



District Of Lake Country
Integrated Transit Strategy
Phase 2 Report

Prepared For: District of Lake Country
Date: 2024-04-03
Our File No: 3312.B01

WATT OKANAGAN
305 – 1350 St Paul St
Kelowna, BC V1Y 2E1
778-313-1014



TABLE OF CONTENTS

FIGURES..... 0

APPENDICES 0

EXECUTIVE SUMMARY 0

1.0 INTRODUCTION, BACKGROUND AND CONTEXT 1

2.0 SYSTEM RIDERSHIP UPDATE..... 4

3.0 STRATEGIES 7

Strategy #1: Summer Shuttle Options..... 8

Strategy #2: Digital On Demand Transit (DODT) Options..... 9

Strategy #3: Route 97 RapidBus Extension/Route 23 modification 10

4.0 COMMUNITY ENGAGEMENT 11

5.0 LOCAL AREA TRANSIT PLAN..... 12

6.0 RECOMMENDATIONS 13

7.0 NEXT STEPS 14



FIGURES

Figure 1: Phasing of the Integrated Transit Strategy 2

Figure 2: Bundle 5 Overview 4

Figure 3: Long Term System Annual Ridership 2019-23 5

Figure 4: Annual Boardings by Route 2019-23 6

Figure 5: Route 32 Annual Projected Boardings by Time of Day 7

Figure 6: Route 23 Annual Projected Boardings by Time of Day 7

Figure 7: Strategy #1 Potential Routing 9

Figure 8: Strategy #2 Potential Service Area 10

Figure 9: Strategy #3 Potential Service Expansion 11

Figure 10: Strategic Priorities Heard in Engagement 12

Figure 11: Comparison of Recommendations Between the LATP and the ITS 14

Figure 12: Strategic Recommendations 14

APPENDICES

Appendix A – 2019 Transit System Analysis 19

Appendix B – Engagement Results 23

Appendix C – Strategies and Financial Implications of Each 36

Appendix D – 2022 Local Area Transit Plan 42



EXECUTIVE SUMMARY

In the District of Lake Country there are currently limited public transportation options available beyond the areas of the District served by the Kelowna Regional Transit System, and the service and ridership of those options was negatively impacted by the COVID-19 pandemic. In 2021, the District decided to explore approaches to increasing transit use in Lake Country, also considering the possibility of service and service-type expansion, through the development of an Integrated Transit Strategy.

This Strategy focuses on establishing affordable, accessible and reliable transportation solutions to address the current gap in services and ridership. This phase, Phase 2 of the four phase Strategy, further develops the service option bundle selected by Council in Phase 1 through analysis and community engagement to determine an optimum approach to improving mobility options in the District. Specifically, this phase is focused on regional (Route 97 and Route 23) and local connectivity (Route 32).

While engagement response landed below expected levels, participants in the survey, community appreciation event and targeted engagement sessions overall welcomed the possibility of improved regional connectivity and the possibility of a summer service.

The key recommendations coming out this phase, to explore further in Phase 3 are:

- The expansion of the RapidBus to the District of Lake Country and associated Route 23 modifications.
- Improvements in mid-day service on the Route 32 in response to the growing ridership on the route.
- The development of a local summer service.
- Feasibility of On-Demand Transit in the District in conjunction with BC Transit expansion of this service type.

These recommendations are based on community feedback, analysis, policy shifts at the provincial level and the possibility of funding availability for service improvements at the provincial level. Fare-free transit is not being recommended at this time as it is felt, it will be cost prohibitive to also take this on.



1.0 INTRODUCTION, BACKGROUND AND CONTEXT

In 2021, the District of Lake Country completed the Mobility Master Plan, a blueprint for the future of transportation in Lake Country that focused on Mobility and striking a balance between the various modes of transportation. It sought to improve the array of options available to everyone in the community irrespective of age, gender, physical ability, or cognitive function. The transit goal set in this plan and approved by Council is to increase transit ridership by 10% of 2019 annual ridership recorded by BC Transit.

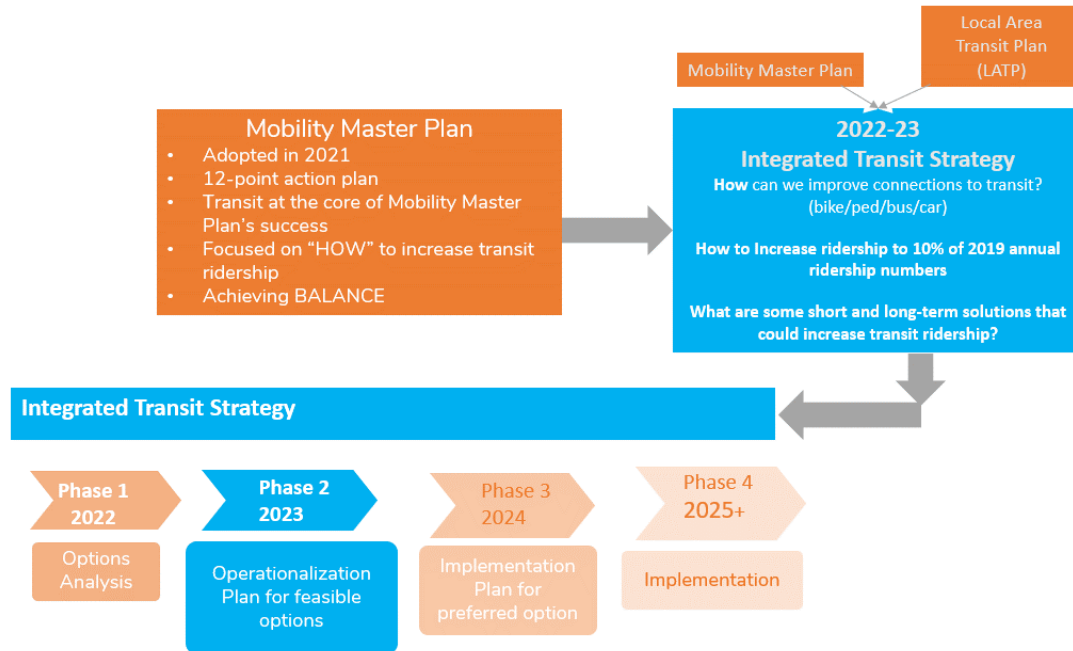
WATT Consulting Group was engaged by the District to develop some approaches to increasing transit use in Lake Country. The Integrated Transit Strategy is a four-phase project that seeks to develop holistic solutions to improve transit usage within Lake Country.

This report summarizes Phase 2: Operationalization Plan for Integrated Transit Strategy. In Phase 1, a toolbox of options for increasing ridership was developed. In Phase 2 feasible options were taken from Phase 1, and used to develop operational plans, costing and implementation timelines for them. An Implementation Plan will be created in Phase 3 for the preferred option. The Implementation Plan will provide a roadmap for the District to go from idea to reality and will include all aspects of implementation from infrastructure improvements, costing, phasing, marketing, and branding as needed. Finally, Phase 4 works through the Implementation of the chosen option(s).





Figure 1: Phasing of the Integrated Transit Strategy



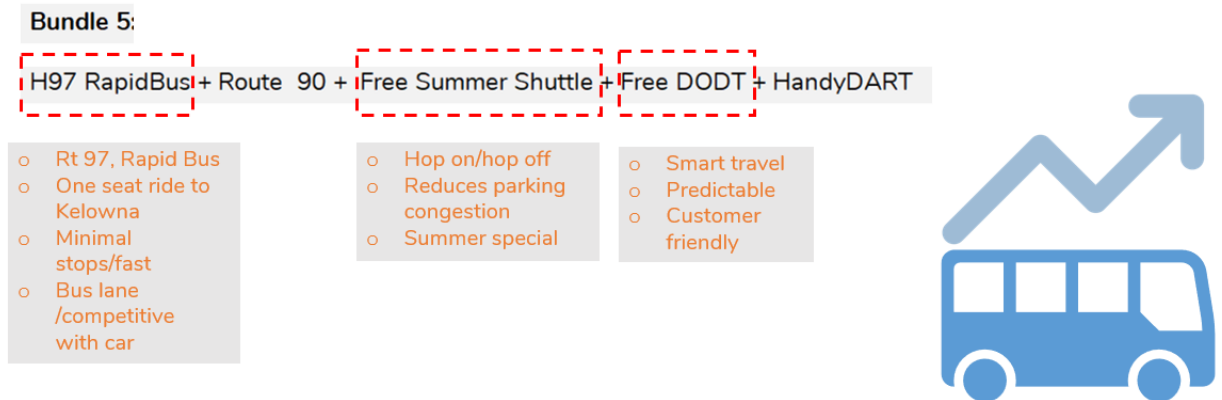
Phase 2 consisted of four Tasks:

- **Task 1: Operationalization Plan**
Develop operational details of each option: service type, routing, service days, revenue models, connections to Kelowna, and costs.
- **Task 2: Council Workshop**
Inform Council about service details of each option and get approval for the Engagement Plan.
- **Task 3: Engagement**
Target engagement towards key user groups: Youth, Seniors, Businesses and Stakeholders.
- **Task 4: Final Report**
Summarise findings from engagement and provide a recommendation for Implementation Planning.



In Phase 1, a toolbox of options for increasing ridership was developed, comprising of five bundles made up of various strategies. Bundle 5, which includes Route 97 RapidBus expansion, a free summer shuttle, and free digital-on-demand transit (DODT), was chosen by Council as a preferred option for operationalization.

Figure 2: Bundle 5 Overview



Using the findings from Phase 1 and the results of the Tasks in Phase 2, these strategies were further developed, and community engagement was undertaken to better understand mobility needs and how they relate to the strategies in Lake Country.

The next few sections describe the analysis and research work that went into understanding issues and opportunities in the District of Lake Country and developing options that would address the issues and take advantage of the existing opportunities.



2.0 SYSTEM RIDERSHIP UPDATE

Transit service in Lake Country is provided as part of the Kelowna Regional Transit Service. Two routes from the Kelowna Regional Transit system serve the District of Lake Country.

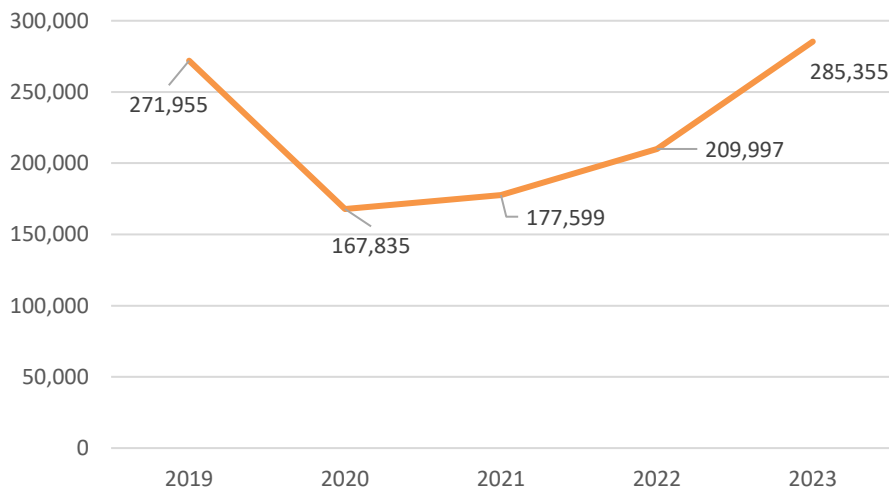
- **Route 23** connects Lake Country to the University of British Columbia Okanagan (UBCO) campus transit exchange.
- **Route 32** is Lake Country’s in-town circulator service that provides weekday only peak service in the mornings and evenings.

From the Vernon Regional transit system, **Route 90** connects Vernon to Kelowna and has couple stops in Lake Country.

Out of the three routes, Route 23 is considered the workhorse of the system.

2019-2023 Transit System Performance

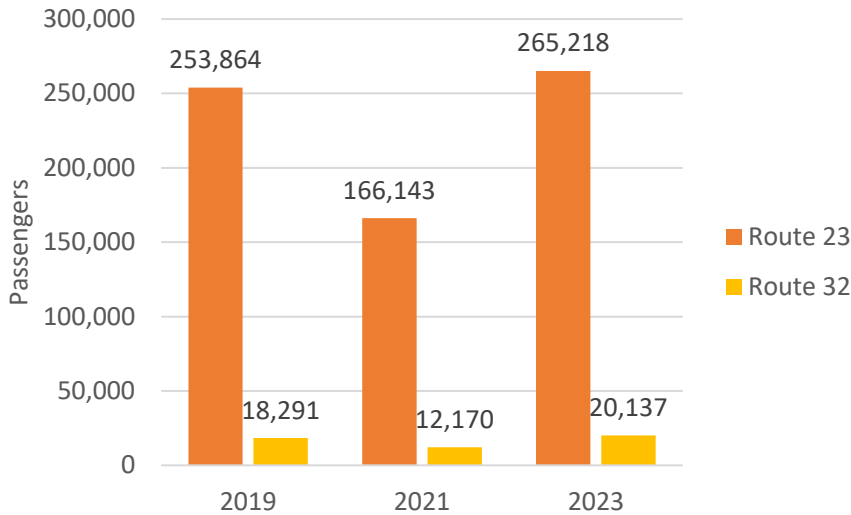
Figure 3: Long Term System Annual Ridership 2019-23



The COVID-19 pandemic had a detrimental effect on the health of the Lake Country transit system, as can be seen in the sharp reduction of ridership from 2019 to 2020, along with subsequent labour shortages and reductions in service. However, ridership has been steadily increasing since then, and in 2023 the transit system demonstrated growth that exceeded 2019 peak ridership, with a record 285, 355 riders using transit.



Figure 4: Annual Boardings by Route 2019-23



As can be seen in **Figure 4**, ridership has exceeded pre-pandemic levels on both Route 23 and Route 32, with Route 23 demonstrating a 4.5% and Route 32 a 10.1% increase respectively. The increase in ridership signifies alignment with Council’s goal of increasing transit ridership by 10% of pre-pandemic levels, and also indicates a behavioural shift towards transit ridership in Lake Country.

Whilst Route 23 is by far the most popular route in Lake Country, increased demand for Route 32 can be seen in the comparison between projected boardings between 2019-2023, as seen in **Figure 5**. The AM and PM peaks remain the same across the 3 analyzed years, however, in 2023 they can be seen to be extended and indicate widespread demand from previous years. The ridership increase coincides with the province wide program that allows children under 12 to ride for free. It would be a fair assumption that some of the ridership increase is due to this policy. School bussing challenges are also likely contributing to this ridership increase, suggesting a need to invest in this route and its growing usage.

Appendix A has details on the pre-pandemic system and route ridership.



Figure 5: Route 32 Annual Projected Boardings by Time of Day

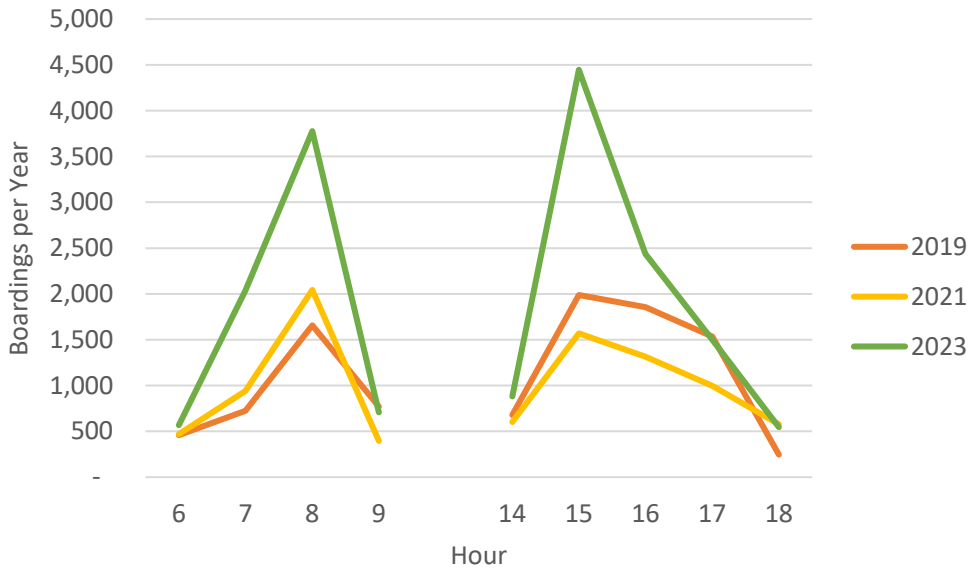
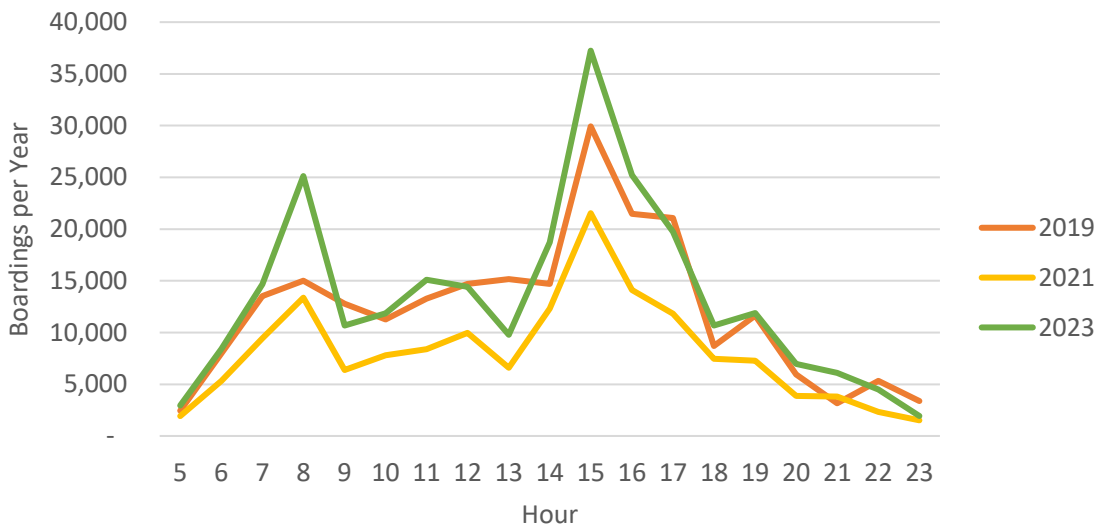


Figure 6 depicts Route 23 projected boardings, and demonstrates increased ridership, as with Route 32. The mid-afternoon peak remains the highest, with 2023 seeing a new AM peak starting to emerge.

