



North Shore E-Bike Share Pilot Program

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Presentation to
City of North Vancouver Council
2023-10-16



Today's Goals



Background



End-of-Pilot Evaluation



Future Considerations



Policy Context

PROVINCE OF BRITISH COLUMBIA

- *Clean Transportation Action Plan (CTAP) - Emission Reduction Strategies*
- *B.C.'s Active Transportation Strategy - Move Commute Connect*

METRO VANCOUVER REGION

- *TransLink Transport 2050*

NORTH SHORE

- *Integrated North Shore Transportation Planning Project (INSTPP)*

CITY OF NORTH VANCOUVER (CNV)

- *Official Community Plan (2014)*
- *2022-2026 Council Strategic Plan priorities*
- *Mobility Strategy (2022)*

DISTRICT OF NORTH VANCOUVER (DNV)

- *Official Community Plan (2021)*
- *Transportation Plan (2012)*
- *Community Energy and Emissions Plan (2019)*

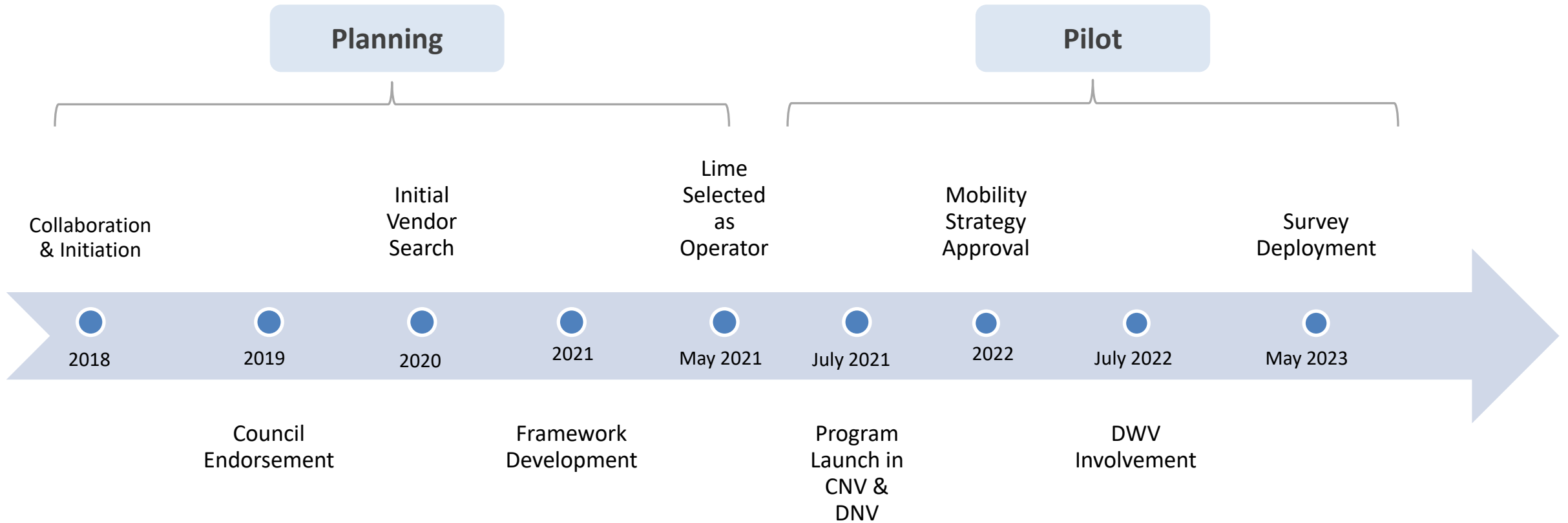
DISTRICT OF WEST VANCOUVER (DWV)

