TO: Vancouver City Council

FROM: General Manager of Engineering Services

SUBJECT: Vancouver Public Bike Share

RECOMMENDATION

A. THAT Council authorize staff to enter into an agreement with Alta Bicycle Share, Inc. (“Alta”) as the owner, operator, and financier of the Vancouver Public Bike Share (“PBS”) system, upon Alta and other related parties finalizing to the satisfaction of the City Manager, Director of Finance and Director of Legal Services, the PBS Agreement, and the associated sponsorship and financing agreements, as required in their project proforma;

B. THAT Council authorize staff to negotiate and enter into agreements with third parties such as public agencies, private sector entities, philanthropic organizations and individuals who wish to contribute financial or in-kind support to the Vancouver PBS system on terms and conditions satisfactory to the City Manager, General Manager of Engineering Services, Director of Finance and Director of Legal Services; and such contributions be used to offset the City’s project costs;

C. THAT Council approve i) a one-time contribution of up to $6 million to Alta for equipment purchase and installation for the Vancouver PBS system, and such contribution be offset by any additional contributions, donations or any corporate sponsorship funding secured by Alta above and beyond the sponsorship target in their project proforma prior to the Phase II launch targeted for Spring 2014; and ii) a budget of up to $1 million for City of Vancouver start-up staffing, signage and wayfinding costs; source of funding to be the Parking Site Reserve.
D. THAT Council approve an average annual sustainment budget of up to $0.5 million for staffing, signage and wayfinding costs for the term of the PBS Agreement; source of funding to be the Parking Site Reserve;

E. THAT the City Manager, General Manager of Engineering Services, Director of Finance, and Director of Legal Services be authorized to execute and deliver on behalf of the City the agreements referred to in Recommendations A and B (to which the City is a party) upon being approved in accordance with those recommendations;

F. THAT no legal rights or obligations will arise or be created by the adoption of the above Recommendations unless and until the applicable legal agreements have been executed and delivered by the City’s authorized signatories.

REPORT SUMMARY

Around the world, more than 500 Public Bike Share systems have been implemented. These systems provide people with an easy and convenient sustainable transportation option within urban areas, and introduce people to the benefits of cycling. In support of Vancouver’s green transportation goals, implementing a PBS system has been identified as a priority for Vancouver and is an action item within both the Greenest City Action Plan 2020 and Transportation 2040 Plan.

This report presents details relating to the recommendation to proceed with a PBS system and provides a description of the system including the approach for implementing the system in Vancouver. In addition, this report will provide information on the recommended process for station siting, the helmet distribution system, risk mitigation, anticipated timelines, and the processes that were undertaken by staff to engage and consult with the public and external stakeholders.

On March 24, 2009, Council directed staff to commence a procurement process for a PBS in Vancouver. Through that procurement process, staff identified Alta Bicycle Share, Inc as the preferred operator, partnered with Public Bike System Company (commonly known as “PBSC” or “Bixi”) as the equipment supplier.

Since then, staff have been working with Alta and have been consulting with a wide variety of stakeholders and external parties including members of bike rental and retail businesses, Business Improvement Associations, TransLink, the University of British Columbia, Simon Fraser University, Vancouver Police Department, RCMP, and citizen advisory groups to identify and address issues to ensure the success of PBS in Vancouver. There have also been a number of presentations and reports to Council over the last 3 years providing updates on progress and requesting decisions for enabling regulation.

There is strong support for PBS from the public and many external stakeholders. Local bike rental companies have emphasised the continued need to promote the use of bike rental shops to tourists, to target residents as the primary users of the PBS system, to ensure a non-competitive rate structure, and to avoid PBS station placement within close proximity to their shops.
Having completed extensive work on analyzing information provided by Alta, issues raised by stakeholders, and lessons learned from systems around the world, this report outlines what the proposed system in Vancouver would look like and upon Alta confirming sponsorship and financing agreements, we are ready to move forward with Alta to implement a PBS system.

Staff recommends Council approve the budget and signing of a contract with Alta once they have secured sponsorship and financing, which will allow staff to proceed to the next phase of the project.

**COUNCIL AUTHORITY/PREVIOUS DECISIONS**

There is a long history over the past 15 years of Council policy that supports the implementation of a PBS, including the City of Vancouver’s 1997 Transportation Plan, the 2002 Downtown Transportation Plan and the Greenest City Action Plan, all of which articulate objectives to increase walking, cycling, and transit trips to align with climate change goals, smart growth principles, and a sustainable transportation system. Decisions over the last 5 years include:

On July 22, 2008, Council instructed staff to report back on the implementation and cost of a PBS system in the City of Vancouver.

On March 24, 2009, Council directed staff to commence a procurement process for a Vancouver PBS system, and to report back with respect to financial and staffing implications, as well as coordination with and/or impacts to, existing contracts and business units.

In October 2009, Council received the Mayor’s Greenest City Action Team’s Report, *Vancouver 2020 A Bright Green Future*, which encouraged the City to explore active transportation, economic, and inclusivity objectives.

On July 12, 2011, the Greenest City Action Plan “Green Transportation” priority was approved by Council, directing staff to pursue the development and installation of a PBS system in Vancouver’s downtown and other high-potential cycling areas.


On October 16, 2012, after being referred to public hearing, Council approved amendments to the Sign By-law, Zoning and Development By-law, and various CD-1 By-laws to facilitate the PBS system implementation.

On October 17, 2012, Council approved amendments to the City Land By-law, the Street-Vending By-law, the Vehicle for Hire By-law, the License By-law, and the Building By-law to facilitate an operator to implement and operate a viable PBS system.

On October 31, 2012, Council approved the Transportation 2040 Plan which, as part of increasing cycling mode share and providing for an enhanced multi-modal transportation
system, lists the development and implementation of a public bike share system in the Metro Core and other areas with high cycling potential as an action item.

**CITY MANAGER’S/GENERAL MANAGER’S COMMENTS**

For many years, the City of Vancouver has worked to enable our residents and visitors to get around on bike or by foot. As a community, we’ve made considerable strides with more compact, transit, walk and bike friendly neighbourhoods.

This work has involved the construction of bike facilities throughout the city, such as separated bike lanes, painted bike lanes, and bike parking. Through these strategic investments in safe, efficient and quality bike facilities combined with innovative urban design, we’ve achieved significant increases in walking and cycling mode share throughout the city. Public bike share programs around the world, when combined with appropriate cycling infrastructure, have proven to increase the cycling mode share by introducing people to the convenience of cycling in urban areas. It is anticipated that a Public Bike Share system in Vancouver will encourage residents to cycle instead of drive for their shorter trips around town, while enabling residents throughout the region to take public transit into the city and use the Public Bike Share system as the “last mile” of their trip.

Providing residents and tourists with access to a Public Bike Share system has been identified as a priority for Vancouver. Our Greenest City Action Plan and Transportation 2040 Plan included PBS as a strategic priority, contributing to the overall goals of both plans. The implementation of a PBS system is noted as a recommendation in the Tourism Vancouver Master Plan, as international tourists are increasingly expecting to have PBS as part of their urban tourist experience. This would greatly encourage tourists to utilize our comprehensive public transit system while complementing the ability to rent bikes for longer excursions from our city’s many successful retail bike rental outlets.