Figure 6: Route 23 Annual Projected Boardings by Time of Day





3.0 STRATEGIES

In Phase 2, WATT's work focused on identifying resources and potential ridership impacts of the strategies approved by Council in Phase 1 (Bundle #5).

A holistic approach has been followed to develop these service strategies in order to address the gaps identified in transit service in Lake Country in the preceding sections. Such an approach includes the development of transit supportive policies, service strategies that serve the varying needs of a community, accompanying infrastructure improvements and well-designed marketing campaign designed to increase awareness of services and increase partnerships with local business with the goal of creating a support base for transit amongst the business community as well. Before providing details of each strategy, a brief overview of the Bundle selected by Council is provided below.

Bundle #5: H97 RapidBus Extension/Route 23 modification + DODT services + free local transit

What: This Strategy focuses on free local transit services within Lake Country with fare paid regional services. Local service will be a combination of Summer Seasonal Service and DODT. These services would be provided free of cost to incentivize the use of transit. Regional service, key to maintaining north-south regional connectivity, will be provided through BC Transit with the Route H97 to Kelowna and the Route 90 to Vernon.

Why: Transit service is considered an essential service in many communities, similar to how a network of roads serves an essential role in connecting major destinations. Given that almost 50% of trips are within Lake Country (2018 Okanagan Travel Survey), this could be a very effective way of encouraging transit ridership within Lake Country. In addition, providing the service for free creates a service that is accessible by all, equitable, as well as easy and convenient to use. If this is something Council is keen to pursue, details on funding sources and mechanisms for funding will be worked out in Phase 3 of this project. In some communities, parking revenues have been used to partially fund free local transit service.

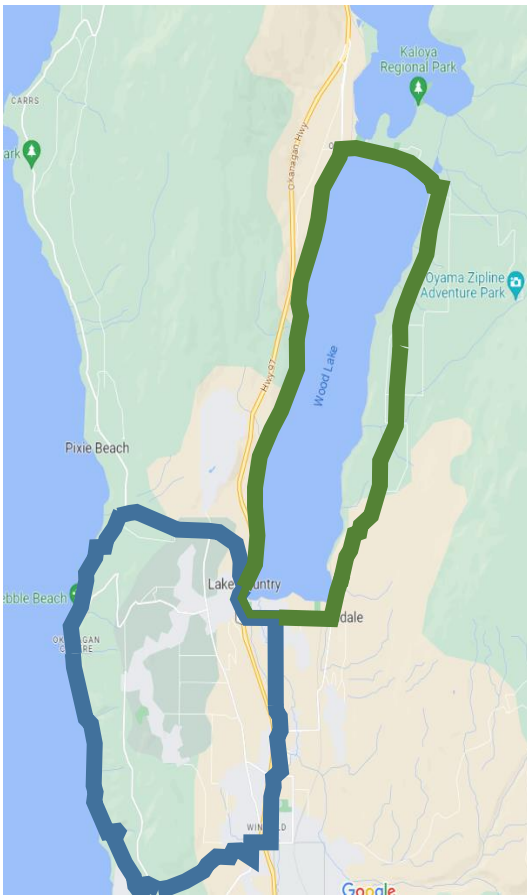




Strategies and details developed during Phase 2

Strategy #1: Summer Shuttle Options

Figure 7: Strategy #1 Potential Routing



Rationale: A Summer Shuttle would enable youth, families, seniors and seasonal employees' access to businesses, beaches and agricultural operations with a new route that will only operate in the summer.

Service details: The service is envisaged as a Hop-On, Hop-Off type service. Initially it will be provided within the core of Lake Country and can be progressively extended to cover more wards if service is successful. Initially loop routes that serve Okanagan Centre and Oyama, with a proposed frequency range of 30 to 60 minutes, seven days a week, will cover the proposed service area, with potential for expansion of both service area and service frequency. Service would start slightly later in the day (10 am) and run until around 8 pm at night. Service would be available between May 01 and Labour Day weekend in September, an approximate of 125 days in a year.

Estimated service cost: \$200,000 for one loop at half hour frequency, assuming one bus

in service (and one spare) and one operator. Capital costs add approximately \$100,000 to this amount, as one-time expense for vehicle costs. Vehicle costs will vary depending on whether it is bought or leased. This determination will be made in Phase 3.

Service Administration: This needs to be determined, but the service can be administered by the District or be contracted to a private operator. These details will be figured out in Phase 3.

Ridership potential: Approximately 12,500 boardings per year. This assumes a ridership of 10 boardings per hour, which is on the higher side for a new service, however, without this level of ridership, this service is likely not going to be successful.



Strategy #2: Digital On Demand Transit (DODT) Options

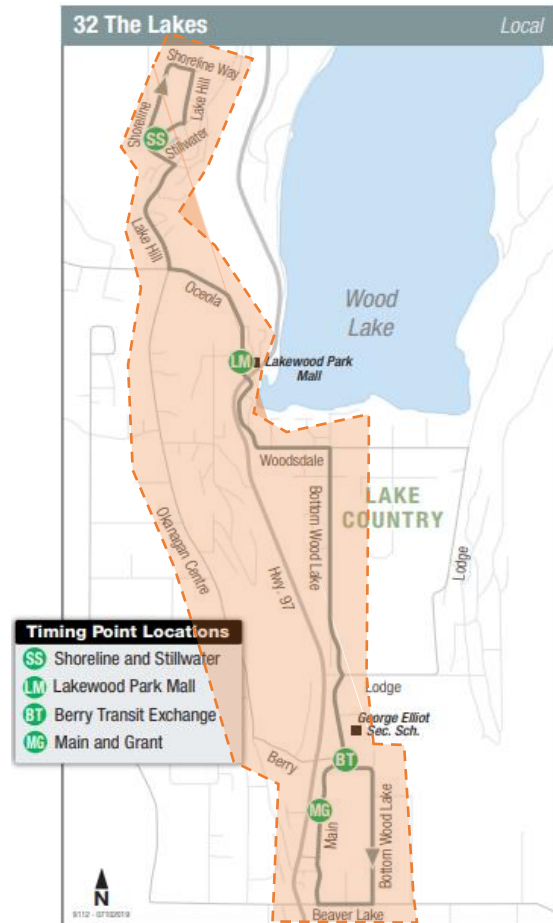
Figure 8: Strategy #2 Potential Service Area

Rationale: DODT provides an opportunity to modernize transit services within Lake Country and address service gaps on the Route 32 using On-Demand transit. Mid-day and evening On-Demand service would supplement service on Route 32.

Service details: The original thinking for On-Demand service was to reallocate existing Route 32 hours into an On Demand type service. However, with the increase in ridership on this route, described in Section 2, it is now recommended that the scope include increasing service hours on the route in the mid-day. Exact details of service extension via On Demand transit, needs to be finalised. Some different ways of achieving this are in partnership with either BC Transit, a rideshare partner or an eligible On-Demand Transit provider.

Estimated service cost: Annual operating costs range from \$43,750 to \$182,000, assuming 5 trips per hour on average. DODT requires no capital investment from the District, since the assumption here is that the existing vehicles will be used for this service. Investment in the On-Demand software will vary depending on who the District decides to pick as a partner for this service: BC Transit, a rideshare partner or an eligible On-Demand Transit provider, with costs going up in the order the partners have been described.

Ridership potential: DODT offers a ridership potential of around 5,000 to 10,000 boardings annually. The range depends on the number of hours of On Demand service provided, the former only accounts for the mid-day gap being On-Demand, while the latter assumes that the service is also provided on weekends.





Strategy #3: Route 97 RapidBus Extension/Route 23 modification

Figure 9: Strategy #3 Potential Service Expansion

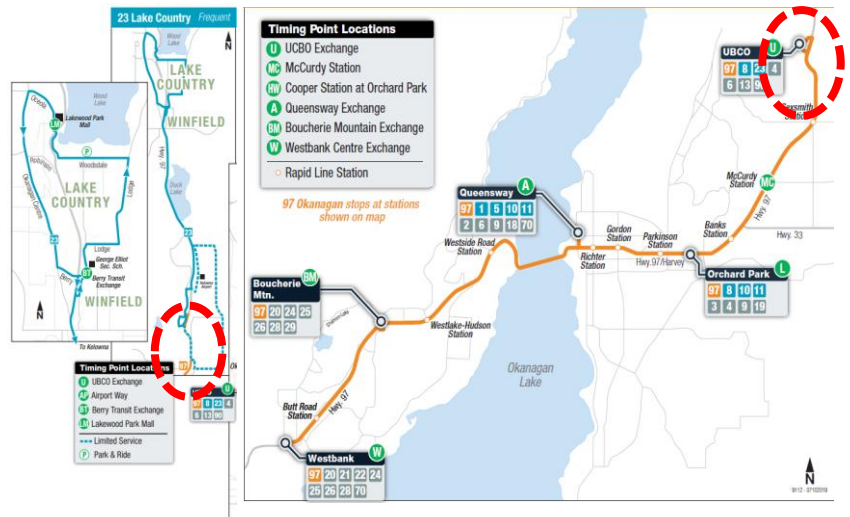
Rationale: This Strategy aims to provide a fast, one-seat ride from Lake Country to Kelowna by modifying the current Route 23 service. This modified service provides enhanced regional connectivity. A potential saving of 10 minutes in the trip to Kelowna can make this an attractive option instead of driving into Kelowna downtown.

Service details: This is achievable if Route 23 transitions into Route 97

(RapidBus) at the Bottom Wood Lake Road stop, extending on from UBCO until Queensway Exchange in Kelowna, ensuring a one seat ride from the District of Lake Country to UBCO and further to Queensway Exchange in Kelowna. Service to the airport will be explored as part of work in Phase 3. In its revised format, Route 23 will provide the local connection at a half hour frequency for longer hours, as the route will match the service span of Route 97.

Estimated service cost: This change would ideally have been cost-neutral, given the frequency of service remains the same (30 minutes). However, with Route 97 (RapidBus) having additional service on Saturdays and Sundays as well later trips on weekdays, the transition necessitates the addition of approximately 4,000 service hours for this change to be seamless. In this service model, Route 23 will provide local connections within the District of Lake Country and Route 97 (RapidBus) will provide regional connectivity. Further details regarding schedule, stops affected and overall cost of service as well as vehicles needed will be conducted as part of Phase 3.

Ridership potential: By moving forward with this strategy, ridership could be increased by 25,000 boardings annually. This ridership figure assumes a conservative estimate of 7 boardings per hour. In reality, if the time savings is attractive, then a one-seat ride to and from Kelowna, serving the airport on a regular, consistent schedule would likely have higher than estimated ridership.





4.0 COMMUNITY ENGAGEMENT

The two main objectives for engagement were to collect targeted feedback from specific groups in the community regarding their mobility needs and to prioritize the strategies described above.

In Phase 1 of this project, Mayor and Council had identified specific groups in the community that they were keen to hear feedback from, they were:

- Seniors
- Students – particularly those who commute to the University of British Columbia Okanagan (UBCO)
- Major employers and employees – particularly agricultural operations
- Community members with disabilities

In order to target these groups but also include the entire community, three different engagement activities were conducted, from August 2023 to December 2023:

1. An online survey which garnered 141 responses;
2. A booth at the District of Lake Country’s Community Appreciation Event with 50 participants; and
3. Targeted engagement sessions with each of the specific groups with 12 participants.

Overall, public participation amounted to about 2% of overall population of the District (~200 people). A majority of these were also non-transit users. As a result, for this study we will be using the feedback as a guideline to make final recommendations on moving forward.

What We Heard

Figure 10: Strategic Priorities Heard in Engagement





Respondents were asked how they would prioritize the implementation of the strategies, with 1 being the highest priority and 4 being the lowest priority, with the results being the following:

- **First Priority:** Strategy #3: Route 97 + 23 Modifications
- **Second Priority:** Strategy #1: Summer Shuttle
- **Third Priority:** Strategy #2: On-Demand Service
- **Fourth Priority:** Fare Free Transit

Survey respondents and community appreciation event attendees were provided with the opportunity to give general feedback regarding improving the transit system in Lake Country. The most common general themes that emerged are as follows:

- Improve frequency (on weekdays and weekends).
- Provide more service within Lake Country to residential areas (Lakestone, Carr's Landing, Oyama, Okanagan Centre).
- Improve pedestrian, cycling and bus stop infrastructure to access the transit system more conveniently and comfortably.

Appendix B has a more detailed outline of engagement results and what we heard from the community.

5.0 LOCAL AREA TRANSIT PLAN

In 2022, as the Integrated Transit Strategy was ramping up, BC Transit was completing a Local Area Transit Plan in the District. The recommendations of this plan were approved by Council and given that the Integrated Transit Strategy was already underway, it was prudent to wait before implementing any of these recommendations.

To provide a holistic solution to the mobility needs of the community, Phase 2 of the ITS also reviewed the LAMP recommendations to determine the impact of implementing only one set of recommendations (LAMP) or both in combination (LAMP and ITS). This work essentially concluded that the recommendations coming out of Phase 2 of the ITS were not only in alignment with the LAMP, but in some ways accelerated the achievement of its outcomes, given the reallocation of resources that was being recommended because of the Phase 2 work. The table below illustrates this congruence.

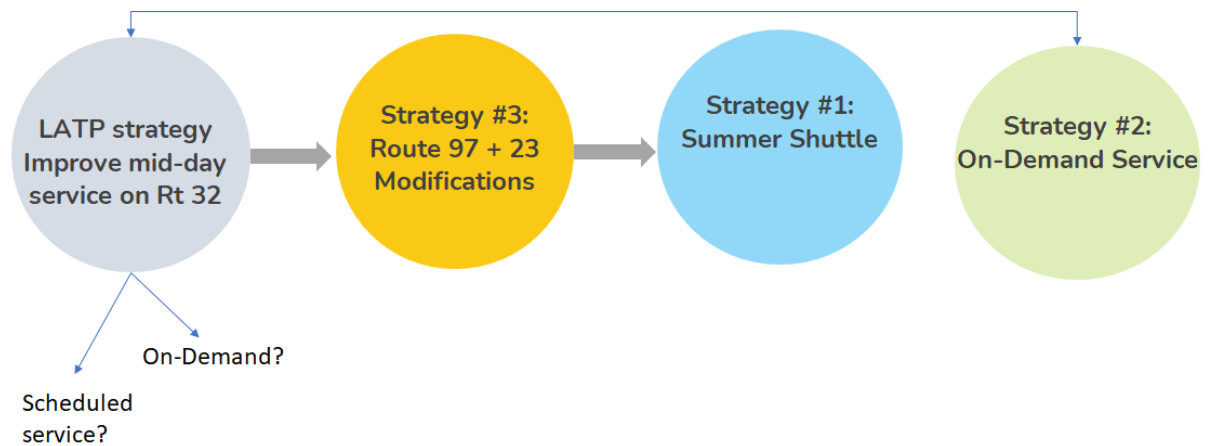


Figure 11: Comparison of Recommendations Between the LATP and the ITS

	LATP (Local Area Transit Plan, BC Transit)	ITS
Short term	<ul style="list-style-type: none"> Restructure 23 Lake Country within the community Restructure 32 The Lakes Add additional service to 32 The Lakes 	<ul style="list-style-type: none"> Recommend change after Route 32 has full day of service Recommend adding mid-day hours before routing change Supported by ITS
Medium term	<ul style="list-style-type: none"> Restructure Service at Kelowna International Airport and; Pursue On-Demand service design in Lake Country 	<ul style="list-style-type: none"> Supported by ITS, potential to address with Route 97+ 23 modification and infrastructure change at YLW Supported by ITS
Long term	<ul style="list-style-type: none"> Add additional local route Improve frequency of 23 Lake Country and; Add introductory service to new areas 	<ul style="list-style-type: none"> Supported by ITS (Summer Shuttle) Supported by ITS (done as part of Route 97+23 modifications) Still to be determined

6.0 RECOMMENDATIONS

Figure 12: Strategic Recommendations



The following recommendations conclude Phase 2 work.