- *Official Community Plan (2018)*
- *Council's Strategic Objectives*

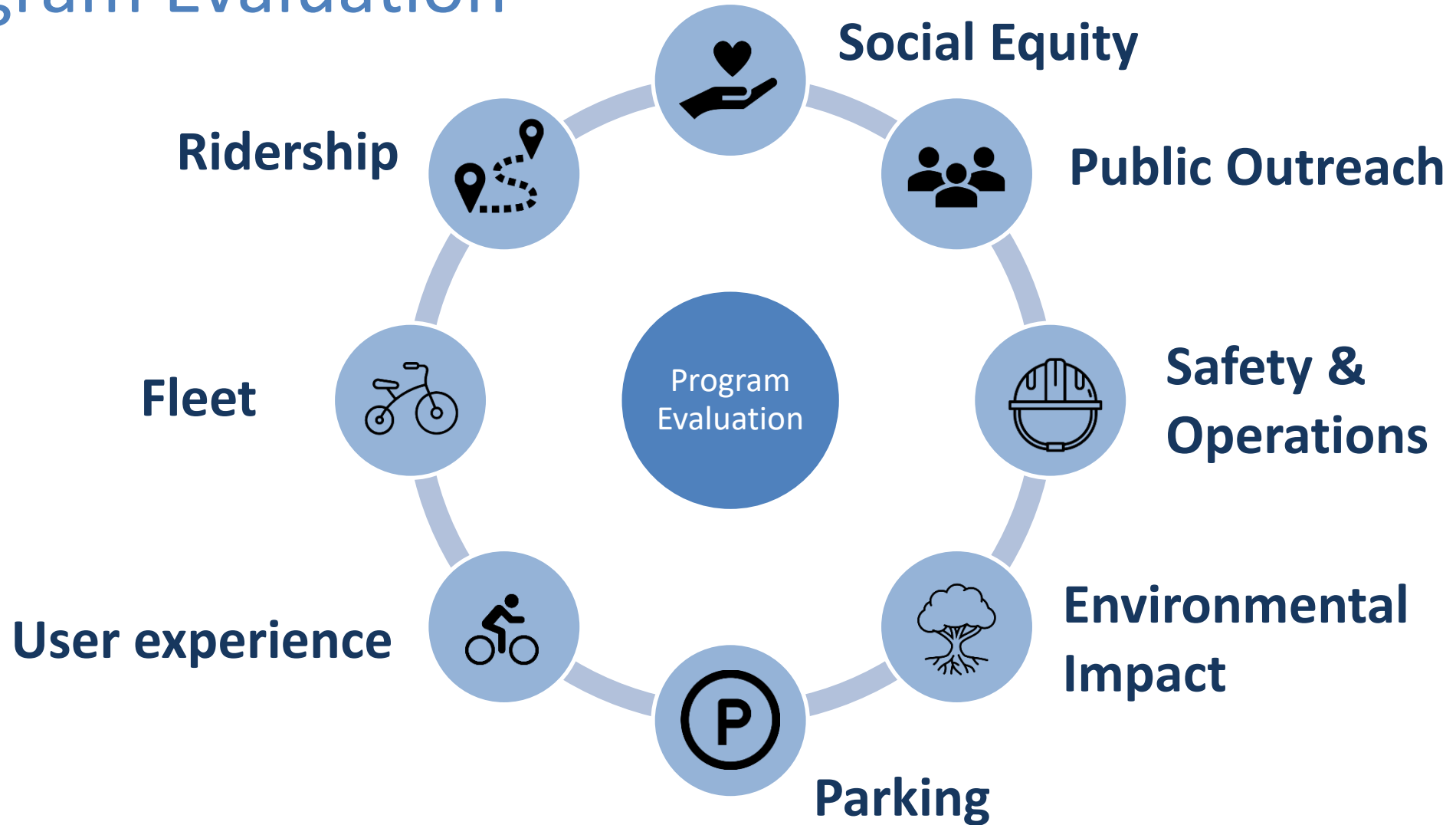


Program Timeline

2 Years of Strategic Planning, 2.5 Years of Successful Pilot Execution, and Looking Ahead



Program Evaluation

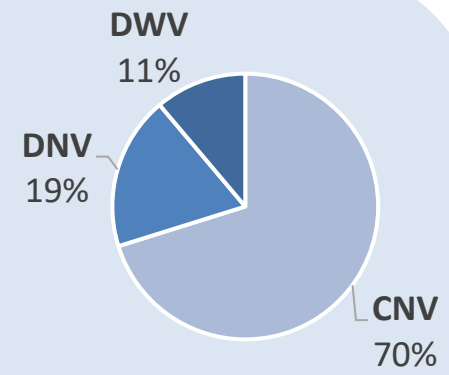


North Shore Ridership

becoming a widely accepted mode of transportation on the North Shore

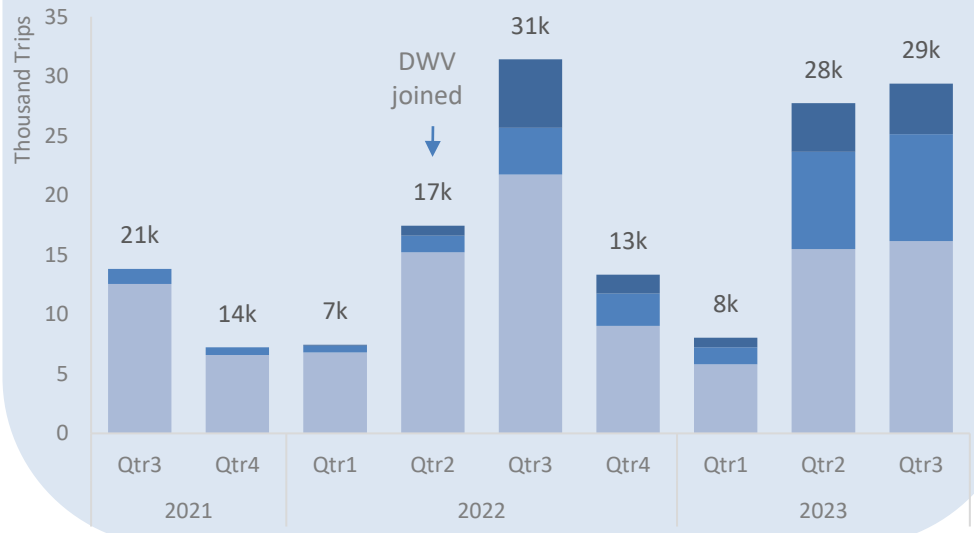
-  Fleet
-  User Exp
-  Parking
-  Env Impact
-  Safety
-  Public Outreach
-  Social Equity

156,000+
Trip Completed



Total Trips Completed

across North Shore since program launched



319,000 km
E-bike Travelled



✓ E-bike Share is attractive for **short-distance** trips.

2 km per trip
Median Trip Distance

12 mins per trip
Median Trip Duration

✓ About **1/3** of trips occur on **weekends** and **2/3** of the trips occur on **weekdays**.