While staff see significant value in developing a Public Bike Share system in Vancouver, implementing the world’s first Public Bike Share system with an integrated helmet system has taken considerable time and effort, and has represented challenges beyond those experienced in most other cities who do not have a mandatory helmet law. The mandatory all-age bicycle helmet law under the Motor Vehicles Act was adopted by British Columbia in 1996, and PBS system users will be required to abide by this and all other applicable laws and by-laws. Staff have engaged extensively with other cities throughout North America and around the world to learn from their experiences and build off their work to make Vancouver’s program a success. For virtually every city, a Public Bike Share system is a recent initiative, has required investment from the city and has required significant effort over time to mitigate risks. Like these other cities, staff have worked to identify and limit the risks of implementing a system in Vancouver.

Over the last 3 years there has been extensive work and due diligence on developing this plan, particularly in regard to effectively managing the need for an integrated helmet system. Staff are now positioned to move ahead with a clear recommendation to Council and the City Manager and the City Engineer enthusiastically support adoption of the recommendations in this report and the implementation of a Public Bike Share system in Vancouver.
**REPORT**

**Background/Context**

The implementation of a PBS system is one of the fundamental building blocks of a sustainable transportation system for our city. Identified as a clear action within the Greenest City Action Plan (GCAP) and Transportation 2040 Plan, a PBS will provide people with an easy and convenient transportation option to help extend sustainable transportation within the City. Green Transportation targets outlined in these plans call for half of all trips to be made on foot, bicycle or transit by 2020 and two-thirds by 2040.

In support of Transportation 2040 goals the City has increased funding allocations within the 2012-14 capital plan to improve walking, biking, and transit facilities. Investments, both direct and in-kind, have expanded to include a number of green transportation options such as car share, bus and taxi. Capital funding for walking, cycling, transit and road related expenditure within the 3 year plan total over $159 million. The additional one-time funding of $6 million for PBS equipment and installation represents approximately 3.75% of the total investment being put towards transportation infrastructure in the capital plan.

Generally, the objectives of most PBS systems are to support active and healthy living, extend the reach of transit and walking trips, reduce vehicle trips, alleviate transit capacity issues and generally support increased interest and participation in cycling.

The number of PBS systems in major cities has grown significantly over the past 5 years. However, the industry is still young with most systems in North America having only been in operation a maximum of 3 to 4 years. Worldwide, there are now over 500 PBS systems.

Despite this being a young industry many cities are reporting early successes. Many of the cities that have invested in PBS systems have seen an increase in cycling, attributable to the implementation of PBS systems and the development of related cycling infrastructure. Lyon saw a 44% increase in bicycle riding within the first year of their PBS program. Similarly, Paris realized a 70% increase in cycling over the two years following the introduction of Velib. New York City’s CitiBike PBS system launched in May of 2013 and has seen a rapid increase in ridership with over 529,000 trips, and 2 million kilometers travelled, in its first month of operation. A best practices study evaluating the New York PBS estimated that as many as 9000 vehicle trips could be replaced each day in New York City.

While the ownership, business and financial models have varied, in most cases the local government has played a significant role in establishing these systems. In the US, the federal government also plays a role by making infrastructure/stimulus funding available to PBS systems.

In 2008, TransLink studied the feasibility of a PBS system in Metro Vancouver. The recommendations from the report confirmed the interest and viability of a PBS system in the City and within the region. The study suggested geographic areas suitable for an initial implementation, optimal system size (at least 1,500 bicycles), and potential municipalities for system expansion. A copy of the study is available on TransLink’s website.
The recommended system in this report is based upon the findings of the TransLink study and affirmed by responses to the City’s procurement process and through information collected and analyzed by staff. Comparators and lessons learned were obtained from across the world with a focus on recently implemented third generation PBS systems.

**Strategic Analysis**

**RECOMMENDED OPERATING MODEL AND OPERATOR**

After a public procurement process, as described below, with six respondents, staff has selected Alta Bicycle Share (referred to as “Alta” in this report) and is recommending that they be awarded a contract to serve as the public bike share system owner and operator (upon final confirmation of sponsorship and financing) operating at arm’s length from the City, and that the City provide various forms of support to Alta, described later in this report.

In this owner/operator role, Alta will manage the operations, assume the financial risk, and be responsible for sales, marketing and customer service. Alta will subcontract with the Public Bike System Company (commonly known as “PBSC” or “Bixi”) to provide the system infrastructure (e.g. stations, bikes, helmet system, information systems).

Alta and Bixi are currently partnered in many cities worldwide, and have recently launched systems in New York City and plan to launch Chicago’s system by the end of 2013.

Specific roles and responsibilities are detailed as follows:

- **ALTA BICYCLE SHARE**: Own and operate the system, with responsibility for:
  - funding the system, including raising sponsorship revenues, securing direct and in-kind contributions, and establishing financing mechanisms as required,
  - assuming the financial, operational and liability risk associated with the system,
  - installing and maintaining the system infrastructure,
  - operating and optimizing bicycle and helmet redistribution systems,
  - marketing, education and public relations, and
  - customer service.

- **Public Bike System Company (PBSC - BIXI)**: Sub-contracts to Alta for the provision of system infrastructure (stations, bikes, helmet system, call centre, information systems including software to manage the system).

- **CITY OF VANCOUVER**: Provide support to the system, in the forms of:
  - a one-time financial contribution towards the equipment purchase and installation,
- a defined amount of ongoing in-kind support, which includes ongoing staff support and signage and wayfinding maps for the station panels,
- access to public lands including streets and open spaces for installation of bike stations,
- monitoring system performance and progress on achieving transportation and sustainability goals, and
- any regulatory- and policy-related support to create an enabling environment for the system to succeed, for system infrastructure placed on both public and private property.
- ongoing enabling of partnerships and sponsorship/donation opportunities

Other key stakeholders:

- **PUBLIC AGENCIES**: The City has been in active discussions with TransLink, the University of British Columbia and the Provincial Ministry of Transportation & Infrastructure related to PBS. Public agencies may provide financial, in-kind and/or policy support to the system. Any financial contributions that can be secured prior to the system’s launch will offset the City’s contribution. In addition other municipalities have expressed interest in expanding the system within the region.

- **OTHER NON-PROFIT OR PRIVATE FUNDING PARTNERS**: Non-profit organizations, individual philanthropists and private funding partners may provide financial, and/or in kind support. Any contributions secured prior to the system launch will offset the City’s contribution and any secured after launch will be shared with the City through a profit sharing agreement.

- **INDUSTRY ASSOCIATIONS AND ADVOCACY GROUPS**: Staff have been working with industry associations and advocacy groups supportive of cycling and sustainable transportation (e.g. bike rental and retail shops, car share companies), to ensure they are well-positioned to promote the system. As the system is implemented, these groups can play an important interface role between Alta and various interested stakeholders and/or potential users.

- **BUSINESS SECTOR**: Various private sector entities can support the public bike share system, e.g., through sponsorship agreements, marketing, promotions, provision of station sites, etc.. Other cities with PBS have noted increased mobility and in turn increased activity for local businesses. Staff have engaged local business improvement associations (BIAs) to identify partnership and support opportunities.

- **CYCLING SECTOR**: Staff have engaged the local bike rental and retail businesses, the Active Transportation Advisory group, along with cycling advocacy groups such as HUB. Enhanced consultation and sharing of information has been underway over the last 4 years related to the implementation of PBS and to identify partnership opportunities with these groups.
• **SOCIAL ENTERPRISE GROUPS**: Opportunities for Alta to sub-contract with one or more social enterprise or non-profit groups to provide system support will be explored as the system is implemented.