Recommendation #1: Improve the mid-day service on the Route 32

Recommendation #2: Explore the schedule, capital and financial impact of the Route 97 and Route 23 modifications to provide a one-seat regional connection to residents of the District of Lake Country.



Recommendation#3: Explore the schedule, capital and financial impact of a summer service in the District of Lake Country and specifically, establish the most cost-effective manner in which to implement this service.

Recommendation # 4: Given the BC Transit initiative to introduce On Demand service type in the Kelowna Regional System, it would be beneficial to explore the suitability of this service type in improving mobility in the District.

Phase 3 will delve into the operational details of these four recommendations and will provide a road map for the District for transit improvements over the next few years.

7.0 NEXT STEPS

The implementation phase will determine the operational feasibility and financial impact of the recommendations coming out of Phase 2. Once this report is endorsed by Council, it is anticipated that the consultant team will start coordinating more closely with BC Transit on Phase 3, developing the Implementation Plan. Phase 3 will be conducted in 2024.





District Of Lake Country
Phase 2 Report Appendix

Prepared For: District of Lake Country
Date: 2024-04-03
Our File No: 3312.B01

WATT OKANAGAN
305 – 1350 St Paul St
Kelowna, BC V1Y 2E1
778-313-1014



TABLE OF CONTENTS

FIGURES..... 17

TABLES 18

APPENDIX A - 2019 TRANSIT SYSTEM ANALYSIS 19

APPENDIX B - ENGAGEMENT RESULTS..... 23

 Purpose & Objectives 24

 Key Messages & Engagement Tools 24

 Timeline 25

APPENDIX C - STRATEGIES AND FINANCIAL IMPLICATIONS OF EACH 36

APPENDIX D - 2022 LOCAL AREA TRANSIT PLAN..... 42



FIGURES

Figure 1: Long Term System Annual Ridership 2015-19 (Farebox data)	5
Figure 2: Annual Boardings for 2019 and 2021 (Farebox data)	6
Figure 3: Annual Boardings and Revenue Hours comparison by Route for 2019 and 2021 (Farebox data)	6
Figure 4: Annual Boardings from 2019 (APC data).....	7
Figure 5: Annual Boardings comparison between Routes 23 and 32 (APC data)	7
Figure 6: Age of Survey Respondents	12
Figure 7: Number of People in Household for Survey Respondents	13
Figure 8: Geographic Representation of Survey Respondents	13
Figure 9: Top Destinations for Survey Respondents	14
Figure 10: Top Desitnations by Where Respondents Live	15
Figure 11: How Often Survey Respondents Travel to Top Destinations	15
Figure 12: Top Trip Purposes for Survey Respondents	16
Figure 13: Survey Respondents Top Method of Travel	16
Figure 14: Survey Respondents Top Method of Travel	16
Figure 15: Level of Support for Strategy #1: Summer Shuttle	17
Figure 16: Level of Support for Strategy #2: On-Demand Service	18
Figure 17: Level of Support for Strategy #3: Route 23 Modifications	18
Figure 18: Level of Support for Strategy #4: Fare-free Transit	19
Figure 19: Likelihood of Using Transit if Strategies were Implemented	20
Figure 20: Motivators for Using Transit	20
Figure 21: Service Strategy #1 Overview	23
Figure 22: Implications of Strategy #1 Recommendations	23
Figure 23: Service Strategy #3 Overview	26
Figure 24: Implications of Strategy #1 Recommendations	26



TABLES

Table 1: High Level Option Comparison of Potential Service Providers 23

Table 2: High Level Option Comparison of Strategies 27

Table 3: High Level Route Expansion Comparison 27

APPENDIX A

2019 TRANSIT SYSTEM ANALYSIS



In Phase 1, WATT used data from BC Transit to assess the performance of the system. BC Transit provided data collected from fareboxes for this work. In Phase 2 as well, we conducted a system performance assessment, primarily to ascertain changes to ridership in the post-COVID timeframe. For this BC Transit provided ridership data collected from Automatic Passenger Counters (APC) on the bus. It is typical to see some variation between farebox data and that collected through APCs. BC Transit recommends using APC data for system analysis and from this time forward, we will be only using APC data for any analysis work in Phase 3.

The next few pages provide a snapshot of the ridership analysis conducted in Phase 1 and 2 of this study. While variations in exact numbers is evident, given the different datasets used, we would like to highlight the trend is positive and we are seeing ridership growth in the system, post-COVID.

Pre-COVID Transit System Performance

Prior to COVID-19, transit ridership in Lake Country had been increasing, with 2019 the best year in terms of system performance on-record, with factors such as reliability and peak morning service for UBCO students contributing to system health.

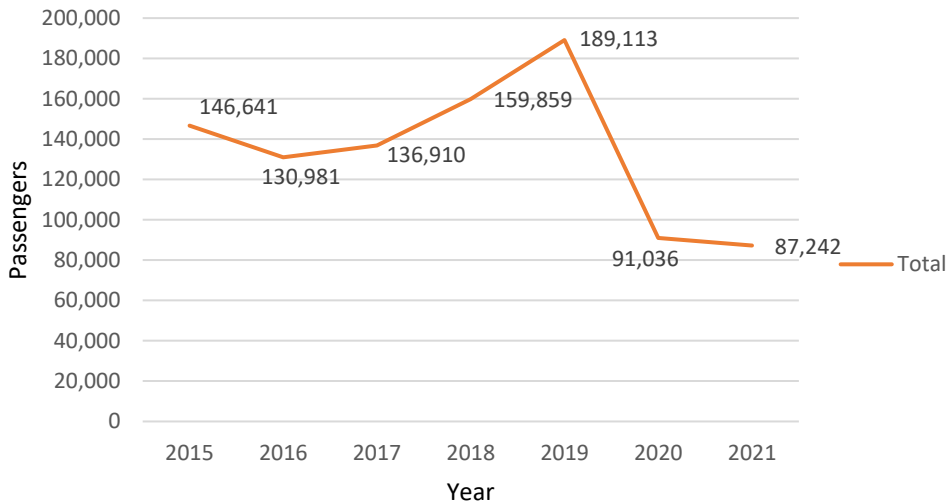
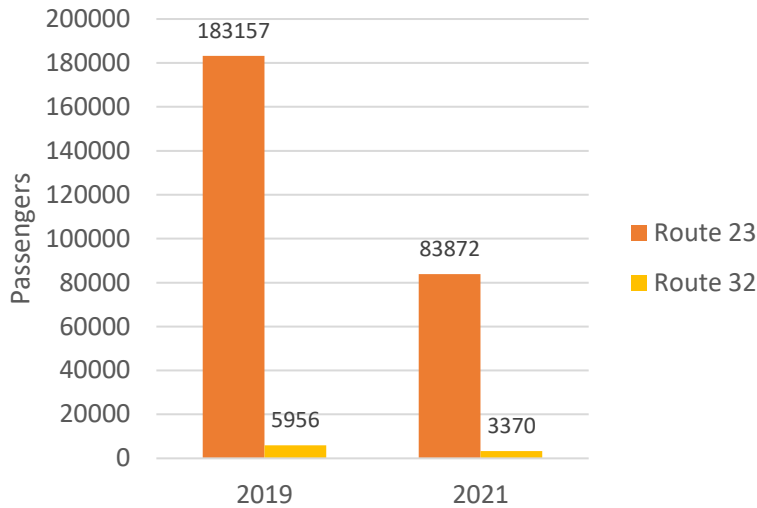


Figure 1: Long Term System Annual Ridership 2015-19 (Farebox data)



Route 23 experienced significantly higher usage than Route 32 in 2019, as can be seen in **Figure 2**. When boardings and revenue hours are compared, it can be seen that Route 23 had a larger sum of boardings than sum of revenue hours, indicating resource efficiency, whereas Route 32 has more resources being pumped in than being used, as seen in **Figure 3**.

Figure 2: Annual Boardings for 2019 and 2021 (Farebox data)

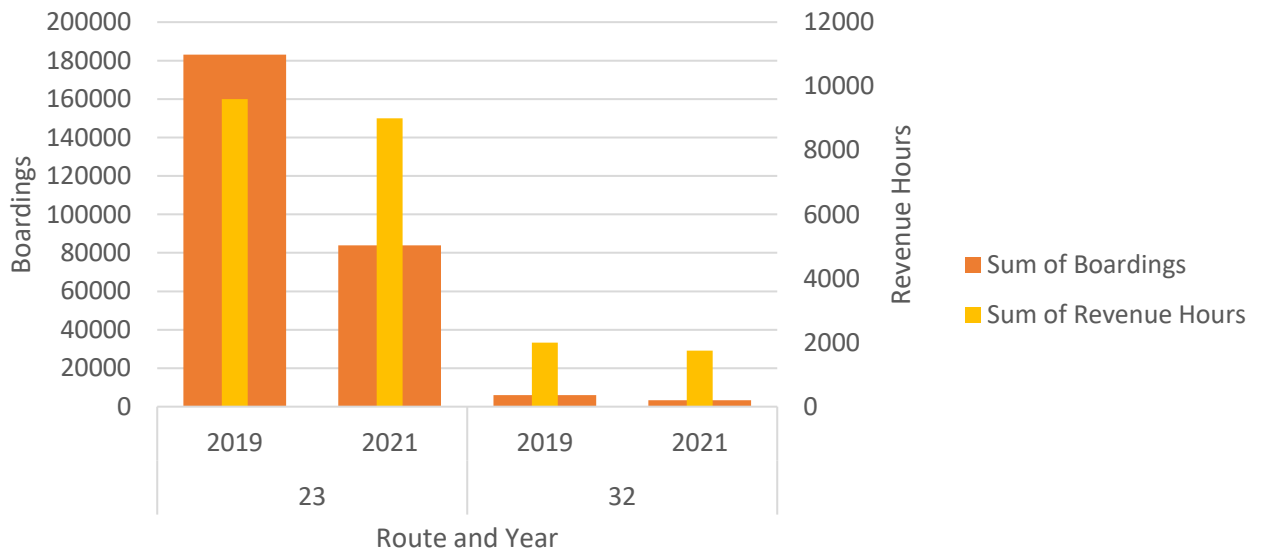


Figure 3: Annual Boardings and Revenue Hours comparison by Route for 2019 and 2021 (Farebox data)



Post -COVID Transit System Performance

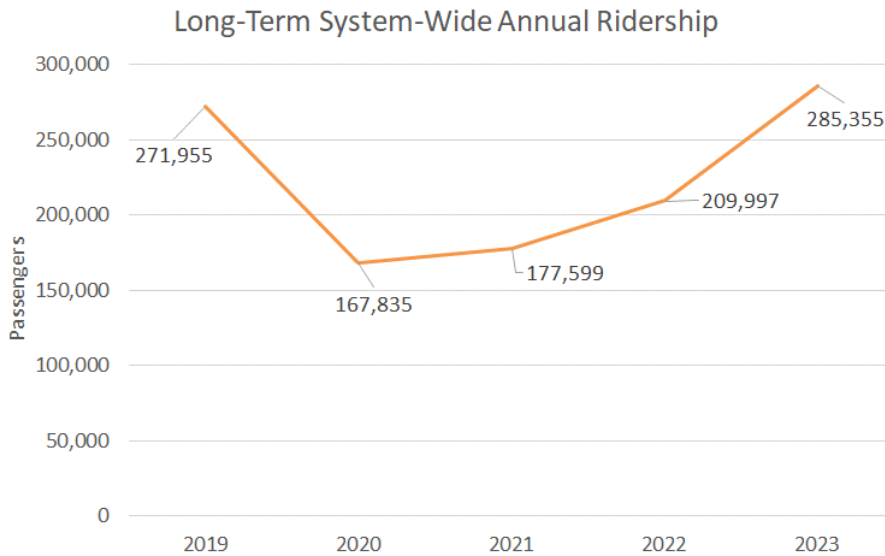
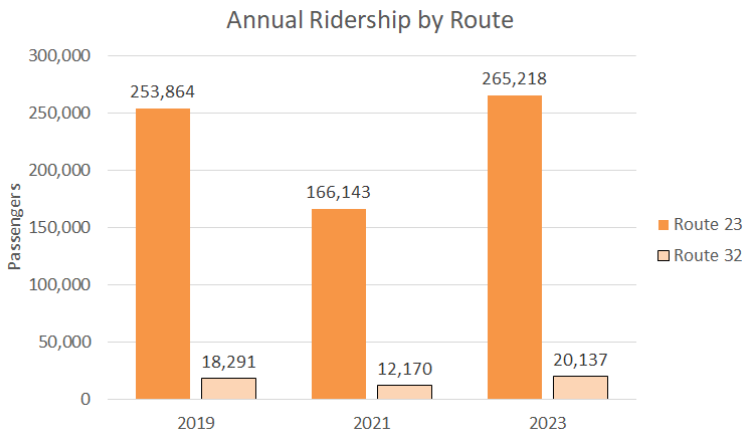


Figure 4: Annual Boardings from 2019 (APC data)

A post-COVID increase in ridership for the Lake Country routes is illustrated in the graph above. While not confirmed through analysis, the high numbers of international students as well as the provincial policy allowing children under 12 ride transit for free could be contributing factors to the increase in ridership, coupled with the general freedom of travel that has now returned universally, are likely contributing to the higher ridership numbers.



This graph illustrates how the post-COVID ridership increases are seen in both route 23 and 32.

Figure 5: Annual Boardings comparison between Routes 23 and 32 (APC data)

APPENDIX B
ENGAGEMENT RESULTS



One of the key objectives of the second phase of the ITS was to get feedback from the community.....feedback about transit in the community, what people’s transit needs are, and what they think about the options being proposed. The next few pages discuss the results of this engagement effort.

Purpose & Objectives

The purpose of the community engagement component in Phase 2 was to receive community feedback on mobility needs and the proposed service strategies for future transit improvements.



Integrated Transit Strategy

- Strategy #1: Summer Shuttle
- Strategy #2: On-Demand Service
- Strategy #3: Route 23 Modifications
- Strategy #3: Fare-free Transit

LAKE COUNTRY
Life. The Okanagan Way.

We want to hear from you!

The District of Lake Country is exploring methods to improve transit and mobility options in Lake Country with the **objective of increasing transit ridership**. We are engaging with the community to better understand community mobility needs and travel patterns and to get feedback on conceptual strategies for future transit improvements.

Tell us what you think:

Come chat with us at the **Community Appreciation Party on Friday, September 15th at Swalwell Park!**

3:00 PM – 7:00 PM
Friday, September 15th
Swalwell Park
10070 Bottom Wood Lake Road

Stay tuned on letstalk.lakecountry.bc.ca for a survey starting September 21st

Key Messages & Engagement Tools

The online survey was promoted in the community via social media posts on the District of Lake Country’s accounts and word of mouth at the Community Appreciation Event. In addition, a link to the survey was circulated to contacts of the specific groups.

For targeted engagement, groups were contacted via email and telephone using contact information provided by the District and/or publicly available information online. The groups were provided with a brief overview of the project and an invitation to participate in an in-person or virtual conversation to discuss transportation needs, review the service strategies, and gather feedback. Out of the four groups contacted, a representative of UBCO participated in a conversation. To garner more feedback, all



transit riders were publicly invited to participate in a virtual workshop where participants were provided an explanation of each service strategy, an opportunity to ask questions, and time to respond to the survey.

Timeline

All engagement activities took place between August – December 2023.





What We Heard

The survey received a total of 141 responses, representing just under 1% of the District's population. Approximately 50 people provided feedback during the Community Appreciation Event at Swalwell Park on September 15, 2023, and 12 people participated in the Transit Riders Workshop on November 9, 2023. Responses from all activities have been combined to present level of support for each strategy.



Respondents were asked how they would prioritize the implementation of the strategies, with 1 being the highest priority and 4 being the lowest priority, with the results being the following:

- **First Priority:** Strategy #3: Route 23 Modifications
- **Second Priority:** Strategy #1: Summer Shuttle
- **Third Priority:** Strategy #2: On-Demand Service
- **Fourth Priority:** Fare Free Transit

Survey respondents and community appreciation event attendees were provided with the opportunity to give general feedback regarding improving the transit system in Lake Country. The most common general themes that emerged are as follows:

- Improve frequency (on weekdays and weekends).
- Provide more service within Lake Country to residential areas (Lakestone, Carr's Landing, Oyama, Okanagan Centre).
- Improve pedestrian, cycling and bus stop infrastructure to access the transit system more conveniently and comfortably.

Targeted Engagement: UBCO

The project team met virtually with the UBCO Students' Union president to discuss students' travel needs and gather feedback on applicable service strategies (Strategy #3: Route 23 Modifications).