E-bike Share User

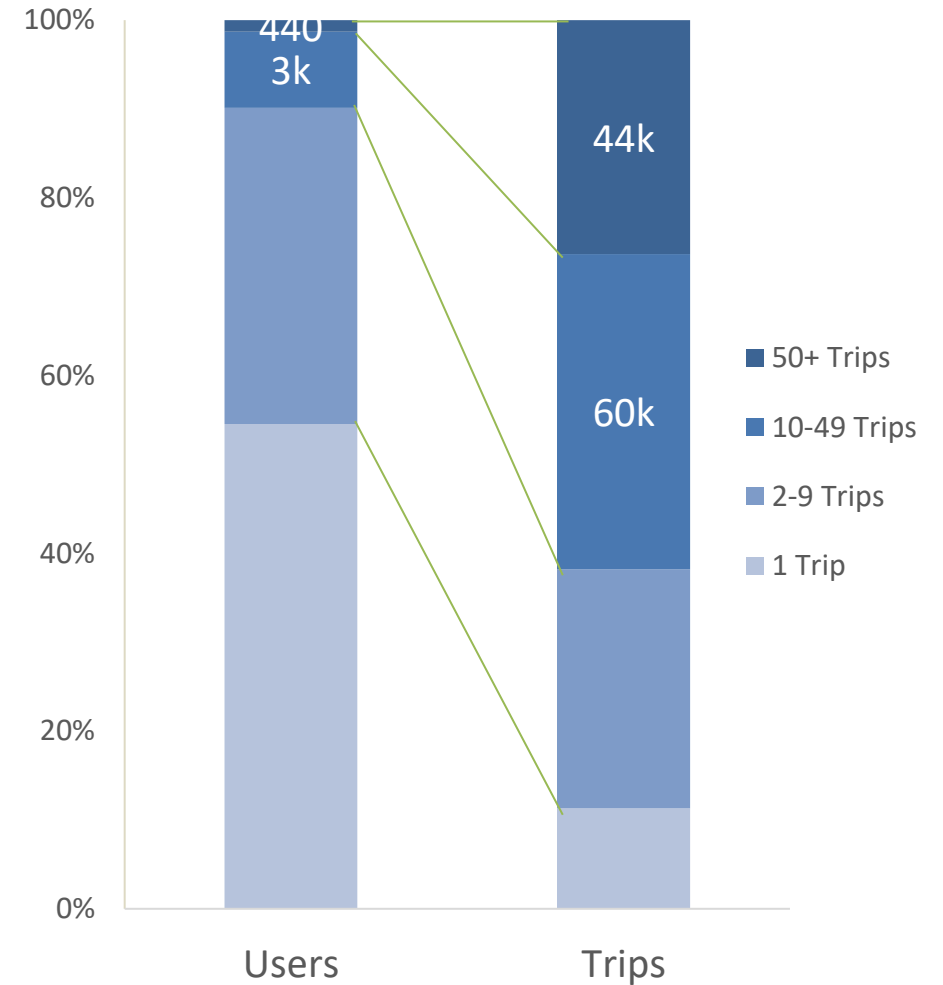
11% of frequent user accounts for 60% of trips

35,000+
Total Unique User

3,400 +
Frequent User (10 Trips+)

- **High-Frequency Users (50+ Trips)**
1% loyal user base
- **Frequent Users (10-49 Trips):**
10% strong local riding population
- **Regular Users (2-9 Trips):**
34% casual or occasional riders.
- **Single-Trip Users:**
55% visitors or tourists

Trips Frequency by Unique Users



Fleet Size

Consistent growth in average E-Bike availability.

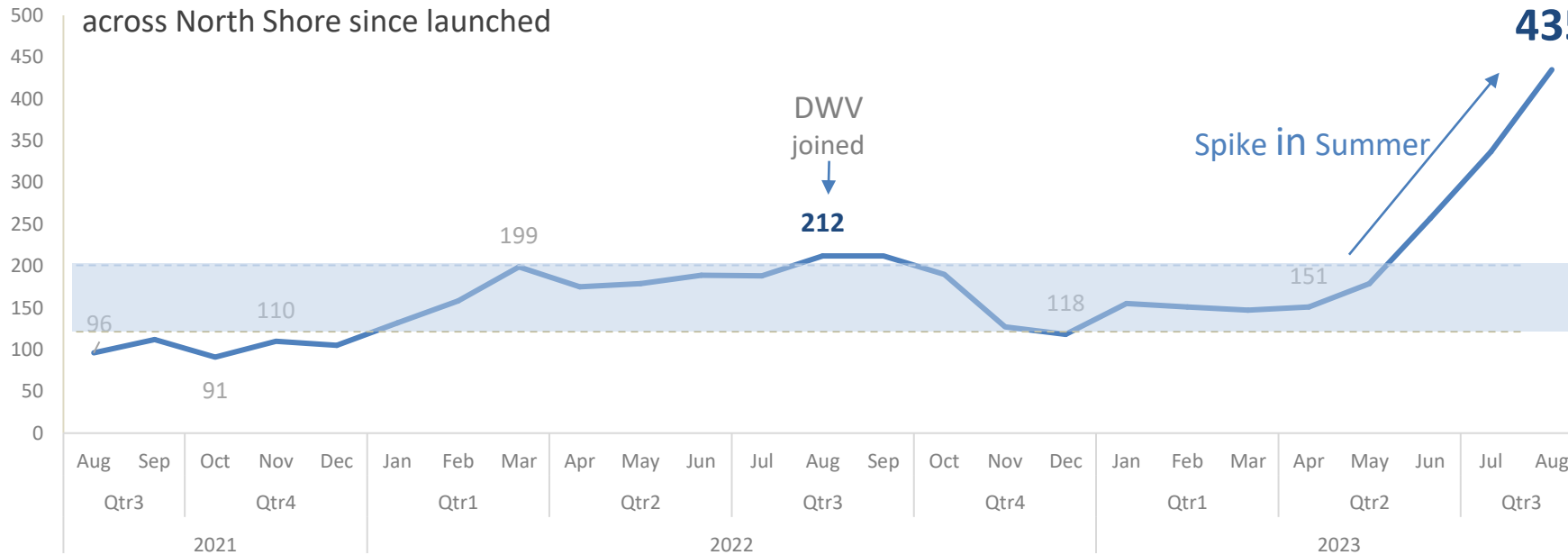
2021 : Launch faced issues in fleet size due to COVID-19's impact on supply chain.

