Transit Future Plan

CENTRAL OKANAGAN REGION | May 2012

BCTransit
Connecting People and Communities

TRANSIT future

Acknowledgements

This plan was made possible by participation from provincial and local governments, key stakeholders and the public. BC Transit would like to thank staff from:

The City of Kelowna

The District of Lake Country

The Ministry of Transportation and Infrastructure

The District of Peachland

The Regional District of the Central Okanagan

The District of West Kelowna

Westbank First Nation

BC Transit would also like to thank key stakeholders who participated in the Stakeholders Advisory Group by attending meetings, and providing written or verbal comment. The Stakeholders Advisory Group members are listed below:

Casa Loma Community Association

Clifton Rd/Magic Estates Residents Association

Downtown Kelowna Association

Glenmore Valley Residents Association

Highway 97 Bypass Task Force

Holiday Park Resort

Interior Health Authority

Kelowna Access Awareness Committee

Kelowna Area Cycling Coalition

Kelowna Chamber of Commerce

Lake Country Chamber of Commerce

Lake Country Mobility and Access Committee

Lakeview Heights Community Association

McKinley Landing

North End Residents Association

Okanagan College

Peachland Chamber of Commerce

Peachland Residents Association

Quails' Gate Estate Winery

Rutland Residents Association

School District #23

Seniors Outreach Services Society

Shannon Lake Residents Association

Smith Creek Residents Association

Southwest Mission Residents Association

Special Needs Advisory Committee

Sunnyside Residents Association

The Lakes Neighbourhood Association

University of British Columbia Okanagan

Uptown Rutland Business Association

Vernon Chamber of Commerce

West Kelowna Residents Association

Westbank Chamber of Commerce

Westside Residents Association

Finally, thank you to the nearly 2,000 members of the public, riders and non-riders alike, who contributed to the plan's development by attending open houses, taking surveys, or submitting written or verbal comment.

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Executive Summary

Transit has tremendous potential to contribute to stronger, more sustainable communities. The need to realize this potential in the Central Okanagan is increasingly important because of factors such as climate change, population growth, increasing traffic congestion, and an aging demographic. For example, today, there are over 120,000 registered vehicles in the region, and 90 per cent of residents commute to work by car. With the population increasing from 188,000 today to approximately 264,000 in 2035, the number of automobile trips will increase in a constrained road network. Transit Oriented Development supported by a strong multi-modal network and Transit Demand Management measures will reduce the rate at which congestion grows.

Meeting the demands of the forecasted population and traffic growth in the Central Okanagan requires a shift in focus from moving vehicles to moving people. In the past, government at all levels has attempted to build its way out of traffic congestion by expanding the road network, but this has only provided temporary relief. Major investments in expanding the road network to accommodate the private automobile do not align with local, regional and provincial planning aspirations. Without a significant increase in the use of transit and other sustainable modes (e.g., walking and cycling) the increase in daily trips will result in increased congestion on key local and regional transportation corridors. Congestion has negative environmental, social and economic impacts on the community and contributes to higher transit costs. To help build a sustainable future in the region, this plan has been designed to achieve a mode share target of seven per cent by 2035, which means an increase from 4.3 million rides today, to nearly 16 million rides in 2035.

> "This plan has been designed to achieve a mode share target of **seven per cent** by 2035, which means an increase from 4.3 million rides today, to nearly 16 million rides in 2035."

The Transit Future Plan envisions the Central Okanagan's transit network 25 years from now and describes what services, infrastructure and investments are needed to get there. In order to achieve the seven per cent mode share target, the plan creates a stronger link between transit plans and local land use and transportation plans. It also supports the *Provincial Transit Plan* and key initiatives of *BC Transit's Strategic Plan*.

The Transit Future Plan includes a review of the existing transit services, local land use plans, travel data, demographic projections and travel demand forecasts. Consultation efforts included detailed discussions with municipal partners, stakeholders, numerous public open houses, the Transit Future bus tour, a project web site and an online planning game. In total, BC Transit engaged nearly 2,000 people in the region.

The background research and community engagement resulted in the creation of a unified vision for transit and the development of a transit network designed to meet the needs of the Central Okanagan for years to come.

Vision

"Transit influences urban form by providing a high-quality, affordable service that puts the customer first."

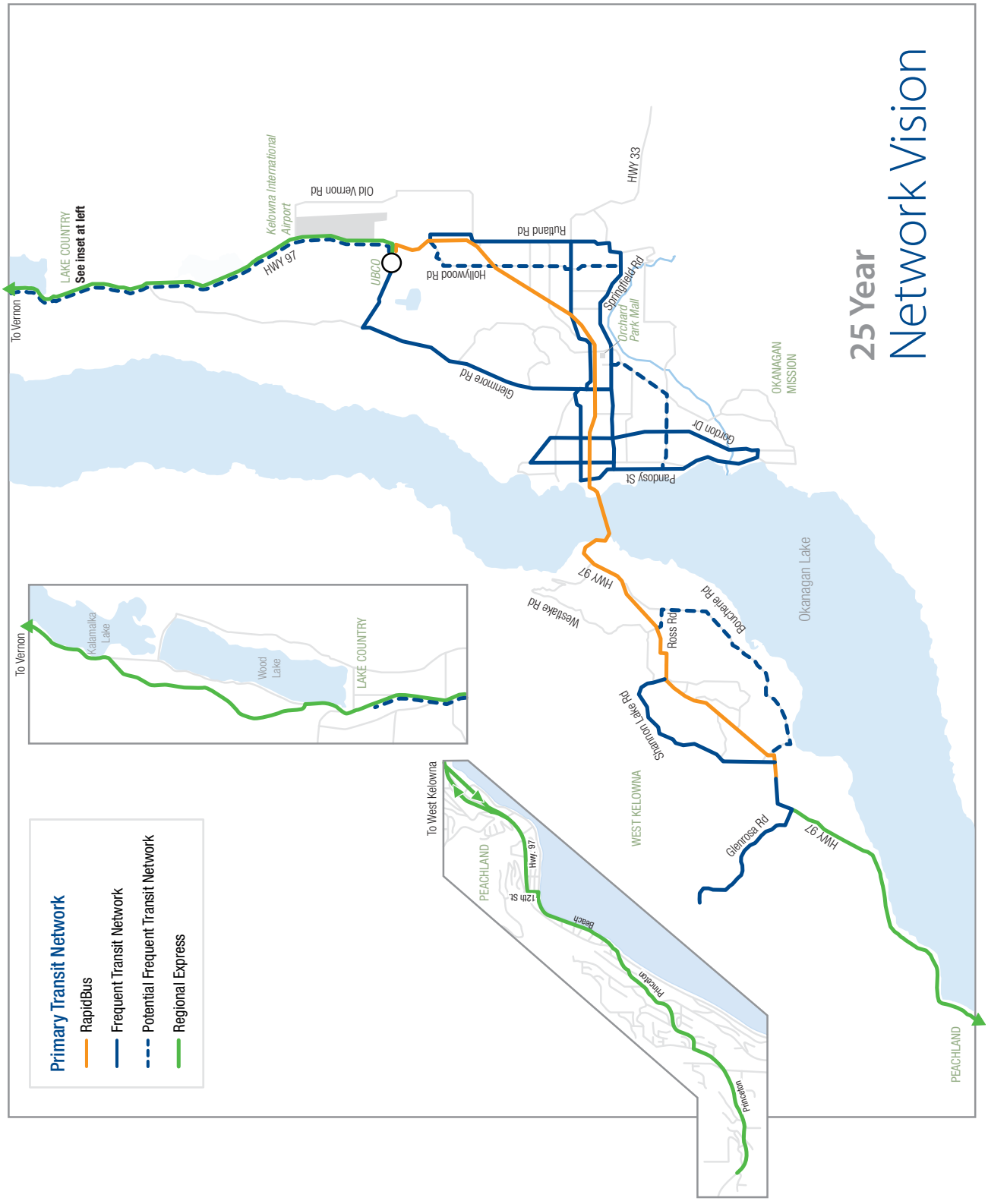
Goals

1. Attract new riders
2. Deliver operational excellence
3. Improve transit sustainability
4. Improve custom transit utilization

The Transit Future Network

The 25-year network vision is designed to achieve the Vision and Goals of this plan. More specifically, the following planning principles, developed through the public consultation process, were used to guide the development of the network:

- Direct connections between regional and local major destinations
- Transit priority will be in place on Frequent and Rapid Transit corridors to reduce travel time
- Transit service is convenient, comfortable and easy to understand
- Transit service is modern and attractive


25 Year
Network Vision
Primary Transit Network
RapidBus
Frequent Transit Network
Potential Frequent Transit Network
Regional Express
To Vernon
LAKE COUNTRY
See inset at left
HWY 97
Kelowna International Airport
Old Vernon Rd
UBCO
Hollywood Rd
Glenmore Rd
Rutland Rd
HWY 33
Springfield Rd
Orchard Park Mall
OKANAGAN MISSION
Gordon Dr
Pandosy St
HWY 97
Westlake Rd
Okanagan Lake
Boucherie Rd
Ross Rd
Shannon Lake Rd
WEST KELOWNA
Glenrosa Rd
HWY 97
PEACHLAND
To Vernon
Kalamalka Lake
Wood Lake
LAKE COUNTRY
To West Kelowna
PEACHLAND
Hwy 97
12th St
Beach
Princeton
Princeton

The Transit Future network is composed of four layers of service that are designed to efficiently and effectively move people and are facilitated by transit priority measures.

Primary Network

Rapid Transit Network (RTN)

RTN service is designed to move high volumes of passengers between major regional destinations along key transportation corridors. The level of investment in RTN infrastructure, technology, vehicles and service levels combine to significantly increase system performance. RTN services utilize an exclusive or semi-exclusive right-of-way with limited stop service.

Frequent Transit Network (FTN)

The FTN provides key corridors with a convenient, reliable and frequent transit service. The FTN will carry a large share of the transit system's total ridership and for this reason justifies capital investments in transit priority, a high level of transit stop amenities and corridor branding.

Secondary Network

Local Transit Network (LTN)

The LTN is designed to connect neighborhoods to local destinations and to the RTN and FTN.

Targeted Services

Targeted Services are a collection of transit services which include handyDART, regional, express and rural transit services.

Implementation Strategy

Establishing the Transit Future network requires prioritizing transit investments into an implementation strategy to transform today's network into the future network. Listed below are the initial priorities first for the system as a whole, and then for each community.

Network Priorities

- Establish or upgrade key transit infrastructure
  - Operations and Maintenance facility
  - RapidBus stations and exchanges
  - Rutland and Orchard Park exchanges
  - Strategically located Park & Rides
- Establish the Highway 97 RapidBus line from UBCO to Westbank Centre
- Establish the Frequent Transit Network (FTN)
- Initiate aggressive rideshare (carpooling) marketing effort
- Increase custom transit availability and hours of operation

Kelowna Priorities

- Establish the north-south FTN corridors along Pandosy/Lakeshore and Gordon Dr
- Provide direct service to the H2O recreation centre and the Capital News Centre
- Provide direct east-west service to Kelowna General Hospital and establish the Springfield FTN corridor
- Increase service between Glenmore and UBCO
- Streamline Glenmore service

West Kelowna Priorities

- Extend the Hwy 97 Express to Westbank Centre from UBCO
- Improve the efficiency and effectiveness of local transit routes
- Introduce RapidBus after constructing all associated transit capital infrastructure
- Maintain coverage to transit supportive neighbourhods and provide alternative methods to access the transit system (e.g., Park & Rides)

Westbank First Nation Priorities

- Extend the Hwy 97 Express to Westbank Centre from UBCO
- Extend evening service on Route 20 – Lakeview
- Introduce RapidBus after constructing all associated transit capital infrastructure
- Maintain coverage to transit supportive neighbourhods and provide alternative methods to access the transit system (e.g., Park & Rides)

Lake Country Priorities

- Increase service between Lake Country and Kelowna
- Introduce a Park & Ride in Lake Country's Town Centre and explore shared use opportunities
- Reconfigure how Oyama accesses regional transit service in conjunction with the Highway 97 realignment
- Increase service between Vernon, Lake Country and Kelowna
- Introduce new service to The Lakes neighbourhood

Peachland Priorities

- Adjust the schedule on Route 22 Peachland to better serve commuters
- Introduce a Park & Ride in the community and explore shared use opportunities
- Begin handyDART service
- Initiate a feasibility study to explore Dial-A-Ride service

Ongoing Regional Initiatives

- Address existing operational service needs
- Match vehicle type to local demand
- Improve customer information
- Improve transit facilities
- Make transit more accessible

Moving Forward

Funding the Plan

Full implementation of the Transit Future Plan will require significant capital and operating investment in the transit system over the next 25 years. To reach the mode share goal of seven per cent, the following goals and investments must be obtained:

- Quadrupling of transit ridership from 4 million to 16 million
- A three-fold increase in annual transit operating hours (from 177,000 to 600,000), requiring 17,000 annual growth hours to reach the 25 year targets
- Expansion of the conventional transit fleet from 72 to 184 buses and the custom fleet from 23 to 51 vehicles
- Investments in transit priority measures to decrease travel time, increase demand and create an increasing return on service hour and fleet investments.

The ambition of this plan and the *Provincial Transit Plan* requires local and provincial partners to continue their endeavors to achieve stable and predictable revenue sources. For this reason, BC Transit will establish a task force to investigate alternative funding and transit incentive options in an attempt to reduce the dependence on increasing local property, provincial and federal taxes to fund transit projects.

Achieving Success

BC Transit has begun to take steps to guide the Transit Future Plan from vision to reality. A key step is the need for ongoing dialogue with local partners and the Province on transportation policy, funding and the linkage between land use and transit planning.

Moving forward, BC Transit will use this plan to communicate the vision and direction for transit in this region and to encourage integration into local and regional plans and projects.

The Transit Future Plan is designed to accommodate the ridership necessary to achieve the *Provincial Transit Plan* and municipal mode share targets; however, municipal, regional and provincial planning agencies are pivotal in the creation of demand through strategic Transit Oriented Development, transit friendly land use practices, Travel Demand Management and the provision of transit priority measures. These agencies also ensure the necessary active transportation infrastructure is in place to facilitate the shift in mode share to more sustainable modes.

Introduction

Why Do We Need a Transit Future Plan?

Transit has tremendous potential to contribute to stronger, more sustainable communities. The need to realize this potential in the Central Okanagan is increasingly important because of factors such as climate change, population growth, increasing traffic congestion, and an aging demographic. For example, today, there are over 120,000 registered vehicles in the region, and 90 per cent of residents commute to work by car. With the population increasing from 188,000 today to approximately 264,000 in 2035, the number of automobile trips will increase in a constrained road network. Transit Oriented Development supported by a strong multi-modal network and Transit Demand Management measures will reduce the rate at which congestion grows.

Meeting the demands of the forecasted population and traffic growth in the Central Okanagan requires a shift in focus from moving vehicles to moving people. In the past, government at all levels has attempted to build its way out of traffic congestion by expanding the road network, but this has only provided temporary relief. Major investments in expanding the road network to accommodate the private automobile do not align with local, regional and provincial planning aspirations. Without a significant increase in the use of transit and other sustainable modes (e.g., walking and cycling) the increase in daily trips will result in increased congestion on key local and regional transportation corridors. Congestion has negative environmental, social and economic impacts on the community and contributes to higher transit costs. To help build a sustainable future in the region, **this plan has been designed to achieve a mode share target of seven per cent by 2035, which means an increase from 4.3 million rides today, to nearly 16 million rides in 2035.**

BC Transit initiated the development of Transit Future Plans across the province to support the creation of more sustainable and livable communities throughout urban British Columbia. Transit Future Plans are intended to:

- Focus public investment in transportation (the movement of people and goods)
- Influence and support urban form that lends itself to service by public transit and active modes of transportation (e.g., walking and cycling)
- Create communities and neighbourhoods where people can live, work and play without complete reliance on the automobile
- Ensure the road network is available for the efficient transportation of people and materials
- Reduce energy consumption and the production of green house gas emissions primarily through the reduction in use of single occupancy vehicles
- Provide access to community services such as health care and other goods and services
- Make transit more competitive with private automobile travel

What Is a Transit Future Plan?

A Transit Future Plan envisions what a region's transit network will look like in 25 years and describes what services, infrastructure and investments are needed to fulfill the vision. Although it is BC Transit's role to guide the implementation of the plan, the intended outcomes cannot be achieved by a single agency but rather through strategic and financial partnerships between local and regional governments, the Province of British Columbia and BC Transit.

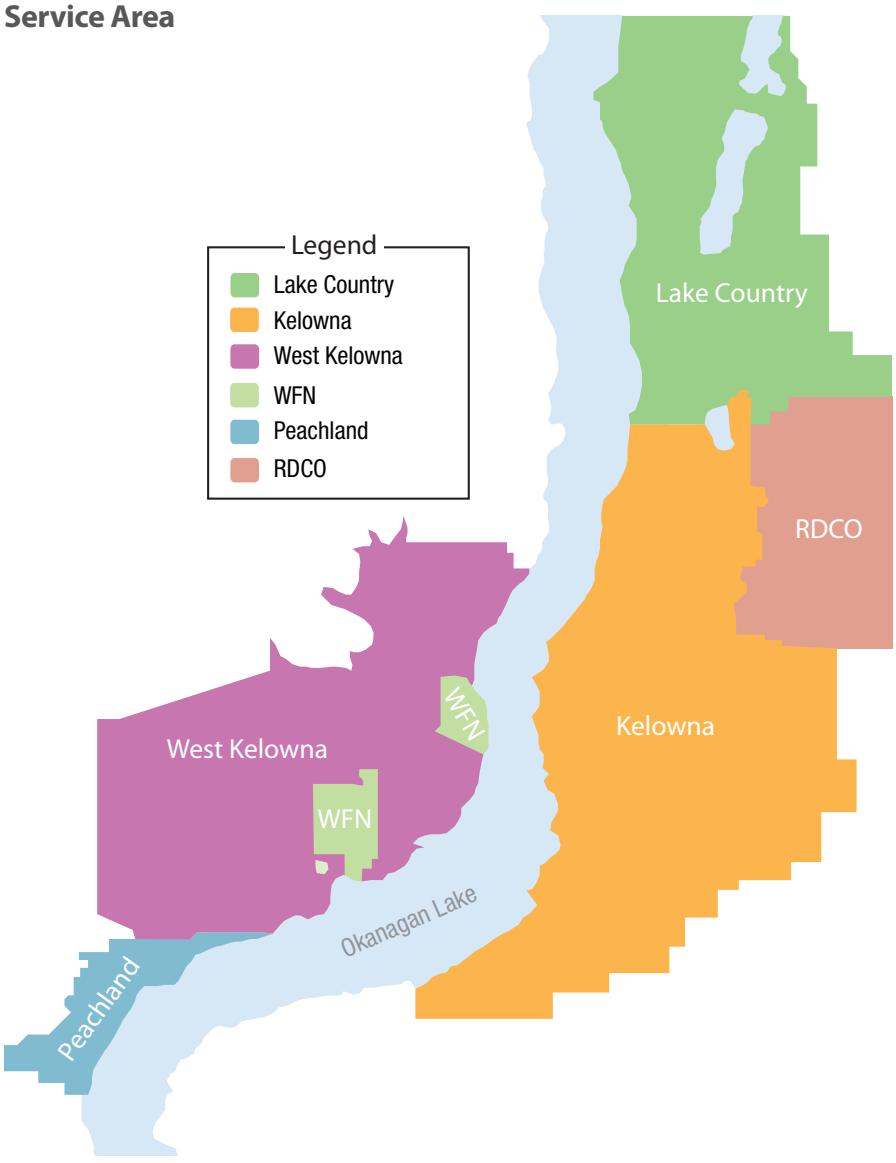
The Transit Future Plan also promotes and influences land use that will facilitate an increase in the use of transit and other sustainable modes of transportation. The plan is designed to accommodate the ridership necessary to achieve the *Provincial Transit Plan* and municipal mode share targets; however, municipal, regional and provincial planning agencies are pivotal in the creation of demand through strategic Transit Oriented Development, transit friendly land use practices, Travel Demand Management (TDM) practices and the provision of transit priority measures.

Plan Area

This plan has been created for the Central Okanagan region which extends from the District of Lake Country in the north to the District of Peachland in the south, and includes the City of Kelowna, the District of West Kelowna and Westbank First Nation. The Okanagan Lake separates West Kelowna from Kelowna which are connected only by one bridge. Development has occurred along the inter-regional Highway 97, forming the spine of the transportation network and commercial development.

The Central Okanagan Regional District is the third most populous region in British Columbia outside Metro Vancouver with an estimated population of 188,000. This plan has been designed to support the development of the region as expressed through Official Community Plans and achieve the goals of each municipality, local climate action plans and the *Provincial Transit Plan*. The Transit Future Plan is dynamic and will be reviewed over time to reflect shifts in local and regional land use ambitions.

Service Area



Provincial Transit Plan

The Transit Future Plan is also designed to achieve the goals of the *Provincial Transit Plan*, British Columbia's $14 billion strategy for expanding fast, reliable and green transit. The plan emphasizes that, from a transportation perspective, the best means of reducing greenhouse gas emissions is to focus on dramatically increasing transit ridership (and thereby reducing single occupancy vehicles), linking transit to active modes of travel (walking and cycling) and having land use decisions, largely made by local government, focus on Transit Oriented Development (TOD) or at least transit friendly development. The Transit Future Plan sets the framework for accomplishing these substantial goals in the Central Okanagan.