While most of the points discussed related more closely to BC Transit and the City of Kelowna, relevant comments for the District of Lake Country include:

- Students do not typically travel from campus to Lake Country for reasons other than it being their place of residence.
- During poor weather conditions, students typically will not travel to campus (instead of opting for using transit).
- Support for the Strategy #3: Route 23 Modifications, especially considering the development of the new downtown campus.

Demographics

The survey included several demographic questions which allowed for participant population analysis. The following results are specific to the survey only and do not reflect the demographics of the participants who provided feedback at the Community Appreciation Event.

Age

The survey asked respondents to identify the age groups of people within their household. As shown, most respondent households had members over the age of 60 (34%), followed by 19 years and under (24%) and 40 to 49 years (17%). Thus, seniors and youth were represented most out of the survey respondents, with less representation from those who are 20 to 39 years of age.

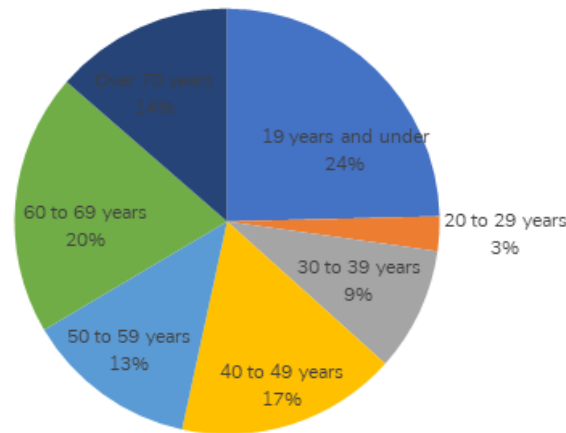


Figure 6. Age of Survey Respondents



Household

Almost half of survey respondents have a two-person household (41%). The next most common household numbers were four people (18%), three people (17%), and five people (10%). The highest number of people in a household was indicated to be seven people by 4% of respondents.

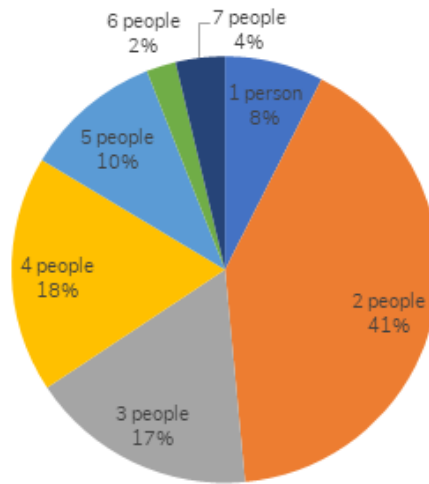


Figure 7. Number of People in Household for Survey Respondents

Geographic Representation

Over half of survey respondents live in Lake Country – Winfield (55%) as shown in Figure 4 below. Few respondents were from outside of Lake Country (2% from Kelowna and 1% from Vernon).

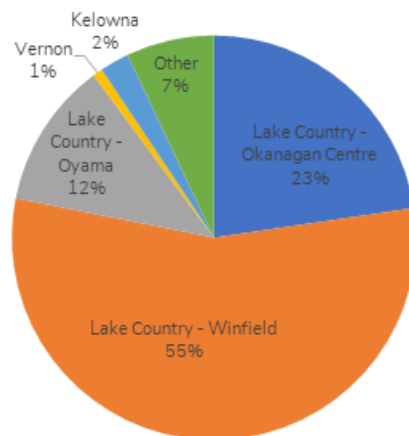


Figure 8. Geographic Representation of Survey Respondents



Travel Patterns

Respondents were asked a series of questions pertaining to their existing travel patterns to understand where, when, why and how people are getting around the District.

Top Destinations

When identifying the top three destinations that respondents travel to regularly, it was found that Kelowna (32%) and Lake Country – Winfield (30%) are the top destinations, followed by Vernon (18%). Very few respondents regularly travel to Carr’s Landing (2%). Figure 4 shows the distribution as to where respondents are travelling to regularly.

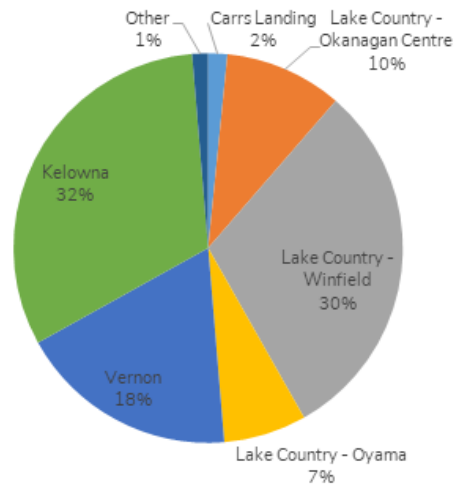


Figure 9. Top Destinations for Survey Respondents

Place of Residence

In a comparison of where respondents live to where they travel to regularly, those living in Carr’s Landing primarily travel to Kelowna, followed by Vernon and Winfield; respondents living in Okanagan Centre primarily travel to Kelowna and Winfield; respondents living in Winfield primarily travel to Kelowna and within Winfield; and respondents living in Oyama primarily travel to Winfield and Vernon.

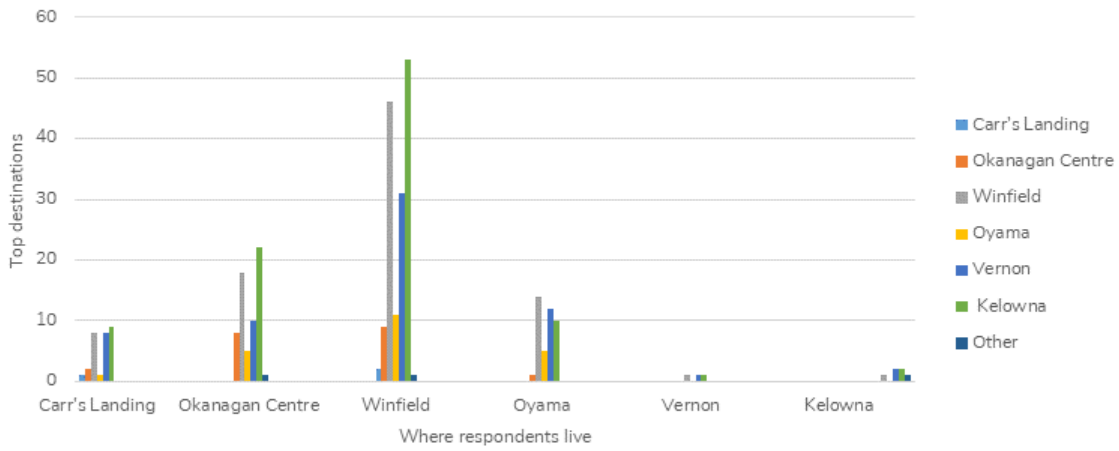


Figure 10. Top Destinations by Where Respondents Live

Travel Frequency

In terms of how often respondents travel, most travel to their top destinations a few times a week (41%) followed by every day (35%), shown in Figure 7

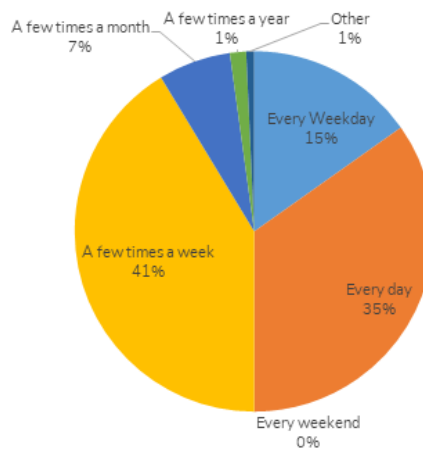


Figure 11. How Often Survey Respondents Travel to Top Destinations



Purpose of Travel

When asked for their main purpose of travel, respondents indicated that shopping and recreation to be the most common, as summarized in Figure 8.

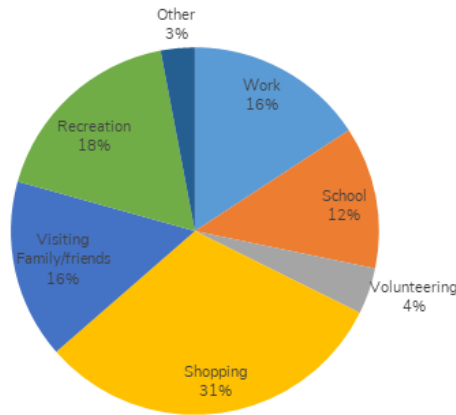


Figure 12. Top Trip Purposes for Survey Respondents

Travel Method

Respondents were asked to indicate their main method of travel. Majority use a private vehicle as their main travel method (74%), with 17% indicating to use the bus, shown in Figure 8. Almost all of the survey respondents own or have access to a vehicle (90%), shown in Figure 9.

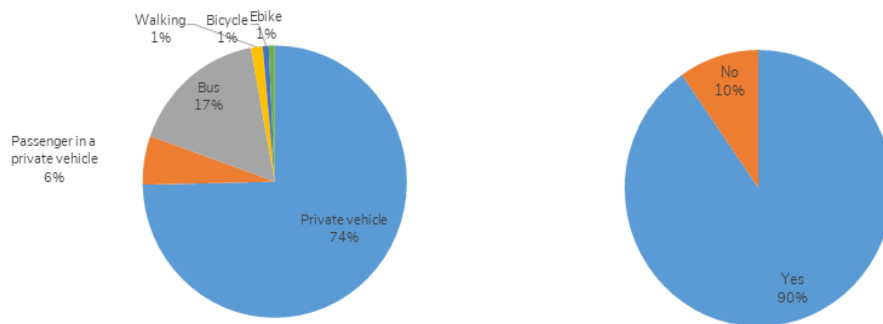


Figure 13 & 14 Survey Respondents Top Method of Travel



Strategies & Priorities

Both the survey respondents and attendees at the community appreciation event were provided with descriptions the four service strategies in terms of their purpose, proposed scope, and proposed service area. Respondents and attendees were asked to indicate their level of support for each option, summarized together for each strategy in Figures 11 – 14 below.

The highest overall level of support was shown for Strategy #1: Summer Shuttle (75%), followed by Strategy #3: Route 23 Modifications (70%). Strategy #4: Fare-free Transit received the most opposition (29%).

Strategy #1: Summer Shuttle

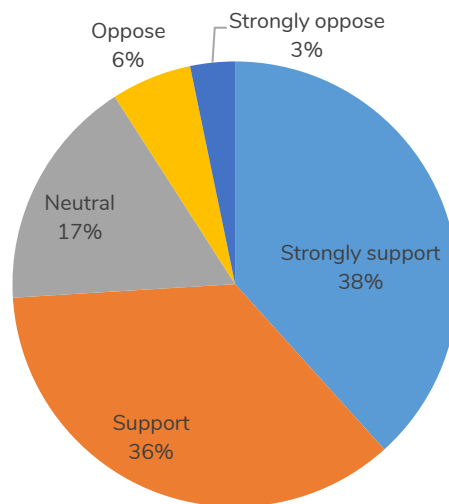


Figure 15. Level of Support for Strategy #1: Summer Shuttle



Strategy #2: On-Demand Service

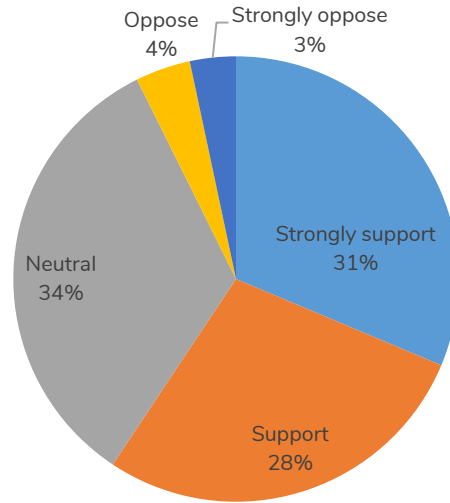


Figure 16. Level of Support for Strategy #2: On-Demand Service

Strategy #3: Route 23 Modifications

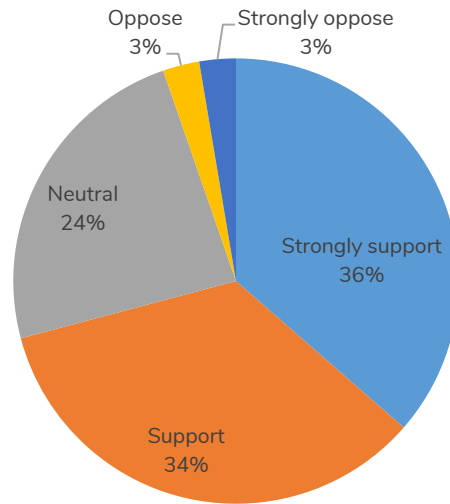


Figure 17. Level of Support for Strategy #3: Route 23 Modifications



Strategy #4: Fare-free Transit

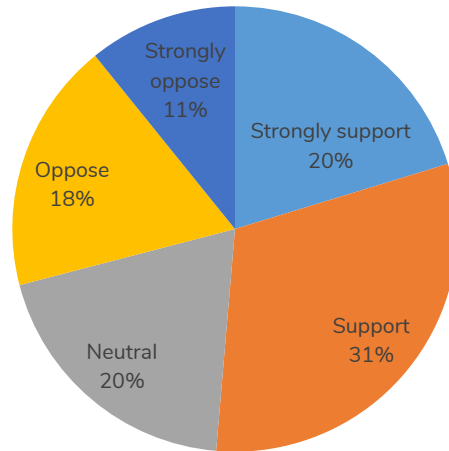
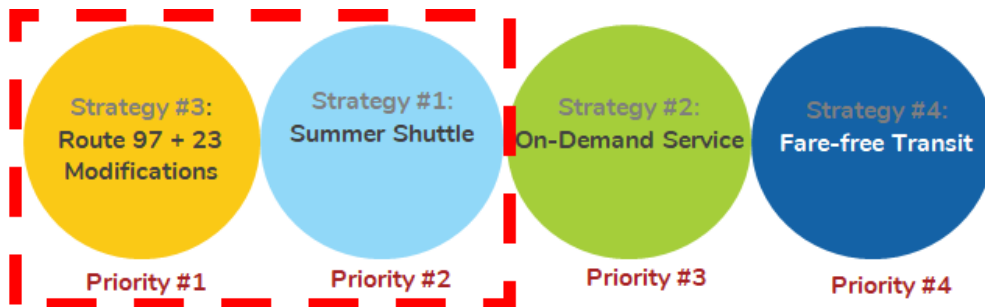


Figure 18. Level of Support for Strategy #4: Fare-free Transit

Respondents were asked how they would prioritize the implementation of the strategies, with 1 being the highest priority and 4 being the lowest priority, with the results being the following:

- **First Priority:** Route 23 Modifications
- **Second Priority:** Summer Shuttle
- **Third Priority:** On-Demand Service
- **Fourth Priority:** Fare Free Transit





Transit Use Behaviour

As shown in Figure 14, 66% of respondents reported that they would be more likely to use transit in Lake Country if the strategies were implemented.

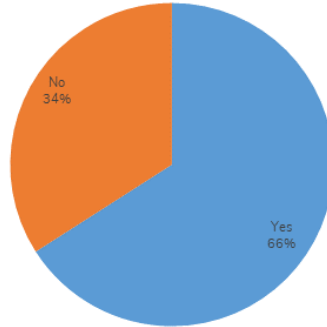


Figure 19. Likelihood of Using Transit if Strategies were Implemented

Motivators for Using Transit

To understand what currently makes transit attractive in Lake Country, survey respondents were asked to identify what motivates them to use the system in terms of Comfortability, Accessibility, Affordability, Reliability and Safety. The most common response was that the respondent(s) don't use transit in Lake Country (24%). Otherwise, Accessibility (18%) and Affordability (15%) were indicated to be the top motivators to use transit.

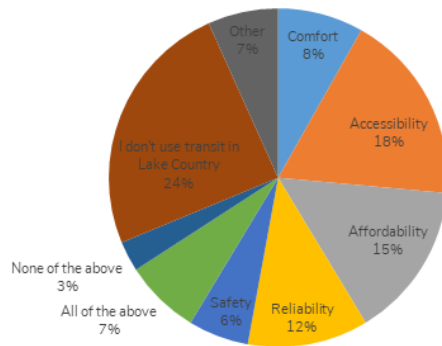


Figure 20. Motivators for Using Transit

APPENDIX C

STRATEGIES AND FINANCIAL IMPLICATIONS OF EACH




This Appendix provides a synopsis of all three strategies recommended at the end of Phase 2 of the ITS as well as overall cost and resource implications of each one of these strategies, concluding with a comparative table for the three recommended strategies.

Service Strategy #1: Summer Shuttle

Strategy #1: Summer Shuttle

Service Strategy #1: Summer Shuttle



How will this work?