2022 : Operator met summer and winter minimums.

2023 : Not only met, but exceeded requirements; peak deployment in August, with **435 E-bikes**.

Monthly Average of Daily Operational E-bikes

across North Shore since launched



Summer months min.
200 E-bikes
Winter months min.
120 E-bikes

- Ridership
- Fleet**
- User Exp
- Parking
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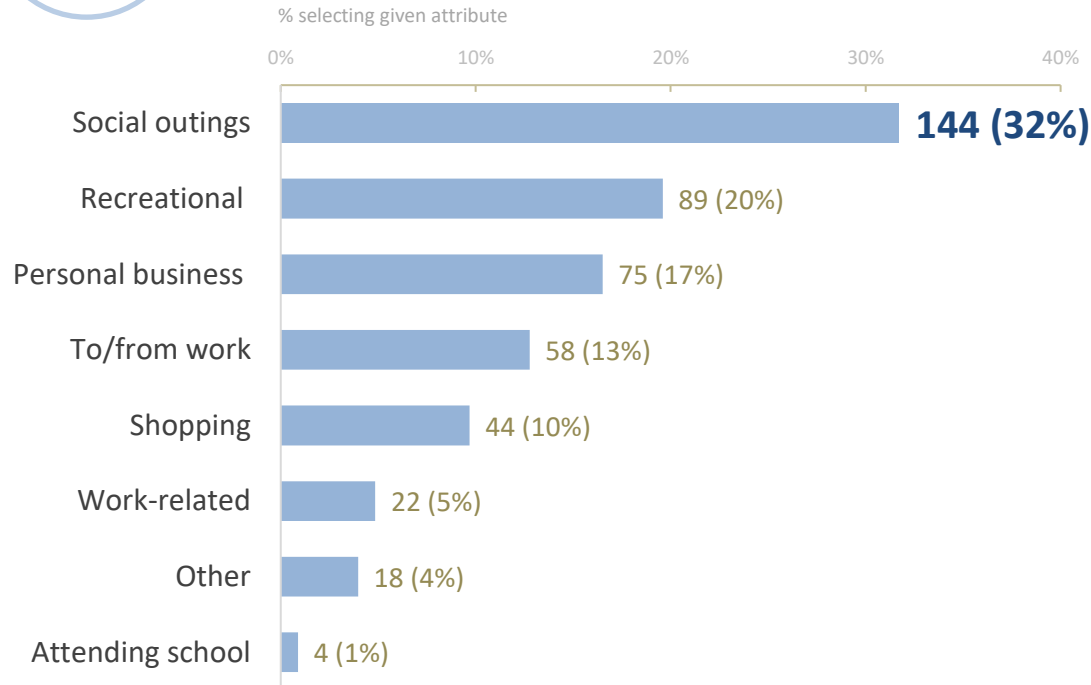
User Experience

73% of surveyed users expressed that they were *satisfied* with the E-bike Share program.

- Ridership
- Fleet
- User Exp**
- Parking
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Trip Purpose Social Outings was the #1 reason



- ### Top reasons to use E-bike Share
- ✓ Efficiency and direct connections (26%)
 - ✓ Enjoyment (16%)
 - ✓ Avoid Traffic congestion(12%)
 - ✓ Parking concerns(12%)