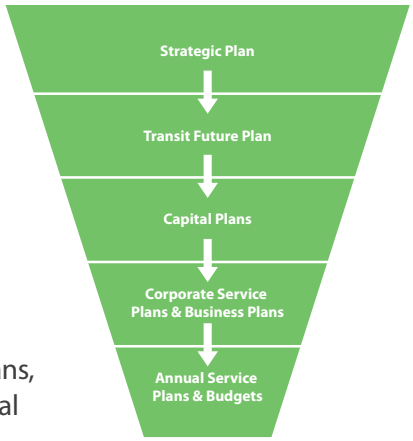
The *Provincial Transit Plan* sets a number of quantifiable targets such as:

- Reduce greenhouse gas emissions and air contaminants from cars by 4.7 million tonnes by 2020
- Double transit ridership in British Columbia to over 400 million trips a year by 2020
- Increase transit market share in regional centres by one per cent in 2020, and another one per cent in 2030. **For the Central Okanagan, this means nearly quadrupling ridership, or an increase to 16 million riders per year**

Link to Other BC Transit Plans

The Transit Future Plan supports key initiatives in *BC Transit's Strategic Plan*, an overarching framework for BC Transit. Specifically, this plan contributes to the following Strategic Plan priorities:

- Increase integration with other types of sustainable travel
- Influence land use and development patterns
- Identify and establish priority corridors for transit
- Enhance existing partnerships and develop new ones
- Increase our environmental, social and economic accountability

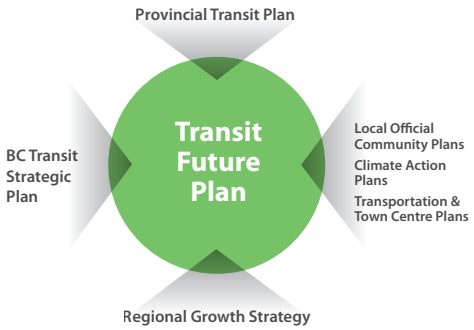


The outputs of the Transit Future Plan help build BC Transit's Capital Plans, Corporate Service Plans, Business Plans, three-year Service Plans, Annual Service Plans and budgeting process.

Link to Local Plans

In addition to the *Provincial Transit Plan* and *BC Transit's Strategic Plan*, the Transit Future Plan was directly influenced by and sought to coordinate with local planning efforts including, but not limited to:

- The Regional Growth Strategy
- Official Community Plans
- Transportation Plans (including active transportation such as greenways and multi-modal corridors)
- Town Centre or area development plans



Participation

BC Transit developed the Central Okanagan Transit Future Plan with input from the community, key stakeholders, and staff from the City of Kelowna, the District of West Kelowna, the District of Lake Country, Westbank First Nation, the District of Peachland, and the Regional District of Central Okanagan. The following section describes the process and summarizes the input received.

Municipal Participation

Frequent and direct participation with municipal and First Nation staff was paramount in the creation of this plan. During the plan's development, BC Transit held detailed discussions with municipal and First Nation staff to ensure alignment with local plans. BC Transit also brought together representatives from each of the communities to form the Municipal Advisory Committee (MAC). This group assisted in the creation of the long range vision and regional service strategy.

In addition, BC Transit provided regular updates to, and sought feedback from, municipal councils. Through over 21 presentations, Councils were briefed at the following key milestones:

- Introduction to the planning process and outcomes
- Draft long range network vision and goals
- Transit system data analysis results
- Draft short term implementation strategy
- Final draft Transit Future Plan

Simultaneous to this plan's creation, Kelowna was in the process of updating its Official Community Plan, and West Kelowna was in the process of drafting its first Official Community Plan, among numerous other planning initiatives. Local staff and BC Transit collaborated to ensure that the local and transit plans complement one another and reflect similar goals and strategies.

Community Participation

Development of the Transit Future Plan included significant community engagement to raise awareness of the plan and to ensure that the plan will meet the diverse needs of the region. There were three phases to capture feedback at critical milestones. Each phase included open houses, public meetings, surveys, or interactive games, and included sessions in each municipality.

Participation Highlights	
Number of open houses	18
Open house participants	1,100
Written survey participants	650
Phase One online survey participants	340
Online survey "The Game Plan" participants	219
Stakeholder participants	35

Phase 1 - Listening

The three phased approach began with the Listening Phase. In a series of open houses held in March – April 2010, participants were invited to comment on the existing transit system performance, and to help identify long term priorities. Through the Transit Future website, an online survey was conducted which garnered nearly 350 responses. Highlights from the responses are provided below:

- About half of the respondents reported using transit in the last two weeks
- The highest propensity to use transit was for commuting to work and school
- Respondents use transit most often in the p.m. peak period (3:00 – 6:00 p.m.) and least often after 9:00 p.m.
- Route 8 University followed closely by Route 97 RapidBus were reported as being the most overcrowded
- When choosing between starting service earlier, continuing service later and increasing service frequency, respondents unanimously choose to increase frequency. The top three routes for this request were Route 1 Lakeshore, Route 8 University and Route 97 RapidBus.
- Eighty-eight per cent of respondents reported feeling safe most of the time or having no safety concerns.

Knowing that about one-third of transit trips are school related, BC Transit held a focused open house at the University of British Columbia Okanagan (UBCO) in February 2010. Over 100 students responded to a survey. The questions and a summary of the responses are provided below.

What aspects of the current bus service do you like?	• It is easy to use • Transit is cheaper than driving • Friendly drivers and clean buses • High frequency in peak periods
What aspects of the current bus service need improving?	• Increase frequency • Need more late night and weekend service • Transit should be more reliable • Improve connections between routes • Specific service requests connecting various parts of the region
Are there places you want to go using transit, but are unable to? If so, where?	• More service in the Glenmore neighbourhood • More service to Vernon • Better service to the airport • More service along Highway 97
Other comments	• Expand the U-Pass program beyond UBCO • Improve amenities: lighting, shelters, real-time information • Mixed comments regarding operators. Some customers report that drivers are exceedingly friendly and others report a need for improved customer service

Phase 2 – Did we hear you correctly?

The second phase, "Did we hear you correctly?" presented the draft 25-year transit network and long term goals. They were developed from the input received in Phase One, in addition to detailed discussions with municipal staff and the Stakeholders Advisory Group. The draft network vision and goals were largely supported by participants. Only minor changes were made to the network vision as a result of public consultation.

Phase 3 – Sneak Peak

The Sneak Peak Phase concluded the public consultation process and featured the Transit Future Bus, an out of service bus converted into a mobile open house facility. It featured information on transit projects, an interactive and educational transit game, and a kids' zone.

In November and December 2010, the Transit Future Bus visited six community locations, including UBCO and major shopping destinations. In total, more than 700 visitors were welcomed on-board the bus.

On the bus, and through an online game, participants helped determine the region's top priorities. They were able to provide feedback directly to BC Transit and local municipal staff, through the online planning game, an on-board comment book and interactive displays.

Discussions between staff and those who came on board revealed general support for building the Primary Transit Network (comprised of Rapid and Frequent services) to make transit more appealing and easier to use. There was also a high level of support for the RapidBus line to provide stream-lined service between downtown West Kelowna and UBCO.

The online, interactive planning game attracted just over 200 participants. The Game Plan invited 'players' to prioritize responses to four questions about transit. The questions, and the top four results for each, are presented below:

Game Plan Results

Why invest in transit?	• Livable communities • Moving more people • Environment • Healthy living
Where should we invest in service?	• Increase local frequency • Increase RapidBus frequency • Increase local coverage • Extend late night service
How can we improve customer amenities?	• Real-time customer information • Easy payment options • Safety and security • Stop and station amenities
How do we pay for this?	• Provincial funding • Local gas tax • Community pass • Parking tax

Game participants were also provided the opportunity to create a unique answer if they felt an option had been missed. Common unique answers included:

- New or improved transit service throughout the region, including service to the airport
- Increase service frequency outside of peak travel periods
- Improve connections between routes when the frequency is 30 minutes or worse
- Improve service reliability and schedule adherence
- Investigate regional transit service in the greater Okanagan Valley

Stakeholders Advisory Group

Concurrent to the public open houses, a Stakeholders Advisory Group met periodically to ensure that key interest groups were included in the decision making. Made up of various community groups, residents associations, the business community and institutions, this group helped to develop the vision and goals, the 25-year network vision and the priority implementation strategy.

To help develop the 25-year vision, BC Transit led the stakeholders through a transit planning game. Using large laminated maps, participants designed the future network. They were challenged to agree on routing and service levels for the future network while staying within a given budget. The resulting 25-year network vision, as presented in this plan, was, in part, created from this work.

Setting the Scene

To produce the Transit Future Plan, BC Transit analyzed both current and future trends in demographics, transportation and land use. The following section contains the highlights of this analysis to illustrate how the final Transit Future network was created for the Central Okanagan region. First, the results are presented on a regional level, and then, recognizing that the region is extremely diverse, the results are presented by sub area.

Central Okanagan Region

Regional Challenges

Continued heavy demand for travel at peak times resulting in traffic congestion.
High travel volumes at peak times will continue to increase pressure on limited road capacity, particularly between Kelowna and West Kelowna. Transit has the ability to move more people per traffic lane making the case for increased investment in transit priority versus the significant financial and physical space requirements of continued road expansion. The implementation of transit priority measures will help to improve the attractiveness of transit services by increasing transit vehicle speeds and reliability.

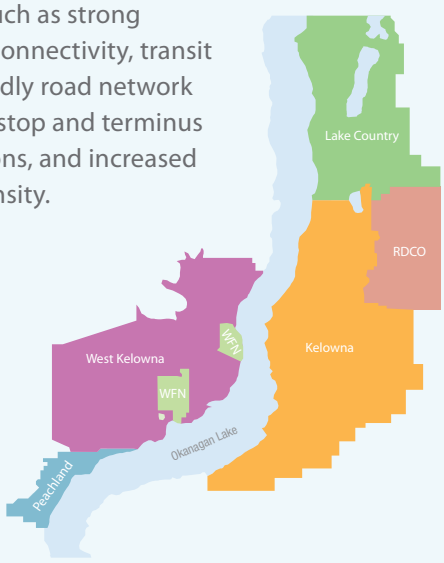
Increasing mode share with an aging demographic
With the region's demographics shifting towards an older population some of the traditionally strong transit user age groups are decreasing. If transit ridership and mode share are to increase, all aspects of service quality must improve to retain existing customers and attract new customers, particularly choice riders. The network of the future will also have to capture more personal trips (shopping, medical, etc.), a travel market that is difficult to capture.

Strengthening the link between land use and transportation planning
Continuing to solidify the link between transportation and land use planning to ensure development matches the vision of the Regional Growth Strategy, Official Community Plans, *Provincial Transit Plan* and the Transit Future Plan.

Aligning local priorities to create a strong regional service
Improvements to regional service require all partners to prioritize and fund this service simultaneously.

Additional pressure on Custom and accessible transit service
As the number of elderly and very elderly increases, custom transit and specialized services will be expected to expand to provide more neighbourhood oriented transit to address the mobility limitations of the elderly.

Servicing new neighbourhoods by transit
Serving new neighbourhoods in suburban areas with transit will continue to present a challenge. In order for transit to be viable in new neighbourhoods it's important that new suburban developments are closely linked to transit planning principles such as strong pedestrian connectivity, transit vehicle friendly road network design, bus stop and terminus considerations, and increased land use density.



Movement

A successful transit system enables users to move to and from their destination as seamlessly as possible. Today, only 2.7 per cent of commuting trips are by transit. In order to increase this market share to 7 per cent by 2035, BC Transit analyzed travel data to better understand movement in the Central Okanagan to ensure the future transit system takes people where they want to go, when they want to go.

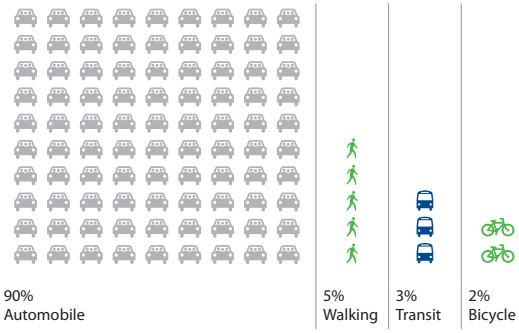
Where are people going?

Today, the majority of trips are local trips, i.e., trips that begin in West Kelowna and end in West Kelowna. However, the second most popular movement is travel into Kelowna from all over the region, especially from the west side of the lake. As figure 1.1 shows, only nine per cent of all trips include travel across the bridge. However, most of the trips between Kelowna and West Kelowna are concentrated in peak travel times which creates congestion. This pattern is anticipated to grow as new development occurs in West Kelowna and Westbank First Nation (WFN). Recognizing that there is only one recently constructed bridge traversing the water, it is important to reduce the number of vehicles making this journey to reduce congestion and lengthen the effective life of the bridge. To best meet the travel needs of the region, the future transit network will focus on inter-municipal connections by developing a strong regional spine.

Why are people traveling?

Contrary to the commonly held perception that work commuters make up the vast majority of trips, research indicates these individuals only make up about one-third of all trips in the Central Okanagan. Over half of all trips are for shopping or personal business. With an aging demographic it is likely that personal and shopping trips will grow at a faster rate than work trips over the life of this plan. Future transit investment will focus on serving major shopping destinations to increase the shopping and personal business market share.

Central Okanagan
Commuter Modes



Source: Statistics Canada, 2006 Census Cumulative Profile of Dissemination Areas in British Columbia 2006 Census – 20% Sample-Based Data, May 2006.

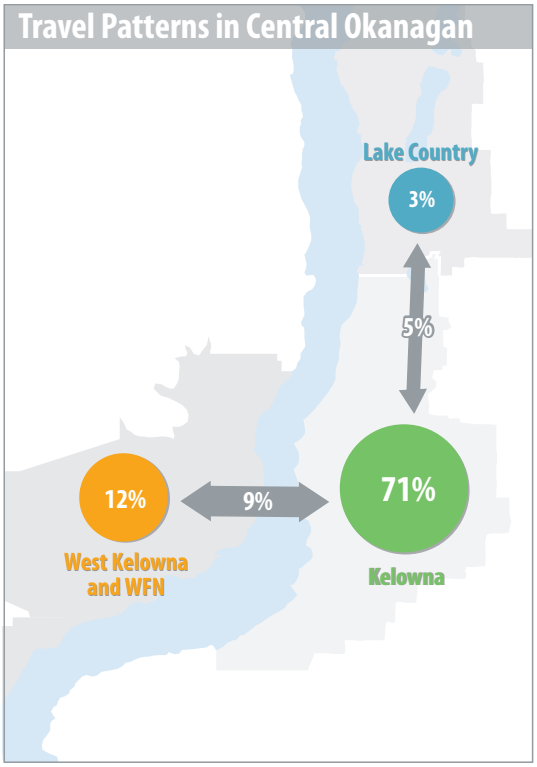


Fig. 1.1

The Regional District's travel survey showed that 32 per cent of all transit trips were school related, whereas only 11 per cent of all trips (all modes) were school related. Existing transit service and fare products are tailored to the secondary and post-secondary market. This trend is also reflected when analyzing the travel choice by age group. As shown in figure 1.2, transit is a more popular choice for school aged persons, or those between the ages of 5 – 24, when compared to those older than 25. The future network must expand into other travel markets without compromising service to the existing customers.

Transit Mode Share *by Age Group*

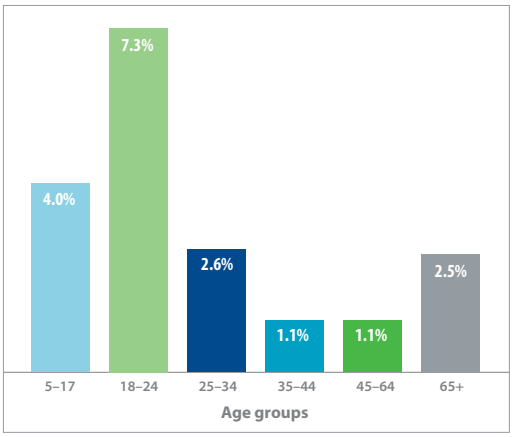


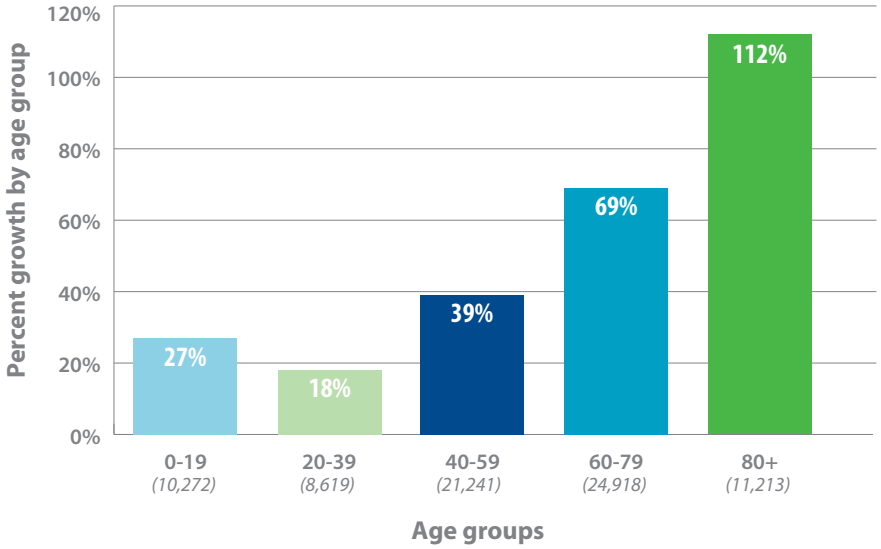
Fig. 1.2

Demographics

The Central Okanagan region is expected to face a 'greying' of the population over the next few decades as the baby boomer generation continues to age. While the population is expected to grow to a total of 264,000 in 2035, a 41 per cent increase from 2010, the 65+ population will increase 94 per cent over the next 3 decades from 34,000 to 66,000[1]. One-quarter of all residents will be over 65 years of age in 2035, compared to only 18 per cent in 2010. This aging population means that proportionately more residents will fall into the age groups displaying the least propensity to ride transit.

It also presents an increased need for transportation access to medical facilities, shopping and other social destinations to help residents age in place. However, locating seniors' residences and medical facilities in the core of the community is equally important to aiding mobility by ensuring access to the Rapid and Frequent Transit Networks.

Additional population ***by age group***
2010 – 2035



[1] *Source: BC STATS Victoria. P.E.O.P.L.E. 34 Projection Run.*

The communities in the Central Okanagan are extremely diverse, ranging from the well established central city of Kelowna, to the two-year old municipality of West Kelowna. While this plan was created with a long range, regional focus, each community has distinct characteristics and diverse development patterns that are highlighted below.

Kelowna

Challenges in Kelowna

Improving transit service to Regional Centres
Strengthening transit links to and between Regional Centres without compromising existing transit passenger movements.

Increasing mode share with an aging demographic
With the region's demographics shifting towards an older population some of the traditionally strong transit user age groups are decreasing. If transit ridership and mode share are to increase, all aspects of service quality must improve to retain existing customers and attract new customers, particularly choice riders. The network of the future will also have to capture more personal trips (shopping, medical, etc), a travel market that is difficult to capture.

Creating transit-supportive land use policies that are market responsive
Transit-supportive land use is critical to the delivery of this plan. Policies addressing land use must be market responsive to attract private development.

Approach to the William R Bennett bridge
Traffic signal timing on the approach to the bridge creates a bottleneck during peak travel times. Progressing to exclusive transit priority along Highway 97 will be necessary to bypass congestion. It will also keep transit costs contained and will make transit the attractive alternative to the private automobile. However, until exclusive priority is achieved, the two person HOV lane will continue to be shared with general traffic. An increase in enforcement will be required to ensure travel time remains constant.

Land Use

Kelowna has recently completed their Official Community Plan (OCP) which directs future land use patterns. Two priorities in Kelowna's OCP long range vision are highly supportive of transit. They are:

Urban communities are compact and walkable.

Walking paths and bicycle routes connect to key destinations.

This vision is supported by strong goals to 1) reduce Greenfield urban sprawl and focus growth in compact, connected and mixed-use urban and village centres, and 2) increase the attractiveness, convenience and safety of all modes of transportation by implementing "complete streets" that are designed to serve a broader range of transportation modes, focusing on pedestrians, cyclists and transit service, and function in the context of surrounding land uses[2].

Kelowna anticipates the need for 20,100 new homes by 2030 to accommodate 43,500 new residents. Of the new homes, 57 per cent will be multiple unit homes (an increase from 39 per cent in 2010), while the rest will be single/two unit homes. While transit benefits from more dense urban form, this policy direction alone is not strong enough to support higher order transit. However, Kelowna's OCP also establishes a Core Development Boundary (CDB) (as illustrated in figure 1.3 on the following page) to increase density and focus growth on already or previously developed land. This

[2]*City of Kelowna draft Official Community Plan, February 2011.*

policy direction works to establish the context necessary for successful high-end transit services.

The CDB comprises only 10.5 per cent of total land, but is anticipated to contain nearly 50 per cent of all future housing units, and 80 per cent of all future multiple unit homes. Within the Core Development Boundary, over half of the additional population and new jobs are projected to concentrate in downtown and along the Pandosy corridor. On the other hand, the east end of the CDB, is expected to grow at a slower rate and to develop with a residential focus. The future network was developed to facilitate anticipated travel patterns based on the future land use of the CDB.

