New Westminster E-bikeshare Feasibility Study

May 1, 2023

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Agenda

- Project Background

- Community Feedback

- Feasibility Assessment Findings

- Next Steps

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Key Questions

- What themes should be explored in our **online public engagement** survey?

- Do you have any **equity or accessibility concerns** related to a potential e-bikeshare program?

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Project Background

Background

- This study builds on policies in the Master Transportation Plan, 2019-2022 Council Strategic Plan, and the Active Transportation Network Plan

- In 2021, Council directed staff to develop a plan for an electric bikeshare program

- Toole Design was brought on as a consultant in 2023

- The study began in February 2023 and will conclude in Fall of 2023

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What is shared micromobility?
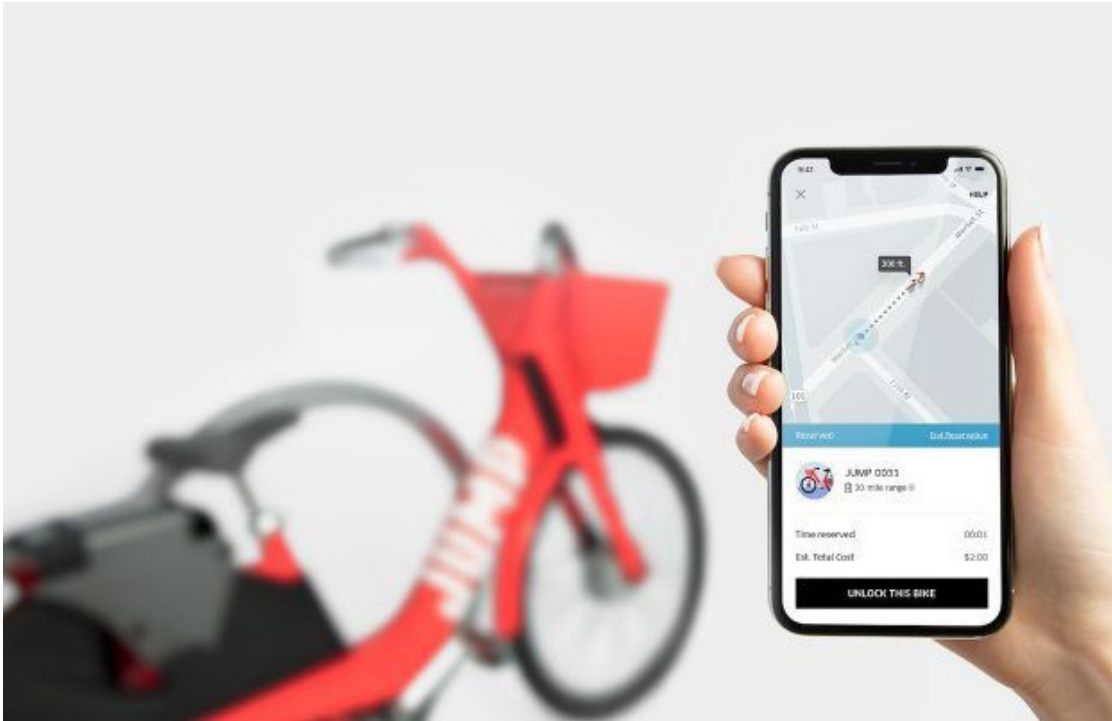
- **Micromobility:** Forms of transportation that are small, low-speed, human or electric-powered. They are built for one rider at a time and include bicycles, electric bicycles (e-bikes), scooters, and electric scooters (e-scooters).

- **Shared micromobility**: The organized operation of a fleet of micromobility vehicles that individuals can rent out (bikeshare and scootershare),usually using a smartphone app.