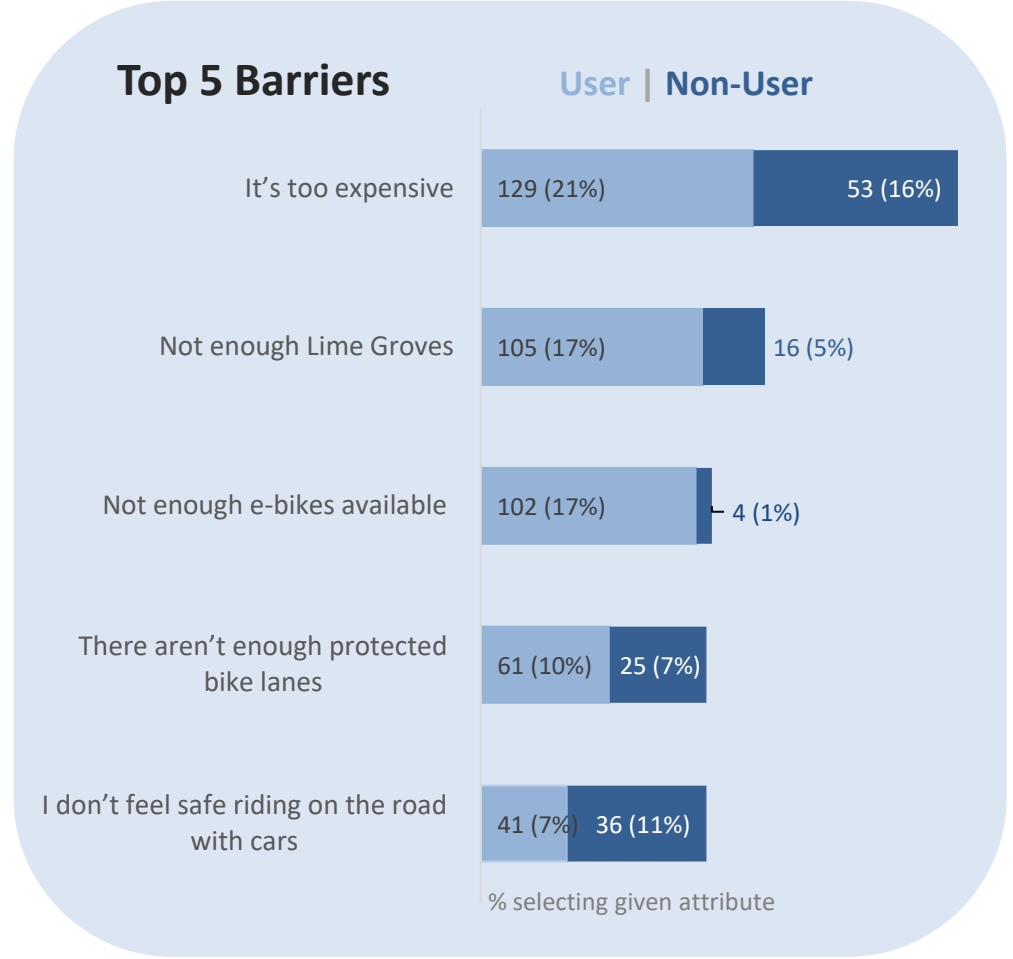
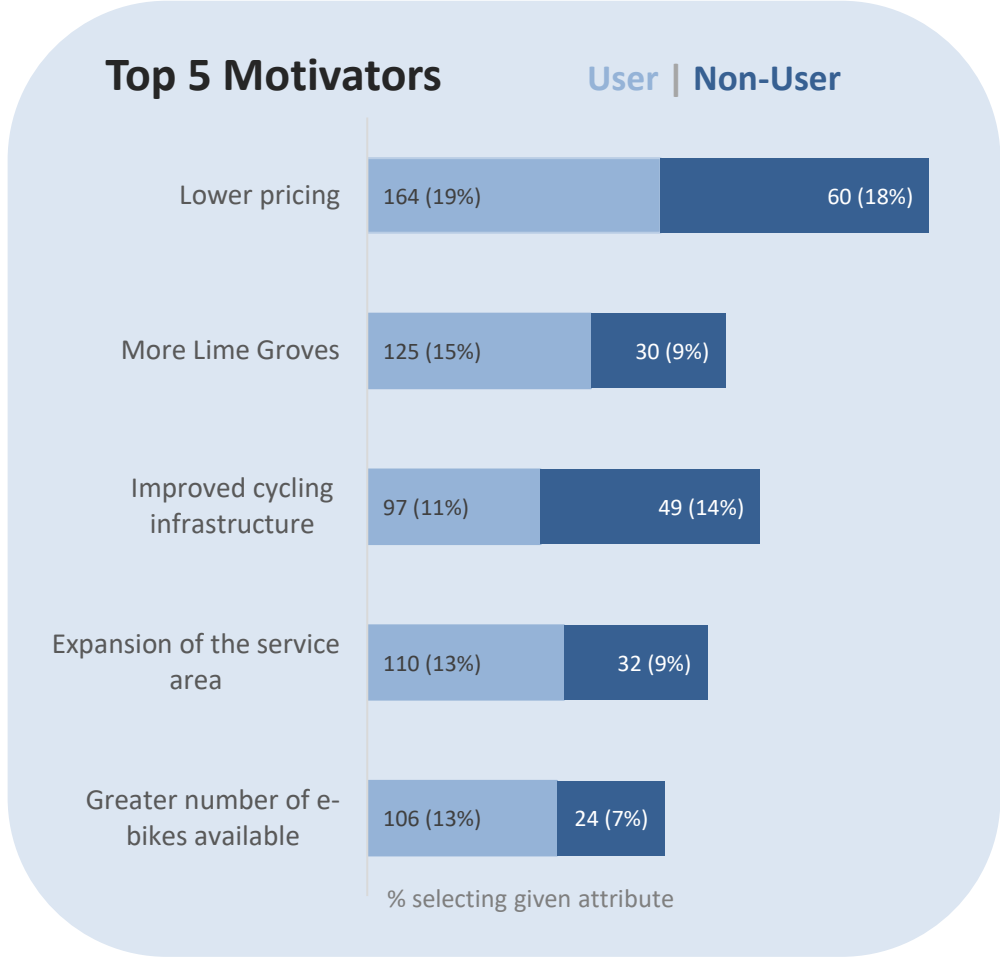
- ### The most appreciated features among E-bike Share users are...
- ✓ User-friendly app (24%)
 - ✓ Environmental benefits (23%)
 - ✓ Program convenience (23%)