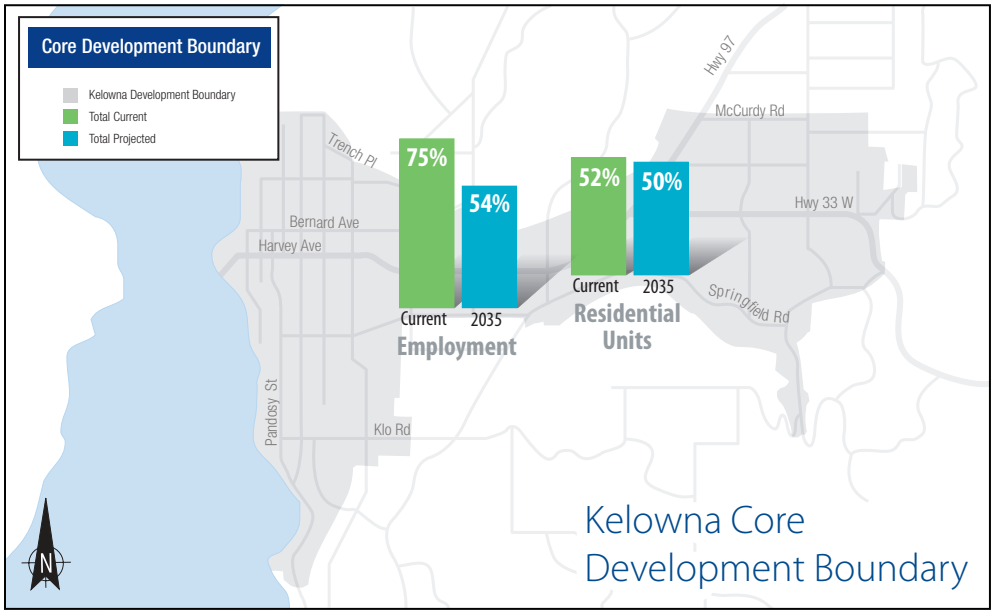


Fig. 1.3

Infrastructure & Parking

Today, parking in Kelowna is inexpensive and in most cases it is free. Kelowna's long range policy direction includes increasing the hourly price of municipal parking facilities so that it exceeds the price of a single transit trip. It also includes reviewing the cash-in-lieu parking program that has been in place since the late 1990's (this allows developers to reduce the number of parking spaces they provide in exchange for a payment to the City). Strengthening these policies in combination with other Transportation Demand Management strategies will help increase ridership by making driving less convenient.

Kelowna's Official Community Plan also provides direction to prioritize transit, pedestrian and bicycle infrastructure investments in order to reduce the use of single occupancy vehicles, greenhouse gas emissions and congestion. If this policy is adhered to, transit ridership, in combination with an increase in walking and bicycling will help to reduce congestion, and will postpone or prevent significant capital investments in additional road capacity.

West Kelowna

Challenges in West Kelowna

Safe pedestrian crossings of Highway 97

Without safe crossings that are aligned with transit stops, the separation of the community by Highway 97 is a significant challenge to increasing the area with which transit riders can access local destinations.

Traffic congestion

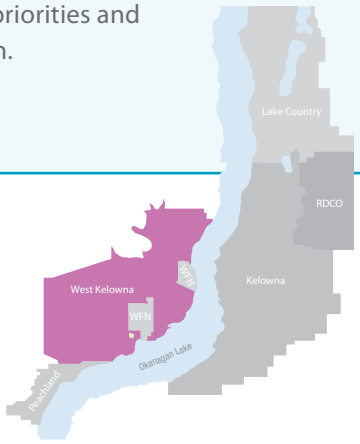
Traffic is anticipated to increase, creating congestion on key transit corridors. Transit priority measures will be crucial to decrease operating costs and increase ridership by giving transit the advantage over the private automobile.

Network connectivity

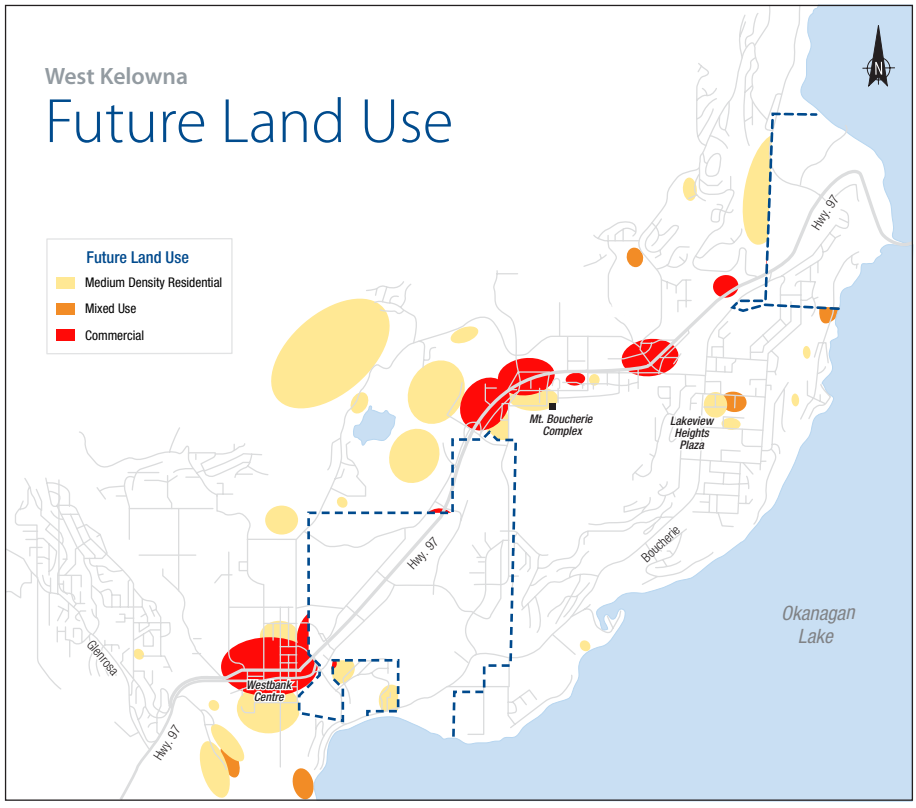
Geographical constraints make it challenging to create a strong transportation grid network that maximizes network connectivity.

Aligning local priorities

Many transit services traverse both West Kelowna and Westbank First Nation. Implementing service changes and expansions could be challenging if local priorities and budgets do not align.



Formerly an unincorporated area of the Regional District of Central Okanagan (RDCO), the District of West Kelowna was officially incorporated in December 2007. As a new municipality, the District is undertaking a comprehensive planning effort that provides a unique opportunity to align transit and development plans. Their planning efforts include the first Official Community Plan, a transportation long range plan and a Westbank Centre revitalization plan.



Land Use

West Kelowna has a unique set of land use challenges including intertwined geographic boundaries with Westbank First Nation, topography and previous development patterns. Because the geographic boundaries of West Kelowna and Westbank First Nation are intricately linked, nearly every transit service transverses both communities. This could pose potential complications to implementing service improvements if priorities and budgets do not align.

In addition, the topography and historical development of West Kelowna poses challenges to the provision of effective and efficient transit. Much of the residential development has occurred sporadically on the hillsides. This has resulted in low density pockets of housing situated on road spurs off of Highway 97. Commercial development has prospered on WFN lands along Highway 97 over the last decade, shifting the economic center to the northeast of historical Westbank. The pattern of development is auto-oriented highway commercial development.

West Kelowna's first Official Community Plan features transit friendly development centres and medium and high density residential areas. It calls for a strategic planning initiative to revitalize Westbank Centre and it also establishes a second town centre called Boucherie, located around the Ross Rd corridor. These two initiatives, which begin changing the auto-oriented nature of the community into vibrant, pedestrian focused, mixed use nodes, are a positive step towards creating sustainable, multi-modal communities.

Infrastructure

The primary transportation corridor is Highway 97, which is fed by a series of road spurs connecting the hillside neighbourhoods, and frontage roads that provide access to the adjacent commercial developments. Automobile movement has been the historical focus of transportation infrastructure investment. Pedestrian, cycling and transit facilities, like sidewalks and bike lanes, are becoming higher priorities for West Kelowna. Continuing to strengthen these networks will improve the safety and experience of each transit trip.

Westbank First Nation

Challenges in Westbank First Nation

Safe pedestrian network

Most transit trips begin and/or end as a pedestrian trip, making pedestrian safety a top priority and concern in the near future. Westbank is investing in pedestrian infrastructure, but there remain several areas frequented by transit users that lack sidewalks, trails and other pedestrian infrastructure.

Traffic congestion

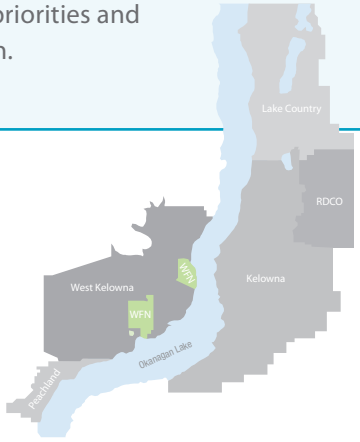
Traffic is anticipated to increase, creating congestion on key transit corridors. Transit priority measures will be crucial to decrease operating costs and increase ridership by giving transit the advantage over the private automobile.

Connectivity

Westbank First Nation is comprised of five geographically distinct parcels of land, two of which have the majority of commercial and residential development and are separated by the District of West Kelowna. Ensuring members and non-members can access services and destinations within each area. may prove challenging given multiple political jurisdictional agreements required.

Aligning local priorities

Most transit services traverse both Westbank First Nation and West Kelowna. Implementing service changes and expansions could be challenging if local priorities and budgets do not align.



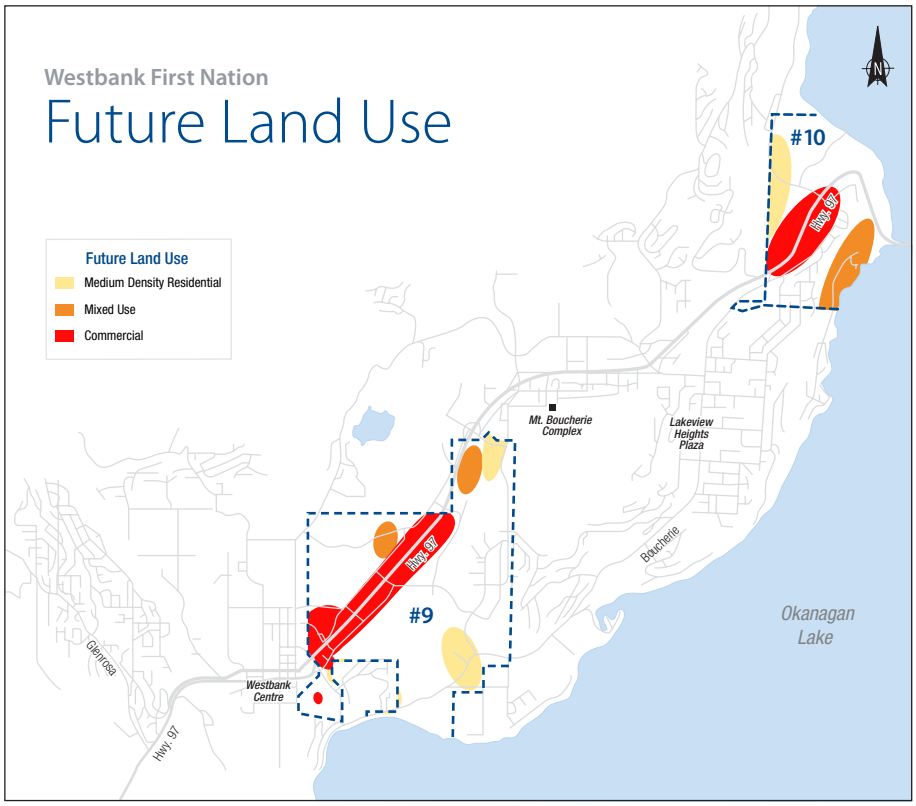
Land Use

In 2007, Westbank First Nation (WFN) developed a Land Use Plan to strategically guide, coordinate, and provide policy direction for development on Westbank lands. The plan was developed through extensive community engagement, and seeks to fulfill the vision, principles and goals of the community. The plan presents a platform for coordinated and sustainable infrastructure development critical to promoting transit ridership, such as sidewalks, streetlights and safe roads that link the newly developed areas on WFN lands. It also promotes walkable, mixed use, dense development that seeks to preserve open spaces and increase transit ridership[4].

Westbank has experienced substantial growth over the past five years. Between January 2006 and July 2011, Westbank First Nation issued more than $247 million dollars in building permits of which approximately $100 million was for commercial development, $142 million for residential development and $5 million for institutional development. The residential development consisted of more than 600 units of new housing. Much of the commercial building permits have occurred on IR #9, adjacent to Highway 97.

Westbank has a unique set of land use challenges including intertwined geographic boundaries with West Kelowna, topography and previous development patterns. Because the geographic boundaries of West Kelowna and Westbank First Nation are intricately linked, nearly every transit service transverses both communities. This could pose potential complications to implementing service improvements if priorities and budgets do not align.

[4]Section 3, WFN Land Use Law Schedule "A" – Land Use Plan.



Infrastructure

The primary transportation corridor connecting I.R. #9 and #10 is Highway 97, which is fed by a series of road spurs connecting the communities, and frontage roads that provide access to the adjacent commercial developments. Secondary corridors that connect the two parcels of land and/ or provide connectivity within include Boucherie Rd, Westside Rd, E Boundary Rd, Elk Rd and Cougar Rd. A new interchange is under construction at Westside Rd, which will improve access to the WFN office and adjacent development. This will also be the first RapidBus stop West of Okanagan Lake.

Lake Country

Challenges in Lake Country

Finding transportation solutions for areas of low density

Providing transit to areas with lower density can be difficult without decreasing the efficiency of the entire transit system, but it may be a priority to provide access to these areas. Finding the right-sized solution is necessary, and in some instances, this may mean not providing transit where land use does not generate adequate demand for transit.

Linking local service with regional connections

Future investment will have to balance between creating a strong local transit network and improving regional connections.

Land Use

The District of Lake Country's OCP (updated in August 2010), focuses future growth on infill and intensification of land use in order to make best use of existing infrastructure. This policy direction is necessary to preserve agricultural land and slopes above 30 per cent grade (combined these consume 80 per cent of all land). The remaining land within Lake Country, only 24 km^2, contains modest development along the highway that serves as the focal point of the town. It also includes a developing Town Centre on a parallel road to the highway that features mixed use, walkable development. Beyond the Town Centre, most of the new growth has been and will continue to be focused within the neighbourhoods of The Lakes, Lakestone and Woodsdale, with an increasing trend in multiple-unit housing (as illustrated in Fig. 1.4).
Ensuring that these developments are interconnected and easily accessible for transit and pedestrians is critical to supporting future service.

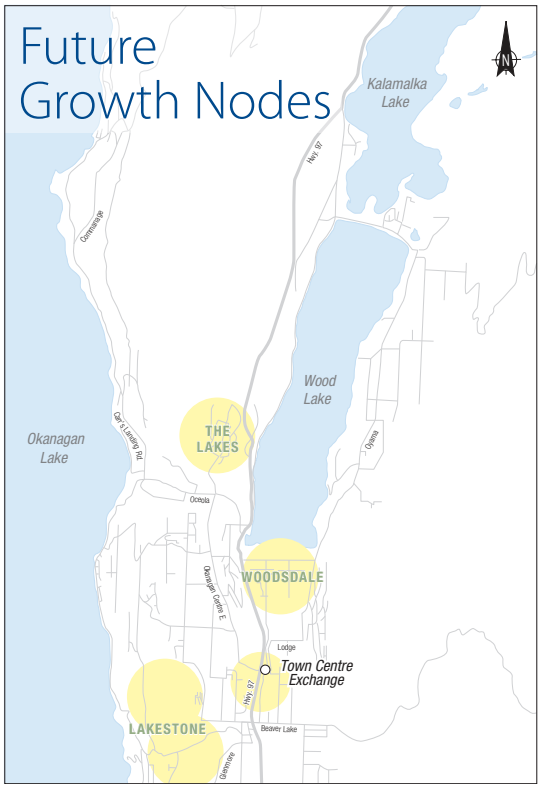


Fig. 1.4

Infrastructure

The primary transit corridor today and in the future in Lake Country is the regional Highway 97. It is scheduled for expansion and realignment between Winfield and Oyama, potentially affecting how the Oyama neighbourhood is served. While improvements to the local road network are one of the top five priorities for the District, the OCP also provides strong direction towards balanced transportation investment. The objectives for the transportation network include:

- Creating a multi-modal transportation network
- Providing a safe and efficient network
- Minimizing the environmental impact
- Reducing greenhouse gas emissions from the transportation network

Transit service that compliments sustainable, compact urban form will be essential to achieving these objectives.


CTransit

Peachland

Challenges in Peachland

Additional pressure on custom and accessible transit service

As the number of elderly and very elderly increases, custom transit and specialized services will be expected to expand to provide more neighbourhood oriented transit to address the mobility limitations of the elderly.

Network connectivity

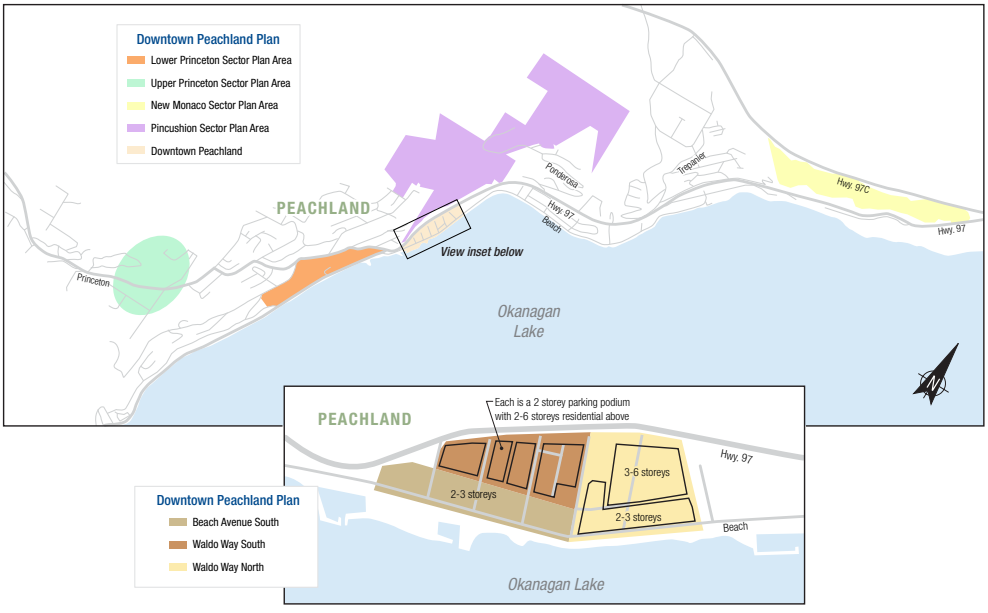
Geographical constraints make it challenging to create a strong transportation grid network that maximizes network connectivity.

Land Use

Within the service area of the Kelowna Regional Transit System, Peachland is the smallest community in land area and population. It is also the most constrained area of land. The linear town centre, referred to as The Fan is squeezed between the lake and Highway 97, and the rest of the development is sporadically located on the other side of the highway, accessible only by steep slopes. This terrain, pattern of development, and disconnected road network is very challenging for transit to serve effectively. However, the District of Peachland's OCP directs concentrated development in The Fan, which includes a mix of medium density residential, commercial, and institutional uses. This will help increase the number of trips by foot and bicycle, and it will improve the efficiency of transit by concentrating popular destinations.

Infrastructure

As described in the map above, there are several future developments planned in largely undeveloped, hilly areas. The planned growth within these areas could double the population in Peachland. The design of the road network in these new communities must be strategic, and should promote connectivity to facilitate future transit service.



Transit Today

Transit system performance and the degree to which it meets or does not meet the needs of the region must be understood in order to create the future network. BC Transit evaluated the overall system and conducted a detail bus stop level review. Performance standards and select themes from the analysis are presented below.

Transit Challenges

Nearly quadrupling transit mode share

To meet the Transit Future Plan's target of seven per cent mode share, annual ridership must increase from 4.3 million to 16 million. An increase in ridership of this magnitude requires significant investment in the Primary Transit Network supported by transit-supportive land use planning and Travel Demand Management policies.

Implementing transit priority measures

Transit priority measures, such as signal times and the reallocation of road space, are a relatively new concept in this region. Seeking public and political buy-in for the implementation of a full spectrum of transit priority measures, including full exclusivity, is critical to the success of this plan.

Increasing the efficiency of the transit network

As transit volumes and traffic congestion increase there will be continued pressure placed on financial resources, the road network and transit facilities. Efficiency should be maximized by avoiding transit service duplication on major corridors, investing in transit priority measures and focusing investment where ridership gains will be the greatest.

Addressing facility capacity issues

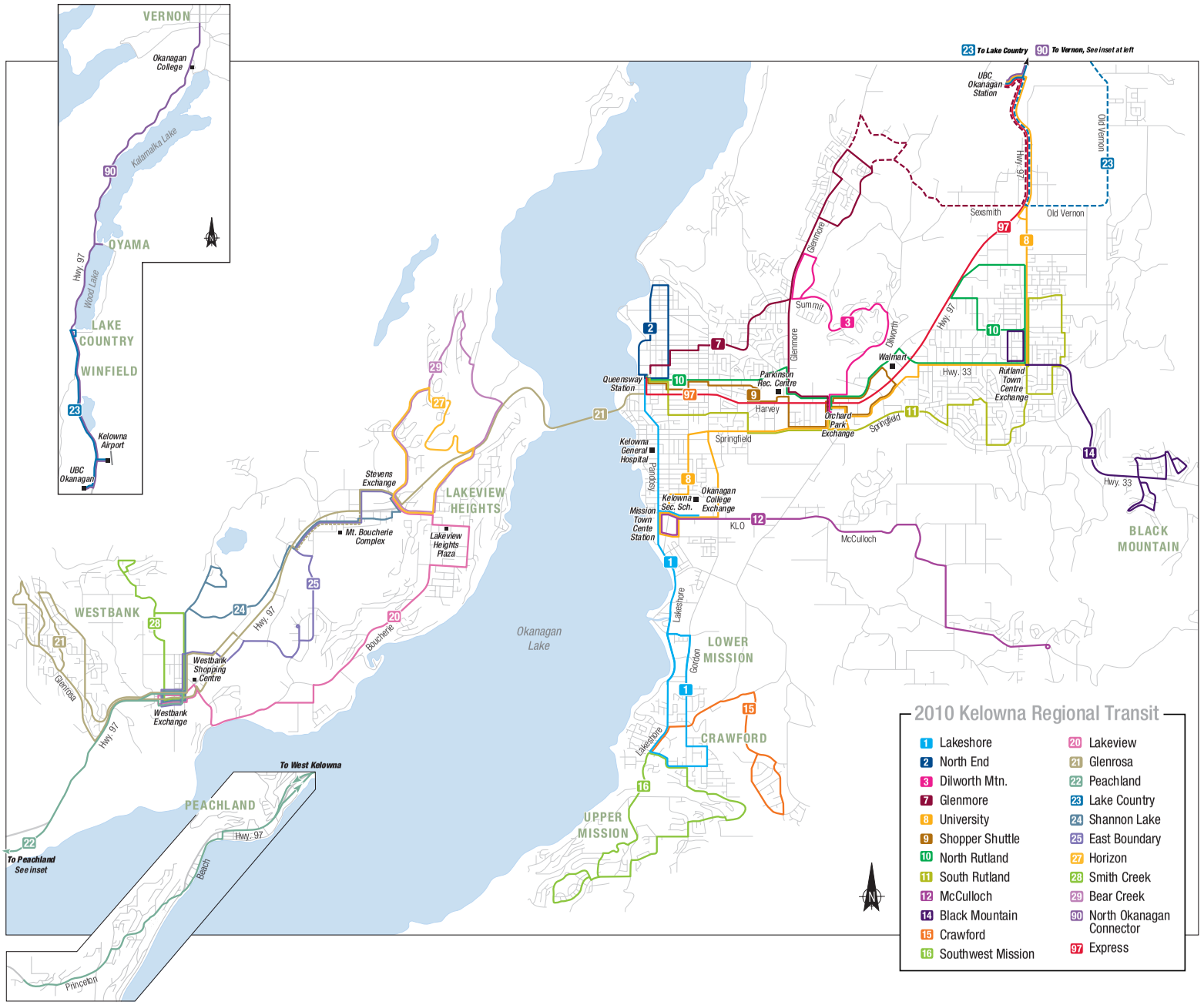
The existing Operations and Maintenance Centre is beyond capacity. Before additional vehicles can be added to the system, a new facility must be constructed.

