City of Vancouver
Public Bike Share System

Presented to Vancouver City Council
July 23, 2013
Sadhu Johnston, Deputy City Manager
Purpose

Seek Council approval to:

A. Enter into a contract with Alta Bicycle Share as the owner, operator and financier of the Vancouver public bike share system;

B. Negotiate and enter into agreements with third parties who wish to contribute to Vancouver’s public bike share;

C. Provide a one time contribution of $6 million for equipment purchase and installation, and $1 million for start up staffing, signage, and wayfinding costs; and

D. Allocate an average annual sustainment budget of $0.5 million for staffing, signage, and wayfinding costs.
Agenda

1. Background/Context
2. Vancouver’s System
3. Financing and Key Contract Terms
4. Risks
5. Next Steps
Public bike share defined

A PBS is an extension of the existing transit system with a network of short-term, self-service bicycle stations in which:

• Users rent bikes by purchasing casual day use or annual memberships
• Users can ride bikes a short distance for one-way trips within a defined service area
• Station locations can change over time based on ridership patterns or temporary needs
Reasons for public bike share

- Support active and healthy living (Healthy City Initiative)
- Extend the reach of transit and walking trips (Greenest City, Transportation 2040)
- Reduce vehicle trips and GHG (Greenest City, Transportation 2040)
- Alleviate transit capacity issues (Transportation 2040)
- Support increased interest and participation in cycling (Greenest City, Transportation 2040)
- Support economic development and small businesses in Vancouver by making getting around easier (Economic Action Strategy)
PBS supports multiple City-wide initiatives

City of Vancouver goals and directions

- Greenest City Action Plan
- Transportation 2040 Plan
- Economic Action Strategy
- Healthy City Initiative

Regional transportation goals

- 2008 TransLink/COV study
- Transport 2040 Strategy
Benefits of a public bike share system

A public bike share system combined with existing cycling infrastructure results in increased cycling, health benefits & GHG reductions.

Paris
• 70% increase in cycling over the first two years

Lyon
• Cycling mode share increased from less than 1% to 5% in first 2.5 years
• 44% increase in bicycle riding within first year

Barcelona
• 2005 to 2007: cycling mode share increased from 0.8% to 1.8%

Photo Credit: hubandspokes.blogspot.ca; bike-sharing.blogspot.ca; Alta Bike Share Inc.
Council direction and support

- **July 22, 2008 – Council resolution**
  - Staff to report back on the implementation of a PBS system.

- **March 24, 2009 – Council resolution**
  - Council directed staff to issue an RFP for a PBS system.

- **June 13, 2012 – Council update**
  - Staff presented an update on the status of the procurement process and next steps.

- **October 16 and 17, 2012 – Council amends By-laws**
  - By-law amendments to facilitate an operator to implement and operate a viable PBS system.

- **November 26, 2012 – Vancouver Park Board approval**
  - PBS stations will be permitted on Park property subject to the General Manager of the Park Board approving station sites.
Staff has undertaken significant research, analysis and information-gathering:

- **TransLink Public Bike System Feasibility Study, March 2008**
- Regular information-sharing calls with network of approximately 20 peer cities through Urban Sustainability Directors Network
- Direct research with peer cities who have implemented or are in the process of implementing bike share systems
- In-depth consultation with short-listed proponents
- Consultation with potential system partners/supporters (e.g. UBC, TransLink, BC Ministry of Transportation and Infrastructure)
Most rides are made by annual members

<table>
<thead>
<tr>
<th>Location</th>
<th>% of trips by annual members</th>
<th>% of trips by casual members</th>
</tr>
</thead>
<tbody>
<tr>
<td>London, England</td>
<td>70%</td>
<td>30%</td>
</tr>
<tr>
<td>Washington, DC</td>
<td>87%</td>
<td>13%</td>
</tr>
</tbody>
</table>

94% of trips are less than 30 minutes in duration
Primarily for one-way, station to station travel
Travel to work, school and leisure activities are most common reasons to use a public bike share bike

Sources:
http://capitalbikeshare.com/system-data (Jan 2013 - July 2013 Data)
“If you need a bike for a full day, a bike rental shop in the District, Arlington, or Alexandria may be a better option. Capital Bikeshare is designed for quick, short trips.”