- Start as a pilot project
- Start with least expensive option

Ridership Potential: ~12,500* per year to start with

- New route offered only in the summer months
- Brand new service that could be District administered, costs offset by other opportunities
- Estimated costs ~\$300,000 (ongoing operating costs estimated at ~\$200,000 (on the higher end)
- Potential to lease vehicles for pilot (not buy)
- Could be more cost-effective if BC Transit Operated (almost 50% cost-sharing)

Figure 21: Service Strategy #1 Overview

Implications of Recommendation	
Resource Implications	New funding(~ \$200,000) needed for introducing service and operating service on an annual basis
Capital implications	Potential need for 2 vehicles identified in preliminary calculations

Figure 22: Implications of Strategy #1 Recommendations

Different routing options were explored for the summer shuttle and the most financially viable option, a single loop (shown above) is what is recommended to be explored further.



Service Strategy #2: Digital On-Demand Service / Route 32

Originally this strategy was developed assuming reallocation of resources from the Route 32. However, given the increased ridership on the route 32, we now recommend exploring On Demand transit to address the mid-day gap in service on the Route 32. This can be done in collaboration with BC Transit, a rideshare service or by contracting out with an On Demand Transit (ODT) service provider. A comparison of the three is provided below.

How does each option compare at a high level?

	Option 1: BC Transit	Option 2: Rideshare service	Option 3: Contract with ODT service provider
Annual hours	1,750	1,750	1,750
Cost/ hr	~\$96/hr / (\$51/hr)	\$50/hr* / (\$25/hr)	\$80 to \$90/hr
Cost of bus/van (capital)	0	0	\$25,000
Cost of software	0 to \$2000/yr	0	\$2,000/yr
Days of service	250	250	250
Hours/day	7 hours	7 hours	7 hours
Operating cost	\$168,000/\$89,560	\$87,500/\$43,750	\$157,500+ \$25,000

*Assumes a 5 trips/hour average; Assumes an average fare of \$10 per trip based on a \$2.5 per km for a 4km average one-way trip distance.

*Costs in blue represent the local (DOLC) share of costs

Table 1: High Level Option Comparison of Potential Service Providers

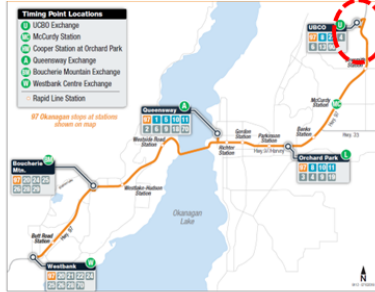


Service Strategy #3: Route 97 & Route 23 Modifications

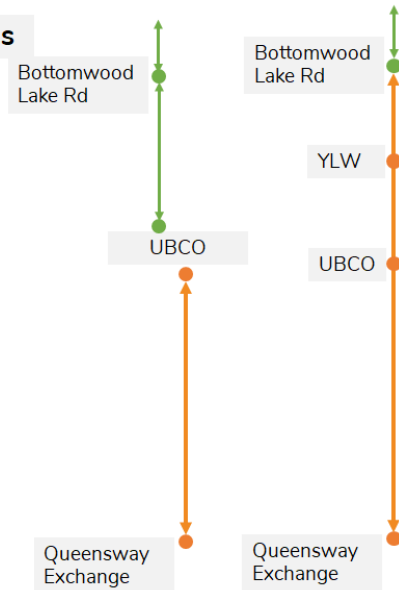
Reallocate some hours from the Rt 23 to extend Rt 97/Rapid Bus



Current Route 23 to UBCO

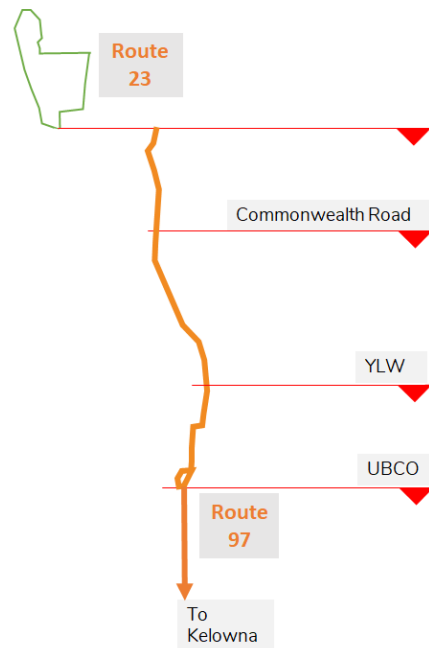


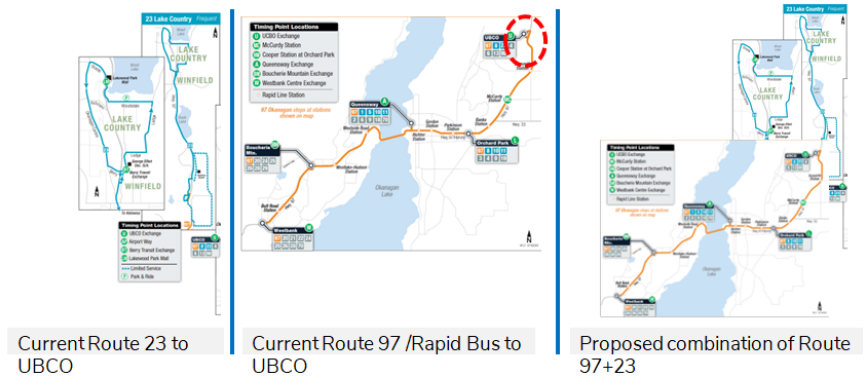
Current Route 97 /Rapid Bus to UBCO



How will this work?

- Route 23 shortens to end at Bottomwood Lake Rd and becomes the Rt 97 at Bottomwood Lake Rd
- These hours (~4000) are reallocated to extend the Rt 97 into District of Lake Country every half an hour
- Rt 23 will provide local connections
- Rt 97 (Rapid Bus) will provide regional connections
- Overall investment could be cost-neutral





- Ridership potential Strategy # 3, Rapid bus extension to District of Lake Country estimated at **~ 25,000 (~7 boardings/hr)**
- Potential to improve connectivity to regional centre (shopping/work) & UBCO (school)
- Indication from engagement that this strategy would encourage transit usage
- Kelowna in the process of reviewing connection to UBCO via Route 97/98 (**good timing to be coordinating a change on the Route 97 + 23**)

Figure 23: Service Strategy #3 Overview

Overall investment could be additional service hours (~4000) annually.

- Route 23 will provide local connections.
- Route 97 (Rapid Bus) will provide regional connections.

Implications of Recommendation	
Resource Implications	Reallocation of portion of existing hours from the Route 23 + additional hours (~4,000) likely needed to match current route 97 schedule
Capital implications	Potential need for 1 bus identified in preliminary calculations

Figure 24: Implications of Strategy #3 Recommendations



Summary of Service Strategies vs. Investment

Route	Current cost	Potential additional operating cost	Potential increase in ridership	Comment
Route 97/23 (Rapid Bus extension)	9,900 hours (~ 1.5 M/850K)	~4,000 hours (\$600 K/\$340K)	~ 25,000 (annually) (regional ridership)	Costs do not include capital requirements, estimate 1 bus needed, purchased by BCT. Potential to be successful in achieving objective
Proposed Summer service	N/a	~\$200 K <i>Local share of costs</i>	~12,500 (annually) (local ridership)	Costs do not include 1 bus + 1 spare, capital costs <u>will</u> vary depending on if vehicles leased or bought Potential to be successful in achieving objective

- Overall, additional investment required to improve mobility
- No changes to handyDART or Rt 90 are recommended at this time
- Mid-day improvements recommended for the Route 32

Table 2: High Level Comparison of Strategies

How does each Strategy compare at a high level?			
	Strategy 1: Summer Shuttle	Strategy 2: DODT	Strategy 3: Extension of Rt 97
Annual hours	New investment	Reallocation from Rt 32 (1,750 hours)	Reallocation from Rt 23 (4,000 hours)
Potential for ridership increase	~5 boardings/hr	~5 boardings/hr	~7 boardings/hr
Cost of bus/van (capital)	~\$100k	0	0*
Cost of software	0 to \$2000/yr	0	0
Days of service	125	250	250
Hours/day	10 hours	7 hours	10 hours
Operating cost	~\$165k - \$325k	\$87,500/\$43,750 <i>Not additional cost</i>	~500,000/\$266,550 <i>Not additional cost</i>
Current condition	Does not exist	Service exists, average of 2 boardings/ hour	Service exists but no direct connection to Kelowna, passenger transfer at UBCO; ~10 boardings/hour

* Potential for a new bus

Table 3: High Level Route Expansion Comparison

APPENDIX D
2022 LOCAL AREA TRANSIT PLAN

TRANSIT *future*

▶ *Local Area Transit* plan

LAKE COUNTRY

2022



Territorial Acknowledgement

We would like to acknowledge with respect that BC Transit carries out its work on the traditional territories of indigenous nations through out British Columbia

The District of Lake Country lies within the ancestral and unceded traditional territory of the Okanagan.

Here in Victoria we are on the lands of the Lkwungen People, also known as the Songhees and Esquimalt First Nations Communities.

We thank them for allowing us to live, work, and play on their lands.

Table of Contents

01

Lake Country Transit Vision

06

Engagement

11

Infrastructure Priorities

02

BC Transit Future Transit Initiatives

07

What We Heard

12

Moving Forward

03

Transit Today

08

Short-Term Service Priorities

13

COVID-19 Response

04

Transit Need

09

Medium-Term Service Priorities

14

Acknowledgements

05

System Performance

10

Long-Term Service Priorities

01 Transit Vision

Transit is a preferred choice for residents and tourists, attracting riders through comfortable, safe, accessible, convenient and reliable service.

The Lake Country Local Area Transit Plan (LATP) builds upon the Central Okanagan Transit Future Plan (TFP) and the Central Okanagan Transit Future Action Plan (TFAP) by establishing localized transit service and infrastructure improvements over the next one to seven years. These improvements have been prioritized into short, medium, and long-term categories based on a review of existing transit service, changes to land use and land use plans, and feedback collected through public engagement.

The LATP upholds community goals and objectives contained in the Lake Country Official Community Plan and works to strengthen the link between transportation and land-use in support of sustainable growth. The Plan also serves to inform any future local or regional transportation plans.



Alignment of transportation and land use planning



Coordinated approach to make transit the preferred choice



Transit is both accessible and equitable



Development of transit to integrate with active modes



Transit links to key destinations, including parks, schools and the airport

02 BC Transit Future Initiatives

Low Carbon Fleet Program

First deployment of electric buses will happen in the Victoria Regional Transit System in 2022.

BC Hydro will help determine the readiness of the electricity infrastructure to support electric fleets across the province. BC Transit will work with the Ministry of Transportation and Infrastructure to refine the anticipated funding requirements, for buses and new operation and maintenance facilities.

[Low Carbon Fleet Program](http://www.bctransit.com/low-carbon-fleet-program)

www.bctransit.com/low-carbon-fleet-program

Electronic Fare Strategy - Umo Platform

Smart ticketing providing new ways to pay. BC Transit is working to not only improve rider convenience but also enable mobility partnerships and create new data collection opportunities. Systems will also accommodate a mix of fare products, including cash fares. The system will also be able to operate in areas with low-cell phone coverage/service.

[Umo Platform](http://www.bctransit.com/umo)

www.bctransit.com/umo

Digital On Demand

Digital On Demand transit uses technology to dynamically dispatch a bus, van or fleet of vehicles dictated by riders. BC Transit is currently completing a feasibility to determine how and where digital on demand transit may be delivered in communities across BC.

A service priority can be found in Chapter 09.

Next Ride

Door to door journey planning. Provides bus location information to customers via transit apps, enhances operations control and route information for the operator.

[Next Ride Kelowna](http://nextride.kelowna.bctransit.com)

nextride.kelowna.bctransit.com



Development Referral Program

Local governments or developers can send any referrals and supporting information to BC Transit to review and provide comments to the local government or developer about how the proposal may effect current of future transit service and infrastructure and how the application or plan could be changed to better support current or future transit service and infrastructure.

[Referral Program](http://www.bctransit.com/development-referral-program)

www.bctransit.com/development-referral-program

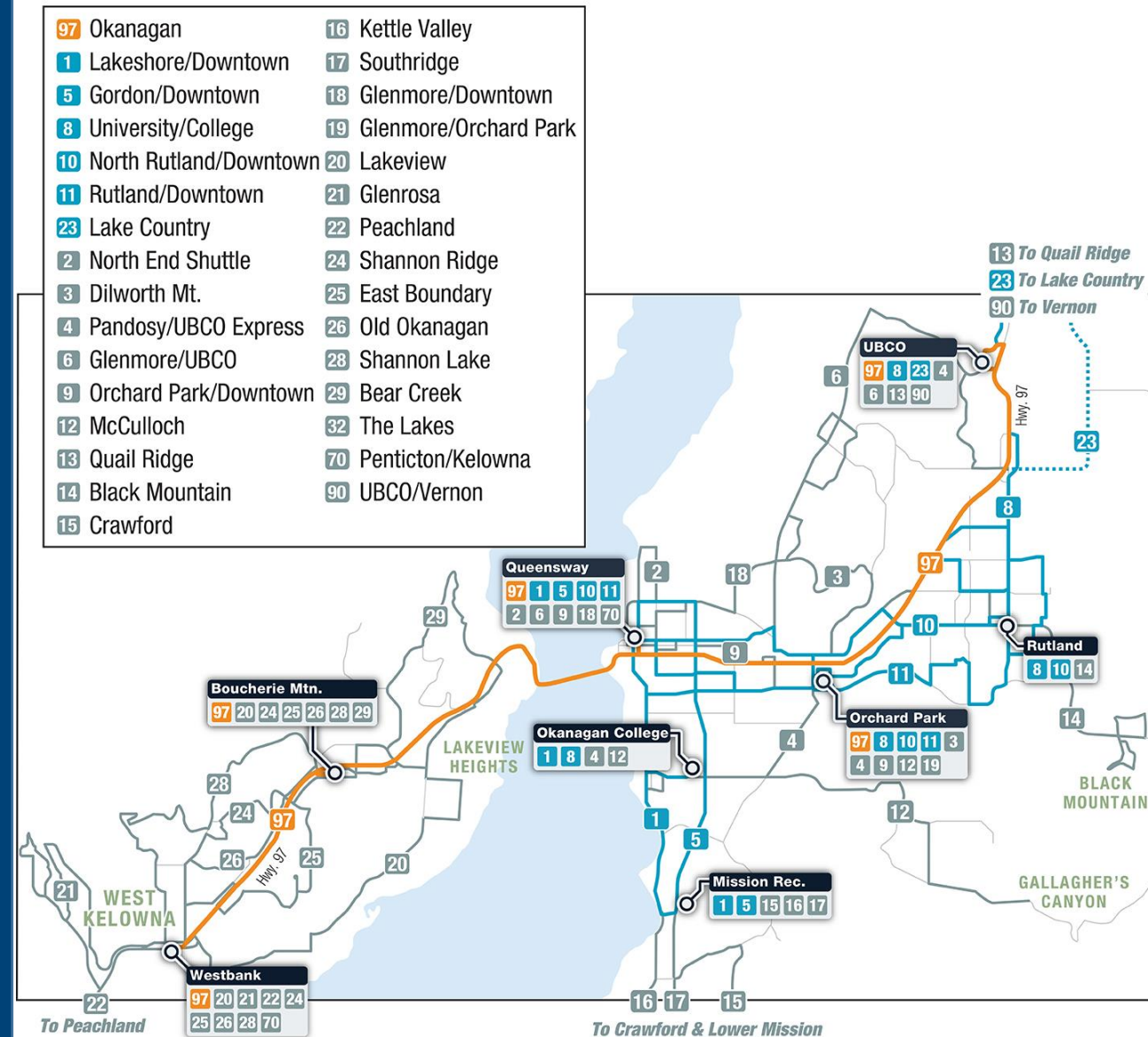
03 Transit Today

Part of Kelowna Regional Transit System

Lake Country falls within the Kelowna Regional Transit System and is located farthest north of the system service area. The system also includes Kelowna, Westbank First Nation, West Kelowna and Peachland.

Established in 1997, service in the Central Okanagan has expanded to 87 vehicles carrying 5,939,178 passengers in 2019, a 22% increase over the past five years. Ridership has dropped considerably in 2020/21 to 2,642,332 total passengers due to the COVID-19 pandemic. The system operates utilizing over 208,000 annual service hours. Service expansions have occurred incrementally as resources have become available. Final decisions on fares, routes, and service levels are made by the partners within the Kelowna Transit System.

Today, the Kelowna Conventional Transit System consists of 30 routes and 87 vehicles.



03 Transit Today

District of Lake Country

Contrasting the beautiful waterfront and winery estates, Lake Country also boasts major centres for population, employment, services and activities. Lake Country contains two local routes, 23 Lake Country and 32 The Lakes.