Motivators and Barriers to use E-bike Share

Common Themes: Pricing, Parking Availability, Cycling infrastructures



- Ridership
- Fleet
- User Exp**
- Parking
- Env Impact
- Safety
- Public Outreach
- Social Equity

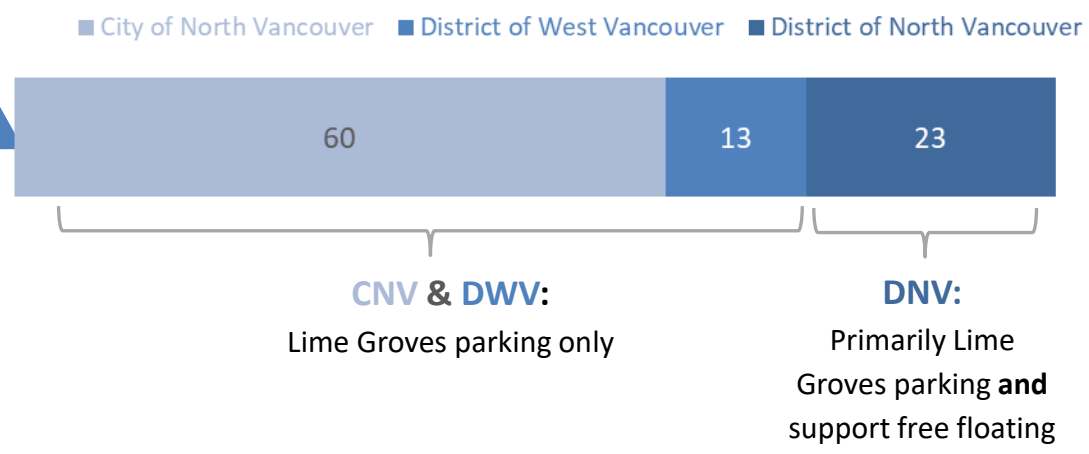


-  Ridership
-  Fleet
-  User Exp
-  Parking**
-  Env Impact
-  Safety
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-  Social Equity

Lime Groves

Designated parking for E-bike share









Total of **96** Lime Groves across North Shore



*In 2023, parking violations per total trips have remained **below 5%**, with a decreasing trend.*

- End-Trip Photo
- Parking Fines
- Regular In-app, email communications



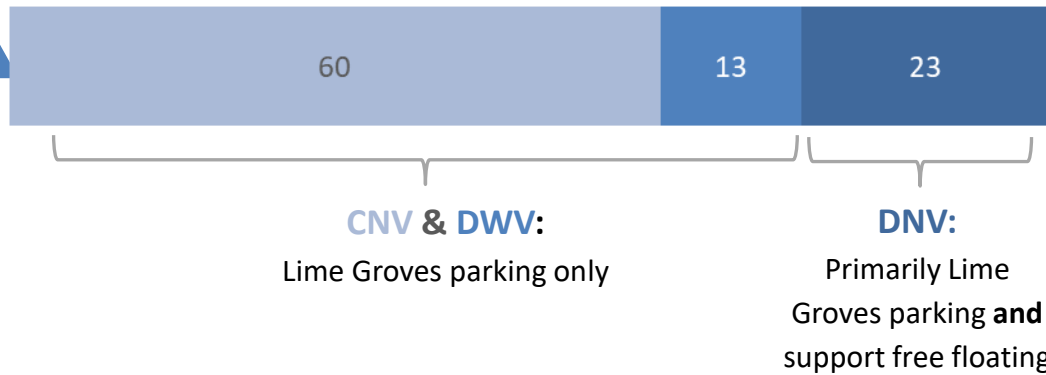
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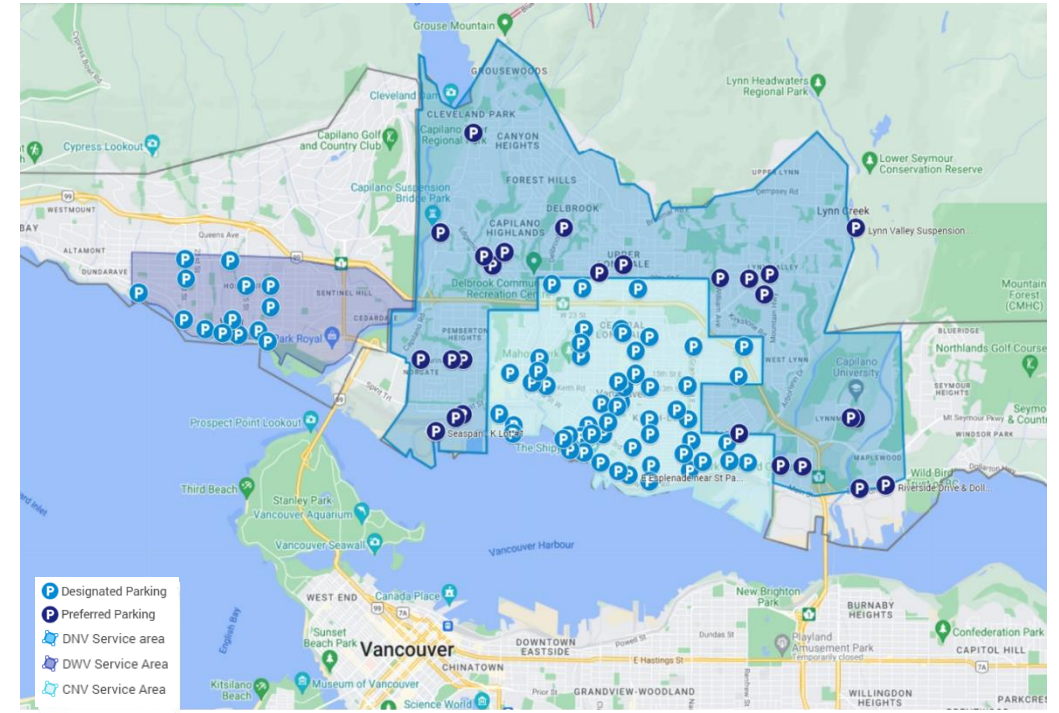
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■ City of North Vancouver ■ District of West Vancouver ■ District of North Vancouver