**PROCUREMENT**

In April 2011, the City issued a Request for Expressions of Interest (RFEOI) to solicit third party proposals to own and operate a public bike share system in Vancouver.

Six submissions were received in response to the RFEOI and were evaluated by staff in accordance with the detailed evaluation principles and criteria set out in the RFEOI. As part of this evaluation, the PBS system project team continued to engage and learn from the other cities around the world including through information sharing and participation in the Urban Sustainability Directors Network. TransLink and the University of British Columbia were also invited to participate in the evaluation since they are key supporters and stakeholders as well as potential expansion partners. Some of the criteria considered in the overall evaluation process included:

• Business capacity and expertise, strength of underlying partnerships.
• Viability of business/financial model, including degree of reliance on public funding.
• Strength of the operational model including systems design and operation.
• Ability to implement effectively and on schedule.
• Community, social and environmental impacts.

The City also formed a PBS System External Review Panel. The panel is composed of members from a variety of backgrounds including cycling advocacy, public safety, operations and logistics, and business, and was periodically engaged by the project team in an advisory capacity. Throughout different stages of the project, the panel were invaluable in providing expertise, and identifying potential issues and solutions.

In April 2013, the City negotiated and settled an agreement in principle with Alta, outlining the roles and responsibilities for both parties as outlined above. It is proposed that the City enter into a five-year contract with Alta based upon this agreement in principle, to be renewable upon mutual agreement upon expiry.

Following an extensive evaluation and subsequent negotiation process, staff is recommending that Council authorize staff to enter into a contract with Alta.

**System Description**

The system being recommended for Vancouver will be similar in many respects to those launched in other major North American cities such as Montreal, Boston, and Washington, DC. However, one key difference will be the integration of a convenient and affordable helmet distribution system to allow users to rent and return helmets, which was identified as critical
to achieving the expected user uptake in light of the Provincial law mandating helmets for cyclists in British Columbia.

Bikes and Infrastructure

Based on what staff have learned and best practices world-wide, the Vancouver PBS system would be comprised of a network of self-service bicycle stations to facilitate short distance, one-way bicycle trips within the urban coverage area. PBS system users will be able to rent bicycles and helmets at one location and return them at another through an efficient, self-service process available 24 hours a day, 7 days a week, 365 days a year. The system will consist of 1,500 bikes with 2,850 docks at 125 stations located within the Metro Core. The system coverage area will include the downtown peninsula and the area generally bounded by Arbutus Street to the west, 12th Avenue to the south, and Main Street to the east. It is anticipated that helmet vending machines and return receptacles will be located at 100% of the stations upon launch.

Alta is planning to launch the PBS system in two phases. A targeted initial rollout starting in early 2014 will involve the implementation of approximately 25 stations, 250 bikes and 475 docks located within a small geographic area downtown. The purpose of this phase is to allow for testing of key components of the system particularly the integration of the helmet system. It is expected that the complete installation will be in place by Spring 2014 and will involve a launch of the full system as described above. These timelines are dependent on Alta satisfying a number of requirements including providing the final legal documentation related to their secured sponsors, their financing arrangement, the final plan for developing and commissioning the helmet distribution system and securing station site locations.

The PBS system stations are prefabricated, modular, and do not require anchoring or connections to external utilities (e.g. power), which allows for easy installation and relocation if required. Power is supplied by solar tubes with backup batteries. Communications, including payment transactions, are completed wirelessly. Given the stations’ solar power and modular nature this aligns with the goals of the Greenest City Action Plan. Each station will have a payment kiosk, a helmet vending machine, a helmet return receptacle, a display panel which includes non-commercial or commercial advertising on one side and a wayfinding map on the other side. Bikes are locked into docks, which release the bikes to system users. Refer to Appendix A for equipment specifications, details and photos.

Branding

The naming, logo, and colour of the system are elements that have yet to be determined and staff from Corporate Communications will continue to work with Alta to develop the branding for the system.

Sponsorship

Sponsorship on the PBS system will include sponsor recognition on the fender and basket of each bike. In addition, approximately 50% of the docks will have sponsor recognition in the form of a logo, along with all helmet vending machines, helmet return receptacles, and helmets. Panels at each station will include either a sponsored commercial ad or non-commercial sponsor acknowledgement.
Pricing

The construct of pricing for PBS aligns with the policy goals - PBS is an extension of a sustainable transportation system and thus the PBS system rates will be priced accordingly to promote short trips. The preliminary PBS pricing approach for users is made-up of a membership fee (either annual, week or day memberships are available), plus incremental usage costs based upon the duration of any individual ride. Refer to Appendix B for the proposed rate structure and pricing model. Non-commuting users desiring a longer cycling trip will be encouraged through the pricing structure to rent a bike and helmet from a local bike rental business.

Should a user require a helmet, a helmet can be rented for a fee for a 24-hour period. System users planning to use PBS multiple times during a short period will be encouraged to keep the rented helmet for multiple trips. Any helmets not returned within a specific period are considered a sale. In consultation with staff, Alta will set a final pricing structure that will provide easy access to the bikes and helmets while ensuring that it discourages competition with local bike rental businesses that are largely focused on day users using bikes for touring the city and recreation.

Station Siting

Stations will be located in areas to optimise system usage and with a high emphasis on providing connections to transit, high pedestrian areas, commercial/shopping districts, parks, community centres and educational institutions. Based upon best practices, stations will be located every 300-400m (approximately 2-3 blocks) resulting in a desired density of 10 stations per square kilometre. A maximum of 60% of all stations will be located on the street and the remaining stations will be located on the sidewalk or other City-owned property and privately owned lands.

A challenge to finding suitable station locations is the physical size of the footprint. The minimum station size is approximately 15m long, the approximate length of 3 parking spaces, and the largest size station estimated to be 45m will take up approximately 7 parking spaces. These challenges are not unique to Vancouver; other major urban centres such as New York City face similar space constraints when it comes to locating PBS system stations.

It is the responsibility of Alta to secure all station locations. The City has explored the feasibility of hundreds of potential station sites. This information along with demand analysis completed by Alta will be used to identify preferred station sites.

The City will use a permitting process to regulate the placement of all stations to ensure public safety, maintain emergency and utility access, and evaluate trade-offs at locations with competing interests (e.g. minimize the impacts to pedestrian mobility and existing street uses such as food vendors and street furniture). To facilitate the implementation of PBS the City has enacted a number of By-law changes. All stations on public land will be subject to a City license. In addition to the permitting process, Alta will be responsible for negotiating and entering into lease agreements with landowners when stations are located on private property.

For those PBS system stations which may be placed within proximity of existing bike rental shops, staff and Alta commit to consulting with the bike rental shops during the station siting
and permitting process. The City aims to avoid issuing permits for stations within a 50 meter area of an existing bike rental business. In addition to these principles, other station siting factors such as solar exposure, cellular reception, and access for vehicles supporting the maintenance and operations of the PBS system will need to be considered.