Increase in demand for custom transit service

The aging population will increase the demand for handyDART and other accessible services in the future. This will require an increase in resources and the provision of new accessible transit solutions to allow those unable to use the conventional transit system the ability to travel as spontaneously as those using the conventional system.

Increase the efficiency of custom transit service

Investigate new ways to meet the custom transit market. For example, in North Vancouver, the Silver Harbour Seniors' Activity Centre has developed a "Go Bus" that operates three days a week and is designed to provide service for isolated seniors. The bus is free to ride and the service costs are covered by foundations, non-profits, service clubs and others.


VERNON
Okanagan College
Kalamalka Lake
90
OYAMA
Hwy. 97
Wood Lake
LAKE COUNTRY
WINFIELD
23
Kelowna Airport
UBC Okanagan
N
23 To Lake Country
90 To Vernon, See inset at left
UBC Okanagan Station
Old Vernon
Hwy. 97
Sexsmith
Old Vernon
97
8
Glenmore
Summit
3
Dilworth
Walmart
Hwy. 97
10
Hwy. 33
Rutland Town Centre Exchange
14
Hwy. 33
BLACK MOUNTAIN
2
7
Queensway Station
10
97
9
Parkinson Rec. Centre
Harvey
Orchard Park Exchange
11
Springfield
Springfield
Kelowna General Hospital
Pandosy
8
Kelowna Sec. Sch.
Okanagan College Exchange
Mission Town Cente Station
KLO
12
McCulloch
21
29
27
Stevens Exchange
LAKEVIEW HEIGHTS
Mt. Boucherie Complex
Lakeview Heights Plaza
25
24
28
WESTBANK
Hwy. 97
Westbank Shopping Centre
Westbank Exchange
21
Glenrosa
Hwy 97
20
Boucherie
Okanagan Lake
1
Lakeshore
LOWER MISSION
Gordon
1
15
CRAWFORD
Lakeshore
16
UPPER MISSION
To West Kelowna
PEACHLAND
Hwy. 97
22
To Peachland See inset
Beach
Princeton
2010 Kelowna Regional Transit
1 Lakeshore
2 North End
3 Dilworth Mtn.
7 Glenmore
8 University
9 Shopper Shuttle
10 North Rutland
11 South Rutland
12 McCulloch
14 Black Mountain
15 Crawford
16 Southwest Mission
20 Lakeview
21 Glenrosa
22 Peachland
23 Lake Country
24 Shannon Lake
25 East Boundary
27 Horizon
28 Smith Creek
29 Bear Creek
90 North Okanagan Connector
97 Express

Performance Standards

Performance standards were established to evaluate the transit system relative to its peers, and to compare services within each transit system. Together, these criteria assess overall performance and identify potential issues that need addressing. The results, on a route and system level, guided the development of the Implementation Strategy.

Performance Criteria	Target Threshold	Minimum Threshold
Rides per service hour	35	12
Rides per service kilometre	1.5	0.5
Cost per Ride	$2.50	$7.00
Cost recovery	35%	15%
Passengers per capita	30	10

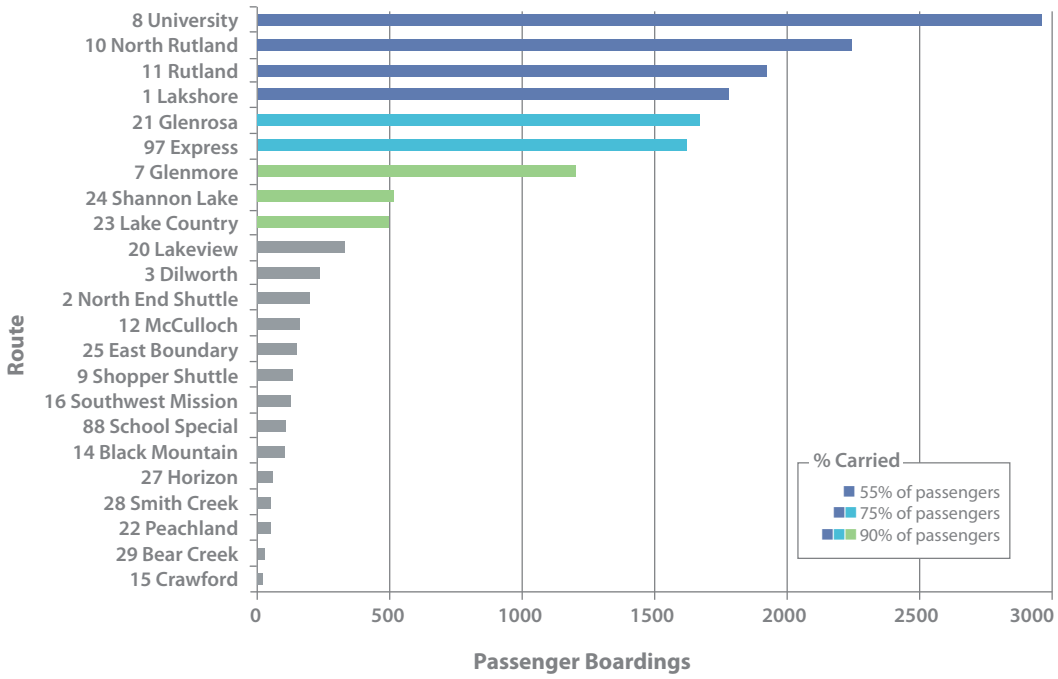
Transit System Review

Today, most of the ridership occurs on a few routes that operate in relatively dense areas and connect major destinations. These routes are productive and efficient and form part of the FTN. For example, the top four routes carry 55 per cent of the passengers while only using 41 per cent of the total service hours. Alternatively, the bottom 14 routes carry 10 per cent of passengers while they use 20 per cent of total service hours. Many of these poor performing, less efficient routes are designed to provide access and coverage instead of efficiency. While lower performance standards are accepted on these coverage routes, allocating a maximum of 10 – 15 per cent of service hours is recommended.

Quick Facts*	
Ridership	4,300,000
Conventional service hours	177,000
Fleet (excluding custom)	72
Number of routes	23
Total bus stops	860

*Based on 2009-10 data.

Average Weekday Ridership 2010



The top performing routes all share similar service characteristics. They operate at least every 15 minutes during the peak travel periods (6 – 9 a.m.; 3 – 6 p.m.), and provide service into the night. They also serve corridors of dense development typically characterized by duplexes and 3-4 story apartment buildings, in addition to business, retail and commercial space. To put this into context, **routes with 15 min peak service reach 75 per cent more population and 93 per cent more jobs than routes with 30 min or worse peak service[5].** These routes also provide direct service, are very easy to understand, and often feature a schedule that is easy to predict. Focusing most of the future investment in these high performing, densely developed corridors, and mimicking the good qualities of the routes is critical to achieving the goals of this plan.

System Performance Stats	
Cost recovery	27%
Rides per service hour	26.8
Average rides per trip	16.4
Rides per route km	1.27
Peak mode share	2.7%

Ensuring that each community has appropriate levels of service to match the demand and land use is paramount to a productive system. There are multiple ways to measure this, but one that is commonly used is rides per service hour. Out of all of the communities in the region, Kelowna has the highest rides per service hour, at an average of 26, whereas Peachland falls below the minimum standard of 12. Figure 1.5 demonstrates this by comparing the per cent of the total ridership and service hours by community. Improving productivity in the rest of the communities should be a priority to achieve the target of 35 rides per service hour.

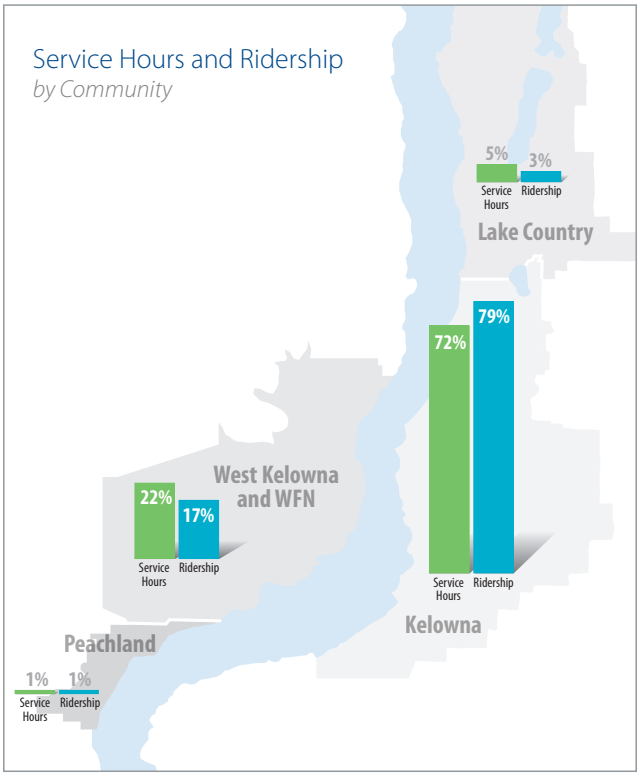


Fig. 1.5

"The top performing routes share similar qualities. They are direct, frequent, easy to understand, and operate all day, every day."

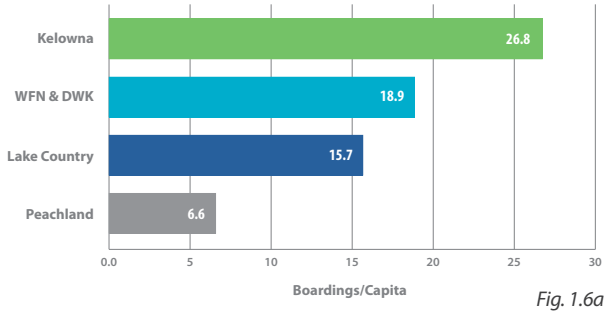


Fig. 1.6a

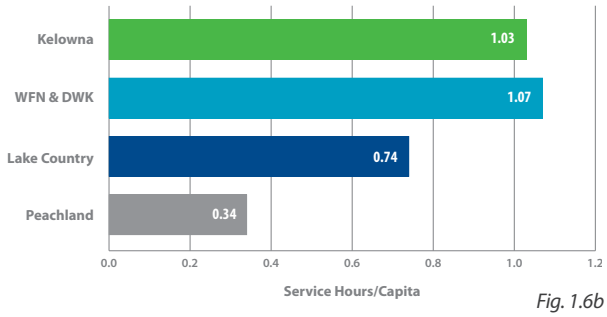


Fig. 1.6b

Future service decisions should work to improve system performance. As demonstrated in figure 1.6a & 1.6b there is proportionally more service to WFN and West Kelowna than the rest of the communities. In a productive system WFN and West Kelowna would also have proportionally more ridership. However, this is not the case, and thus improving performance on the Westside is an important first step.

[5]*Based on a 400m radius from bus stops along each route.*

Custom Transit

Also known as handyDART, custom transit is a demand responsive, door to door service provided for residents whose disabilities prevent them from riding conventional transit. Custom transit hours of operation do not match conventional transit. In Kelowna, Lake Country and West Kelowna, custom operates from 7 a.m. to 5:45 p.m. weekdays and from 9 a.m. – 5 p.m. on Saturdays. There is no service on Sundays or in Peachland. Conventional transit, on the other hand operates seven days a week, with many services running until midnight or later.

Custom transit is designed to achieve slightly different goals than the rest of the system. Whereas the first and primary goal of conventional transit is to increase ridership, the goal of custom is to provide quality and sufficient service to a select group of residents. Attracting new riders who could otherwise ride conventional service for some of their trips would result in escalating handyDART costs and reduce the ability to provide those with no alternatives the level of service they need to actively participate in society.

Approximately 6,900 individuals are registered with custom transit in the Central Okanagan. This is an exceptionally high ratio per capita, notwithstanding the disproportionately high percentage of seniors.

A detailed review of custom transit resulted in the following conclusions and recommendations:

- The registration process used to determine if someone is unable to use conventional transit, and thus eligible for custom, needs to be reviewed. Approximately ten applications are received daily, and only ten – twelve applicants per year are denied. The existing process does not correctly match applicants to the most appropriate transit service, and needs to be reviewed. Rescreening registered users under the new process will ensure that those who are able to use conventional transit are matched with the appropriate service. This will result in an increase in custom service availability for those who are unable to use conventional transit.
- Approximately 70 – 85 per cent of trips provided are subscription trips, or trips scheduled on a regular reoccurring basis. On busy days, usually Tuesdays and Thursdays, subscription trips exceed 95 per cent of all trips. This severely limits casual trips, and dramatically restricts users' ability to semi-spontaneously travel, or travel at all. While improving the registration process should be accomplished first, if this trend continues, added capacity should be considered.
- Much of the subscription trips are to/from medical and day programs. Opportunities for joint funding or other partnerships to accommodate these trips should be considered.
- Trips are prioritized based on trip purpose, with medical trips receiving top priority, followed by education and social trips. Social trips are only permitted after 10:30 a.m., and not between 3 – 5 p.m. when most of the fleet is deployed in subscription service. Service capacity should be steadily expanded to ensure that registrants can request trips for all trip purposes at any time of the service day, and be guaranteed next day service.
- Travel training assists individuals in learning to use conventional transit. Increasing this service when more strict eligibility criteria are enforced will dramatically help those custom riders who must transition onto conventional service.
- Expand service hours and service area to match conventional transit.

Transit Infrastructure

The Kelowna Regional Transit System is supported and made possible by hundreds of bus stops, several exchanges, the Operations and Maintenance (O&M) Centre, and other supporting infrastructure. Bus stop level data reveals patterns and level of use at each stop and exchange, and provides direction for future needs. More detailed information is provided below.

Exchanges

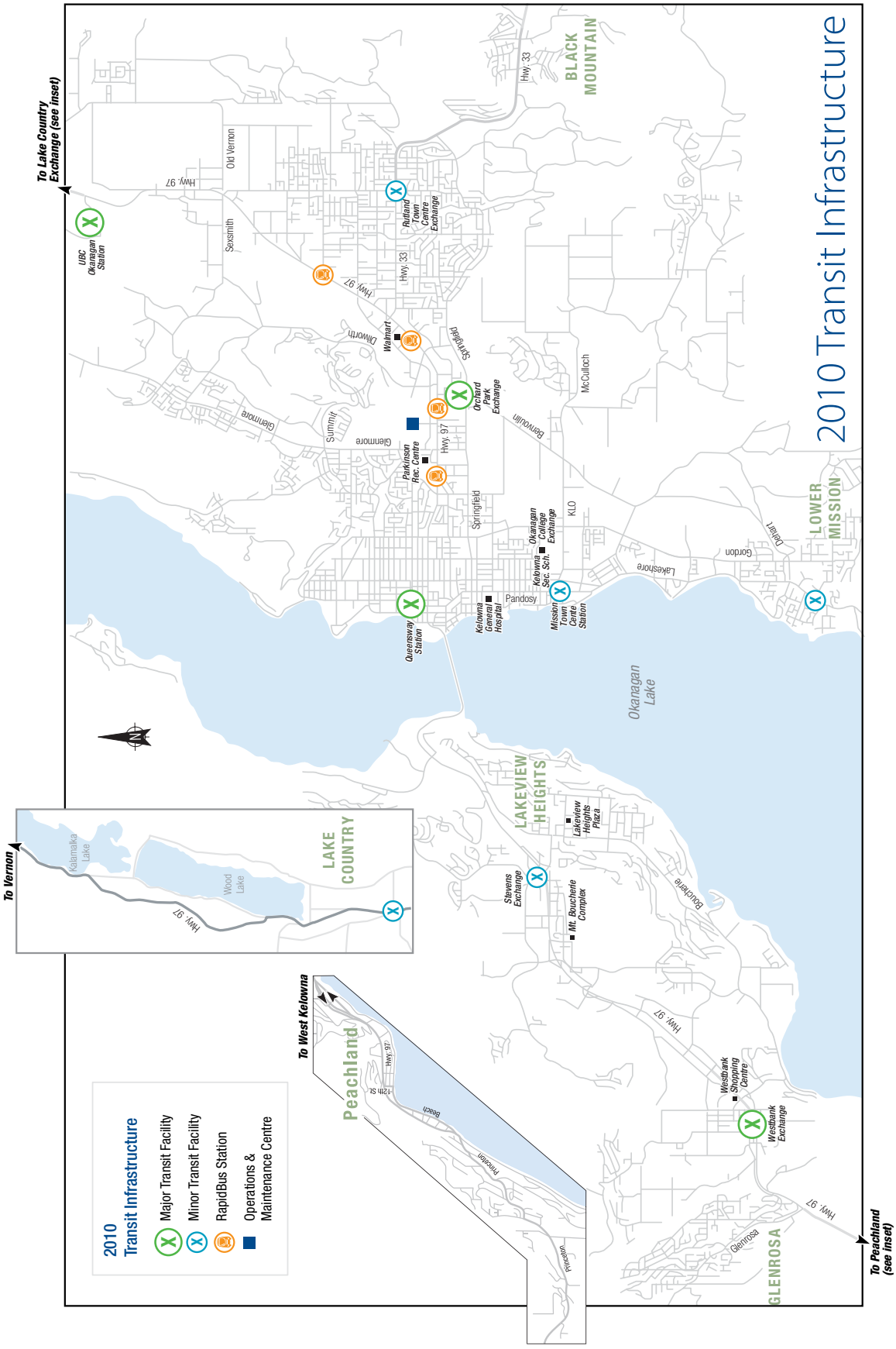
Exchanges are required when multiple buses converge on one location and passengers need to transfer between buses in a safe and efficient manner. They also provide opportunity for vehicles to layover, and for operators to take a break. They can be as simple as several bus stops on the side of the road, and as complex as dedicated property with an island of bus shelters housing many vehicles at once. The four major exchanges in the Central Okanagan are Queensway, Orchard Park, UBCO, and Westbank.

Today, most of the boardings and alightings occur at the exchanges. The top performers are Queensway, Orchard Park, Westbank, Stevens, and Mission Park. The other primary destinations include UBCO, Okanagan College, and Highway 33 and Rutland Rd in Rutland. Some of these exchanges act primarily as a destination (Orchard Park, Mission Park) and some act primarily as a transfer point (Westbank and Stevens). A survey of transit riders at Queensway, for example, showed that one-third of riders use the exchange as a point of transfer only, and two-thirds use it as the start or end of their journey. Understanding how the facilities are used aids when considering relocation, route changes, or redesign.

Transit Priority

Transit priority is a term used to refer to a variety of physical and operational improvements designed to give transit vehicles and their passengers priority over general vehicle traffic. Transit priority elements can be regulatory (such as the successful "Yield to the Bus" regulations and signage), operational (such as retiming traffic signals to respect the large number of passengers on transit vehicles compared to private vehicles), or physical (such as exclusive transit ways, queue jumper lanes and signal priority).

The Central Okanagan region has only recently implemented transit priority measures as part of the RapidBus project. The priority measures are exclusive to Kelowna and include signal priority along Highway 97 between Gordon Dr and UBCO, and a 2+ High Occupancy Vehicle lane along Highway 97 between Sexsmith and Pandosy. Given the anticipated increase in traffic volumes and congestion, additional transit priority measures will be needed to maintain or improve operating speeds, which will keep cost down and help to improve ridership. The type of priority measure implemented should match the particular needs of the intersection or corridor.


2010 Transit Infrastructure
2010 Transit Infrastructure
Major Transit Facility
Minor Transit Facility
RapidBus Station
Operations & Maintenance Centre
To Lake Country Exchange (see inset)
To Vernon
To West Kelowna
To Peachland (see inset)
UBC Okanagan Station
Rutland Town Centre Exchange
Walmart
Orchard Park Exchange
Parkinson Rec. Centre
Queensway Station
Kelowna General Hospital
Okanagan College Exchange
Kelowna Sec. Sch.
Mission Town Centre Station
Stevens Exchange
Lakeview Heights Plaza
Mt. Boucherie Complex
Westbank Shopping Centre
Westbank Exchange
Okanagan Lake
Kalamalka Lake
Wood Lake
LAKE COUNTRY
LAKEVIEW HEIGHTS
BLACK MOUNTAIN
LOWER MISSION
GLENROSA
Peachland
Pandosy
Springfield
Glenmore
Summit
Dilworth
Sexsmith
Old Vernon
McCulloch
Benvoulin
Boucherie
Lakeshore
Gordon
KLO
Hwy. 97
Hwy. 33
Beach
Princeton
Glenrosa

Operations and Maintenance Centre

The Operations and Maintenance (O&M) Centre was built in 1998 and was designed to hold 70 conventional vehicles. As of the January 2011 service change, it houses over 95 vehicles, many of which are stored on public right-of-way due to lack of space. It was originally built to solely serve conventional vehicles, and now includes custom and community vehicles. In order for this plan to be implemented, the capacity must be increased through either an expansion of the existing facility, a new much larger facility, or an additional facility to house expansion vehicles.