“If you would like to use a bike for an extended period of time, we encourage you to rent a bike at a local bike shop or rental business. Please visit our list of local bike shops and rental businesses on our Resources page.”
Partnerships with bike industry

**Washington:**

“If you need a bike for a full day, a bike rental shop in the District, Arlington, or Alexandria may be a better option. Capital Bikeshare is designed for quick, short trips.”

**NYC:**

“If you would like to use a bike for an extended period of time, we encourage you to rent a bike at a local bike shop or rental business. Please visit our list of local bike shops and rental businesses on our [Resources](#) page.”

---

**Bike Rental and Helmet Shops**

**Helmets**

Capital Bikeshare encourages everyone to wear a helmet when riding a bike. Here is a list of stores in D.C., Arlington, and Alexandria that sell bike helmets:

- **Washington D.C. stores that sell helmets**
  - Bicycle Space
    - 1019 7th Street, NW
    - 10% discount on gloves and helmets for CaBi members
  - Big Wheel Bikes
    - 1034 33rd Street, NW
  - Bike n' Roll
    - [Visit site](#)
Other recent North American systems

Chicago launched **Divvy Bikes** on June 28, 2013
- 61 stations and 700 bikes at launch
- In the first 3 weeks:
  - 50,000 trips taken
  - 3,100 annual members
  - 14,000 casual members
  - 281,000 kilometers travelled

Washington, DC launched **Capital Bikeshare** on September 20, 2010
- Over 200 stations and 1,800 bikes
- Averaging over 185,000 trips a month
- 35,000 annual members since launch
- Average trip length is 15 minutes

Photo Credit: timeoutchicago.com/things-to-do/16329996/divvy-bike-share-program; flickr: @jason-pier
NYC launched Citi Bike on May 27, 2013

- Over 300 stations and 6,000 bikes
- Some hardware and software issues have occurred
- Issues are being resolved
- Recent positive media reports
- Ridership quickly increasing
- In first month of operation
  - 529,000 trips
  - 50,000 annual members
  - 113,000 casual members
  - 2 million kilometers travelled
  - Average trip length is 19 minutes
Ridership growth

Approx. stations: 49, 114, 144, 200
Approx. bikes: 400, 1,100, 1,300, 1,800

Capital Bikeshare (Washington, DC) trip data

Source: www.capitalbikeshare.com/system-data
Procurement process

• RFEOI issued in April 2011, six proponents responded
• Short-listed two and undertook extensive evaluation process, working with:
  – The two proponents
  – Several peer cities
  – Potential local partners (TransLink, UBC, BC Ministry of Transportation and Infrastructure)
• August 2012 - City and Alta entered into a non-legally binding letter of intent
• April 2013 - City negotiated and settled an agreement in-principle with Alta
Evaluation

• **Proponents evaluated on four dimensions:**
  1. Business capacity and expertise
  2. Viability of business/financial model
  3. Viability of the operational model
  4. Ability to implement effectively and on schedule

• **Main differentiators:**
  - Cost structure and business model
  - Degree of reliance on public funding, and
  - Confidence in the underlying partnerships

• **Impact of helmet system an issue for both**
Preferred proponent

**Alta Bicycle Share**
- Owns, finances, and operates the system (business operations, customer service, etc)
- Would have primary relationship with the City
- Affiliated with Alta Planning + Design

**PBSC (Public Bike System Company, “Bixi”)**
- Provides bikes, station and helmet distribution hardware and software
- Sub-contractor to Alta
- Current market leader in bike share systems
Vancouver’s proposed system

- 1,500 bicycles (7-speed, GPS)
- 125 stations
- Integrated helmet rental and return at every station
- Downtown and Metro Core
- Available 24 hours a day, 365 days a year
- Expandable both within and beyond Vancouver borders
Station equipment

- Bikes and docks
  - Stations can accommodate a minimum of 16 bikes
- Payment kiosk
- Helmet vending machine
- Helmet return receptacle
- Map and sponsorship panel

- Stations are prefabricated, modular and do not require anchoring
- Operate on solar power

Photo Credit: tripadvisor.ca, flickr: @New York City Streets
Helmet distribution system