Alta and City staff have begun the process of identifying potential station locations. Should Council approve the recommendations in this report, staff will begin more specific consultation with stake holders and work closely with Alta to finalize locations. Over the course of the procurement, we have benefited from many experiences about this component of public bike shares and we will be sharing all of this information to assist with the engagement of our stakeholders. It is expected that over the course of the program, modifications to station locations will be necessary. Modifications may be prompted by a need to adjust the size and location of stations to address changes in system demand or to accommodate special events or construction work. Alta will be responsible for optimizing the location of stations to support their operations.

### Helmet Distribution System

Unlike in most cities where PBS systems have been implemented, since September 1996 cyclists in British Columbia are required to wear helmets as legislated in the Provincial Motor Vehicle Act.

As the owner/operator, it is Alta’s responsibility to design, deliver, operate and fund a helmet distribution system that meets the City’s requirements. Since the need for such a system was identified as a key risk factor, staff engaged a third party to provide expert advice in evaluating the helmet system options.

The City, directly and through Alta, canvassed a number of potential helmet distribution system suppliers world-wide. Ultimately, three companies, PBSC, and two other potential suppliers, were engaged to present a prototype for a helmet distribution machine. These prototypes were reviewed by City staff, Alta, the third party experts, and members of the external review panel. The cost to the City of doing this exploratory work totalled approximately $60,000.

In the end, the solution provided by Alta/PBSC, which consists of an integrated helmet vending machine and helmet return receptacle, was determined to best meet the requirements. The helmet system will include a helmet vending machine and a helmet return receptacle which allow users to rent a bike and a helmet using a single transaction. The Alta/PBSC helmet vending machine is expected to offer two sizes of helmets, with a capacity of approximately thirty helmets per vending machine. The rental and return of a helmet will be tracked using Radio Frequency Identification (RFID) tags on the helmets. Upon return by a user, helmets will be collected by Alta staff and brought to an off-site facility where they will be sanitised and inspected before redistribution.

The helmet vending machines and helmet return receptacles are expected to be fully commissioned and installed as part of the initial testing phase. Currently, Alta/PBSC has developed a prototype of the helmet vending machine while the helmet return receptacle is still in the design stage. Alta/PBSC is confident with their ability to have helmet vending machines and return receptacles ready for both phases of the PBS system launch, including hardware, software and helmet rental and return processes.
The helmet system will be available at each station at the launch of the PBS system and helmet rentals will be low-priced for easy access. As well, helmet rentals will be priced to encourage users to reuse the same helmet for multiple trips. In contrast, a relatively high purchase price will be charged if a helmet is not returned within a specific period, to minimize competition with local retail helmet vendors.

It is recognized that after launch and as utilization data becomes available, adjustments to the helmet distribution system may be necessary to meet system demands. One of the key operational metrics staff will be monitoring will be the minimum service levels for helmet availability and return.

The requirement for an integrated helmet solution for the PBS was identified early on as a key risk for the success of our PBS. The impact on system utilization is still unknown but there has been appropriate due diligence and work done to bring us to a point where both the City and Alta have the confidence that the PBS will have high quality and effective helmet distribution system to meet our needs. It should be noted that there is significant interest from other jurisdictions in the development and deployment of an integrated Helmet Distribution System. Given the modular nature of the proposed system it would easily integrate into many of the existing PBSC systems currently in operation around the globe. Future PBS systems such as the one proposed for Seattle, may choose to include a similar integrated Helmet system.

**Implications/Related Issues/Risk**

**Financial**

As the owner, operator and financier of the Vancouver PBS system, Alta will be responsible for securing funding and financing for both capital and operating expenditures, and will assume all the risks associated with system revenues and costs. Under this structure, Alta will be given flexibility to adjust the financial and operating model within the parameters and service standards in accordance with the PBS Agreement. Other than the recommended one-time contribution of up to $6 million to Alta and potential foregone parking revenue (Table 1), the City will not provide further operating subsidies, financial guarantees or indemnity. The City’s one-time financial contribution will be offset by any additional contributions, donations or any corporate sponsorship funding secured by Alta above and beyond the sponsorship target in their project proforma prior to full system launch targeted for Spring 2014, anticipated to be a minimum of $1 million. The City has built on lessons learned from other cities to develop this business model to enable PBS while minimizing the City’s exposure to financial risks.

- **Alta Capital Funding:** The full capital costs associated with equipment purchase and installation will be funded from corporate sponsorship revenues over the term of the PBS Agreement (with bridge financing from a bank) and the City’s one-time contribution of up to $6 million. This funding model is consistent with most other jurisdictions in North America. Any additional sponsorship funding secured by Alta above and beyond the sponsorship target in their project proforma prior to the Phase II launch targeted in Spring 2014 will be used to offset the City’s contribution.

- **Alta Operating Funding:** Operating expenditures will be funded sponsorship revenues, membership and user fees, and helmet rental fees.
Besides the $6 million one-time contribution to Alta, the City will incur additional one-time costs to support the implementation of the Vancouver PBS system as well as ongoing sustainment costs over the term of the PBS Agreement.

Table 1 below summarizes the City’s one-time and ongoing costs to support the implementation and sustainment of the Vancouver PBS system.

Table 1 - City contribution to the Vancouver PBS System

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<th>JULY 2013 ESTIMATES</th>
<th>ONGOING AVG</th>
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<td></td>
<td>ONE-TIME</td>
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<td>A. ONE-TIME CITY CONTRIBUTION</td>
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<td>Maximum COV one-time contribution to Alta</td>
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<td>for Equipment purchase and installation</td>
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<tr>
<td>B. OPERATING CONTRIBUTION</td>
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<tr>
<td>Signage and Wayfinding</td>
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<td>City staff</td>
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<td>$0.45</td>
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<td>C. OFFSET TO CITY CONTRIBUTION</td>
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<td>Additional sponsorships, contributions, and/or donations to the City</td>
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<td>TOTAL ESTIMATED COV CASH IMPACT</td>
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<td>D. OTHER IMPLICATIONS</td>
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<td>Potential Impact on COV Parking Meter Revenues</td>
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<td>TOTAL ESTIMATED FINANCIAL IMPACT ON COV</td>
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<td>$1.30</td>
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Notes:
* After implementation, staffing is required for ongoing sustainment throughout the term of the PBS Agreement. Such requirements will be assessed and adjusted as part of annual budget process. Refer to the Human Resources section for further details.

Alta’s project proforma anticipates that the Vancouver PBS system will breakeven from the start and generate progressive surpluses within the term of the PBS Agreement. The City and Alta have agreed to a 50/50 profit sharing arrangement with built-in incentives for performance. The City’s share of the surplus will be used to partially offset the City’s project costs as outlined in Table 1.

Staff recommend that the source of funding for the Vancouver PBS project budget ($6 million for one-time equipment purchase and installation, $1 million for one-time start-up staffing, signage and wayfinding costs, and $0.5 million of average annual sustainment costs) be the Parking Site Reserve. Staff will continue to seek additional financial and in-kind contributions from senior governments and other funding partners/philanthropic donors to offset the City’s project costs, anticipated to be a minimum of $1 million.

The Parking Site Reserve was created by Council to fund the construction, maintenance and rehabilitation of the City’s parking facilities, and is funded by revenues generated from EasyPark. As of 2012 year end, the reserve had a balance of $44.7 million. Given that
additional parking facilities are not contemplated in the Transportation 2040 Plan, there is more than adequate funding in the reserve for all anticipated capital work required on the City’s parking facilities in the next 10 years, as well as funding for the PBS system. As such, staff recommend that the PBS project costs be funded from this reserve.