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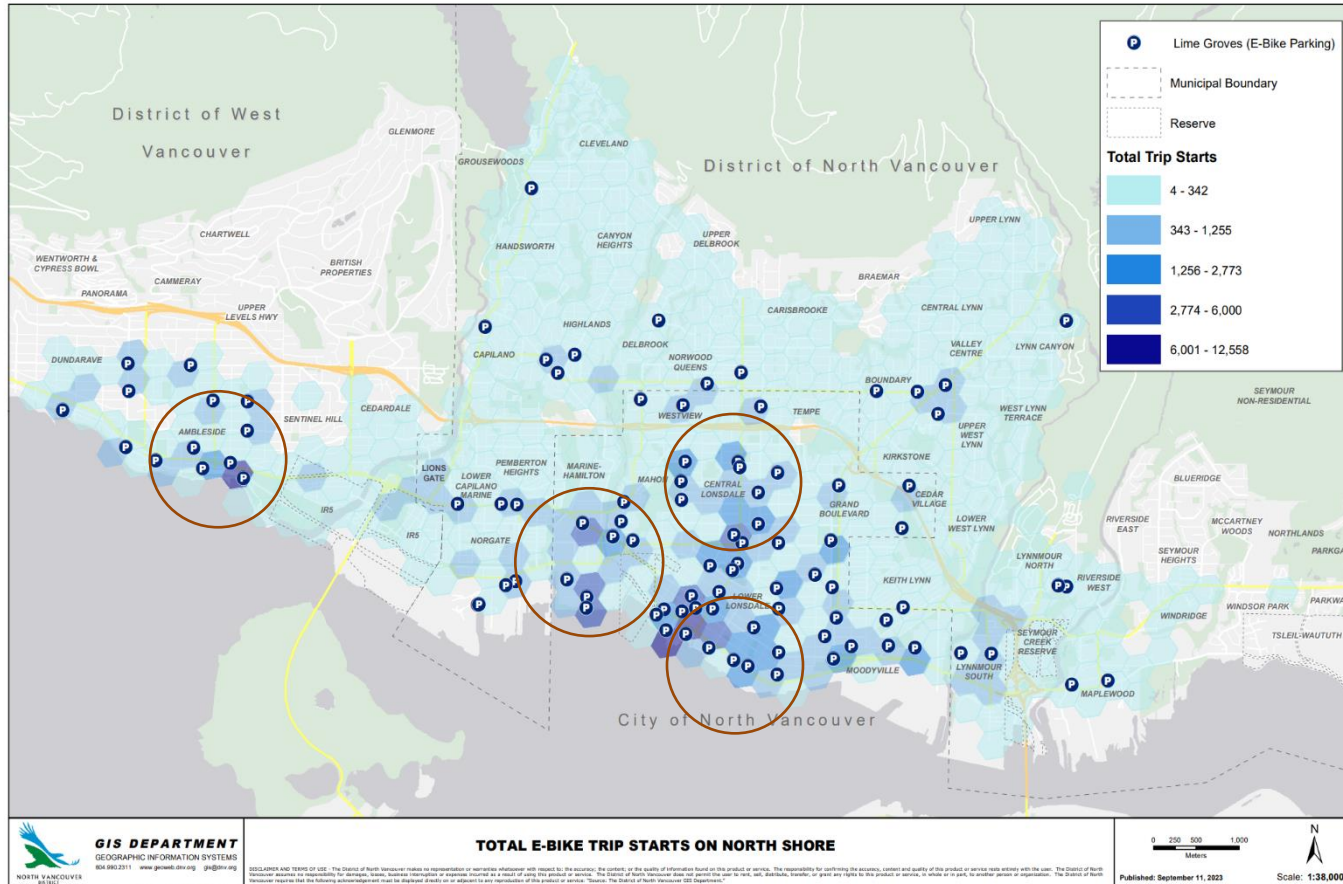


Current Lime Grove Location Map

Most Popular Lime Groves

Key destinations for E-bike share users

-  Ridership
-  Fleet
-  User Exp
-  Parking**
-  Env Impact
-  Safety
-  Public Outreach
-  Social Equity



Top 5 Lime Groves

1. Lonsdale Quay-Chadwick Court - CNV
2. Lonsdale - Carrie Cates Court – CNV
3. Lonsdale Avenue & E 13th St – CNV
4. Marine Drive & Hanes Avenue – CNV
5. Spirit Trail & Argyle Avenue – DWV

Most Popular Areas

- The Shipyards Common – CNV
- Lower Lonsdale – CNV
- Central Lonsdale – CNV
- Ambleside – DWV
- Marine-Hamilton – DNV
- Moodyville – CNV

Mode Shift

Reducing vehicle usage and support public transit use, contributing to GHG reduction targets

- Ridership
- Fleet
- User Exp
- Parking
- Env. Impact**
- Safety
- Public Outreach
- Social Equity



1 in 3

E-Bike share trips
replace a car trip.