- Staff reviewed three different vending systems and have selected PBSC/Bixi’s system, as a sub-contractor to Alta
- All stations will be equipped with a helmet vending machine and return receptacle on launch date
- Users will be able to rent a helmet and bike in the same transaction
- Helmets can be rented and then returned to any station
Helmets

**PRICE**
- Low fee, not a barrier to participation
- User charged market value if not returned
- Pricing encourages reuse of helmet throughout the day

**USER EXPERIENCE**
- Can rent helmet and bicycle in same transaction
- Can accommodate more than one size of helmet
- Helmets cleaned and inspected before redistribution
• City retains right to develop system branding, program mark, bike and helmet colour, and program name.
Sponsorship recognition

- Sponsor recognition will appear on:
  - Bike fenders and baskets
  - Docks
  - All helmet vending machines, helmet return receptacles, and helmets.

- Sponsorship panels will include either a sponsored commercial ad or non-commercial sponsor acknowledgement.
Proposed rate structure

<table>
<thead>
<tr>
<th>SUBSCRIPTION FEE OPTIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Annual</td>
</tr>
<tr>
<td>7-Day</td>
</tr>
<tr>
<td>24 Hours</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>HELMET RENTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 helmet for 24 hr period</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ACCESS FEES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subscription 7 day/24hr</td>
</tr>
<tr>
<td>First 30 mins</td>
</tr>
<tr>
<td>Up to 60 mins</td>
</tr>
<tr>
<td>61-90 mins</td>
</tr>
<tr>
<td>Subsequent 30 min periods</td>
</tr>
</tbody>
</table>

- COST OF 8-HOUR RENTAL BY A TOURIST: $118 includes helmet rental
- By comparison, full day bike shop rental: ~ $25-$40
Phased launch

**INITIAL FIELD TEST**
- Early 2014
- 25 stations, 250 bikes
- Partial Downtown

**FULL LAUNCH**
- Spring 2014
- 125 stations, 1,500 bikes
- Downtown and Metro Core
Stations

• Typically located every 2-3 city blocks

• Sited on public streets, sidewalks, plazas and parks, as well as on private lands
  – Maximum 60% of stations will be on the street
  – Remaining stations will be on public and private zoned lands

• Stations may be moved and/or resized to meet system demands and accommodate special events/construction
The City has been working with Alta to identify potential station sites.

**Opportunities**

- Connections to transit
- High pedestrian areas
- Commercial/shopping districts
- Parks and community centers
- Educational institutions

**Considerations**

- Competing interests for space (e.g. food carts)
- Emergency access
- Utilities access
- Pedestrian volumes and flow
- Public amenities and existing infrastructure
- Building access and maintenance
- Private bike rental businesses
Station siting

- Alta will recommend station sites and obtain necessary approvals and permits
  - All stations require approval through a permitting process from the City

- Bike rental businesses
  - City aims to avoid issuing permits for stations within 50 meter area around existing bike rental shops
  - Will be consulted on stations within close proximity to their shops

Photo Credit: flickr: @Eric Gilliland
Stakeholder engagement feedback

Based on concerns raised during consultation, mitigation measures include:

- **Signage.** Alta signage/website to point people to bike rental shops for longer trips and provide contact information.

- **Pricing.** Pricing structure will discourage PBS for trips over two hours.

- **Siting.** 50 metre buffer between bike rental shops and bike stations; bike rental shops consulted during station site permitting.

Significant interest from others to partner with PBS system:

- **Collaboration opportunities.** Alta to work with local bike rental shops, bike retail shops and car share companies to explore partnerships and collaborations.

  - **UBC**
  
  - **Other Municipalities and TransLink**
PBS rate structure compared to rental shops

- Average downtown bike rental
- PBS including helmet rental
Bike rental shops with a 50 metre buffer zone

Bike rental shop with 50m buffer
Cycling education

- The PBS system will provide information to users on:
  - Correct use of the bike
  - Rules of the road
  - Instructions for renting bikes
  - Wayfinding information for getting around the city
  - Bike routes
  - BC’s helmet law
- Information will be available at the stations, on the bikes and online.

Map Stand Information

BIKE SAFELY! YOUR SAFETY IS YOUR RESPONSIBILITY.

ALWAYS WEAR A HELMET.

FOLLOW THE RULES, including traffic lights.