During implementation, a number of parking meters will be removed to make the street available for PBS stations. Based on current usage rate, the net revenue impact from these parking meters is estimated at $0.8 million per year. The actual impact will be lower if the parking needs can be accommodated by other meters in the area.

**Performance Management**

Several key performance indicators were identified to evaluate the performance of Alta. They were based on best practices and evidence from other PBS systems in municipalities around the world. These indicators include minimum performance levels in bike and helmet availability, station uptime and cleanliness, and customer service response times. Allowances have been made for seasonal variation in performance. For a list of key performance indicators refer to Appendix C.

The intent is to obtain a balance between achieving the City’s policy goals while retaining flexibility for operator to manage financial and operational sustainability of system. These indicators will be monitored regularly, through regular reporting, to confirm the on-going performance of the system and the quality of service to members. Regular meetings will be held between Alta and the City, including an annual report out with senior City staff.

Alta, has recently implemented a PBS system in New York City and is preparing to launch systems in Chicago and Columbus this summer. After launching the largest PBS system in North America in May 2013, New York City's system has faced some technical difficulties. Staff have closely been monitoring New York City's launch and the technical difficulties related to docking bikes, rebalancing stations, station shut downs, power management, and long wait times for customer service.

Many of those technical difficulties have since been addressed by Alta and fewer problems are now being reported. However, to better understand these issues and address them as they apply to Vancouver, staff have engaged in discussions with Alta staff and local staff from Chicago and New York City. As well, performance metrics have been developed to help address potential issues by allowing staff to regularly monitor potential issues and, in conjunction with Alta, adjust the operations of the system.

**Human Resources/Labour Relations**

In order to effectively implement the PBS system and to support the implementation and ongoing operation, experience from other cities has shown that it is imperative the City dedicate sufficient staff resources. While Alta as owner/operator will be responsible for the overall management and operation of the system, there are a number of important support roles for City staff. Research has shown that cities that have implemented similar size PBS systems operated by third parties have dedicated between 8 and 12 full-time equivalent staff members to supporting these systems, even though not directly involved in day-to-day
operations. These resources are funded from the overall project budget, as part of the City’s in-kind contribution to the initiative.

The primary roles for City staff are as follows:

During Implementation and through the first year of operations (~7 FTE)

- station siting support which includes a detailed site review, managing the reallocation of space in the public realm, regulatory review, and permitting (Engineering Services and impacted City Departments, Vancouver Police Department, Vancouver Fire and Rescue Services, Vancouver Parks and Recreation, Legal Services),
- regulation and policy support (Legal Services, Community Services, Financial Services, Engineering Services),
- community outreach and consultation (Engineering Services, Corporate Communications),
- monitoring of helmet distribution system development progress (Engineering Services, Financial Services),
- contract management and performance monitoring, including financial oversight, signage and wayfinding, station relocation requests and a reporting out of the first year of operations (Legal Services, Financial Services and Engineering Services)

On-going management and monitoring (~3 FTE/year)

- On-going contract management and performance monitoring, including financial oversight, signage and wayfinding and station relocation requests (Legal Services, Financial Services and Engineering Services), and
- Community engagement, public relations support (Corporate Communications, Engineering Services). While this is primarily the responsibility of Alta, the City will participate to understand concerns from stakeholders and to identify opportunities for coordination with existing City programs,
- Comprehensive evaluation of the system after two years of operation (Legal Services, Financial Services and Engineering Services).

Environmental

In addition to providing people with a healthy transportation option, PBS has been shown to extend the reach of walking and transit trips, and reduce the need for driving trips. It has mainstream appeal, encouraging a new audience to cycle. Some of the environmental benefits that can be associated with the implementation of a PBS system include a reduction in fossil fuel consumption, which would lead to lower greenhouse gas emissions and a reduction in Vancouver’s carbon footprint. Furthermore, a shift towards cycling and away from automobile use would help reduce the level of toxic pollutants entering the local environment and contribute to the high air and water quality present in Vancouver. Lastly, the overall amount of noise pollution in neighbourhoods from automobile use may be lessened.
The PBS stations are designed to have a minimal environmental footprint, by not requiring anchoring or connections to any external utilities, as they are powered by solar tubes with backup batteries. Redistributing the bicycles among stations to ensure they are neither full nor empty requires the use of vehicles, though overall having a PBS system increases the number of trips made by a sustainable mode of transportation.

**Legal And Regulatory**

Legal services advised on the contract and business structure throughout this project.

Various by-law amendments were enacted in October 2012 following public hearing to enable the addition of a public bike share system to Vancouver. These details were brought forward in a council report dated September 11, 2012 ("Implementation of a Public Bike Share program - By-law amendments”, RTS 9737), and to Public Hearing on October 16, 2012. A yellow memo was issued on October 15, 2012 with adjustments to the amendments and responses to the question posed by council on September 18, 2012 when the item was referred to public hearing. Further details are available in the council report, council meeting minutes and in Appendix D.

On November 26, 2012, the Vancouver Park Board approved the location of PBS stations on Park property subject to the General Manager of the Park Board approving all such station. It is currently contemplated that the Park property that will have PBS stations will mainly be in and around Stanley Park and certain community centres within the proposed PBS coverage area. The minutes of this meeting can be found at [http://former.vancouver.ca/parks/board/2012/121210/Minutes11262012(3).pdf](http://former.vancouver.ca/parks/board/2012/121210/Minutes11262012(3).pdf)

**Communication and Community Engagement**

Strong communications, marketing, and public relations are critical to the success of a PBS system especially in terms of building the system’s user/customer base, optimising station siting, and generally developing support for the system among various stakeholders and the public. Accordingly, a number of external and public engagement processes were undertaken by staff to help ensure the success of PBS system in Vancouver.

Initial public and stakeholder feedback was collected in two phases of public consultation, showing general support for a proposed PBS system. Phase one occurred during the summer of 2009 and featured a PBS system equipment demonstration and online and in-person surveys. Phase two occurred during the summer of 2011 and featured an online survey and two City-hosted open houses.

In the fall of 2012, four consultation sessions were held for external stakeholders to provide feedback on the PBS system and identify potential issues. Participants from over 35 organizations from a variety of external agencies including bike rental and retail groups, BIAs, bike advocacy and other interest groups, TransLink, Vancouver Police Department, University of British Columbia, Simon Fraser University, and citizen advisory groups were in attendance. Three themes that emerged from these discussions were the impact on bike related businesses, safety considerations, and impact on the public realm.
Most recently, the City held two additional external stakeholder sessions in May 2013 to provide stakeholders with a project status update. During these discussions, staff presented strategies to address concerns previously raised by stakeholders:

- Bike rental shops are concerned about stations located in close proximity of their shops. For those PBS system stations which may be placed within close proximity of a bike rental shop, the City commits to consult with the bike rental shop during the permitting process. The City aims to avoid issuing permits for stations within a 50 meter area of an existing bike rental business. All other permitting requirements as noted in the Station Siting section will still apply.
- Bike rental shops are concerned about stations placed within and around Stanley Park, as competition for their business. The PBS system will be a transportation resource for residents looking to reach Stanley Park destinations for recreation or work purposes.
- Bike rental shops are concerned about rate structures set such that they compete for business with their clients. Rate structures are set by Alta, in consultation with the City, and will be set such that it becomes more economical for a user to visit a bike rental shop if they anticipate their ride to be 2 hours or longer.
- Bike rental shops would like riders to know they have the option of renting from them instead of using a PBS system. As in Boston and Washington, DC, these users will be directed on Alta’s website to the name and address of local Vancouver bike rental shops as alternatives. In addition, the wayfinding maps at the stations near bike rental shops will note that riders planning to use a bike for longer than 2 hours may want to consider a bike rental shop as a less expensive alternative. In cities across North America, bike rental and retail companies have partnered with Alta to offer PBS system members discounts on bike equipment and accessories such as gloves and helmets, and the City encourages the formation of these partnerships.