Park & Rides

Park & Rides provide low density and semi-rural areas with a method to access the transit system in lieu of, or in compliment to, neighbourhood transit service. While there are no formal Park & Rides today, there is latent demand proven by the increasing instances of Hide & Rides. Orchard Park, Mission Centre and numerous on-street parking locations are known examples where customers drive, park and hop on the bus. Creating formal Park & Rides, whether private or shared use lots, will help attract new customers and will help decrease the problems associated with Hide & Riding.

Vision and Goals

Vision

"Transit influences urban form by providing a high-quality, affordable service that puts the customer first."

This statement reflects an ambition that is larger than just increasing the amount of transit riders. It emphasizes integration with other transportation modes and the positive impact transit can have on communities becoming more sustainable environmentally, socially and economically.

To provide high-quality, customer focused services requires investments in transit and technology to put the Central Okanagan at the forefront of small to mid-sized transit systems.

The vision statement, goals, and future transit network were developed by the Stakeholders Advisory Group with input from the public at large. They were then reviewed and refined by local government and BC Transit staff.

Goals

1. Attract new riders
2. Deliver operational excellence
3. Improve transit sustainability
4. Improve custom transit utilization

Goal 1: Attract new riders

This plan calls for a quadrupling of ridership, increasing from 4.3 million rides today to over 16 million rides in 2035. Future service must continue to be responsive to the dynamic needs of existing riders, while simultaneously attracting new customers by delivering excellent service.

From the feedback gathered through the consultation program, the following objectives to achieve the first goal were created.

Convenient	• Increase frequency on key corridors to a level where passengers are able to use transit without consulting a timetable • Increase transit service span (hours of operation) • Create a network that effectively serves neighbourhoods and provides strong connectivity to popular cross town destinations
Fast and direct	• Implement transit priority measures such as exclusive transit ways, queue jumpers, High Occupancy Vehicle lanes, bus-only lanes, bus and bicycle shared lanes, traffic signal priority, preferential turning arrangements, etc. • Increase distance between stops on some routes • Reduce the amount of deviations in transit routes
Easy to use	• Create simple route structures and schedules • Have consistent headways (time between buses) whenever possible • Have customer information readily available in a format that is accessible to the customer • Provide passenger way-finding information at transit exchanges and transfer points
Modern and attractive	• Design, install and maintain modern, sleek shelters • Investigate technology for transit, including real time information displays at stations and real time information accessible from mobile phones and personal computers • Design transit vehicles to provide a comfortable, clean on-board experience

Goal 2: Deliver operational excellence

In order to retain existing customers and attract new ones, transit service delivery must be excellent and exceed customer expectations. Delivering operational excellence focuses on strengthening the fundamentals of transit service.

From the feedback gathered through the consultation program, the following objectives to achieve the second goal were created.

Reliable	• Improve on time performance. Buses should depart within three minutes of the printed time, and should never leave early • Develop adequate spare ratios, maintenance schedules, and timetables to ensure a scheduled trip is not missed
Customer experience	• Improve hiring practices and operator training so all operators are also customer service representatives • Design and operate transit infrastructure and services to ensure customers and employees feel safe and secure
Accessible to everyone	• Build transit infrastructure and vehicles that are universally accessible • Implement visual and audible stop announcements • Consider the affordability of fares to the majority of the region's population when making fare level decisions • Provide targeted transit services for those unable to use the conventional transit system
Efficient	• Match transit vehicle to demand, by using vehicles that match the all day needs of specific routes • Create a transit network that features layers of service to better match service levels to demand • Prioritize all new service proposals according to the performance standards (e.g., cost per passenger, rides per hour, etc.) • Focus transit investment on high productivity destinations, neighbourhood centres and corridors with transit-supportive land use

Goal 3: Improve transit sustainability

From the feedback gathered through the consultation program, the following objectives to achieve the third goal were created.

Financially sustainable	• Develop new, stable funding sources • Establish the long term strategy for the Central Okanagan so that all investment decisions are supportive of the long term plan • Investigate creative, sustainable ways to fund transit • Work with local government to implement Transportation Demand Management (TDM) measures • Meet or exceed return on investment expectations
Support sustainable urban form	• Establish a clear link between existing and future land use plans and transit service • Encourage and support more walkable and community-focused compact land use patterns that reduce energy consumption and greenhouse gas (GHG) production • Support major centres, neighbourhood centres, and other key areas designated in the Regional Growth Strategy and municipal land use plans by using higher order transit services to connect these nodes • Outline a long term Primary Transit Network that will enable local governments to focus medium and higher density and mixed use development adjacent to the transit network
Environmentally sustainable	• Continuously look for opportunities to go green, whether it is by continuing to be on the leading edge of new propulsion technology for the fleet, or by building green facilities • Integrate the transit network with regional and local cycling and pedestrian networks • Encourage and create high quality pedestrian and cycling links to transit stops and stations • Provide bicycle storage at appropriate stations, stops, and on transit vehicles

Goal 4: Improve custom transit utilization

The purpose of custom transit is different from that of conventional transit. Whereas the critical path for conventional transit is the attraction of new riders, for custom transit the primary goal is to provide quality and sufficient service to riders whose disabilities prevent them from riding conventional transit. Attracting new riders who could otherwise ride conventional service for some of their trips would result in escalating costs and reduce BC Transit's ability to provide those with no alternatives the level of service they need to actively participate in society.

From the feedback gathered through the consultation program and interviews with the custom operations staff, the following objectives to achieve the fourth goal were created.

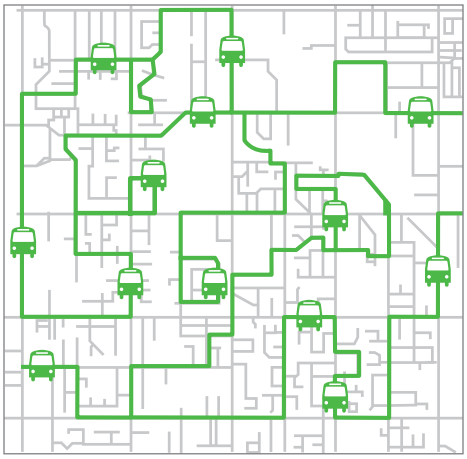
Efficient	• Refine the registration process to better match applicants with the most appropriate transit service. The result will be an increase in service availability for custom users • Increase integration with conventional transit • Investigate new service types to relieve demand for custom transit
Convenient and flexible	• Increase service availability in peak travel times • Increase availability of demand-responsive trips • Reduce the lead time for booking trips

The Future

To achieve the vision and goals of the Transit Future Plan, and the **seven per cent transit mode share target,** the transit network must meet the future transportation needs of the Central Okanagan Region. The network will support local land use and transportation plans by connecting regional and local destinations with high quality transit services, such as the Highway 97 RapidBus.

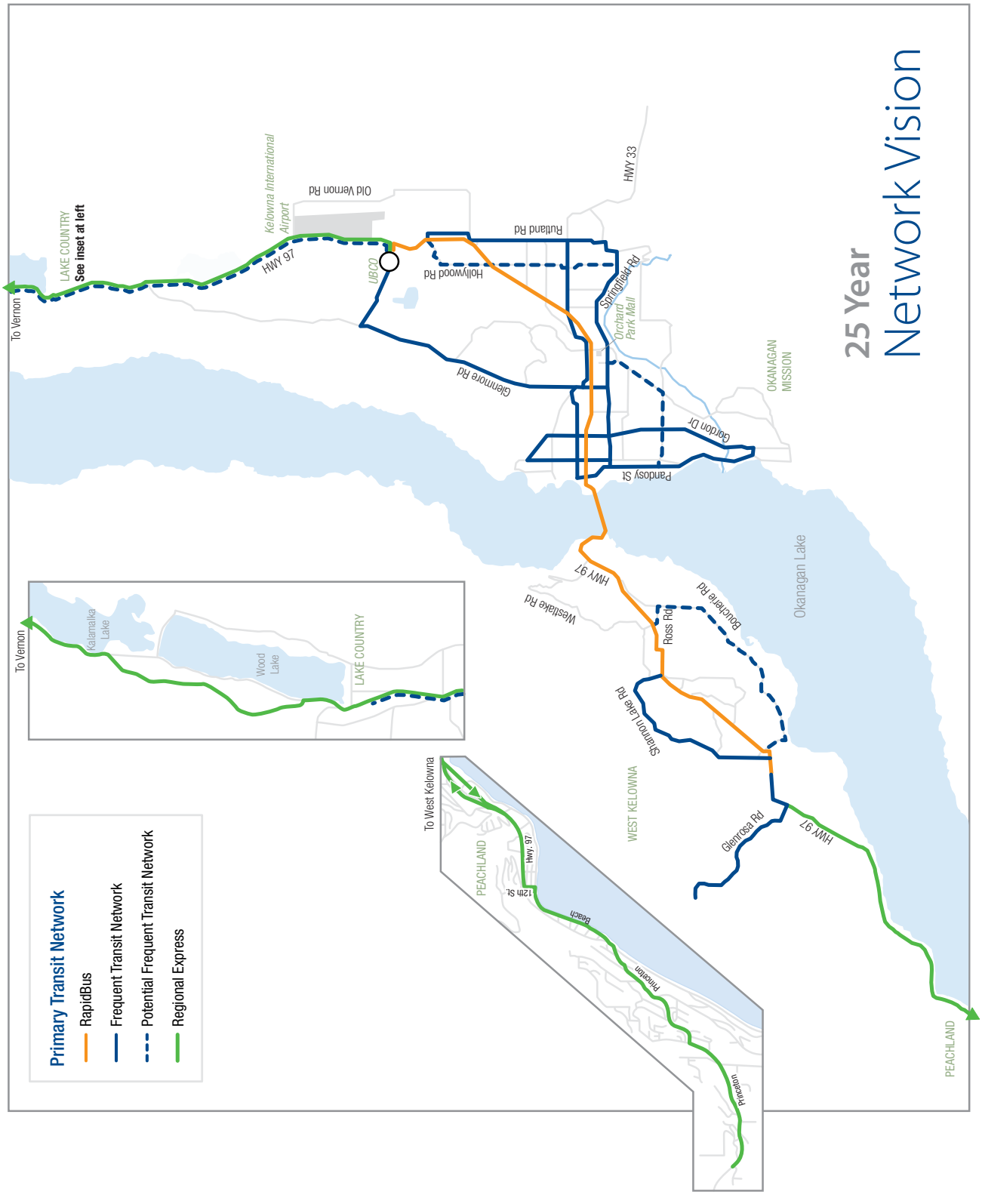
The Transit Future network will feature more direct, faster service allowing customers to better mimic the route they would otherwise travel by car. It also includes four distinct layers of transit service to better match service to demand. One of these layers is a robust Frequent Transit Network (FTN) where service operates at least every 15 minutes, all day, every day. With the added frequency and more grid-like structure, riders will more often transfer where two routes intersect, instead of at focal points throughout the system.

Infrequent, Coverage Service



Frequent, Direct Service

The network is also designed to be more competitive with automobile travel by improving the directness and reliability of the transit system. The network emphasizes connections between regional growth centres, connections to RapidBus, cross town movements, and connections to local destinations.


25 Year
Network Vision
Primary Transit Network
RapidBus
Frequent Transit Network
Potential Frequent Transit Network
Regional Express
To Vernon
LAKE COUNTRY
See inset at left
HWY 97
Kelowna International Airport
Old Vernon Rd
UBCO
Hollywood Rd
Rutland Rd
HWY 33
Springfield Rd
Orchard Park Mall
Glenmore Rd
OKANAGAN MISSION
Gordon Dr
Pandosy St
Okanagan Lake
Boucherie Rd
Ross Rd
Westlake Rd
HWY 97
Shannon Lake Rd
WEST KELOWNA
Glenrosa Rd
HWY 97
PEACHLAND
To Vernon
Kalamalka Lake
Wood Lake
LAKE COUNTRY
To West Kelowna
PEACHLAND
Hwy. 97
12th St.
Beach
Princeton
Princeton

Service Layers

The Transit Future network is comprised of four layers of transit service. Together the different layers of service create a comprehensive transit network to best meet the existing and future needs of the Central Okanagan region. The service layers are designed to efficiently and effectively move people around the region facilitated by the implementation of transit priority measures.

Rapid Transit Network (RTN)

Rapid Transit service is designed to move high volumes of passengers between major regional destinations along key transportation corridors. Services are very frequent (15 minutes or better) and stop less often than traditional transit services. Together, investments in Rapid Transit infrastructure, technology, vehicles, and service levels greatly increase system performance. To improve travel time and reliability, Rapid Transit utilizes an exclusive or semi-exclusive right-of-way to eliminate or significantly reduce the impact of general traffic on transit vehicles. Rapid services may use high capacity transit vehicle technologies such as light rail and bus rapid transit vehicles. However, the anticipated demand in the Central Okanagan does not meet minimum requirements for rail-based technology. Other investments required along the corridor are premium transit stations, off-board ticketing, and typically corridor branding.

Frequent Transit Network (FTN)

Frequent Transit service provides medium to high density land use corridors with a convenient, reliable, and frequent transit service all day long (15 minutes or better, 15 hours a day, 7 days a week). The goal of the Frequent Transit Network (FTN) is to allow people to spontaneously travel without having to consult a transit schedule. The Frequent Transit Network carries a large share of the transit system's total ridership and for this reason, justifies capital investments such as transit priority, right-of-way improvements, a high level of transit stop amenities, and corridor branding.

Local Transit Network (LTN)

The local transit network is designed to connect neighbourhoods to local destinations and to Rapid and Frequent Transit services. Local transit services allow customers to plan a trip to work, school, local shopping centre or personal trips by transit. Frequency and vehicle type are selected based on demand. In some cases, smaller transit vehicles can be utilized to better match passenger demand and operating conditions on local roads.

Targeted Services

Targeted services are a collection of transit services that do not fit into the other definitions and are more focused on the specific needs of customers. These services include:

- Interregional services that provide connections between cities
- Custom transit: door to door services for customers unable to use the conventional service
- Express service: a direct limited stop route between destinations
- Dial-a-Ride or para-transit: on demand service with a predefined service area designed to provide access in low density areas.

Service Layer Definitions

	Rapid	Frequent	Local	Targeted
Land use	High density mixed land use at key nodes	High to medium density along corridors	Medium to low density	Varies depending on service
Vehicle Type	High capacity bus, street car/ tram, light rail	Standard or high capacity bus or street car/tram	Standard or small bus	Standard or small transit vehicles, vans, taxis, commuter rail vehicles
Service Frequency	15 minutes or better between 7:00 a.m. – 10:00 p.m., 7 days a week	15 minutes or better between 7:00 a.m. – 10:00 p.m., 7 days a week	Frequency based on demand	Varies depending on service
Service Span	5:00 a.m. – 1:00 a.m., 7 days per week, extended based on demand	5:00 a.m. – 1:00 a.m., 7 days per week, extended based on demand	6:00 a.m. – midnight, 5 days per week, extended based on demand	Varies depending on service
Stop interval	Limited stops at key locations. Stops are typically spaced 800m to 2km apart	Frequent stops along a corridor, 500m apart or less	250m – 500m	Varies depending on service
Facilities and Amenities	**Rapid Transit stations** • level door boarding • off-board fare payment • real time information • bike storage • quality customer information • may include Park & Ride • investment in pedestrian infrastructure along corridor and near stations	**Local Stops** • quality customer amenities at stops **Select major stops with enhanced amenities** • level door boarding • off-board fare payment • real time customer information • bike storage	**Local Stops** • quality customer amenities at stops • enhanced amenities around major stops	Varies depending on service
Signal Priority	Transit is given signal priority over other traffic at intersections along the full corridor	Transit is given signal priority over other traffic at key intersections along the corridor	Transit is given signal priority at key delay points only	Only if part of a Rapid or Frequent Corridor
Lane Priority	Transit vehicles are separated from other traffic in an exclusive (Exclusive Corridor) or semi exclusive (Priority Corridor) right-of-way to avoid congestion	By-pass lanes at key areas of congestion, High Occupancy Vehicle lanes, peak hours bus lanes	No lanes	Only if part of a Rapid or Frequent Corridor

Rail vs. Bus

Kelowna Council received a report addressing the appropriateness of rail versus bus technology in Kelowna. The report concluded that preserving the existing rail corridor is vital, but over the next two decades, buses offer greater advantages, including:

- Operational and routing flexibility to respond to land use changes and shifts in travel demand
- Significantly lower capital and operating costs which enables available funding to be strategically invested to benefit the greatest number of people
- Public Appeal: Modern Bus Rapid Transit services are capable of providing a premium transit service with many of the characteristics of rapid transit (e.g., separation from traffic, premium vehicles, high frequencies, enhanced station amenities, express boarding, advanced information systems) to attract new riders
- Scalability: Bus services are more easily implemented in a phased approach that compliments increases in ridership on a corridor
- Environmental Performance: The environmental performance of modern buses is improving rapidly as a result of movement within the transit industry toward cleaner alternate fuels (e.g. clean diesel, CNG) and the purchase of hybrid electric buses and the development of hydrogen fuel cell technology

Benefits of the Transit Future Network

The 25-year network is designed to achieve the goals of the Transit Future Plan in the following ways:

Attract New Riders

- Direct transit routes, transit priority measures, and fewer transit stops on the Rapid and Frequent corridors will provide for faster transit travel times
- Increased frequency on the Rapid and Frequent Transit Networks throughout the entire day will allow people to use the transit system spontaneously without the use of a timetable
- Improved transit service outside of peak times will allow customers an increased opportunity to conveniently use transit mid-day and in the evening
- Fewer transit route variations and improved customer information such as a web based trip planner and real time information at the stop level will make the transit system easier to use
- New and improved Park & Ride facilities will provide customers with more choice in accessing transit in semi-rural and suburban areas
- Improved customer amenities at transit stops, such as new street furniture and customer information to enhance the customer experience

Deliver Operational Excellence

- Direct transit routes and transit priority measures on Rapid and Frequent Transit corridors will create a more efficient transit network by decreasing transit travel times, and therefore, the overall cost of providing the service
- Utilizing different transit vehicles with varying capacities to better match demand can reduce costs and GHG's
- Transit priority measures, proper maintenance, and adequate schedules will improve on time performance

Improve Transit Sustainability

- Rapid and Frequent Transit corridors will provide the capacity to move high volumes of people by transit thereby reducing the amount of single occupancy vehicles on the road
- The use of new greener transit vehicle technologies will further reduce the environmental impact
- Rapid and Frequent Transit corridors will help shape and support land uses that lend themselves to an increase in the use of transit and active modes of transportation (e.g., increased densities and mixed use developments)
- Integration of the transit network with active modes of transportation (e.g., cycling and biking) will increase the catchment of transit services and provide opportunities to further reduce the amount of single occupancy vehicles on the road

Improve Custom Transit Utilization

- Expanded service hours and days of operation will provide custom riders with greater flexibility and mobility
- Improved access to the conventional transit system through the simplification of routes and schedules, and accessible vehicles and bus stops will aid riders transitioning from custom to conventional transit
- Expanded custom service availability during peak travel times will decrease the number of unfulfilled trips and increase the number of non-medical trips

Fig. 1.7 –Quick Facts

Quick Facts						
Year	**Service Hours**	**Population**	**Hours per capita**	**Ridership**	**Rides/hour**	**Modesplit**
1985	28,400	91,400	0.31	768,000	27	---
2010	177,000	188,000	0.94	4,300,000	24	3%
Projected 2035	600,000	264,000	2.27	16,000,000	27	7%

Future Requirements

To quadruple ridership in 25 years, and to achieve local and *Provincial Transit Plan* targets, significant transit operating and capital investment is required. This section of the plan outlines service hours and fleet projections as well as identifying the required transit infrastructure to fulfill the 25-year network vision.

Service Hours and Vehicles

Future Service Hours

The forecast for the total service hours needed to serve Central Okanagan in 2035 was calculated by each transit route and service type (Rapid, Frequent, Local, Targeted) and by assigning their corresponding service levels and service spans for each day of the week. The future network is based on minimum service levels, as described below. In many cases the frequency and service span exceed the minimum standard (e.g., the Springfield FTN corridor may have 7 min frequency in peak periods).

Service Type	Minimum frequency	Minimum service span	Minimum service days
Rapid	15	7am – 10pm	7 days/week
Frequent	15	7am – 10pm	7 days/week
Local	30	7am – 7pm	5 days/week

The service hours for the conventional and custom transit system are projected to more than **triple** over the next 25 years from 212,000 to approximately 662,000. This will more than double the service hours per capita, from 0.9 today, to 2.3 in 2035.

Fig 1.8 – 2010 and Projected 2035 Annual Service Hours

	Conventional System	Custom System	Total
2010	177,000	35,000	212,000
Projected 2035	600,000	62,000	662,000

However, the historical growth trend exceeds what is projected and planned for 2035. From 1985 – 2010, hours & ridership increased nearly six-fold, and the service hours per capita tripled (as illustrated in Fig. 1.7 on previous page).

