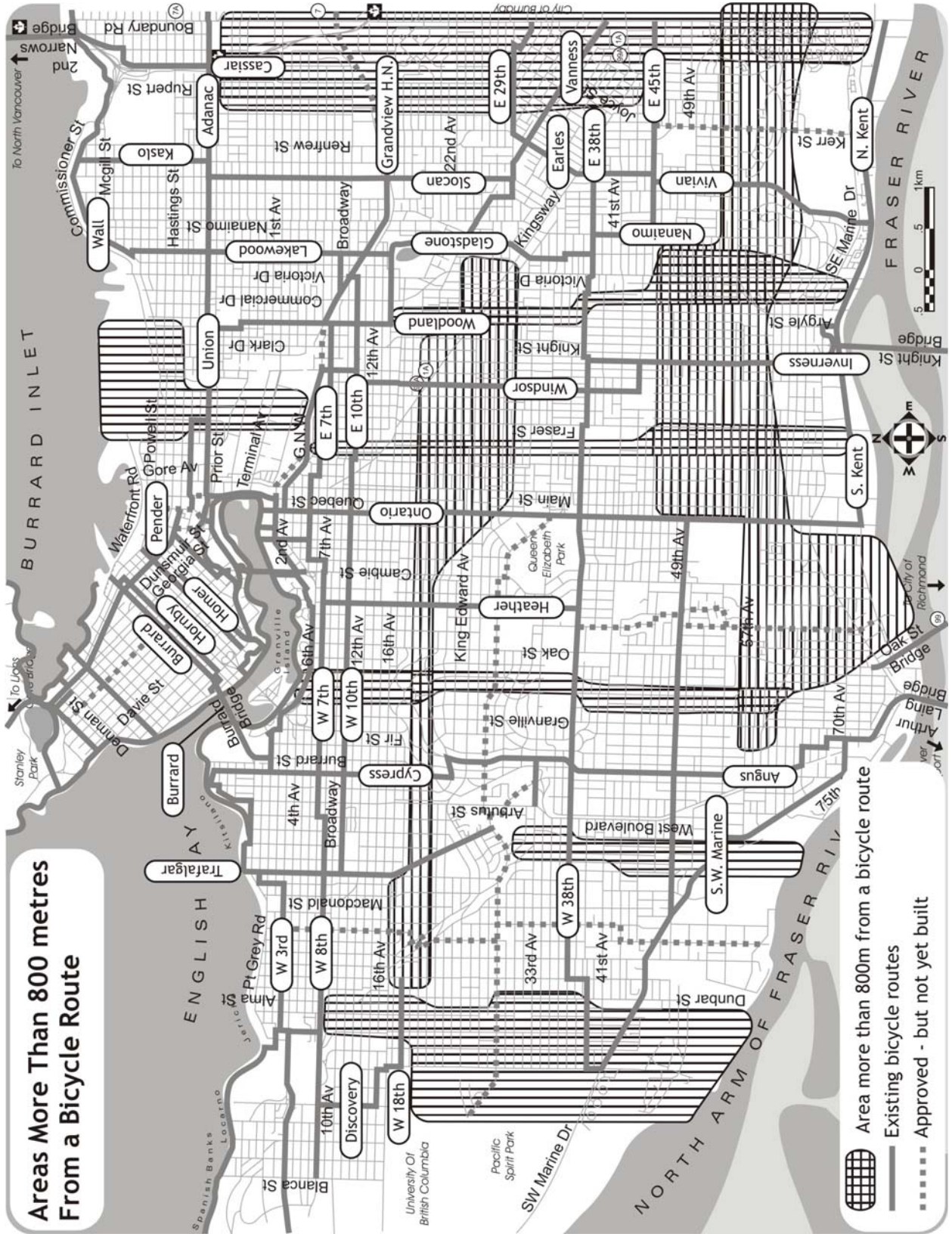
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## STATUS of 12 ACTION ITEMS, 1999 BIKE PLAN