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Shared Micromobility: Vehicles

Standing Electric Scooter (E-Scooter)

Seated E-Scooter

Pedal Bicycle

Electric Bicycle (E-Bike)

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Shared Micromobility: Systems

Docked (or station-based)

Dockless (or free-floating)

Hybrid (Docked + Dockless)

E-bikeshare Feasibility Study Goals

1. Analyze the **feasibility and conditions** for e-bikeshare in City of New Westminster

2. Identify **essential system priorities**

3. Develop a **business plan** for e-bikeshare

4. Identify **revenue requirements** to create a system that is revenue neutral

5. Determine what **accessibility** and **equity** considerations need to be made

Study Components

1. **Feasibility Assessment**

   ▪ Plan and policy review, industry best practices, peer city review, local context analysis

2. **Engagement** *(we are here!)*

   ▪ Public survey, workshops, presentations

3. **Business Model & Financial Assessment** *(not yet started)*

   ▪ Capital and operating costs, funding mechanisms, operating models

4. **Implementation Plan** *(not yet started)*

   ▪ Operational requirements (program phasing, service area, fleet size, equipment and technology specifications, parking management, equity requirements, data reporting, fees)

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Community Feedback

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Community Feedback

- **Previous efforts**: Public feedback on e-bikes and e-bikeshare was collected in 2020-2021 via surveys and workshops as part of outreach for the E-Mobility Strategy

- **E-bikeshare Study:**

  - Public online survey

  - Presentations to task forces and committees

  - 2 stakeholder workshops

What we heard: Familiarity with e-bikes

- **22%** currently **own** or **regularly use** an e-bike or other type of e-micromobility

- **45%** are **strongly considering buying** or would like to buy an e-bike

- **26%** are either **strongly considering** or planning to **buy** another form of **micromobility**

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What we heard: Barriers to e-bike usage

Top three concerns/barriers that may prevent New Westminster residents from using or purchasing an e-bike:

1. Limited or no access to safe parking

2. High cost of purchasing an e-bike

3. Lack of safe biking routes

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Source: E-mobility Survey – Fall 2020, 100 respondents

Feasibility Assessment Findings

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Policy environment

- **E-bikeshare** is a city priority, and local and provincial policies support shared micromobility, although e-scooters and e-scootershare are currently prohibited in New Westminster under the province's Motor Vehicle Act.

City of New Westminster

All Ages and Abilities Active Transportation Network Plan

September 2022

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NEW WESTMINSTER

Shared Micromobility – Regional & Peer Cities

Jurisdiction	Operators	Program Status	System Type	Vehicles
City of Vancouver, BC	Vancouver Bike Share Inc. (Mobi)	Active	Docked	Pedal bikes & E-bikes
Regional program: City of North Vancouver, District of North Vancouver, and District of West Vancouver	Lime	Active	Dockless	E-bikes
City of Richmond, BC	Lime	Active	Dockless	E-scooters and E-bikes
City of Coquitlam, BC	TBD	TBD	Dockless	E-scooters and E-bikes
City of Kelowna, BC	Lime, Spin	Active	Dockless	Pedal bikes and e-bikes, e-scooters, and e-mopeds
City of Vernon, BC	Neuron	Active	Dockless	E-scooters
City of Whistler, BC	**TBD**	TBD	TBD	E-bikes
City of Ithaca, NY	Center for Community Transportation	Active	Dockless	E-bikes

- **5 jurisdictions** in Metro Vancouver have active shared micromobility programs
- **Dockless** systems are most common
- **E-bikes** are the most popular vehicle types but e-scootershare is growing
- **Future programs:** Coquitlam and Whistler plan to launch programs, and Burnaby & Surrey are currently exploring potential programs

City Readiness for E-bikeshare

Opportunities	Challenges
• **Market appeal** – high population density and compact urban form	• **Limited resources** for capital investments in docked e-bikeshare system
• **Well-connected bike network** –includes low-stress local streets and growing separated cycling network	• **Narrow sidewalks & furniture zones** will require parking management strategies
• **First/last mile transit connections:** E-bikeshare can improve access to TransLink SkyTrain stations and bus routes	• **Fraser River** –a barrier for convenient access between Queensborough & the rest of New West.
• **Regional collaboration**: Opportunities to learn from the Northshore model of multijurisdictional shared micromobility.	• **E-scooter prohibition** – Many operators are more willing to launch e-bikes if they can also provide e-scooters.