SHARE THE ROAD - give cars and pedestrians space.

WATCH FOR DOORS
Business model options

LESS CITY INVESTMENT, CONTROL AND RISK

1. THIRD PARTY OWNER-OPERATOR
   • Third party private or non-profit entity owns, funds and operates system.
   • City provides cash, in-kind, loan guarantees and/or policy/regulatory support.

2. CITY OWNS/THIRD PARTY OPERATES
   • Third party entity funds and operates system.
   • City owns system, provides cash, in-kind, and policy/regulatory support.

MORE CITY INVESTMENT, CONTROL AND RISK

3. CITY OWNS & OPERATES
   • City owns, funds and operates system.
Business model

- System owned and operated by Alta Bicycle Share with PBSC as equipment supplier, City as strategic partner.
- Five-year renewable contract.

**ALTA BICYCLE SHARE**
- Owns, finances, and operates the system
- Designs operating model based on industry best practices
- Owns/manages financial and operational risks
- Adjusts system within set parameters (service area, service levels)
- Contracts with sponsors and financing agents

**CITY OF VANCOUVER**
- Provides one-time financial contribution toward equipment acquisition
- Provides ongoing in-kind support, including some station sites
- Monitors system performance and progress on achieving transportation and sustainability goals
Key financial framework

**Alta Capital Costs**
- Equipment purchase and installation
- Funding sources:
  - Alta: corporate sponsorships with bridge financing from bank
  - City one-time contribution; maximum $6 million

**Alta Operating Costs**
- Funding sources:
  - Alta: membership and user fees, helmet rental, and sponsorships

**City Operating Costs**
- In-kind support:
  - Parking meter revenue foregone – up to $0.8 million/year
- Project start-up and ongoing oversight (staff costs and changes to street signage):
  - Implementation: $1.0 million (one-time)
  - Post-implementation: $0.5 million/year
### JULY 2013 ESTIMATES

<table>
<thead>
<tr>
<th></th>
<th>ONGOING AVG</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>ONE-TIME</td>
</tr>
<tr>
<td></td>
<td>ANNUAL</td>
</tr>
<tr>
<td><strong>A. ONE-TIME CITY CONTRIBUTION</strong></td>
<td></td>
</tr>
<tr>
<td>Maximum COV one-time contribution to Alta for Equipment purchase and installation</td>
<td>$6.00</td>
</tr>
<tr>
<td><strong>B. OPERATING CONTRIBUTION</strong></td>
<td></td>
</tr>
<tr>
<td>Signage and Wayfinding</td>
<td>$0.25</td>
</tr>
<tr>
<td>City staff</td>
<td>$0.75</td>
</tr>
<tr>
<td><strong>C. OFFSETTING ADDITIONAL SPONSORSHIP/DONATION TO THE CITY</strong></td>
<td>($1.00)</td>
</tr>
<tr>
<td><strong>TOTAL ESTIMATED COV CASH CONTRIBUTIONS</strong></td>
<td>$6.00</td>
</tr>
<tr>
<td><strong>D. OTHER IMPLICATIONS</strong></td>
<td></td>
</tr>
<tr>
<td>Potential Impact on COV Parking Meter Revenues</td>
<td>$0.80</td>
</tr>
<tr>
<td><strong>TOTAL ESTIMATED FINANCIAL IMPACT ON COV</strong></td>
<td>$6.00</td>
</tr>
</tbody>
</table>

Source of funding: Parking Site Reserve
Key contract terms and conditions

• Five-year contract, renewable upon mutual agreement

• Alta will pay for and bear all operational costs and expenses, and will bear all financial, legal and other risks associated with the PBS

• City will make upfront capital contribution; 50:50 profit sharing when Alta experiences cumulative surplus position

• Alta only has to consult the City, but does not have to seek the City’s approval, when making operational decisions about the PBS system

• City can terminate the agreement upon financial or performance default prior to the end of the five year term
  – City can assign PBS assets to another operator
  – Sponsorship agreements are transferable to another operator
Key contract terms and conditions

• Key operational parameters
  – Based on best evidence from other systems
  – Approximately 14 key indicators
    • Includes minimum performance levels
    • Allows for seasonal variation in performance
  – Balanced between: COV policy goals and flexibility for operator to manage financial and operational sustainability of system