Please refer to Appendix E for a summary of events, the meeting details and summary notes.

Throughout the project, staff also engaged in discussions with various potential government, public and public sector partners such as the University of British Columbia and TransLink to align objectives and timelines where possible.

While the primary responsibility for marketing, public relations and user recruitment would lie with Alta, the City would have an important role in liaising with stakeholders regarding any local concerns, and work with Alta to find opportunities to coordinate outreach and marketing efforts. The General Manager of Engineering Services and the Director of Corporate Communications will work with Alta to develop a pre-launch communications strategy that addresses potential users, specific stakeholder groups, as well as the general public.

Risk Mitigation

There are several risks to an initiative of this size and impact, which are outlined below along with the defined mitigation strategies.

<table>
<thead>
<tr>
<th>Risk</th>
<th>Description</th>
<th>Mitigation strategy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business Viability</td>
<td>1. Emerging business model, with most systems less than three years old</td>
<td>1. Contract with an owner/operator with expertise and a robust business model</td>
</tr>
<tr>
<td></td>
<td>2. Untested Helmet distribution system (first)</td>
<td>2. Test the helmet distribution system in phased launch</td>
</tr>
<tr>
<td>Risk Category</td>
<td>Impact of helmet law on ridership uptake</td>
<td>Approach</td>
</tr>
<tr>
<td>--------------------</td>
<td>------------------------------------------</td>
<td>--------------------------------------------------------------------------</td>
</tr>
<tr>
<td></td>
<td>integrated system of its kind in North America)</td>
<td>3. Ensure Alta provides convenient access to clean, safe, affordable helmets to rent at every station.</td>
</tr>
<tr>
<td>Operational</td>
<td>3. Impact of helmet law on ridership uptake</td>
<td>1. City to issue permit for all PBS system stations. Place stations in areas of high demand, while minimizing disruption to public land use</td>
</tr>
<tr>
<td>Viability</td>
<td>1. Bike stations take up considerable space; need to fit into existing public realm</td>
<td>2. Build in performance measures to ensure Alta meets minimum bicycle and helmet availability measures.</td>
</tr>
<tr>
<td></td>
<td>2. Bicycle and helmet redistribution to be optimized to support system operations.</td>
<td></td>
</tr>
<tr>
<td>Financial Risk</td>
<td>1. Low ridership of the Vancouver PBS system and other systems operated by Alta in other cities could put Alta into financial trouble.</td>
<td>1. No obligation by COV to financially support Alta. Alta has equity stake and profit cost sharing upside based on financial and system performance.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. COV may, in cooperation with the PBS lender and sponsors, assign the PBS system including hardware and operations to another operator if Alta is in default on their contract.</td>
</tr>
<tr>
<td>Schedule Risk</td>
<td>1. Implementation delays due to challenges identifying suitable station locations,</td>
<td>1. City to partner with Alta in identifying and permitting station locations.</td>
</tr>
<tr>
<td>Vendor and Product Risk</td>
<td>1. Unresolved software bugs in most recent system implementations in New York City and Chattanooga.</td>
<td>1. City to remain aware and monitor situation closely, and work with Alta to develop contingency plans</td>
</tr>
<tr>
<td></td>
<td>2. Additional software complexities anticipated as PBSC integrates helmet vending into system programming.</td>
<td>2. Phased system rollout to test the helmet distribution system prior to full system launch.</td>
</tr>
<tr>
<td></td>
<td>3. Alta and PBSC are identified as market leaders, and are expanding into multiple other cities at a rapid</td>
<td>3. City to closely track status of other system launches, and remain in communication with those cities.</td>
</tr>
</tbody>
</table>
pace leading to multiple concurrent priorities.

The contract provides Alta with the necessary operational flexibility and incentives to make the PBS system as successful as possible while still achieving the City's public policy goals. If, however, Alta fails to meet key expectations by breaching significant terms of the contract, or if the City is not satisfied with Alta's performance and chooses not to renew the contract, the City will have the right to step in and take over the system or have it assigned to a new operator. If this were to occur, the City will have to cooperate with the system sponsors and lenders since they also have an interest in the continued operation of the PBS system. The City anticipates that these rights will only be exercised in extreme circumstances since it is in the mutual interests of Alta and the City to make the PBS system as successful as possible.

**Timelines**

The following Table 2 outlines an approximate timeline for implementing the Vancouver PBS system, contingent on Council approving the recommendations in this report, Alta confirming sponsorship and lending agreements, and ultimately a contract being entered into with Alta. Should Alta not be able to meet these and other contingencies, Alta and the City may have to modify this timeline.

<table>
<thead>
<tr>
<th>APPROXIMATE DATE</th>
<th>MILESTONE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Summer 2013</td>
<td>Council decision and approval to proceed. Alta to finalize sponsorship and lending agreements. City and Alta to finalize and enter into contract.</td>
</tr>
<tr>
<td>Summer/Fall 2013</td>
<td>Public consultation and engagement, marketing and user recruitment campaign.</td>
</tr>
<tr>
<td>Early 2014</td>
<td>Initial phase of launch</td>
</tr>
<tr>
<td>Spring 2014</td>
<td>Complete installation and testing of system. Incorporate learnings from field testing phase. Official system launch. All stations and bikes in place and operational.</td>
</tr>
</tbody>
</table>

As discussed above, if Alta is able to confirm the sponsorship and lending agreements, the City will proceed and the PBS system launched in two phases, including a field testing phase with a target date of early 2014. This will be a smaller deployment to specifically test the integration of the helmet distribution system. All stations will be equipped with helmet vending machines and helmet return receptacles. The system will continue to expand and is targeted to be fully implemented by Spring 2014. The field testing neighbourhood will be
located in a portion of the downtown core and will focus on high demand areas including near transportation hubs, as well as maximizing the use of biking infrastructure such as the bike lanes.

**CONCLUSION**

Promoting cycling as an attractive and sustainable form of transportation plays a key role in helping Vancouver achieve its goals as outlined in the Transportation 2040 Plan and the Greenest City Action Plan. The City is committed to upgrading and expanding its cycling facilities and investing to make cycling comfortable and safe for people of all ages and abilities.

The experiences of PBS system in other cities around the world have demonstrated that a PBS can play a significant role in supporting active and healthy living, extending the reach of transit and walking trips, reducing vehicle trips, alleviating transit capacity issues, and generally supporting increased interest and participation in cycling.

The city has over the last 5 years significantly extended and improved its cycling facilities and routes with a resulting improvement in all ages and abilities cycling participation. The implementation of PBS is another foundational element in this work and in our goal of having a world leading sustainable transportation system which benefits the health of our citizens and our economy.