Lake Country is primarily an **auto-oriented community** due to its geography. Within Lake Country's Mobility Master Plan, Lake Country has set a goal to expand transit ridership by increasing its **transit mode share from 2% to 10% by 2040**. As technology evolves and the population increases, an opportunity to change transportation habits exists. By promoting public transit and other sustainable modes, Lake Country can be prepared for a shift to more sustainable transportation habits.


Community Map
-
Lake Country


Legend

- Schools
- Town Centre
- Roads

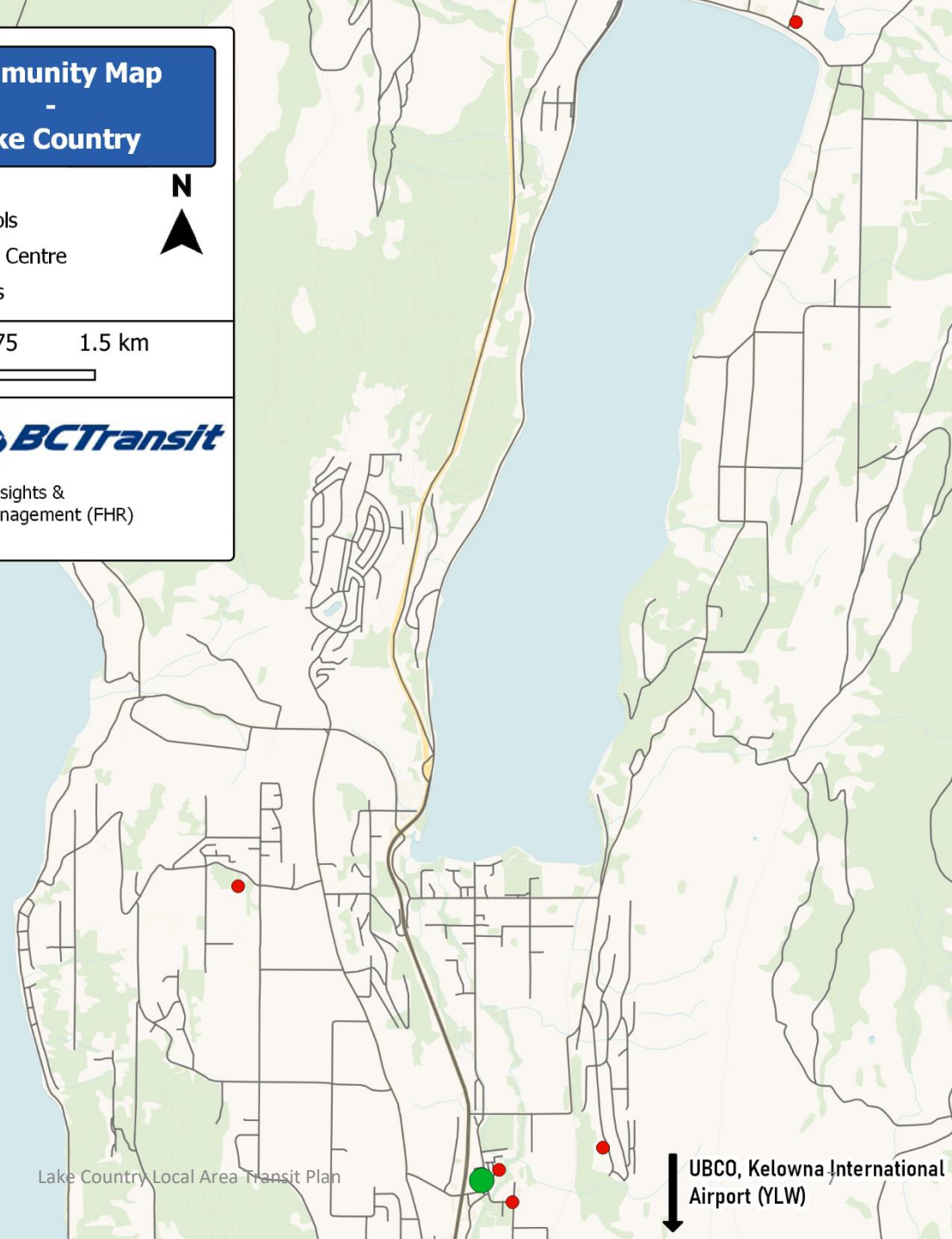
N

0 0.75 1.5 km



 **BC Transit**

Performance Insights &
Information Management (FHR)
Date: 2/2/2022



Lake Country Local Area Transit Plan

↓ UBCO, Kelowna International Airport (YLW)

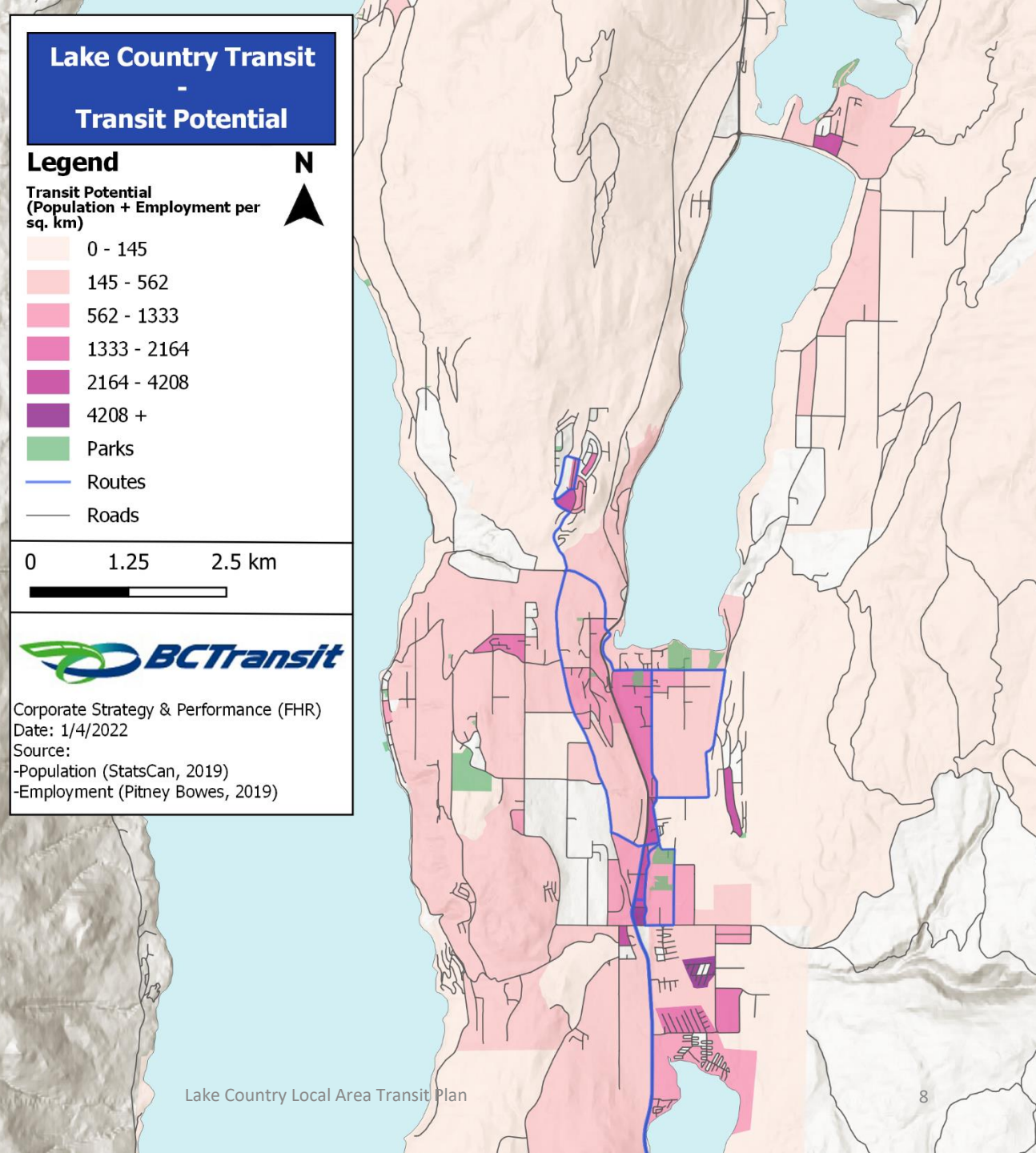
04 Transit Need

Who is Lake Country?

The District of Lake Country shares its southern border with the City of Kelowna. Lake Country's population has increased 22% between 2016 and 2021 sitting at 15,817. The geographic bounds of Lake Country include four distinct neighbourhood wards which are Carr's Landing, Okanagan Centre, Oyama and Winfield.

Lake Country transit is connected primarily to the University of British Columbia where it connects with the Rapid Transit line 97 Okanagan, providing service throughout the Central Okanagan. This creates the majority of the ridership demand, which helps provide higher service levels to the main spine of Lake Country; however, it requires a careful balance to ensure the needs are met for both local and more regional travel needs.

This plan seeks to develop a future network with these key challenges and opportunities in mind.



05 System Performance

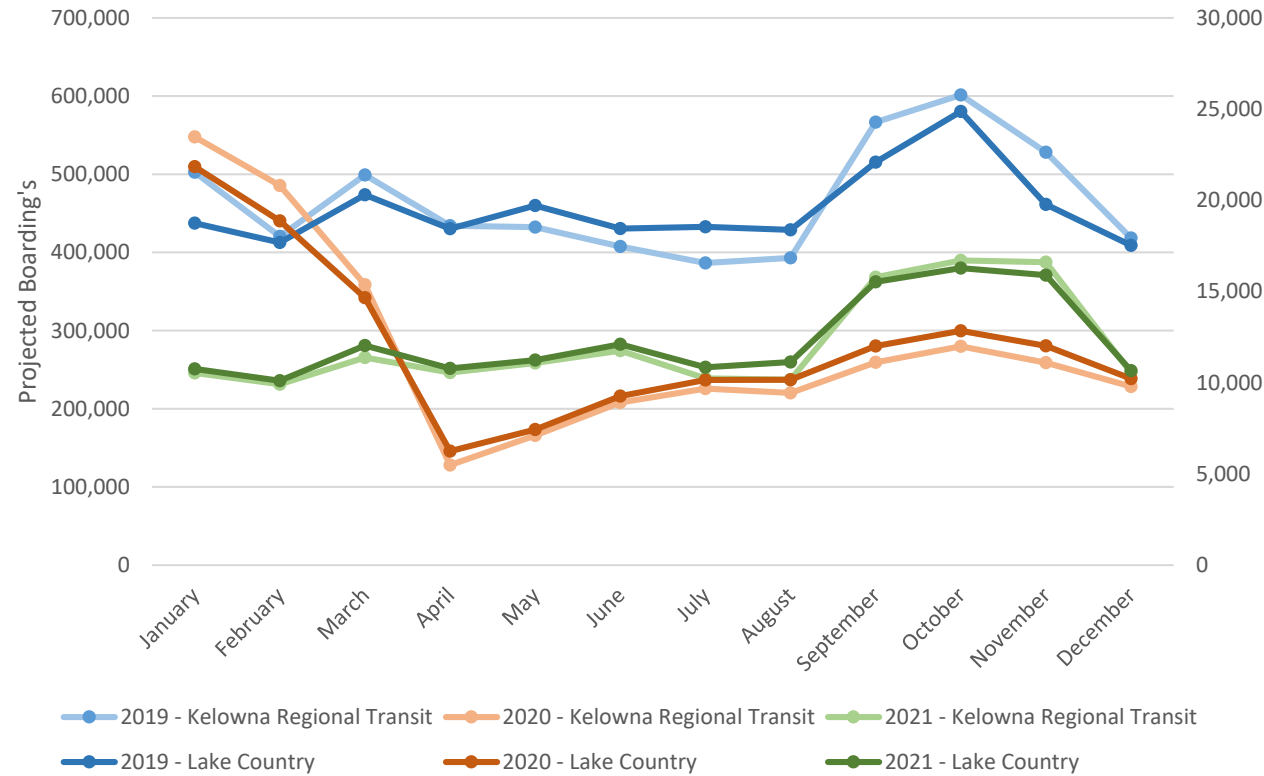
Ridership by Month

Transit ridership in Lake Country peaks in the fall, and drops in December following the same trend as the rest of Kelowna. Ridership rebounds slightly in spring, and decreases again until the following fall. Ridership has begun to rebound since the Covid-19 pandemic, operating at approximately 50% of pre-pandemic ridership.

Key Takeaways

- Boardings per month increased an average of 30% from 2020 to 2021 during the fall (September to November).
- Pre-Covid, ridership in Lake Country performed strongly during the summer months in comparison to the rest of the Kelowna. However, post-Covid Lake Country has performed on par with the rest of the system throughout the summer – potentially indicating a decrease in tourism activities.

Ridership by Month



30%

Boarding's per month
(2021 vs. 2020 post-Covid)

37%

Boarding's per month
(2021 vs. 2019)

200+

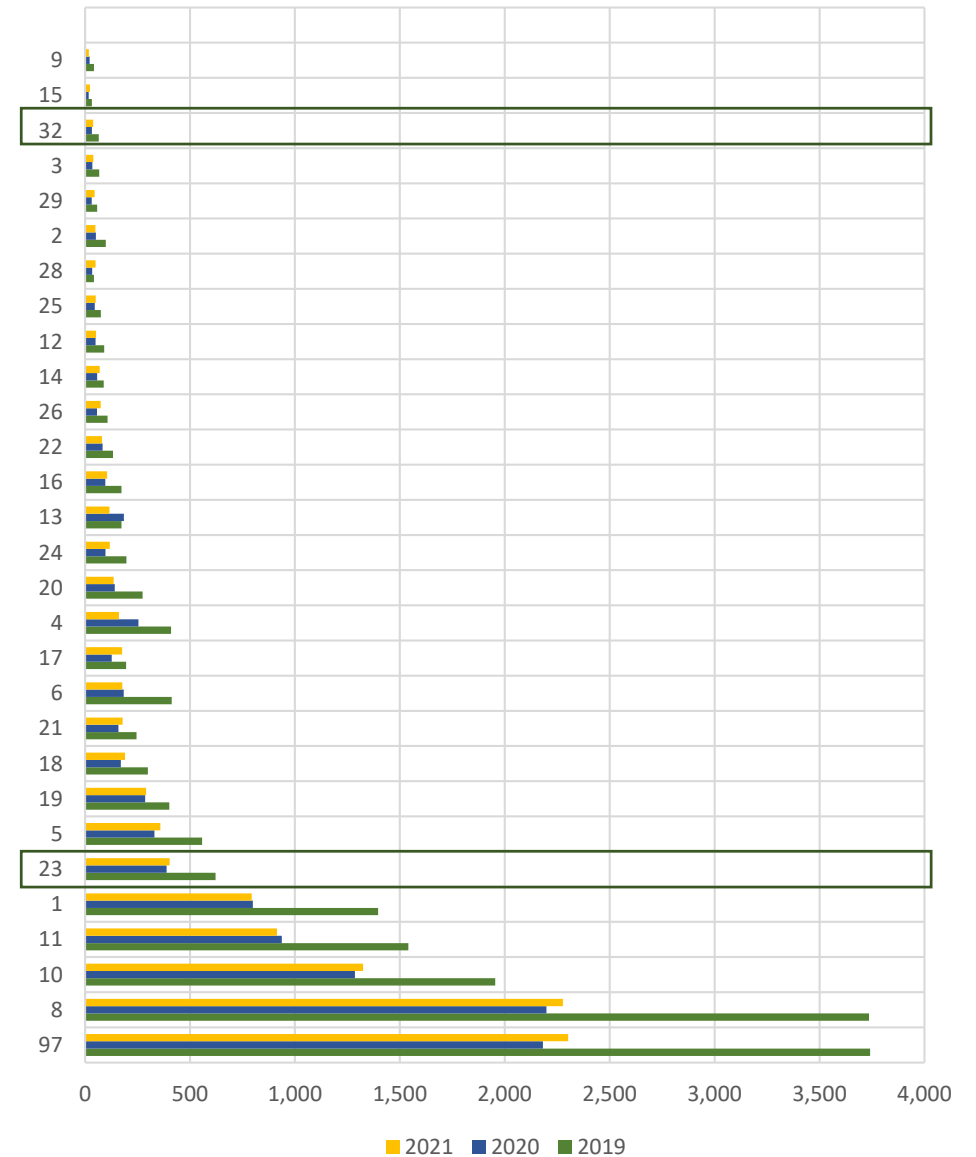
Average monthly
boarding's following
April 2020

05 System Performance

Total Ridership

- **Route 23 Lake Country** moves the 6th most people out of all routes in Kelowna each day. After losing 37% of its ridership between 2019 and 2020, it gained 4% back in 2021.
- **Route 32 The Lakes** only moves 38 people a day, a 41% loss of ridership since 2019.
- The highest performing routes (**8 University** and **97 Okanagan**) both connect to UBCO, the main connection hub to **23 Lake Country**.