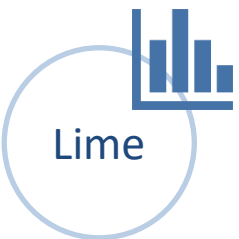
3% of trips are
new trips that
wouldn't have been
taken otherwise.



63% of survey
respondents use the E-
bike Share program to
connect to transit.



72% of survey
respondents are **more**
likely to **use public**
transit when E-bike
Share is available.



25 Metric Tons

CO₂ Avoided

36,973

Car Trips Replaced

9,727 Liters

Fuel Consumption Avoided

Pilot Operations

 Ridership

 Fleet

 User Exp

 Parking

 Env Impact

 **Safety**

 Public Outreach

 Social Equity

0

Major Injuries

60

Moderate to Severe
Vandalism

28

Minor Incidents

**All-Electric
Transition**

By Fall 2023

6

Operations Staff

Email, In-App,
Phone, Help Centre

Customer Services

< 6 hours

Response Time

Every 45 Days

Full Maintenance

Helmet Usage

Initial compliance was low, but the Operator took proactive steps to enhance it



46%
Always/Sometimes wear helmets

1 in 3
respondents
Never wear helmets

1 in 5 respondents opt for **shared helmets**
Reasons for **not** using shared helmets:

- **Hygienic Concerns:** 40%
- **Helmets unavailability:** 35%

Safety

Effort to Helmet Compliance:

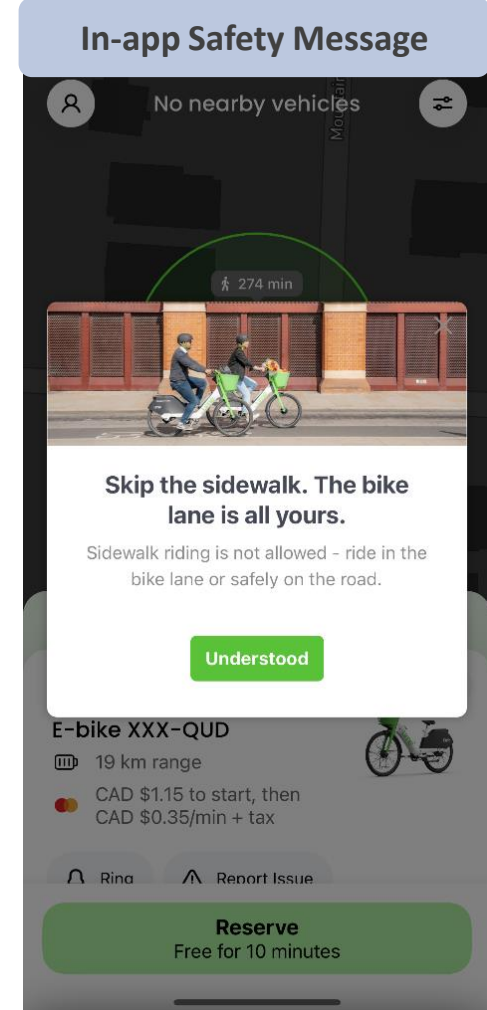
- ✓ **Helmet Giveaway:** Provided **over 2,000** helmets
- ✓ **Helmet Brackets:** Installed on **over 60%** of E-bike fleet.
- ✓ **Helmet Lock:** To prevent theft or loss.
- ✓ **In-App Prompts:** Reminding riders of helmet requirements
- ✓ **Helmet Selfie Incentive:** Incentivizing riders with discounts for showcasing helmet usage.



Rider Education & Awareness

Through community events, in-app modules, social media, email campaigns

-  Ridership
-  Fleet
-  User Exp
-  Parking
-  Env Impact
-  Safety
-  **Public Outreach**
-  Social Equity



Equity Programs

- Ridership
- Fleet
- User Exp
- Parking
- Env Impact
- Safety
- Public Outreach
- Social Equity**

LIME ASSIST-ADAPTIVE VEHICLES

- *Company wide program from Lime but not yet implemented on the North Shore*
- Enhance the accessibility of shared electric vehicles for persons with varying abilities
- Available to the community on demand at no cost.

LIME ACCESS – DISCOUNTED PROGRAM

- *Company wide program from Lime but not yet implemented on the North Shore*
- Offers discounts to eligible applicants who are identified through community group partners



4-Wheel Mobility Scooter

Future Considerations



Expand service area



Boost fleet availability and reliability



Strengthen parking management



Enhance social equity and accessibility



Emphasize on rider education and awareness

Recommendations

- Conclude the pilot program, reflecting on learnings
- Formalize the City's commitment to Shared Micromobility by transitioning to a more permanent E-bike Share operation with North Shore partners
- License & Permit extensions with Lime for up to 12 months beginning Jan 1, 2024

Next Steps

- Refine vendor evaluation criteria and undertake market sounding
- Consider additional/alternative vendors
- Continue to reflect on findings from other shared micromobility programs in the region
- Explore partnership opportunities with North Shore First Nations





Questions?

city
of north
vancouver

DISTRICT OF
**NORTH
VANCOUVER**



west vancouver