While implementing a PBS system with a helmet system is an additional element that other cities have not taken on, staff have identified the importance of an integrated helmet system as critical to the success of the PBS system and have made sure to take time to do what’s right to minimize the City’s risks. Staff recognize that although significant financial and time commitments will be required to implement the PBS system, there will be great benefits for residents and visitors of Vancouver. Staff will continue to work diligently to ensure the success of a PBS system in Vancouver and recommend proceeding with the implementation of a PBS system with Alta as the owner and operator. Considerable work lays ahead to ensure the successful installation, launch and ongoing operations of the Vancouver PBS system. Provided Alta is able to confirm sponsorship and lending, the City will sign a contract with Alta that will set forth processes that will culminate in complete implementation of a PBS system by Spring 2014, with a targeted initial rollout starting in early 2014.

* * * * *
Appendix A - Equipment Specifications

Bicycles

The bicycles will have the following technical specifications:

- Aluminum frame
- Handlebar that covers and protects all components
- 7-speed internal gearing
- Covered cables and derailleur
- Chain protector integrated into the bicycle structure and designed to:
  - Protect the chain
  - Prevent riders from fouling their clothes
- Active lighting and reflectors - white front and red rear lights
- Pedals featuring white or yellow reflectors
- Front mounted basket with bungee cord
- Adjustable seat that cannot be removed, standardized through the entire bicycle fleet
- Seat post marked with a numbered scale to help users remember their optimum setting
- Radio-Frequency Identification (RFID) tag, which also works as an anti-theft mechanism and uniquely identifies each bicycle for easier maintenance
- Suitable for a wide range of riders
- Tires designed for harsh urban bicycling: heavy-duty puncture-resistant casing, security reflector band on each side
- Passive Global Positioning System (GPS)
- A bell
- Kickstand
Stations

A station will be comprised of a technical platform on which a terminal, docks, map and sponsorship panel, helmet vending machine and helmet return receptacle are mounted.

Stations include:
- A wireless terminal where users, subscribers and occasional riders may carry out a wide range of transactions.
- A variable number of docks where bicycles are secured when not in use.
- A two-sided map & sponsorship panel used to provide wayfinding information to users and the public, and sponsorship acknowledgement or commercial advertising on the other side.
- A helmet vending machine and helmet return receptacle where users can rent and return helmets.

Stations will be modular and portable allowing for adjustments to placement and size according to usage patterns. All components shall be seamlessly integrated into the technical platform and easily interconnected (“Plug and Play”) without the need for excavation or preparatory work. Additionally, stations will be solar powered and use wireless communications.

Stations in Vancouver will be similar to the one shown below.

Location: Washington, DC (Capital Bikeshare)
Source: http://bicycling.com/blogs/everyday-rider/2013/05/24/behind-the-bike-share/
Appendix B - Preliminary Rate Structure

Setting the rate structure is the responsibility of Alta, in consultation with the City. Here is the preliminary rate structure proposed by Alta. Helmet rental rates are still under review and to be determined.

<table>
<thead>
<tr>
<th></th>
<th>Membership Fee</th>
<th>Usage fee: 0-30 minutes</th>
<th>Usage fee: 30-60 minutes</th>
<th>Usage fee: 60-90 minutes</th>
<th>Usage fee: Each add’l 30 minutes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Annual membership</td>
<td>$95.00</td>
<td>free</td>
<td>$1.50</td>
<td>$5.00</td>
<td>$8.00</td>
</tr>
<tr>
<td>Weekly membership</td>
<td>$20.00</td>
<td>free</td>
<td>$2.00</td>
<td>$6.00</td>
<td>$8.00</td>
</tr>
<tr>
<td>Daily membership</td>
<td>$5.00</td>
<td>free</td>
<td>$2.00</td>
<td>$6.00</td>
<td>$8.00</td>
</tr>
<tr>
<td></td>
<td>Key Performance Indicators</td>
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<td>----------------------------------------------------------------</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Stations Full or Empty (3 Hours)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Average Station Full (&gt;15 Minutes)</td>
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<td></td>
<td></td>
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<tr>
<td>3</td>
<td>Station Full Specific Station</td>
<td></td>
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</tr>
<tr>
<td>4</td>
<td>Minimum # of Bicycles Deployed</td>
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<td></td>
</tr>
<tr>
<td>5</td>
<td>% of Station Uptime</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>% of Calls Answered (30 seconds)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>% of Dropped Calls (Maximum)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>% of Email Responded (24 Hours)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>% of Memberships Mailed (24 Hours)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>% of Stations Cleaned (2 Weeks)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>% of Bicycles Inspected (Month)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>% of Bicycles Refurbished (Annual)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>Helmet Vending Machine Empty (30 minutes)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>Helmet Return Receptacle Full (2 hours)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Appendix D - Summary of By-law Amendments

1. Zoning & Development By-law amendments
   • Define Public Bike Share as a permitted land use (commercial/retail use) within all zones within the City of Vancouver, including amendments to specific CD-1 District by-laws.
   • Exempted Public Bike Share from a development permit provided the Public Bike Share
     a) not include any enclosed structures,
     b) be automated,
     c) not interfere with any public works, facilities or amenities; and
     d) be part of a network comprised of no fewer than 50 Public Bike Share stations.
   • Defined the geographic boundaries in which a Public Bike Share can operate in the City of Vancouver.

2. Sign By-law amendments
   • Exempted Public Bike Share to allow for sponsor recognition, similar to the exemptions currently in place for other public amenities such as bus shelters and benches.

3. Building By-law amendment
   • Exempted Public Bike Share from requiring a building permit.

4. License By-law amendments
   • Exempted Public Bike Share from the requirement that every business location requires a separate business license.
   • Exempted a Public Bike Share station from the definition of vending machine.
   • Set a $2,000.00 annual fee for a Public Bike Share business license.

5. City Land Regulation By-law amendment
   • Exempted Public Bike Share from a permit or written permission provided the Public Bike Share
     • does not include any enclosed structures;
     • is automated;
     • does not interfere with any public works, facilities or amenities; and
     • is part of a network comprised of no fewer than 50 Public Bike Share Stations.

6. Street Vending By-law amendment
   • Exempted Public Bike Share from a permit provided that the Public Bike Share
     • does not include any enclosed structures;
     • is automated and intended to be accessible 24 hours a day;
     • does not interfere with any public works, facilities or amenities; and
     • is part of a network comprised of no fewer than 50 Public Bike Share Stations.
7. **Vehicle For Hire By-law amendment**
   - Clarified that the By-law does not regulate or govern a bicycle that is part of a Public Bike Share.
Appendix E - External Stakeholder Engagement Summary

Phase 1 - Summer 2012 Stakeholder Engagement Meetings
The purpose of these meetings was to provide an overview of the PBS system along with the opportunities and challenges associated with the initiative. Staff also gave an update on the status of the project and the planned timeline. Attendees were provided an opportunity to ask questions based on what they heard, which was then followed by an open discussion about PBS in Vancouver.