Total Boarding's per Day



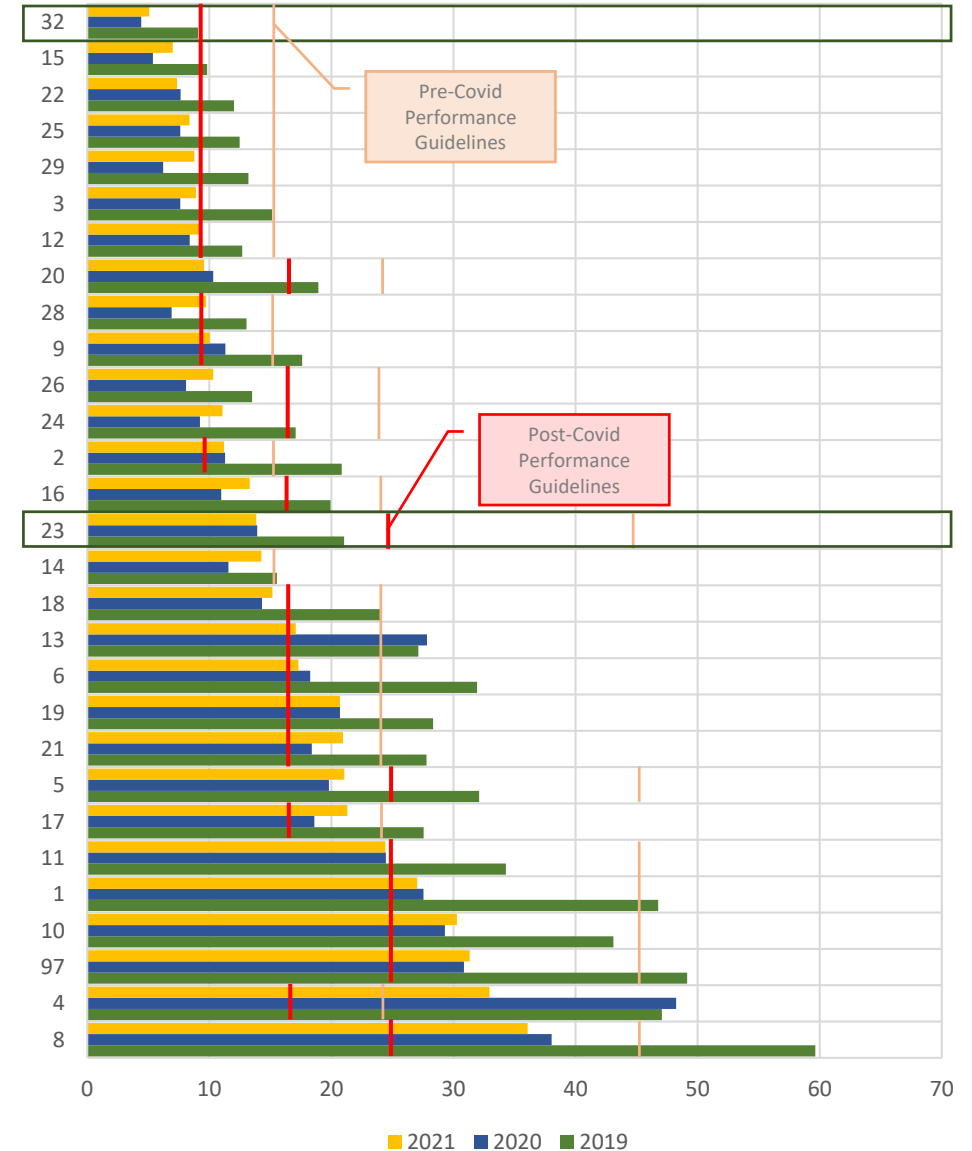
05 System Performance

Boarding's per Revenue Hour

Kelowna follows specific guidelines as part of ongoing management of the network. They identify recommended minimum service levels for the specific route. These metrics have been modified due to the pandemic based on the system-wide decrease of ridership, as shown on the graph to the right.

- **Route 23** has not seen an increase in productivity from 2020 to 2021, unlike most other routes in the Kelowna system. It is performing below the system's performance guidelines.
- Although important for providing basic service access to residents and employees throughout Lake Country, local coverage **Route 32** is the least productive route in Kelowna, but has seen a 15% increase between 2020 and 2021.
- **Both routes should see changes to ensure transit utilization improves in Lake Country.**

Boarding's per Revenue Hour



06 Engagement

How we Engaged with the Lake Country Community

As part of BC Transit's commitment to public engagement, outreach was carried out to identify draft service and infrastructure through workshops with key stakeholders as well as public engagement.

Engagement was launched online from January 8, 2021 to February 8, 2021. BC Transit also worked with Lake Country staff to deliver paper surveys in response to the communities request. Marketing to the community was facilitated through a variety of tools including: a project website, newspaper ads, radio ads, mail-out ads to residential addresses, and social media advertisements.



139 Survey Respondents



260 Total Comments



1,160 Page Views



Stay engaged

Check out the full engagement summary report and register for future updates.

engage.bctransit.com/lakecountry2021

07 What we Heard

Key Themes

Improved Frequency – General interest to increase service frequency on both **23 Lake Country** and **32 The Lakes**.

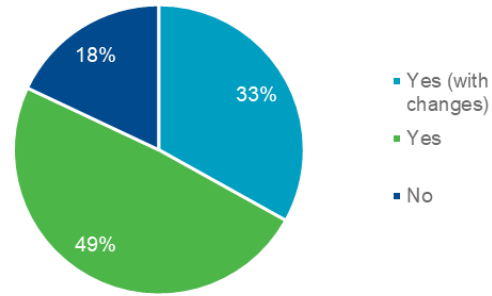
Support for New Routes – Generally, residents supported the proposed changes that the plan introduced, including the short-term and long-term restructuring. Specific information can be found in section 08 and section 09.

Airport Service - Desire for transit to serve the airport most efficiently by remaining largely on the highway.

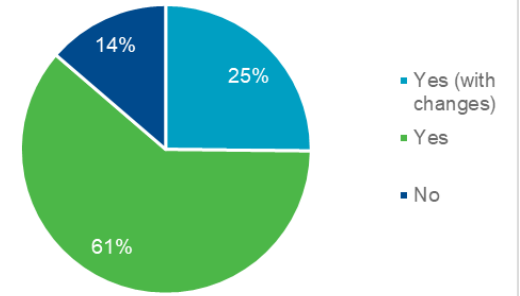
Expand Service Area – Providing service to communities such as Oyama and Okanagan Centre.

Infrastructure Improvements – Access to bus stops with lighting and shelter coverage.

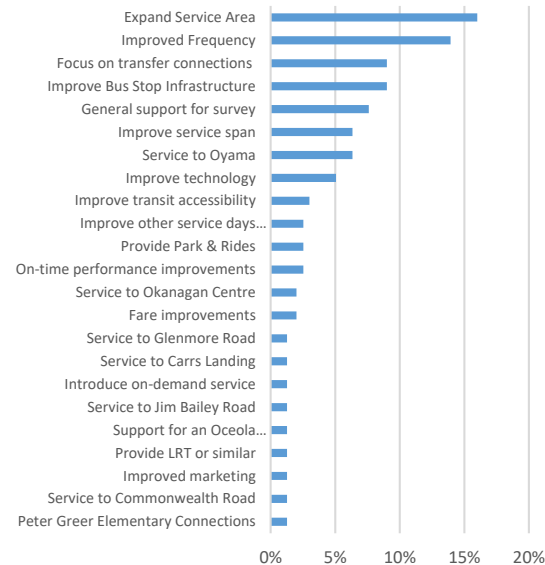
Short-Term Network Proposal Support



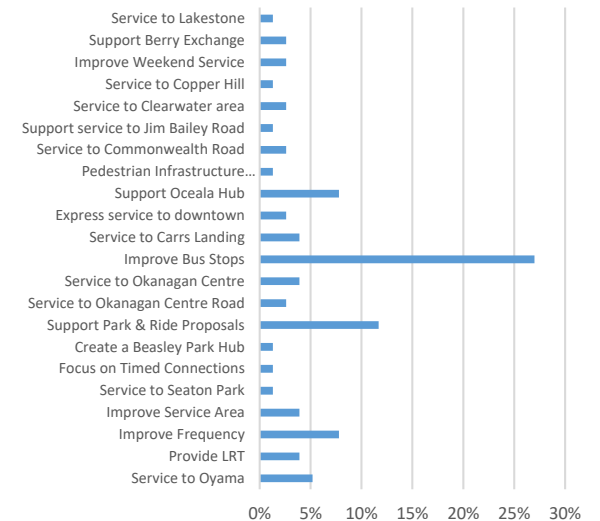
Long-Term Network Proposal Support



Other Improvement Themes



Infrastructure Improvement Themes



08 Short-Term Service Priorities (1 to 2 years)

Priority	Description	Expansion Resources
Restructure 23 Lake Country within Lake Country	Modify existing 23 Lake Country to serve areas of higher density and provide bi-directional service along main corridor.	+100 service hours
Restructure 32 The Lakes	Modify existing 32 The Lakes to provide service to more of Lake Country.	1,200 service hours
Add limited service to 32 The Lakes	After the initial year of service, expand local route to incorporate limited trips to Davidson Road and Sherman Drive.	200 hours
	Total Service Hours and Buses Required	1300 service hours
	Estimated Local Share of Costs *	~ 34,000\$ to 44,000\$

**This cost estimate is based on the share that Lake Country would contribute through their Annual Operating Agreement. Other costs that may be incurred due to system improvements for the Entire Kelowna Regional Transit System may impact the final cost.*

Local Network Restructure

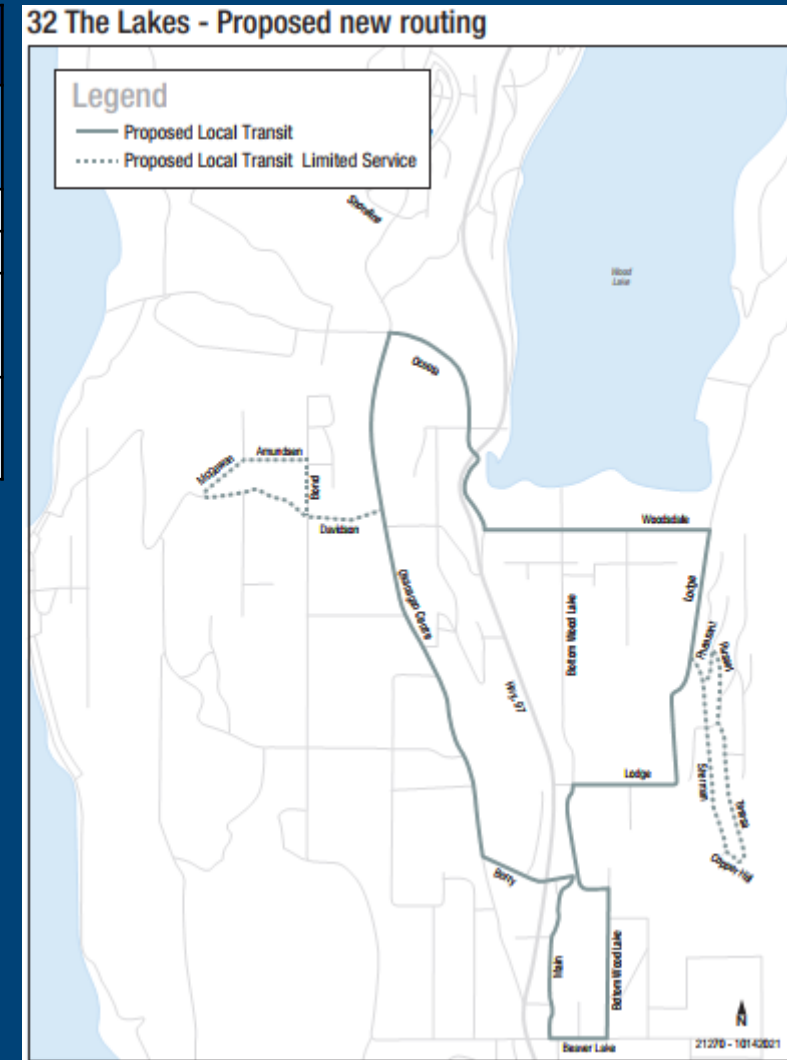
New local and frequent transit network will be able to provide more service area coverage, and provide faster service between Lake Country and Kelowna.

To improve transit in Lake Country, engagement supported the modification of the local network, 32 The Lakes*. This modification would see the route provide service along Okanagan Centre Road and Lodge Road/Woodsdale Road. To further improve the local network, additional, limited service has been included to provide service to Davidson Road area as well as Sherman Drive.

Public engagement also supported better midday and early evening service frequency from the originally proposed 2 hour frequency. The proposal has seen a modification to include hourly service within those times. Service will remain at 30 minutes as exists now during the regular peak commuter times. **Plans to improve frequency in the summer as compared to the rest of the year should be considered in the future to address growing demand in those months. Currently it is unwarranted due to ridership not fluctuating through each season. As ridership grows, additional service can be added to the summer on 32 Lake Country*.**

Local Transit Network (32)			
Targeted Service Span and Frequency			
Service Span	Weekdays	Saturdays	Sundays
	6:00am to 12:00am	7:00am to 12:00am	8:00am to 12:00am
Peaks	30 min	30 min	45 min
Midday	60 min*	60 min*	120 min
Early Evening (6pm to 8:30pm)	60 min*	60 min*	120 min
Late Evening (8:30pm to 12:00am)	120 min	120 min	N/A

**Increased based on public engagement results*



1,200
Annual service hours

**The name of route 32 The Lakes will change after implementation to 32 Lake Country*

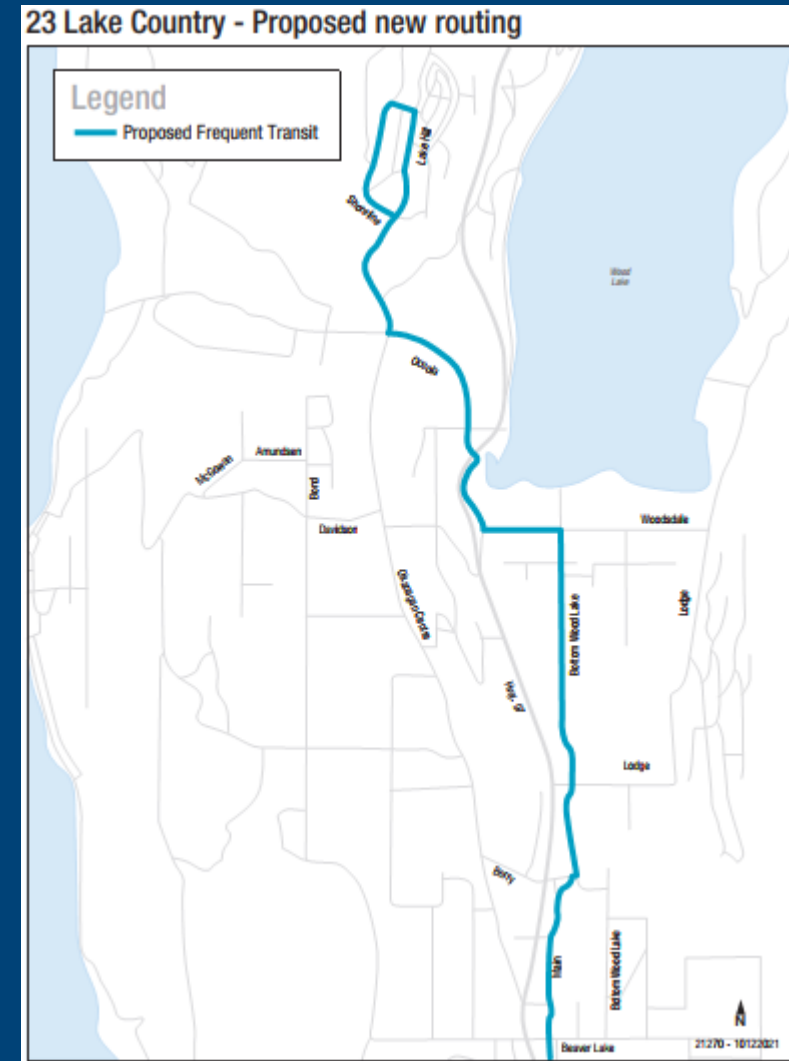
Frequent Network Restructure

New local and frequent transit network will be able to provide more service area coverage, and provide faster service between Lake Country and Kelowna.

To improve transit in Lake Country, engagement supported the modification of the frequent network, 23 Lake Country. This modification would streamline the route to run directly down Bottom Wood Lake Road and the core of Lake Country.

As this proposal reduces the service coverage of 23 Lake Country (supported by the modification to 32 The Lakes) This service change leads to a surplus of hours to be reallocated into the local transit service.