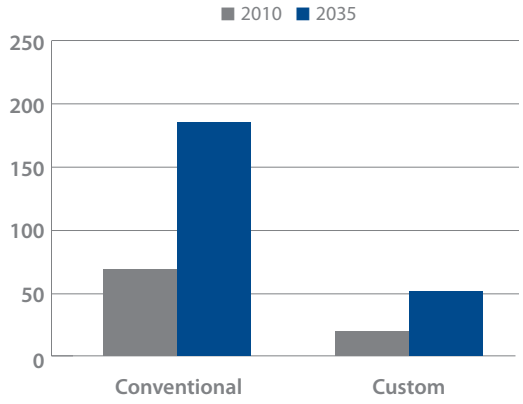
"The historical growth trend exceeds what is projected and planned for 2035."

Future Fleet Requirements

To deliver the service in 2035 as described above, a 150 per cent increase in fleet is required. This will increase the conventional fleet from 72 to 184 and the custom fleet from 23 to 51 vehicles over the 25 year period.

The maximum fleet required is determined by the period of time with the most service on the road. Today, the fleet intensive requirements are during the peak periods, when service frequencies are at their highest. Much of the future service expansion will occur outside peak periods. This explains why service hours are projected to triple, while fleet will only increase by 150 per cent in 2035. However, travel time is another factor in determining fleet size. This plan assumes congestion will increase on certain corridors, increasing the time it takes to complete one trip, and thus requiring more vehicles at any given time. However, it also assumes that a moderate level of transit priority will be implemented to lessen the negative impact congestion has on transit.

25 Year Fleet Projection



> "If transit priority measures are not in place, the fleet required to implement the 25-year network will be greater than what is estimated above."

To achieve the goals of this plan, specifically to better match vehicle type to demand and service, a more diversified fleet will be required. The plan calls for the following types of vehicles:

RapidBus	Sleek, modern buses that are exclusive to the Highway 97 corridor
Regional Coach	Features higher customer amenities designed for longer, express trips
Conventional	Standard 40' bus, with full capacity of about 65
Community	26' – 35' bus with less capacity, but still allows for standees. Better designed to fit neighbourhoods.
Custom	Smallest vehicle with smallest capacity. Could range from a van equipped to carry a wheelchair to a small bus.

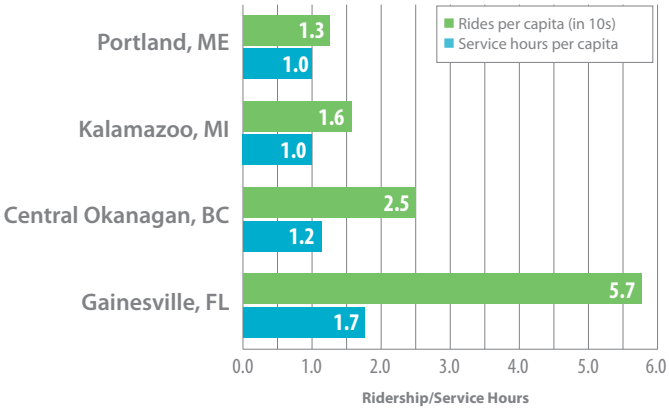
Benchmarking

The Kelowna Regional Transit System was compared to other transit systems in communities with similar population sizes in Canada and the United States. Other important factors such as land use, density, economic development patterns and demographic makeup were not considered. Comparisons were done for both existing and future service hours and fleet. The benchmarking exercise concludes that the future service hours and projected rides are aggressive for the region, but are not unreasonable.

2010

Today, service levels and ridership vary significantly relative to population, but generally, in the Central Okanagan, they are slightly higher than communities of similar size. This plan calls for a continued increase in service hours per capita at a slightly slower rate than historical growth. Over the past 25 years, annual hours have grown more than six-fold, and over the next 25 years, annual hours are projected to grow, but at a slower rate, more than three-fold. Ensuring that rides per capita remains constant or increases is a strong measure of the plan's success.

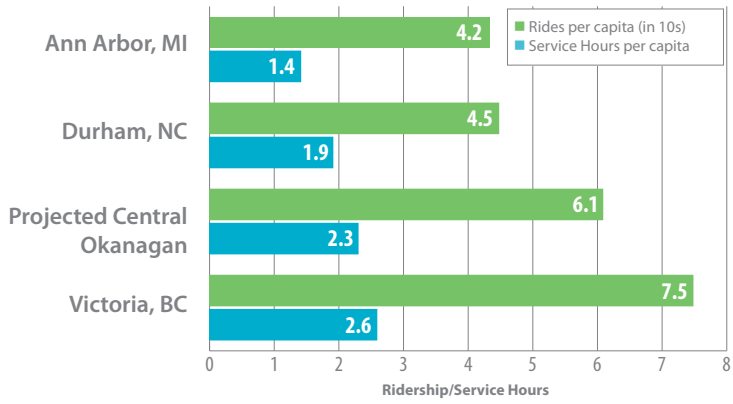
Ridership and Service Hours per Capita
Communities with population 160,000 –188,000



2035

The same exercise was conducted for communities that have the population today that the Central Okanagan is projected to become in 2035. While the amount of service planned for the anticipated population (2.3 hours/capita) is largely in line with other communities, the projected rides per capita (61) is slightly higher than average. The plan also calls for a modest increase in rides per service hour, a measure of productivity, from 24 today to 27 in 2035. This gain in efficiency will result from limiting the proportion of unproductive service, and funneling investment into the Rapid and Frequent Transit Networks. However, it will only be successful when combined with complimentary land use decisions, Transportation Demand Management (TDM) and transit priority measures to limit the increase in running time due to congestion.

Ridership and Service Hours per Capita
Communities with population 250,000 –355,000



Transit Infrastructure

Implementing the Rapid and Frequent Transit Networks requires investments in transit infrastructure such as transit priority and customer facilities.

Transit Priority

Transit priority is a term used to refer to a variety of physical and operational improvements designed to give transit vehicles and their passengers priority over general vehicle traffic. Transit priority elements can be regulatory (such as the successful "Yield to the Bus" regulations and signage), operational (such as retiming traffic signals to respect the large number of passengers on transit vehicles compared to private vehicles), or physical (such as exclusive transit ways, queue jumper lanes and signal priority).

As congestion increases, it will be critical to give transit priority over general traffic to attract greater numbers of passengers and to maintain efficiency. Transit priority investments also improve reliability by reducing the effect that daily changes in congestion have on transit travel times. Savings in transit travel times can reduce the number of service hours and fleet required to operate service.

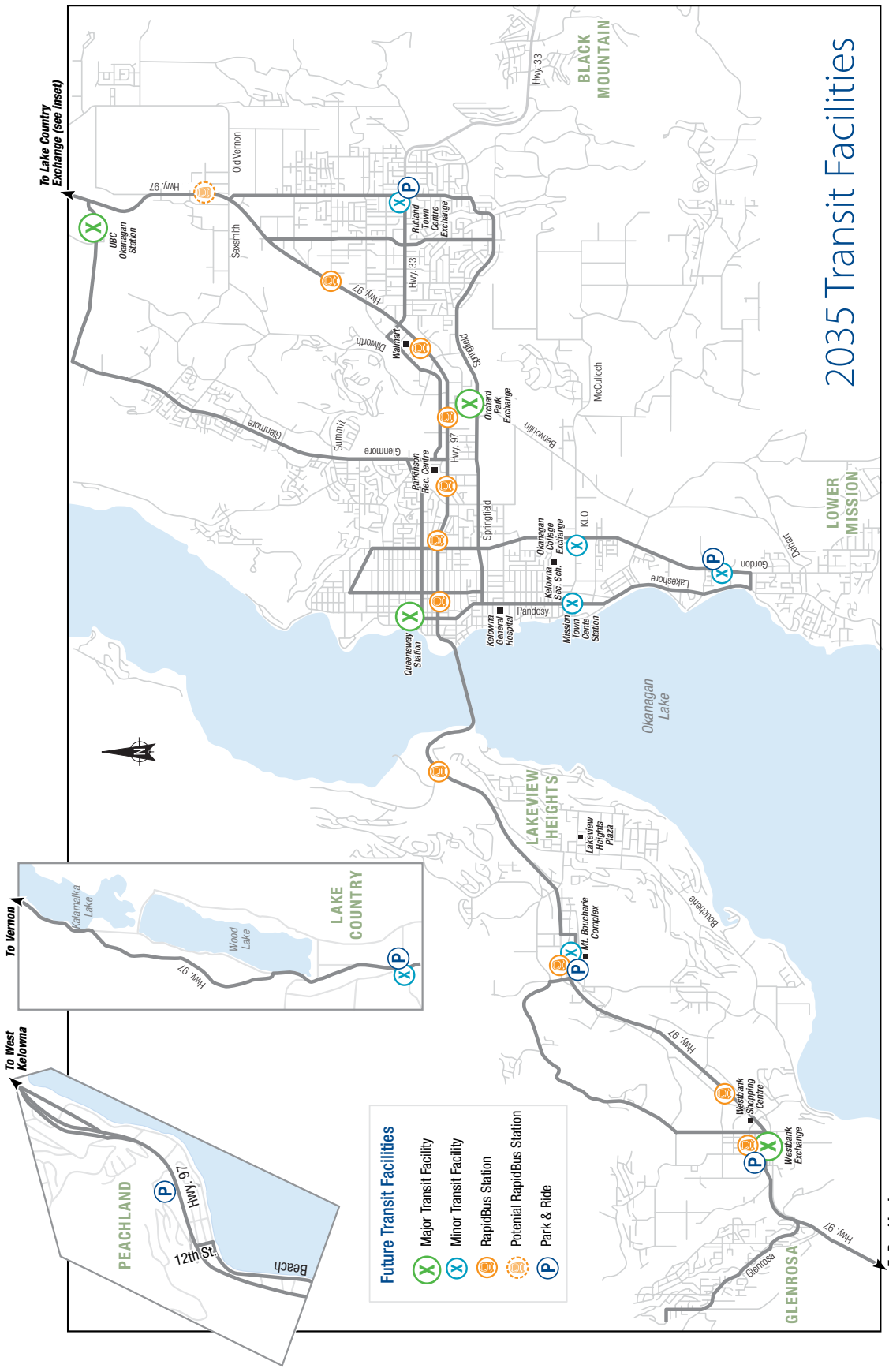
Reviewing forecasted traffic volumes and anticipated areas and corridors of congestion, the following corridors are at the greatest risk of interrupting transit operations.

- Highway 97 (Westbank to UBCO)
- Pandosy/Lakeshore (Lequime Rd to Clement Ave)

These corridors should be the first to receive appropriate transit priority treatments to ensure the smooth operations of the RapidBus and FTN lines. **While exclusive transit lanes may not be feasible or required in the near term, investments on these key transit corridors should incrementally work towards full exclusivity.** Additional studies should be conducted on segments and intersections as the travel time increases and level of service declines in order to anticipate and allocate resources.

Customer Facilities

Numerous transit exchanges, both major and minor, are required to facilitate transfers and provide space for vehicles to layover. There are also new Park & Ride opportunities to provide customers with direct access to the RTN and FTN in lower density areas where transit services may not exist or are infrequent. Modern, technologically advanced transit stations along the Highway 97 RapidBus line help improve the image of transit and attract new riders. Both existing and future facilities are identified on the map shown on the following page.


2035 Transit Facilities
To Lake Country Exchange (see inset)
To Vernon
To West Kelowna
Future Transit Facilities
Major Transit Facility
Minor Transit Facility
RapidBus Station
Potential RapidBus Station
Park & Ride
UBC Okanagan Station
Old Vernon
Hwy. 97
Hwy. 33
Rutland Town Centre Exchange
Walmart
Dilworth
Orchard Park Exchange
Glenmore
Summit
Parkinson Rec. Centre
Springfield
Okanagan College Exchange
KLO
Kelowna Sec. Sch.
Kelowna General Hospital
Pandosy
Queensway Station
Mission Town Centre Station
Lakeshore
Gordon
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Boucherie
Westbank Shopping Centre
Westbank Exchange
Glenrosa
GLENROSA
LAKE COUNTRY
Kalamalka Lake
Wood Lake
PEACHLAND
12th St.
Beach

Transit Amenities

The Transit Future plan requires investment in stations on the RapidBus corridor and at major stops on the Frequent Transit Network. Investments in customer amenities should be directed to these the stops with the most activity. Transit stops with lower levels of passenger activities should at a minimum meet accessibility guidelines with a bench available for customer seating.

Facility	Attributes
Branded RapidBus Stations	• High end transit shelter • Level door boarding • Off-board fare payment • Real time schedule information • Bike storage • Customer way finding information • Universally accessible • Investment in pedestrian infrastructure along corridor and near stations.
Branded FTN Corridors and major stops with enhanced amenities	• High end transit shelter • Level door boarding • Off-board fare payment • Real time schedule information • Bike storage • Customer way finding information • Universally accessible
High activity transit stops	• Transit shelter • Bike storage • Quality customer information • Universally accessible
Lower activity transit stops	• Universally accessible • Bench

Implementation Strategy

The Transit Future Plan sets a vision for the region that requires a significant commitment to transit supportive land use and a transformation of today's transit network. It was developed in collaboration with municipal staff and influenced by feedback from the general public and transit customers. The implementation strategy guides the creation of the Transit Future network by outlining key regional network priorities, and then by detailing service strategies for each community. In conjunction with service expansion, implementing operational adjustments to improve the existing system is always recommended.

The priorities are not scheduled on a year-by-year basis as the implementation of the Transit Future Plan is dependent on numerous unpredictable factors such as:

- The availability of funding from local, provincial, and federal governments
- Community growth factors (e.g., community development and shifts in demographic factors)
- Operational and capacity demands of the system
- Opportunities for value added partnerships (e.g., road improvement projects by local government)

Regional Network Priorities

The network priorities establish the critical steps for implementation of the regional Transit Future network. Some priorities may be implemented concurrently, but the expansion or replacement of the Operations and Maintenance centre must be completed prior to significant service expansion.

Highway 97 RapidBus Project

RapidBus is not a brand of transit service or a type of transit facility. It includes a range of bus services with enhancement beyond the level generally found in conventional transit. The concept can be best described as a rubber tired form of rapid transit that combines expanded service levels, operational and infrastructure improvements (stations, vehicles, bus priority and running ways) and increased customer amenities to provide an enhanced experience.

The first phase of the Highway 97 RapidBus project began in 2008, after the release of the *Provincial Transit Plan*. Together, the federal and provincial governments and the City of Kelowna completed the following project elements, and opened the line from downtown Kelowna to UBCO in September 2010:

- Seven high-quality, branded stations
- Transit signal priority along much of the corridor
- Pedestrian overpass at the Parkinson Recreation Centre
- Opening of the first High Occupancy Vehicle lane in BC outside of Metro Vancouver.

The next phases of the project are underway. With contributions from the federal and provincial governments, the City of Kelowna and the District of West Kelowna, this $50.5 million investment includes:

- Three major exchanges on the Highway 97 corridor
- Eleven high-quality, branded transit stations (in each direction)
- Two exchanges that support the connecting Frequent Transit Network (Rutland and Mission/Springfield)
- Transit signal priority along the entire corridor and on key connecting FTN corridors
- Real time information and passenger information displays

The Highway 97 RapidBus project is scheduled for completion in 2014. The opening of the full line from Westbank to UBCO will form the regional spine of the Transit Future network. It will feature fast, direct service that works to change the perception of transit through modern, attractive amenities. It is a critical component to achieving the mode share target of seven per cent by 2035.

In the future, RapidBus should be reviewed to ensure it serves new land use development with additional stations and maintains or improves trip time via increases in transit priority measures.

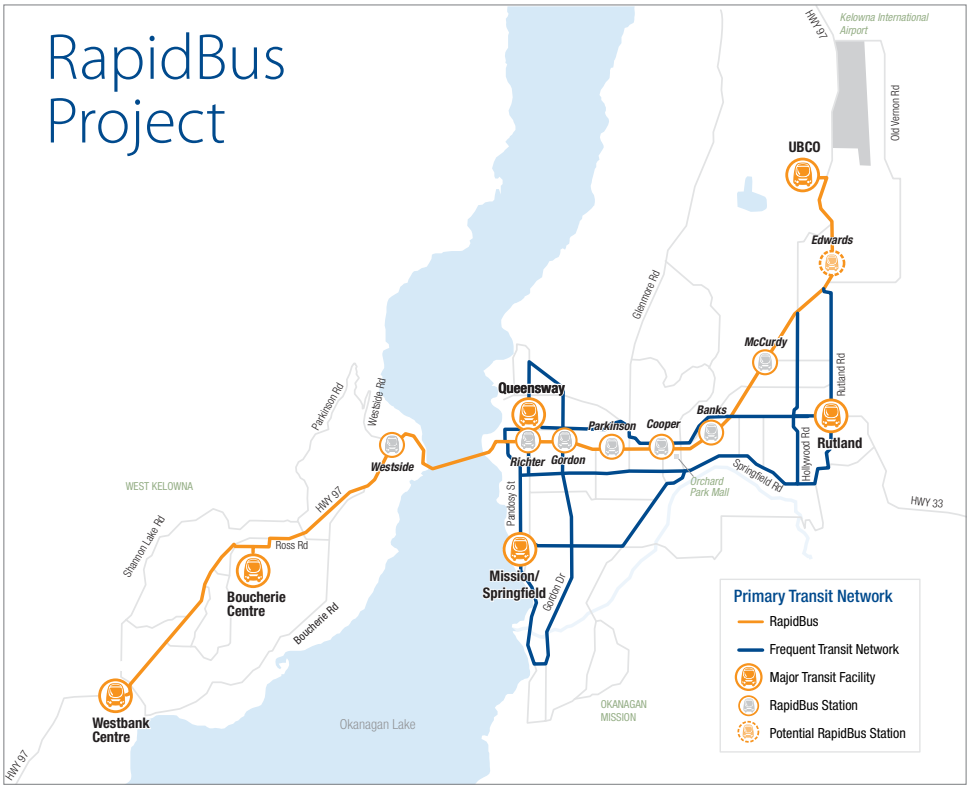
Establish or Upgrade Key Transit Infrastructure

- Operations and Maintenance Centre: The capacity of the O&M Centre must be expanded prior to adding vehicles to the transit system. This largely affects the ability to expand peak service, since this is when the most vehicles are needed.
- Strategically located Park & Rides: Given the latent demand for the ability to park next to transit stops and exchanges, as shown by the occurrence of Hide & Rides, establishing formal Park & Rides should be initiated immediately. Opportunities for shared use parking lots should be explored. Park & Rides will help increase ridership by providing access to the transit system where there is infrequent service or no service at all.

Other Regional Priorities

- Establish the Frequent Transit Network (FTN): Route realignment and service increases on the FTN should be prioritized based on demand to achieve 15 minute service all day, every day. This level of service is proven to attract a wider market by promoting spontaneous travel, or the ability for travel without a schedule. Other features of the FTN, such as simple routing, easy to understand schedules, and branded high-quality amenities also contribute to the increase in ridership.

- Expand the Transportation Demand Management (TDM) program, including an aggressive rideshare (carpooling) marketing effort: Certain trips are not feasible for transit to provide, and certain travel markets will never use the bus. Promoting alternatives to decrease the rate of single occupant travel, such as ridesharing, will help reduce green house gases and reduce congestion.
- Increase custom transit availability and hours of operation: Refining registration process criteria to ensure those using custom transit are not able to use conventional will increase the availability of trips for those unable to travel on conventional services. When demand still exceeds supply, additional capacity during peak periods should be added, in addition to the expansion of hours of operation to match those available on most conventional transit services.



Local Priorities

A community focused, detailed review was conducted for each community in the service area. Using the most recent transit performance information, local community plans and priorities, and comments from the public, a short term implementation strategy was created. It outlines the first steps towards creating the 25-year transit network.

City of Kelowna

Featuring the densest development and the existing and future majority of transit service, transit in Kelowna will go through two significant route realignments. Package One focuses on the north-south corridor from Mission to north downtown, and Package Two focuses on the Glenmore area. While each package does not have to be implemented in full, certain portions should be implemented together to maintain coverage and reduce disruption to existing customers.

Package One: North – South Corridor

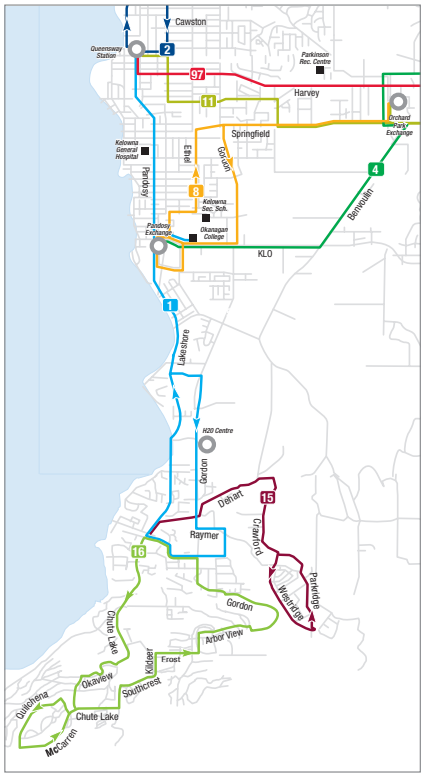
Package One makes transit easier to understand and use by streamlining routes and reducing deviations. It also better matches service levels to land use to improve efficiency. Package One begins to create the Frequent Transit Network by establishing three FTN corridors (Springfield, Pandosy and Gordon). Transit priority measures should be considered for the most congested corridor or at key congestion points, in addition to unique branding (e.g., dedicated vehicle fleet or themed shelters and improved stop amenities). Package One also works to improve performance and service in the Mission area by providing direct service to the H2O and Capital News Centres.

New, direct service to the Kelowna General Hospital via Route 11 South Rutland eliminates service in some areas just south of Highway 97. The need for a replacement service should be evaluated as part of future community engagement.