Action Item	Status
1. Vancouver Cycling Maps and Brochures - seek sponsorship opportunities	Significant interest has been expressed by potential sponsors. Staff continue to seek opportunities to share the cost of production.
2. Bicycle Network - seek funding from outside sources	More than \$1 million in funding is received from TransLink, ICBC, Ministry of Transportation and other funding partners for each capital plan. External funding is provided on a cost-share basis, and has been increasing steadily with each capital plan. Staff will continue to submit applications through a variety of funding programs.
3. Greenways Program - Incorporate the Greenway Network into the Bicycle Network by providing facilities for recreational cyclists	The following Greenways have been enhanced with facilities for recreational cyclists: Carrall Street Greenway; Seaside Greenway  The following Greenways will be built in the following year: Carrall Street Greenway (partial); Central Valley Greenway  The following Greenways are in the planning stage: Eastside Crosscut Greenway; North Arm Greenway
4. Bike Rack Program - implement a new bike rack program	Council approved funding and staff continue to seek opportunities for increased capacity. Staff are updating information related to rack locations in the field and this information will be provided to the public through VanMap as it becomes available.
5. Data/Trends - bike count program	Council approved funding for a pilot project to test automatic counters (RTS 5714 July 2006). This project is ongoing. Bikes were included in the 2007 Pedestrian Study, and will be included in all subsequent pedestrian studies. By default, bikes are included in all traffic counts. Staff will implement a bike monitoring program, which will include manual counts as well as automatic counters.
6. Data/Trends - bike cordon counts	Pilot project is ongoing to test automatic bike count technology. Upon completion of pilot project regularly scheduled counts will be initiated.
7. Data/Trends - Monitor vehicle traffic along bikeways	Ongoing as part of scheduled counts.
8. Data/Trends - Monitor collisions	Ongoing
9. Data/Trends - Analyze crime statistics	Ongoing

## STATUS of 12 ACTION ITEMS, 1999 BIKE PLAN

Action Item	Status
<p>10. Route Development - ensure a grid of bikeways approximately one km apart</p>	<p>Refer to Appendix B. The following projects address this Action Item and are currently in planning, design or construction:</p> <ul style="list-style-type: none"> <li>• Balaclava Bikeway</li> <li>• Yukon Bikeway</li> <li>• Heather Bikeway Extension</li> <li>• Valley Bikeway</li> <li>• Borden-Dumfries Bikeway</li> <li>• 28<sup>th</sup> Avenue Bikeway</li> <li>• 29<sup>th</sup> Avenue Bikeway</li> <li>• 45<sup>th</sup>/46<sup>th</sup> Avenue Bikeway</li> <li>• 59<sup>th</sup> Avenue Bikeway</li> </ul>
<p>11. Route development - accommodate bikes on arterial streets</p>	<p>Council approved (RTS 06864 December 2007) arterial bike lanes in general for locations where they can be implemented without reducing capacity or removing parking. Staff are designing bike lanes for Rupert St, Kerr St, Dunbar St, 22<sup>nd</sup> Ave and Great Northern Way. The bike lane along 49<sup>th</sup> Avenue has been opened since last update.</p>
<p>12. Downtown network</p>	<p>Bike lanes have been implemented along Dunsmuir/Melville St, Burrard St, Hornby St, Richards St, Homer St, Beatty St, Pacific Blvd. Many West End streets have been made more 'bicycle-friendly'.</p> <p>Staff is currently planning facilities for Keefer St and Quebec St, and bike lanes are under construction along Alberni St.</p>



**BICYCLE ADVISORY COMMITTEE MOTION**

At its meeting on June 18, 2008, the Bicycle Advisory Committee

**RESOLVED**

THAT the Bicycle Advisory Committee, having received an update on the 2008 Annual Bicycle Plan for information, appreciates and supports the ongoing work of staff on the implementation of the 1999 Bicycle Plan and would encourage the City to continue with network expansion, monitoring and upgrading where necessary.

FURTHER THAT the Bicycle Advisory Committee recommends the City encourage increased use of sustainable modes of transportation.

**CARRIED UNANIMOUSLY**