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Preliminary Recommendations

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Fleet Type: E-bikes

- Better suited for steep topography than pedal bikes

- E-bikeshare operators already present in Lower Mainland communities

Dockless e-bikes

System Type: Dockless (with geofencing)

Lime e-bike parked in a designated parking area in North Vancouver

- Low start-up costs compared to docked (jurisdictions often have to cover costs of docking stations for docked systems)

- Does not have to be 100% free-floating – parking can be limited to designated zones delineated with physical infrastructure or in the bikeshare smartphone app

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Ownership: Agency Permit, Privately Owned/Operated

- Most jurisdictions in B.C use this model

- Minimizes capital investment and staff time

- Provides future opportunities to expand to regional program with neighbouring cities

Role	City	Private operator
Develops rules and regulations for e-bikeshare program	X	
Applies for permit to operate		X
Oversees and regulates program	X	
Owns and operates e-bikeshare devices		X
Responds to complaints	X	X

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Equity Considerations

- **Outreach/engagement** with underserved communities

- Equitable **distribution** of vehicles

- Equitable **access** to the program
  - **Discounted** pricing
  - **Non-digital/underbanked** access
  - **Multilingual** information
  - Access for users with **disabilities**
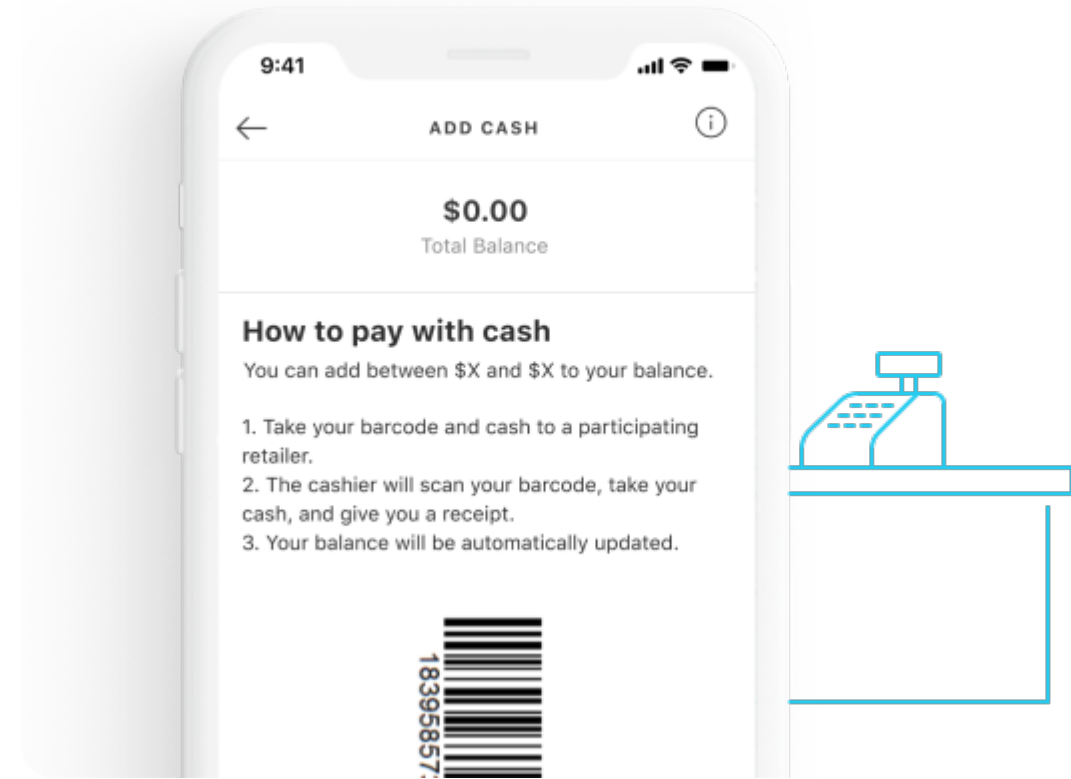
Cash-payment option in Bird app

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Next Steps

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Next Steps

- **May-July 2023:** Engagement

- **August 2023:** Business Model & Financial Assessment

- **September 2023:** Recommendations and Implementation Plan

Key Questions

- What themes should be explored in our **online public engagement** survey?

- Do you have any **equity or accessibility concerns** related to a potential e-bikeshare program?

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