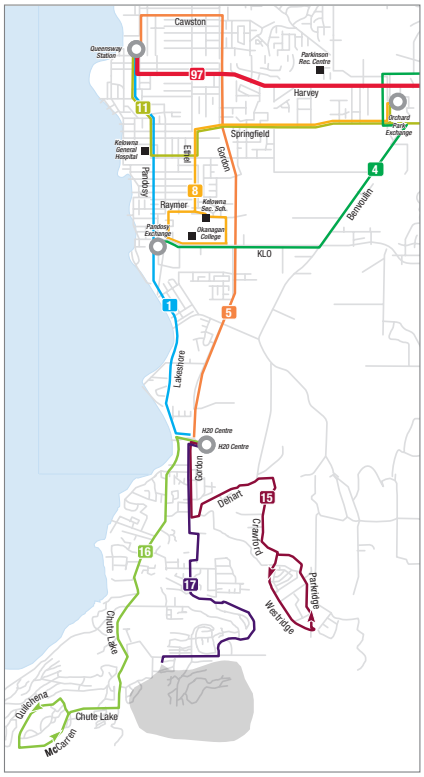
Transit service to Okanagan College will improve by having access to three FTN routes. However, the college will no longer be directly served by Route 1 Lakeshore. Instead, it will continue to be directly served by Route 8 University and Route 4 Pandosy/UBCO Express, and will be within a short walking distance of Route 1 Lakeshore and the new Gordon Dr route.

It is recommended to implement the new Gordon Dr route at 15 minute service in the peak, and 30 minute service off peak in combination with the changes to Route 8 University. This will maintain service to residents along Gordon and Ethel, and it will be an attractive service from day one. Restructuring Routes 15 Crawford, 16 Southwest Mission and 1 Lakeshore to serve the H2O Centre should be completed as a package. Opening a Park & Ride near the terminus of Route 1 Lakeshore is recommended in conjunction with service restructuring to H2O Centre.

2010



Future



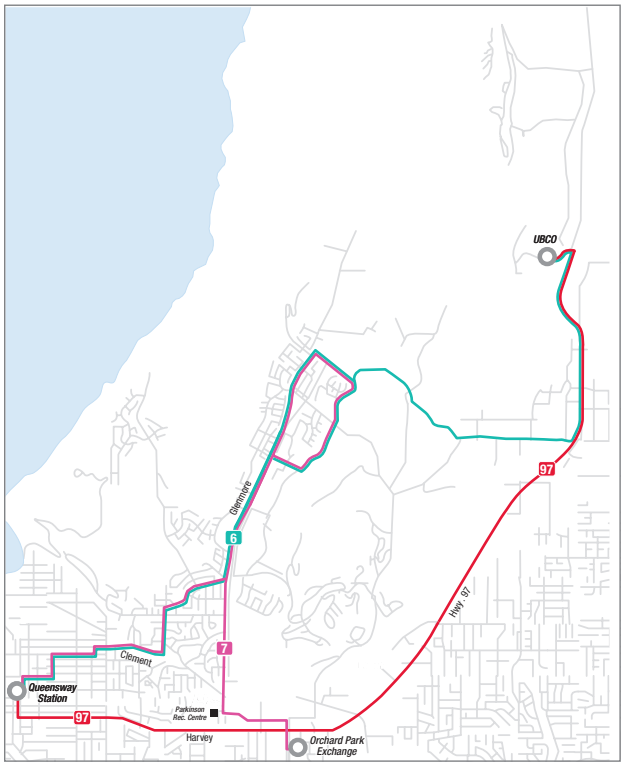
Kelowna Package One			
Service	**Frequency**	**Span**	**Annual Hours**
Route Realignment (1, 8, 11, 15, 16)			
Increase SW Mission Service and add new route	15-30 peak, 30-60 off peak	12 hours	5,000
New Gordon Dr Route	15 peak, 30 off peak	17 hours	9,400
TOTAL			**14,400**

Package Two: Glenmore

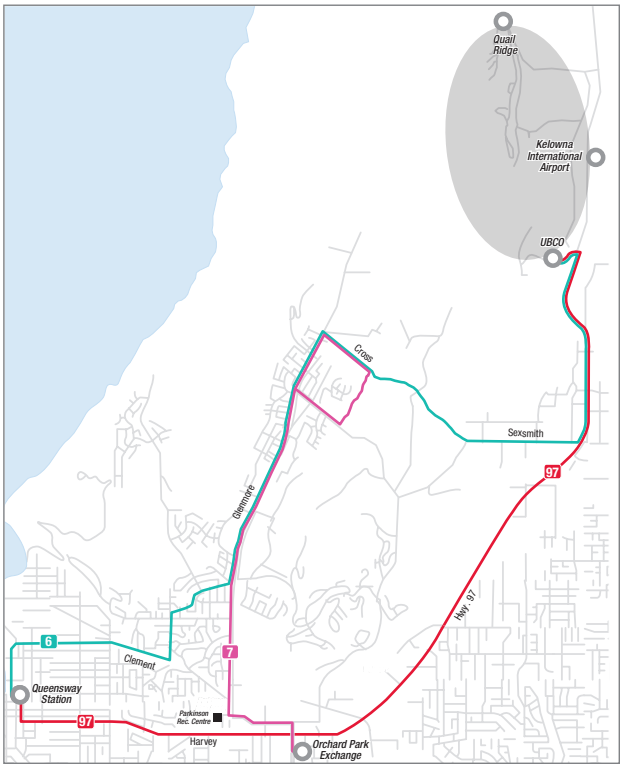
Package Two achieves greater simplicity and ease of use by reducing duplication of services, and eliminating route deviations. It also increases coverage by providing service to a new area, and it supports the dense, mixed use development in the Glenmore neighbourhood by providing strong, direct connections to three major destinations.

Route 7 Glenmore will directly connect Orchard Park and Glenmore, and a new route, Route 6 Glenmore to UBCO will provide express service between downtown to UBCO via Glenmore. Ridership data and feedback from the public indicates that the demand between Glenmore and downtown is significantly stronger than Glenmore to Orchard Park. However, maintaining the direct connection to the shopping centre is important to Glenmore residents. Finally, a new service connecting UBCO, the airport and Quail Ridge will be introduced. The precise routing of this shuttle should be determined at time of implementation.

2010



Future



Kelowna Package Two			
Service	**Frequency**	**Span**	**Annual Hours**
Route 6	15/30	15 hours	14,500
Route 7 realignment	15/30	15 hours	(10,100)
New Airport/Quail Ridge Service	30/select	Peak	2,500
TOTAL			**6,900**

Medium – Long Term

The following section outlines long range service concepts that should be implemented as demand warrants.

- Increase frequency on the remaining FTN corridors to achieve a minimum of 15 minute service all day, everyday
- Rutland route review – as frequency increases on routes that travel through Rutland, a ridership analysis at the stop level should be conducted to determine the feasibility of transforming the network into a mainline and feeder service
- Airport service review – the Kelowna Airport (YLW) is the tenth busiest airport in the country and is expected to grow. A review should be completed to determine the demand and support for higher order transit service.

District of West Kelowna

From customer feedback, ridership and performance data, and direction from local government, the implementation strategy for West Kelowna is a phased approach to better align transit with existing and future development. Package One focuses on improving the efficiency of transit by tailoring the schedule to travel demand. Package Two introduces the RapidBus service once the infrastructure is complete and reorganizes affected routes to maintain coverage to existing service areas.

Package One

Package One improves the efficiency and effectiveness of transit service in West Kelowna without changing route patterns or service area. It is also designed to improve ridership by tailoring service to popular commuting times and simplifying the route structure.

Routes that have the lowest ridership (and the lowest amount of service) are adjusted to operate in the peak hours only. Route 27 – Horizon, Route 28 – Smith Creek, and Route 29 – Bear Creek will operate hourly service between 6am – 9am and 3pm – 6pm. A detailed, bus stop level review revealed that ridership largely occurs on these routes during the peak hours, thus removing evening and mid-day service will have only a marginal affect on existing ridership.

Package One also seeks to improve the ease with which existing and potential riders can access the system. Instead of operating a unique route in the evenings after 6pm, service will be extended on Route 20 – Lakeview and Route 24 – Shannon Lake until 10pm. The cost effectiveness of transit in West Kelowna is improved by cutting these unproductive trips in the very late night. These trips fall far below performance standards, and are very costly to operate.

Nearly half of all activity on the West Kelowna transit system occurs along Highway 97. The final adjustment included in Package One extends the Highway 97 Express from UBCO to Westbank. Until the RapidBus infrastructure is constructed and operational, Route 97 will follow the existing path of Route 21 east of Westbank. On the Westside, Route 97 will operate at the same frequency as what is in place in Kelowna (15 minute peak service, 30 minute off-peak service), but the service levels will decrease after 7pm. Hourly service will be provided across the bridge until 10pm, and late night service will be provided on Friday and Saturday evenings.

The Glenrosa portion of the existing Route 21, that is, service west of Westbank, will become its own, distinct community bus route. Service levels will be identical to that which is provided to Shannon Lake and Lakeview with peak hour frequency of 30 minutes, and off-peak service every 60 minutes until 10pm. This adjustment will bring service levels more in line with the fabric of this neighborhood and better fit the ridership demand.

West Kelowna Package One*	
Service	**Annual Hours**
Routes 27, 28, 29: weekday, peak only service	-1,250
Routes 20, 21, 24: night service until 10pm	-2,650
Hwy 97 Express: 15/30 until 7pm; hourly until 10pm; late night Fri and Sat	200
TOTAL	**-3,700**

**Service hour estimates are based on cost sharing arrangement between West Kelowna and Westbank First Nation as established in the 2011/12 Annual Operating Agreement.*

Package Two

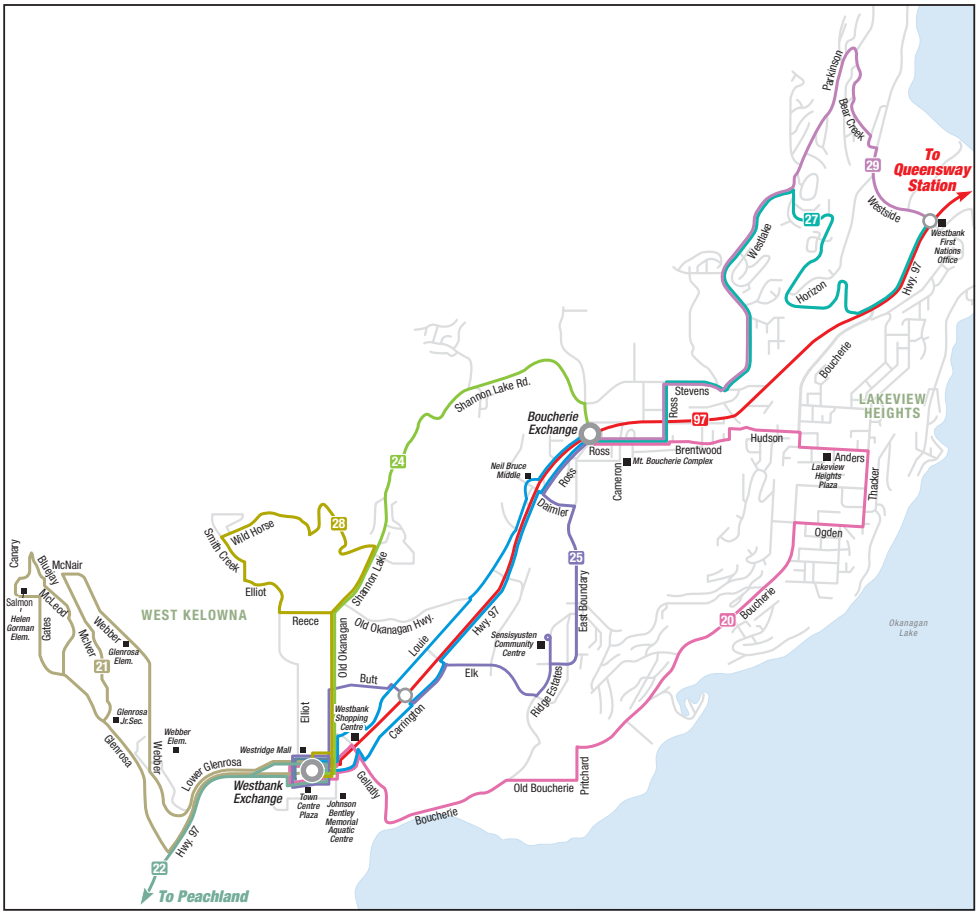
Package two introduces the fast, direct RapidBus service west of Okanagan Lake, which is already operating in Kelowna. It will form the spine of the network along Hwy 97 from Westbank Centre to UBCO. This service will make use of the new transit facilities at Westbank and Boucherie and the new RapidBus stations in West Kelowna and Westbank First Nation. The service will operate as one route, offering an expedited, direct trip from Kelowna into West Kelowna.

The introduction of RapidBus requires slight modifications to the rest of the transit network in West Kelowna in order to:

- Maintain current service area coverage
- Integrate local routes with the RapidBus
- Reduce redundancy and improve efficiency

These modifications are described below and illustrated on the following map. At the time of implementation, slight diversions from this specific route plan may be necessary depending on the speed and type of community development, and local priorities and budgets.

Future



- New Shoppers Shuttle: The existing Route 21 provides service to the commercial areas along the frontage roads that parallel Hwy 97. When RapidBus is implemented, it will provide limited service to these important destinations, requiring a supplementary service. The Shoppers Shuttle will operate between Westbank and Boucherie along Louie, Old Okanganan and Carrington Dr, serving the popular work, school and shopping destinations
- Route 24 – Shannon Lake: Service will be extended along the Shannon Lake Rd to provide bi-directional service to this growing market. It will connect West Kelowna's two exchanges providing residents quick and easy access to community destinations
- Route 28 – Smith Creek: Recognizing the growth potential along Asquith road, there is opportunity to adjust the existing Smith Creek route to provide transit service to these newer developments. However, this should be implemented in tandem with or after the developments are constructed and occupied
- Route 27 – Horizon and Route 29 – Bear Creek: The opening of the interchange and RapidBus stations at Westside Road provides an opportunity for these routes to terminate at Westside Rd instead of making a loop back to Boucherie exchange. This will provide direct and easy access to/from Westbank First Nation's office and Kelowna

Westbank First Nation

Using direct and frequent input from Westbank First Nation staff and feedback from the community, the Implementation Strategy was developed to support WFN land use and development plans. Package One focuses on improving the efficiency of transit by tailoring the schedule to travel demand, and increasing ridership by making the service easier to understand. Package Two introduces the Hwy 97 RapidBus once the infrastructure is complete and reorganizes neighbourhood routes to maintain coverage to existing service areas.

Package One

Package One improves the efficiency and effectiveness of transit service in WFN without changing route patterns or the service area. It is also designed to improve ridership by tailoring service to popular commuting times and simplifying the route structure.

Routes that have the lowest ridership (and the lowest amount of service) are adjusted to operate in the peak hours only. Route 27 – Horizon, Route 28 – Smith Creek, and Route 29 – Bear Creek will operate hourly service between 6am – 9am and 3pm – 6pm. A detailed, bus stop level review revealed that ridership largely occurs on these routes during the peak hours, thus removing evening and mid-day service will only have a marginal affect on existing ridership.

Package One also seeks to improve the ease with which existing and potential riders can access the system. Instead of operating a unique route in the evenings after 6pm, service will be extended on Route 20 – Lakeview and Route 24 – Shannon Lake until 10pm. The cost effectiveness of transit in WFN is improved by cutting these unproductive trips in the very late night. These trips fall far below performance standards, and are very costly to operate.

Nearly half of all transit activity west of Okanagan Lake occurs along Highway 97. The final adjustment in Package One extends the Highway 97 Express from UBCO to Westbank. Until the RapidBus infrastructure is constructed and operational, Route 97 will follow the existing path of Route 21, terminating at Westbank. West of Okanagan Lake, Route 97 will operate at the same frequency as what is in place in Kelowna (15 minute peak service, 30 minute off-peak service), but the service levels will decrease after 7pm. Hourly service will be provided across the lake until 10pm, and late night service will be provided on Friday and Saturday evenings. Realigning Route 97 to serve the new RapidBus stops at Westside Rd interchange should occur once construction of the interchange is complete.

Westbank First Nation Package One*

Service	Annual Hours
Routes 27, 28, 29: weekday, peak only service	-150
Route 20, 24: night service until 10pm	150
Hwy 97 Express: 15/30 until 7pm; hourly until 10pm; late night Fri and Sat	0
TOTAL	**0**

**Service hour estimates are based on cost sharing arrangement between West Kelowna and Westbank First Nation as established in the 2011/12 Annual Operating Agreement.*

Package Two

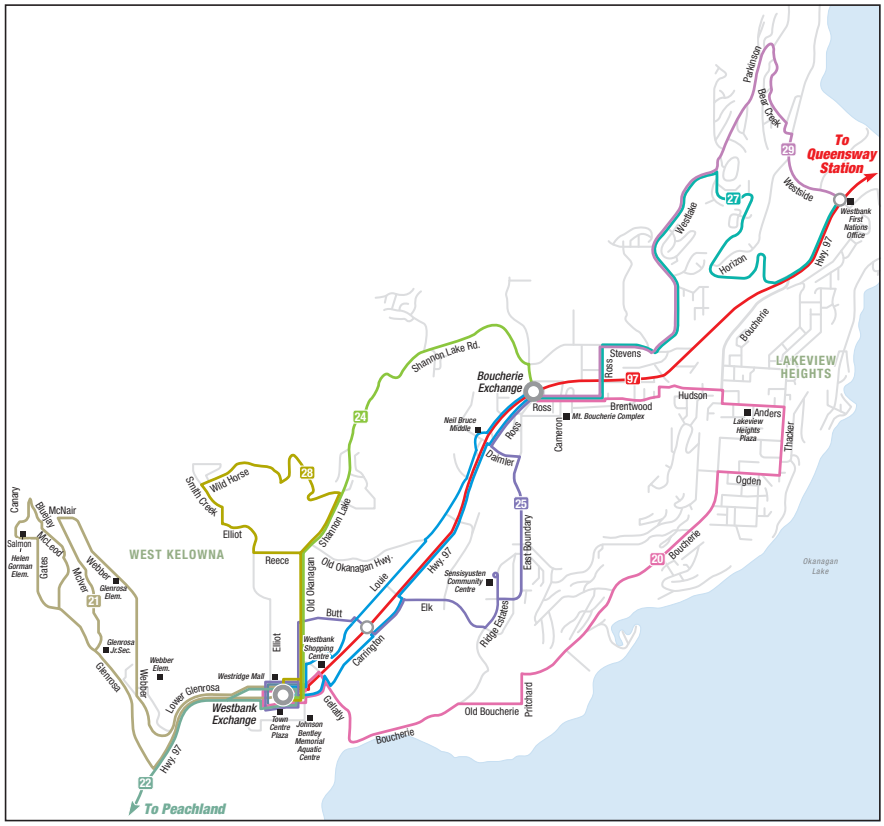
Package two introduces the fast, direct RapidBus. It will form the spine of the network along Hwy 97 from Westbank Centre to UBCO. This service will make use of the new transit facilities at Westbank and Boucherie and the new RapidBus stations in West Kelowna and Westbank First Nation. The service will operate as one route, offering an expedited, direct trip between Westbank First Nation, West Kelowna and Kelowna.

The introduction of RapidBus requires slight modifications to the rest of WFN's transit network in order to:

- Maintain current service area coverage
- Integrate local routes with the RapidBus
- Reduce redundancy and improve efficiency

These modifications are described below and illustrated on the following map. At the time of implementation, slight diversions from this specific route plan may be necessary depending on the speed and type of community development, and local priorities and budgets.

Package Two



- New Shoppers Shuttle: The existing Route 21 provides service to the commercial areas along the frontage roads that parallel Hwy 97. When RapidBus is implemented, it will provide limited service to these important destinations, requiring a supplementary service. The Shoppers Shuttle will operate between Westbank and Boucherie exchanges along Louie, Old Okanganan and Carrington Dr, serving the popular work, school and shopping destinations.

- Route 24 – Shannon Lake: Service will be extended along the Shannon Lake Rd to provide bi-directional service to this growing market. It will connect West Kelowna's two exchanges providing residents quick and easy access to community destinations
- Route 28 – Smith Creek: Recognizing the growth potential along Asquith road, there is opportunity to adjust the existing Smith Creek route to provide transit service to these newer developments. However, this should be implemented in tandem with or after the developments are constructed and occupied.
- Route 27 – Horizon and Route 29 – Bear Creek: The opening of the interchange and RapidBus stations at Westside road provides an opportunity for these routes to terminate at Westside Rd instead of making a loop back to Boucherie exchange. This will provide direct and easy access to/from Westbank First Nation's office and Kelowna.

District of Lake Country

The implementation strategy for Lake Country first focuses on strengthening regional connections to Kelowna and Vernon, and then works to increase service within the community.

Package One

The number one comment heard from Lake Country residents was a desire to quicken the trip into Kelowna by improving connections and/or frequency. The first service package addresses this request by increasing peak service to/from Kelowna to 15 minutes in peak periods. Whenever possible, the connection with Highway 97 RapidBus should be timed to minimize transfer time, and improve the regional service network.