Frequent Transit Network (23) Targeted Service Span and Frequency			
Service Span	Weekdays 5:30am to 12:00am	Saturdays 7:00am to 12:00am	Sundays 8:00am to 12:00am
Peaks	20-30 min	30 min	45 min
Midday	30 min	30 min	60 min
Early Evening (6pm to 8:30pm)	30 min	30 min	60 min
Late Evening (8:30pm to 12:00am)	60 min	60 min	60 min



+100
Annual service hours

09 Medium-Term Service Priorities (2 to 4 years)

Priority	Description	Expansion Resources
Restructure Service at Kelowna International Airport	Modify existing 23 Lake Country to remove service from Airport Way, and provide more efficient service by remaining largely on the highway.	Infrastructure Investment
Pursue On-Demand Service design in Lake Country	32 The Lakes to be converted in part to an On-Demand Service.	Cost Neutral
Total Resources Required		Cost Neutral

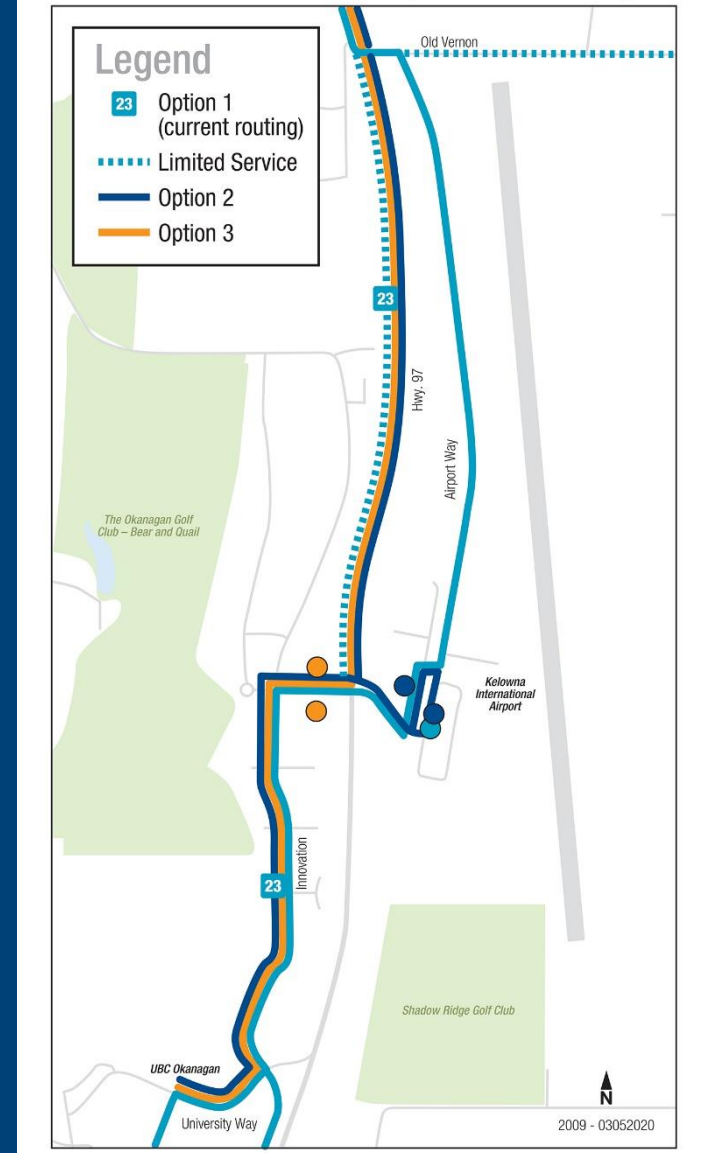
Airport Service Improvement

Modify access of 23 Lake Country to the airport

To ensure BC Transit and the District of Lake Country are providing the most effective service, options were presented to the public to gauge how airport service works, and if it could be done better. It was determined that service will follow Option 2 on the map to the right. This will remove service from Airport Way, and make 23 Lake Country more direct between the University of British Columbia and Lake Country. It will also improve on-time performance by remaining on the highway for a longer portion of the trip.

To pursue this improvement, infrastructure improvements will have to be made on the Kelowna Airport property to allow for the bus to turn around.

Kelowna International Airport Service Options



On-Demand Service in Lake Country

Modify 32 The Lakes to incorporate on-demand technology

This proposal looks to pursue converting the local transit service in Lake Country to an On-Demand Service. As seen on the image to the right, there are multiple types of on-demand transit service. This proposal would be implemented in phases, beginning with a **Flexible Routing** service design.

On-Demand Service Phasing		
Phase	Service Type	Timeline
1	Convert 32 The Lakes to an On-Demand Service. Provide flexible Routing opportunities by calling into Kelowna Transit up to one day in advance to allow for the bus to deviate up to 1 kilometre off of the fixed route.	2 years
2	Opportunity to work with BC Transit to consider modifying the service to incorporate Digital On Demand technology such as booking a trip using your mobile phone. Service may be modified to Curb-to-Curb Service .	3 years +



Flexible Routing

- Requires existing fixed-route service
- Requires street network accessible by standard transit vehicles
- Requires layover facilities to recover time and minimize delay
- Zone size is usually smaller than other on-demand formats
- Consider consolidating very low frequency routes in similar directions with a single flexible route



First/Last Mile Service

- Requires nearby higher-order transit
- Provides a wider catchment area and more spread-out and lower-demand trip generators
- Zones are typically less than 15-20 square kilometers
- Consider in residential or mixed-use areas nearby higher-order transit such as commuter rail or BRT, but beyond a comfortable walking distance



Shuttle Service

- Requires nearby higher-order transit
- Serves a limited number of trip generators within the zone, with service directed to higher-order transit
- Service is traditionally short distance
- Consider in employment areas nearby higher-order transit such as commuter rail or BRT, but beyond a comfortable walking distance



Curb-to-Curb Service

- Useful for providing large coverage of low-demand and widely distributed trip generators
- Zones are typically less than 15-20 square kilometers
- Demand in zone is generally too low and inconsistent over the service period to warrant attractive fixed-route transit
- Trips are localized within the zone
- Useful when expanding service into new areas on the urban fringe

10 Long-Term Service Priorities (5 to 7 years)

Priority	Description	Expansion Resources
Add new local route	Add additional route to supplement the Local Transit Network in Lake Country.	2,000 service hours, 1 bus
Improve frequency of 23 Lake Country	Add additional trips on 23 Lake Country to increase the span of 15 minute service frequency.	1,200 service hours
Add introductory service to new areas	Demand dependent, evaluate which area(s) could support a new route or an extension of an existing route.	~1,000 service hours to 3,000 service hours and 1 bus
	Total Resources Required	4,200 service hours and 1 bus to 6,200 service hours and 2 buses
	Estimated Local Share of Costs *	250,000\$ to 400,000\$

**This cost estimate is based on the share that Lake Country would contribute through their Annual Operating Agreement. Other costs that may be incurred due to system improvements for the Entire Kelowna Regional Transit System may impact the final cost.*

New Local Transit Route

An additional local transit route will be added to Lake Country

As demand grows within Lake Country, a bi-directional loop will not be sufficient. Therefore it is recommended that an additional route is added to provide east and west service separately. This will provide more convenient service that operates more frequently, and less opportunity for on-time performance issues (fewer late buses). Depending on the year of implementation, total service hours may change.

2,000
Annual service hours

1
Medium-duty vehicle



Service to New Areas

Evaluate next area to provide service to in Lake Country

As Lake Country grows and the density of neighbourhoods increases, providing service to new areas will be a necessity. The areas outlined on the right are all potential locations to provide additional service*.

Demand dependent, these areas will be prioritized and presented to Lake Country to determine which should be implemented. Service may be provided to these areas with either a new route, or a modification of the local transit within Lake Country.

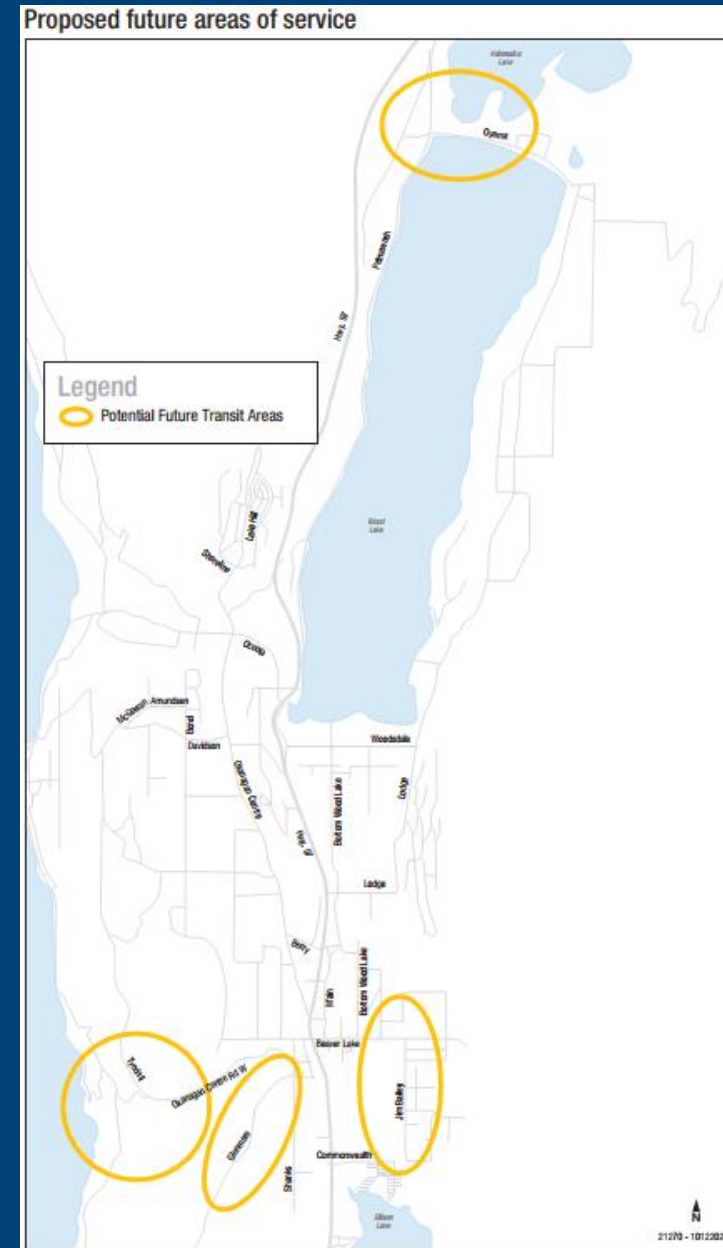
**If on-demand service is implemented, these areas will already have service and implementation of fixed-route service can be reviewed again*

~1,000
to 3,000

Annual service
hours

~1

Medium-duty
vehicle



11 Infrastructure Priorities

Priority	Description	Resources/Partners
Lake Country Park & Ride	Adding a new park & ride within Lake Country was identified through this process. Potential location includes Winfield.	District of Lake Country, BC Transit
Oceola Transportation Hub	A transportation hub was identified through this process to ensure future transit routes have strong connectivity to other modes of transportation in Lake Country. This would support the additional local transit route.	District of Lake Country, BC Transit
Improve bus stops in Lake Country	Improvements to transit amenities at key bus stops in Lake Country was identified through the public engagement process as a key priority. BC Transit will work with Lake Country and the Ministry of Transportation and Infrastructure to opportunities for improved shelters and lighting.	District of Lake Country, BC Transit, MOTI
Berry Transit Exchange	Improved transit exchange in alignment with additional local transit routes and frequency.	District of Lake Country, BC Transit

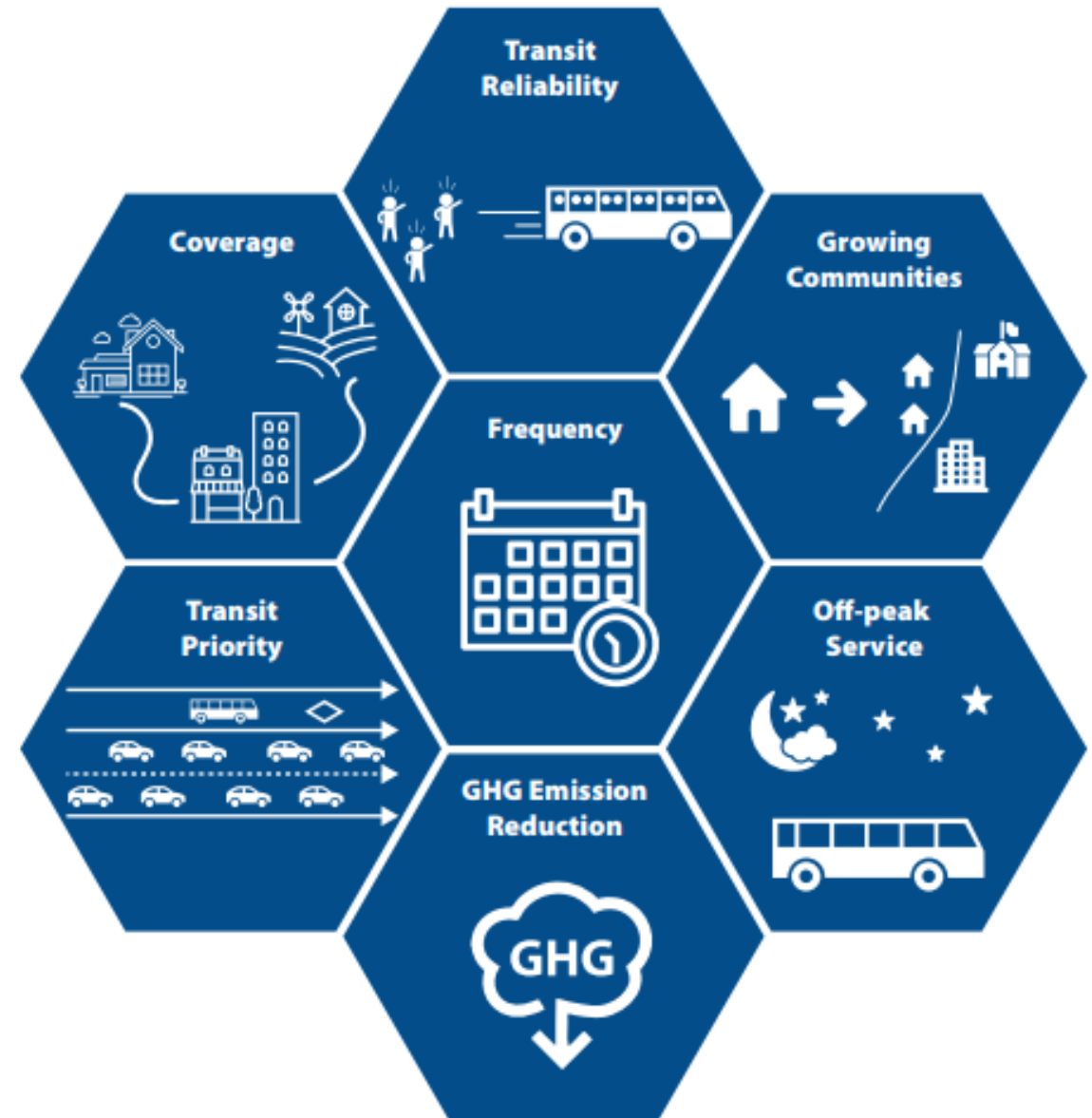
12 Moving Forward

Monitoring and Implementation

Performance of the transit system is monitored on an annual basis, which is typical for transit systems of this size. Performance may be monitored more closely after a significant service change to evaluate the change.

Service improvements will be integrated into the Three Year Transit Improvement Process (TIP), which is updated on an annual basis. Priorities are subject to shift from year to year based on available resources. Infrastructure improvements will be incorporated into BC Transit's Capital Plan. Prior to implementation of service changes, BC Transit planning staff will work with staff at the District of Lake Country to ensure service improvements appropriately reflect local needs, goals and objectives set by Council. Additional targeted engagement may be conducted to ensure priorities in years two to five of the plan are supported by the public at that time.

Route ridership performance will be assessed using the Service Standards & Performance Guidelines created for Kelowna in 2018.



13 COVID-19 Response

BC Transits top priority is the safety of our passengers and operators

Following the guidance of the Provincial Health Office and WorkSafeBC, and drawing on the best practices of the transit industry worldwide, BC Transit has implemented measures on our buses to respond to COVID-19, and have put a plan together to align with BC's Restart Plan see the strategy and details at <https://bctransit.com/COVID19>.

To support ridership return the Province of British Columbia has provided restart funding to the Local Government sponsors to ensure the continued effective delivery of transit across your transit system.

Free Transit for Children 12 and Under program was introduced in September 2021 this aligns with BC Transit's commitment to delivering initiatives to drive new and effective measures to improve your transit experience. The program will help grow young ridership, create life-long transit users and further reduce congestion on our roads.



- Enhanced cleaning.
- Physical distancing awareness.
- Face covering.
- Enhanced red line.
- Real-time updates.
- Vinyl panels.

14 Acknowledgments

Thank you Lake Country

BC Transit would like to thank the many individuals, community organizers, local government staff, First Nations, and businesses who assisted in this consultation process.

Thank you to the almost 150 members of the public, riders and non-riders alike, who contributed to the plan's development as a key stake-holder, by taking a survey, or submitting written or verbal comment.

Your support in working to better transit in our community is appreciated.