Consultation Methods
- Key stakeholder meetings
- City of Vancouver Citizen Advisory Committee meetings

### Activity
<table>
<thead>
<tr>
<th>Activity</th>
<th>Quantity</th>
<th>Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Key stakeholder meetings</td>
<td>4</td>
<td>36</td>
</tr>
<tr>
<td>COV Citizen Advisory Committees</td>
<td>5</td>
<td>n/a</td>
</tr>
</tbody>
</table>

Key Stakeholder Meetings
The City, in coordination with Mobilize Strategies, hosted 4 separate stakeholder outreach meetings with over 35 participants from a variety of external agencies, including TransLink, VPD, BIA's, UBC, SFU and several bike rental/retail shops to discuss the plans for PBS.

| Wednesday September 5, 2012        | Creekside Community Centre | 7pm - 9pm |
| Tuesday September 11, 2012         | Creekside Community Centre | 10am - 12pm |
| Wednesday September 12, 2012       | Roundhouse Community Centre | 2pm - 4pm |
| Friday September 28, 2012          | City of Vancouver, Crossroads Building | 10am - 12pm |

Summary
| Total organizations invited         | 79 |
| Total participants attended         | 36 * |
| Total organizations attended        | 32 (41%) |
| Total bike rental stores attended/ invited | 10/19 (53%) |
| Total bike retail stores attended/ invited | 4/17 (24%) |
| Total business representative bodies (e.g. BIA's, Board of Trade, etc.) attended/ invited | 5/19 (26%) |
| Total bike advocacy organizations attended/ invited | 2/2 (100%) |
| Total tourism organizations attended/ invited | 1/2 (50%) |
| Total other interest organizations attended/ invited | 10/20 (50%) |

*More than 1 participant from Translink, BEST and VPD

City of Vancouver Citizen Advisory Committee Meetings
In addition to the four stakeholder meetings explained above, staff also reached out to a variety of City organized committees. Similarly, staff provided an update on the PBS project, responded to questions, and collected feedback from the groups.
What We Heard

While staff obtained a tremendous amount of feedback from a wide range of perspectives, there was significant discussion around these 3 key themes:

1) **Impacts to Public Realm**
   There were questions about where the stations would likely be placed, and how they would impact areas such as sidewalks, parking lanes, etc. As well, people were curious to understand the physical dimensions of the stations and how they would look and interface with the public realm.

2) **Impacts to Bike Rental Businesses**
   Several bike rental shops, particularly the ones concentrated near Stanley Park, raised significant concerns about the negative impacts PBS would impose on their business model. These shops would like the City to explore a variety of different mechanisms to avoid taking rental business away through PBS. Some of the ideas included: restrictions on PBS station siting, modified PBS fare structures to deter tourist trips, and partnership opportunities to help raise awareness of existing bike rental companies and their potential advantages over PBS.

3) **Education**
   From all perspectives, there was a general concern around safety issues and how PBS will change the existing landscape. How can we educate new/returning bike riders? Will there be more riders on the sidewalk? Can PBS help foster a safer bicycle culture? How can we encourage helmet compliance? Those are just a few of the questions asked during the meeting, but in general there was an understanding that education played an important role in the roll-out of the PBS program.

Phase 2 - Spring 2013 Stakeholder Information Meetings
The purpose of the information meetings was to provide a project status update and for staff to address questions, from stakeholders, in previous meetings. Attendees were provided an opportunity to ask questions based on what they heard, which was then followed by an open discussion about PBS in Vancouver.

<table>
<thead>
<tr>
<th>Activity</th>
<th>Quantity</th>
<th>Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Key stakeholder meetings</td>
<td>2</td>
<td>28</td>
</tr>
</tbody>
</table>

Similar to the meetings held in Summer 2012, the City in coordination with Mobilize Strategies hosted two information meetings. 28 participants from various external agencies including BIA’s, bike rental and retail shops, TransLink, VPD, UBC, and SFU attended the sessions. An Alta representative was also present to provide additional information related to bike share implementation and operation.
Summary

<table>
<thead>
<tr>
<th>Category</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total organizations invited</td>
<td>82</td>
</tr>
<tr>
<td>Total participants attended</td>
<td>28*</td>
</tr>
<tr>
<td>Total organizations attended</td>
<td>22 (27%)</td>
</tr>
<tr>
<td>Total bike rental stores attended/ invited</td>
<td>7/19 (36%)</td>
</tr>
<tr>
<td>Total bike retail stores attended/ invited</td>
<td>2/17 (12%)</td>
</tr>
<tr>
<td>Total business representative bodies (e.g. BIAs, Board of Trade, etc.) attended/ invited</td>
<td>2/19 (10%)</td>
</tr>
<tr>
<td>Total bike advocacy organizations attended / invited</td>
<td>2/3 (66%)</td>
</tr>
<tr>
<td>Total tourism organizations attended/ invited</td>
<td>1/2 (50%)</td>
</tr>
<tr>
<td>Total other interest organizations attended/ invited</td>
<td>8/21 (38%)</td>
</tr>
</tbody>
</table>

*More than 1 participant from Tourism Vancouver, the VPD, HUB, RayBen Motors and Spokes.

Feedback on Mitigation Strategies:
Following from the last round of consultation, staff addressed concerns previously raised and presented on a number of mitigation strategies. Outlined below are the key issues, the mitigation strategies outlined by staff, and any additional comments or feedback received.

1) Impacts to Public Realm

Mitigation strategies as proposed by staff:
- Station siting principles were devised to most appropriately position stations and minimize impact on the public realm. All stations will be subject to a review and approval process.
- Alta completed a demand analysis which considered factors including existing trip data, existing cycling infrastructure, density, employment, and land-use to determine optimum station placement, scale, and density.
- Placement of stations will not compromise the use of surrounding public and private lands or the usage of the transportation corridors.

Additional feedback received:
The BIAs and businesses indicated they would like to be involved in the station siting process and also have suggestions for potential locations. They also posed questions about the potential expansion of the program both locally, within Vancouver, and regionally to other destinations, such as UBC.
2) Impacts to Bike Rental Businesses

*Mitigation strategies as proposed by staff:*

- Rate structures are set by Alta, in consultation with the City, and will be set such that it becomes more economical for a user to visit a bike rental shop if they anticipate their ride to be 2 hours or longer.
- For those PBS stations which may be placed within close proximity of a bike rental shop, the City commits to consult with the bike rental shop.
- The City is looking at ways to support the marketing and sales of bike rental shops by encouraging the formation of partnerships with the PBS operator. For example, Alta could potentially offer PBS members discounts on biking accessories, etc.

*Additional feedback received:*
While encouraged by the rate structure and the possibility of partnership opportunities, the bike rental companies emphasised the continued need to promote the use of bike rental shops. They also emphasised the need for PBS to target commuters rather than tourists. They remain concerned with the potential proximity of the stations to their businesses and the station locations within Stanley Park.

3) Education

*Mitigation strategies as proposed by staff:*

- Information on the correct use of the system would be available at multiple locations including online, and at the stations. Information would include correct helmet usage, the rules of the road and instructions on how to rent a bike and helmet.
- Unique to Vancouver, in order to increase accessibility to helmets, each station will have a helmet vending machine and return receptacle. Helmet rental will be at an affordable rate.

*Additional feedback received:*
There were some requests for clarification around what information, such as proper helmet fitting, would be included on the system.

*Additional Feedback Received:*
Further to the comments above, another theme that emerged was:

1) Integration with Other Organizations

There were suggestions that PBS synergize with other relevant agencies and organizations to increase multi-model transportation options, to promote the system and to educate users. This included the possibility of integrating PBS with car-share companies for trip-linking, for better transit integration with TransLink, and for private property owners to host a station. In regards to helmet use and driver education, participants suggested the VPD and ICBC help promote and encourage compliance and good behaviour. Alta is open to exploring potential partnerships on these issues.