• Reward/penalty arrangement
  – Based on best practice from other city systems
  – Performance drives adjustment to Alta's 50% profit share

• Terms for expansion within City and other municipalities/UBC will be negotiated with Alta when needed
## Key Operational Parameters

<table>
<thead>
<tr>
<th></th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Stations Full or Empty (3 Hours)</td>
</tr>
<tr>
<td>2</td>
<td>Average Station Full (&gt;15 Minutes)</td>
</tr>
<tr>
<td>3</td>
<td>Station Full Specific Station</td>
</tr>
<tr>
<td>4</td>
<td>Minimum # of Bicycles Deployed</td>
</tr>
<tr>
<td>5</td>
<td>% of Station Uptime</td>
</tr>
<tr>
<td>6</td>
<td>% of Calls Answered (30 seconds)</td>
</tr>
<tr>
<td>7</td>
<td>% of Dropped Calls (Maximum)</td>
</tr>
<tr>
<td>8</td>
<td>% of Email Responded (24 Hours)</td>
</tr>
<tr>
<td>9</td>
<td>% of Memberships Mailed (24 Hours)</td>
</tr>
<tr>
<td>10</td>
<td>% of Stations Cleaned (2 Weeks)</td>
</tr>
<tr>
<td>11</td>
<td>% of Bicycles Inspected (Month)</td>
</tr>
<tr>
<td>12</td>
<td>% of Bicycles Refurbished (Annual)</td>
</tr>
<tr>
<td>13</td>
<td>Helmet Vending Machine Empty (30 minutes)</td>
</tr>
<tr>
<td>14</td>
<td>Helmet Return Receptacle Full (2 hours)</td>
</tr>
</tbody>
</table>
Risk themes

1. Business viability
2. Operational viability
3. Vendor and product risk
4. Financial
5. Schedule risk
## Key risks and mitigation

### BUSINESS VIABILITY
- Relatively young industry
- Helmet impact

### OPERATIONAL VIABILITY
- Impact of stations on urban realm
- Bike and helmet distribution systems

### VENDOR/PRODUCT
- Software functionality
- Hardware issues
- Alta/PBSC expanding rapidly

### SCHEDULE
- Contract finalisation
- Helmet system
- Manufacturing
- Station siting

## Mitigation

### BUSINESS VIABILITY
- Business model
- Experienced operator
- Phased launch
- Widespread helmet access
- Alta bears financial risk
- City right to assign to new operator

### OPERATIONAL VIABILITY
- City to permit station sites
- Contractual obligations re: bike/helmet availability, station up-time, station cleanliness, customer service response times

### VENDOR/PRODUCT
- Close working relationship with Alta/PBSC
- Phased launch

### SCHEDULE
- Significant City resources dedicated to contract development
- City monitoring helmet system development
- City enabling station siting
<table>
<thead>
<tr>
<th>No.</th>
<th>What Other Cities Have Told Us</th>
<th>MIAMI</th>
<th>BOSTON</th>
<th>WASHINGTON, DC</th>
<th>DENVER</th>
<th>MELBOURNE</th>
<th>LONDON, UK</th>
<th>TORONTO</th>
<th>CHICAGO</th>
<th>NEW YORK CITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>System not yet financially self-sufficient.</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>n/a</td>
<td>n/a</td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>Operators challenged to meet sponsorship targets.</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td></td>
<td>n/a</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>3.</td>
<td>Sufficient time for up-front planning is key to successful launch; station siting time-intensive.</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>4.</td>
<td>Marketing and education is critical.</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>5.</td>
<td>Higher proportion of casual riders than predicted.</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>n/a</td>
<td>n/a</td>
<td></td>
</tr>
<tr>
<td>7.</td>
<td>Launch as big as possible.</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>
Critical next steps

Pending Council approval, Alta to finalize:

- Sponsorship and donation contracts
- Financing agreement
- Implementation and operating plan

Upon completion of the above items, the City will enter into a contract with Alta.
Conclusion

• PBS represents a significant opportunity to support Vancouver’s transportation and sustainability goals

• Working toward an agreement that will maximise benefits for citizens and visitors and minimise costs/risks to the City

• Aiming for an initial launch in early 2014 and full launch in Spring 2014