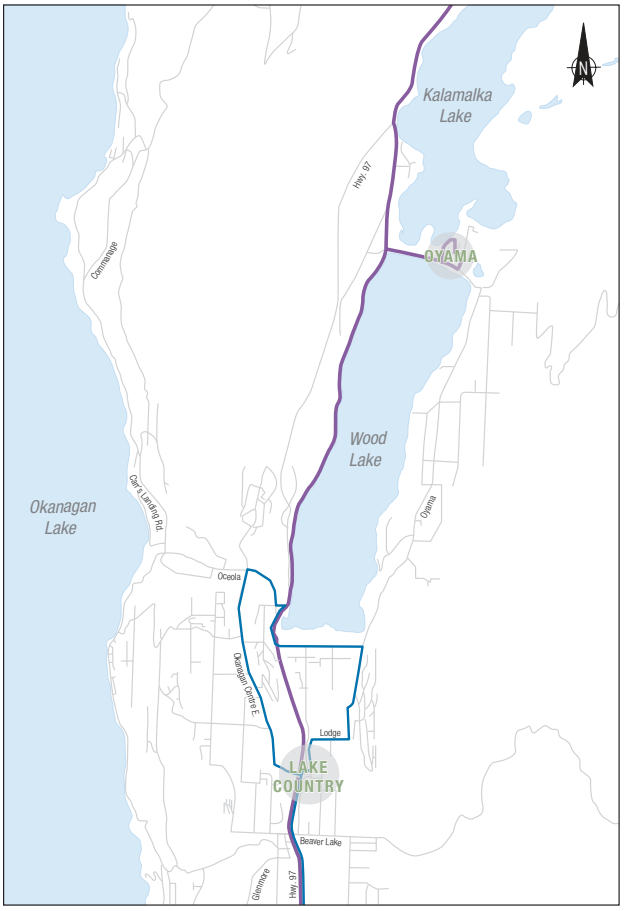
Package One also addresses the realignment of Highway 97 and service to Oyama. Today, Route 90 North Okanagan Connector exits the highway to serve Oyama providing a connection for those residents both north and south. However, the ridership data shows that most of the travel occurs between Vernon and Lake Country or Kelowna, and the deviation to Oyama is a disservice to the majority of riders. It is recommended to terminate the stop in Oyama on Route 90 North Okanagan Connector, but continue to provide Oyama residents service by one of the following options:

- Operating local service between Oyama and Lake Country Town Centre and exchange
- Operating local service between Oyama and the nearest and safest stop on the highway connecting to Route 90 North Okanagan Connector
- Providing a Park & Ride to enable Oyama residents an option to connect into the system

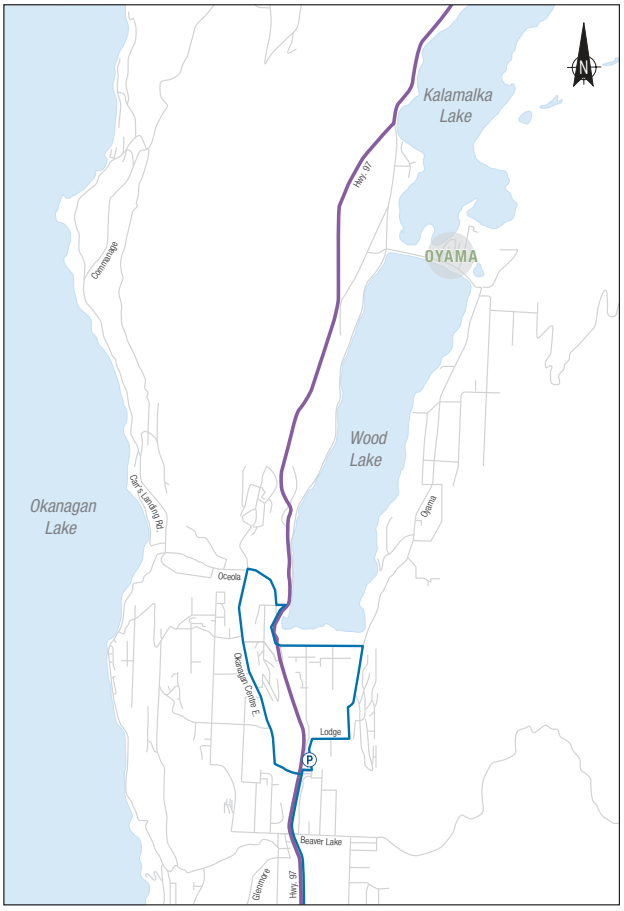
The third feature of Package One is a Park & Ride in Lake Country's Town Centre. This will enable more residents to access the transit system in the absence of neighbourhood service. Opportunities to share existing parking lots should be explored.

Finally, a detailed study of the destinations within Kelowna to which Lake Country residents travel is recommended to investigate additional opportunities for specialized services tailored to specific demands (e.g., an express bus from Lake Country to Okanagan College).

2010



Phase 1

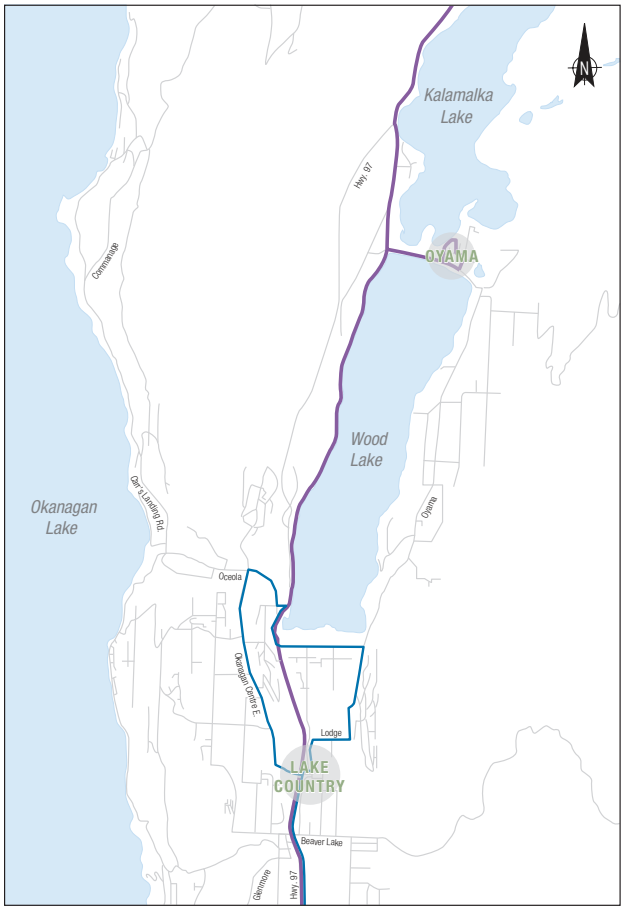


Lake Country Package One			
Service	**Frequency**	**Span**	**Annual Hours**
Route 23 Lake Country	15 peak, 30 off peak	15 hours	5,000
TOTAL			**5,000**

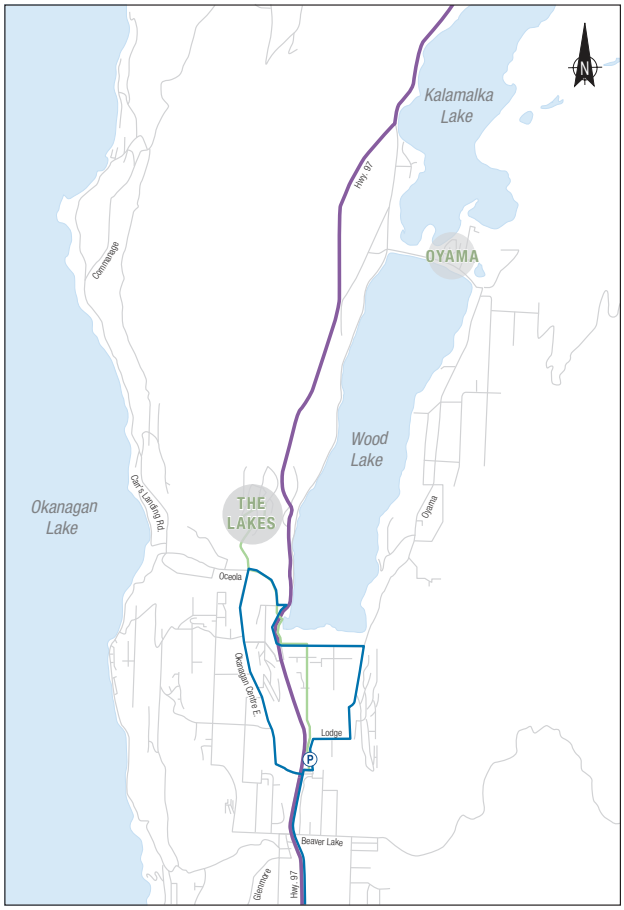
Package Two

Package Two expands the number of trips to/from Kelowna and Vernon via Route 90 North Okanagan Connector. This service was immediately successful upon implementation, and even after doubling service levels in 2010, the demand is not met. Route 90 has multiple funding partners, including those beyond the scope of this plan. Consultation and consensus among all parties must be reached prior to implementing expansion. The second Package also begins to create a local transit network within Lake Country by introducing local service between Lake Country Town Centre and The Lakes neighbourhood. The introduction of this service assumes that The Lakes has reached a critical mass and features transit supportive development. This plan does not support new service introduction to neighbourhoods that will not meet minimum performance standards.

2010



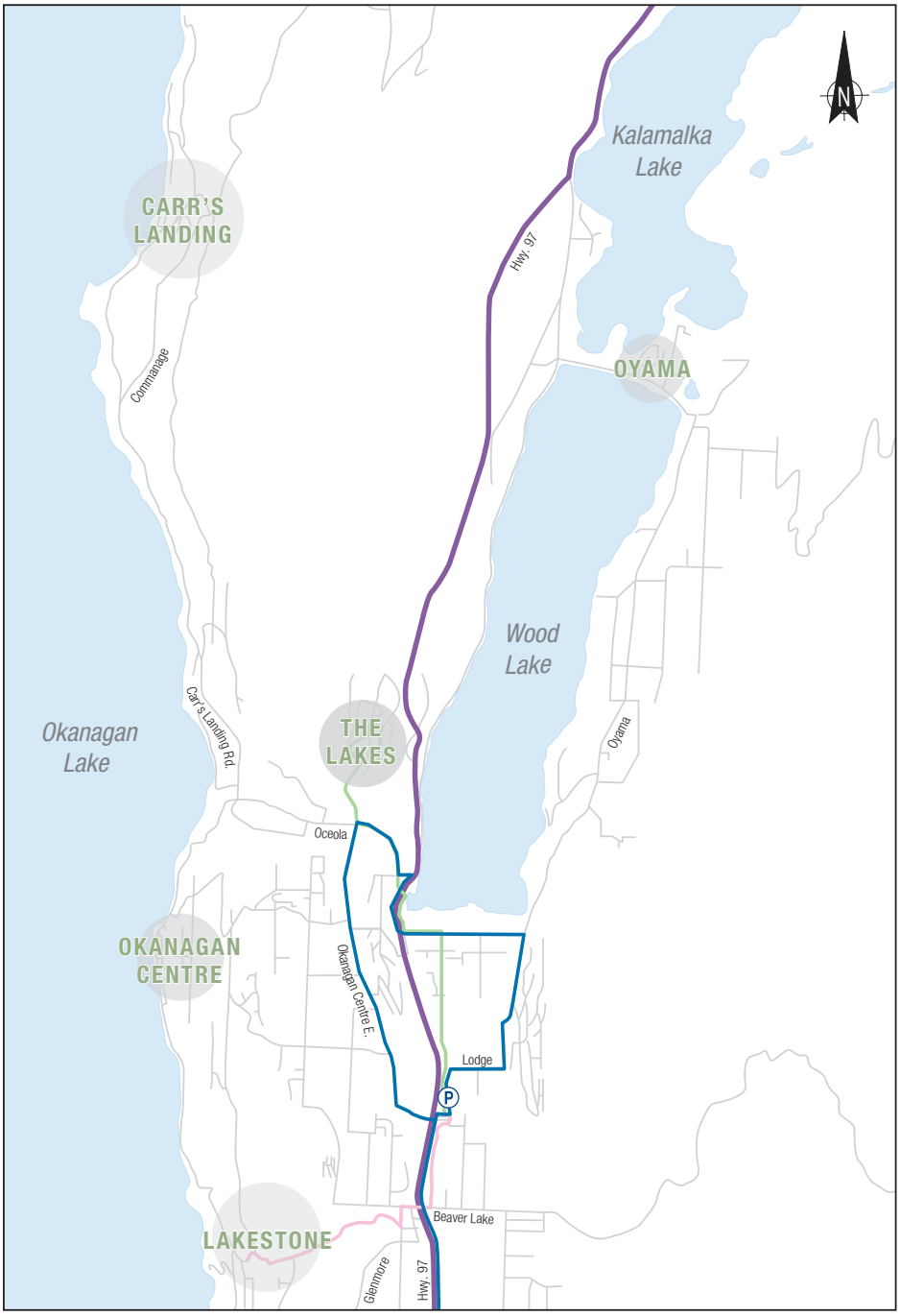
Phase 2



Lake Country Package Two			
Service	**Frequency**	**Span**	**Annual Hours**
Route 90 North Okanagan Connector	60 min	12 hours	3,500
New Service - The Lakes	30/select	Peak	1,500
TOTAL			**5,000**

Medium – Long Term

Expanding coverage to transit supportive neighbourhoods and continuing to build the local transit network in Lake Country is the focus of investment after regional connections and existing local services are strengthened and prospering. Priority should be given to neighbourhoods with the most density. Neighbourhoods recommended for new service in priority order are Lakestone, Okanagan Centre and Carr's Landing. However, prior to implementation, these communities should be evaluated using factors such as development structure, density and transit friendly road networks to ensure the service will be successful.



District of Peachland

The implementation strategy for Peachland focuses on matching transit service to land use and demand with the objective of increasing the transit commuting market share.

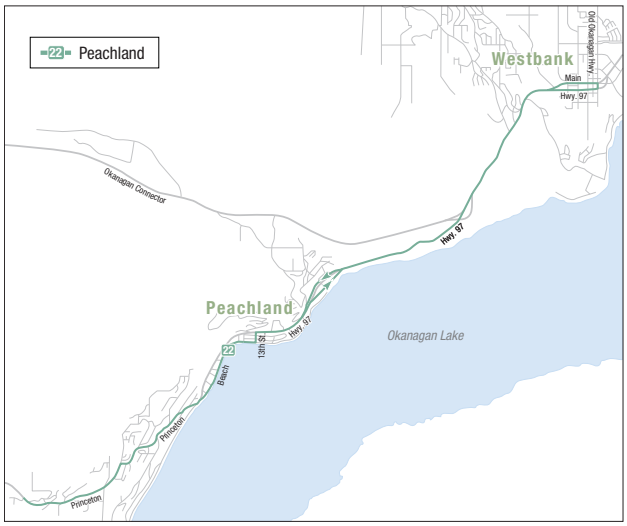
Package One

Package One realigns the schedule of Peachland's only route, 22 Peachland, to focus service in the peak travel periods. This can be accomplished within existing service hours and will not impact the budget. Providing 15 – 20 min frequency in the peak should make the service viable and attractive for a greater per cent of commuters. However, recognizing there is very limited community service, establishing a central Park & Ride is critical to provide access into the system. Opportunities to share existing parking lots should be explored.

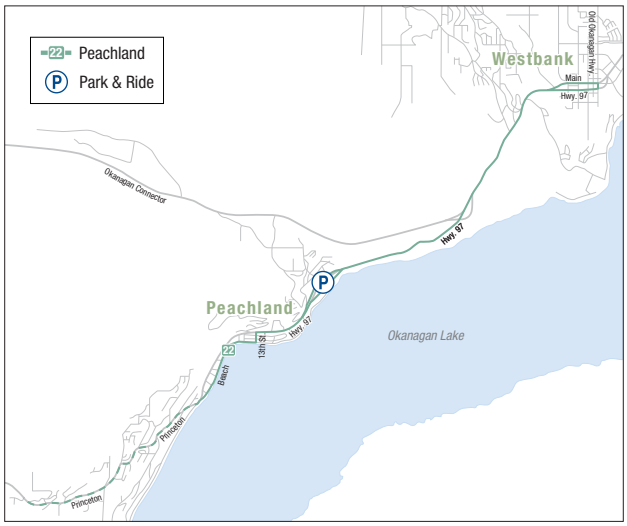
Peachland is the only community in the system that does not offer custom transit (handyDART). Making this available to eligible residents will help achieve mobility and accessibilities goals.

The final Package One recommendation for Peachland is to initiate a study to determine the feasibility of a Dial-A-Ride service, and then to implement its recommendations. Prior to introducing fixed route service to secluded, low density developments, this type of service will provide an option to take transit to the whole community. It will also help establish demand and travel patterns for future fixed route opportunities.

2010



Package One



Peachland Package One			
Service	**Frequency**	**Span**	**Annual Hours**
Route 22 Peachland schedule adjustment	15 - 20 peak, select off peak	–	0
TOTAL			**0**

Medium – Long Term

Once Route 22 Peachland has built a solid ridership base, and demand exceeds capacity, increasing service in the midday and then the evening should be considered. If Dial-A-Ride service is a success and a popular trip pattern is prominent, consider turning this into a fixed route community service.

Quick Wins

Numerous projects have already been, or are soon to be, initiated that begin the implementation of the Transit Future Plan. Funding is either already allocated, or the action item is minimal or cost neutral. Initiating this plan immediately develops momentum and will begin to achieve the plan's fairly aggressive targets.

Operational

- Realign service along and connecting to Highway 97 to prepare for the opening of Highway 97 RapidBus
- Create a regional spine by adjusting Peachland and Lake Country service to seamlessly connect to/from RapidBus
- Adjust routes in the Mission area to directly serve the H2O and Capital News Centre
- Implement route realignment in West Kelowna and WFN to realize savings and improve efficiency

Capital

- Establish shared use Park & Ride locations in Peachland, Lake Country and Kelowna
- Construct the McCurdy southbound RapidBus stop
- Initiate planning for the new or expanded Operations and Maintenance Centre

On-Going Initiatives

The following initiatives are aspects of the Transit Future Plan that require continuous effort throughout the life of the plan.

Address existing service needs

There are often immediate service demands and operational service issues that need attention. Operational service issues need to be addressed ahead of other transit improvements to ensure the satisfaction of existing customers. Examples of operational service requirements are:

- Adding running time to an existing schedule to maintain reliability
- Adjusting timing points to best match travel time
- Increasing service frequency when demand warrants
- Implementing services where there are critical gaps in the system
- Increasing service span (hours of operation) or the service week when demand warrants
- Route restructuring for construction or operational reasons

Match vehicle type to local service demand

Establishing the Primary Transit Network will create new and modified bus routes in addition to those already in operation in the Central Okanagan region. Many of the community shuttle routes may present an opportunity to utilize smaller vehicle types to increase efficiency and reduce capital costs.

An example of a smaller vehicle is the Vicinity, a 27.5 foot vehicle BC Transit is testing. The Vicinity seats 23 passengers with room for 16 standees and is compact and narrow making it suitable for use on residential streets. The Vicinity is a low-floor bus with a ramp at the front door and kneeling capabilities. Opportunities to use smaller vehicle types, where demand does not require a conventional sized vehicle, should be pursued to reduce transit operating costs and greenhouse gas emissions.

Improve customer information

Customer information improvement makes it easier for existing customers to navigate the transit system as well as aiding new users in learning to use the transit system for the first time. The following customer information tools are of particular interest:

- Online trip planner
- Real-time information system
- Additional transit information at the stop level
- Website upgrades to be more user friendly

Improve transit facilities

Continued improvement and maintenance of transit facilitates and on-street customer amenities are important to improve the perception of transit and the customer's experience, and for the continued operation of the transit system. Some improvements that have been identified are:

- Ensure that transit stops on most of the local and frequent transit routes are spaced at an appropriate interval between 300m - 500m (excludes express and RapidBus corridors). In some locations transit stops are spaced closer together leading to slower transit trips and higher maintenance costs. Corridor transit and transportation projects should include a review of stop locations before infrastructure investments are made
- Invest in on street customer amenities such as furniture at stations and stops
- Provide Park & Ride opportunities to cater to rural or semi-rural areas where local service is less frequent or does not exist. Park & Rides can also be used to establish new ridership markets

Make transit more accessible

Transit service should strive to be universally accessible to all. Recognizing the mobility requirements of an aging population, there will be an increasing need for more accessible transit solutions. Accessibility could be improved by making investments in:

- Identifying alternative options to fixed route transit service in rural and suburban areas with dispersed population
- Upgrading existing and new transit infrastructure to meet BC Transit's Infrastructure Design Guidelines
- Improving fleet access for mobility aids and strollers
- Designing accessible service to facilitate spontaneous travel
- Improving written and online material for those with visual impairments
- Providing customers more convenient and affordable fare payment options
- Integrating handyDART services with conventional services where possible
- Improving accessibility for cyclists to use the transit system
- Developing and trialing new accessible transit solutions

Moving Forward

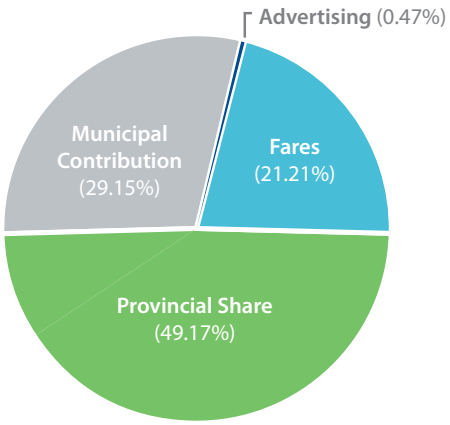
Funding the Plan

Today the Kelowna Regional Transit System is funded through a combination of provincial funding, local property tax, passenger fares and advertising revenue.

BC Transit's budgets are confirmed on a year by year basis making it difficult to plan for future growth. A limitation on future funding is the ability to continuously increase property tax to fund the local share of transit projects and operations, particularly for large capital projects.

One of the priorities identified in *BC Transit's Strategic Plan* is to "develop stable and predictable revenue sources." The proposed actions for this are:

Kelowna Region Funding Split 2009/10



Develop Stable Revenue Sources

- Assess various approaches to developing stable, secure provincial investment in transit
- Work to identify and implement new revenue sources
- Assess various approaches to developing stable, secure local investment in transit
- Initiate a revenue committee to manage fare revenue strategies in partnership with local authorities

Increase Predictability

- Examine and implement improvement for conveying transit system budget information to local governments, such as the provision of multi-year budgets aligned to municipal calendar years
- Continue to confirm provincial BC Bus Pass program pricing (an annual pass program for lower income seniors and people with disabilities)

Implement New Partnerships and Revenue Opportunities

- Seek to revise legislation, policies and procedures to encourage profitable commercial use of BC Transit assets and resources for reinvestment to further transit service objectives
- Explore opportunities to offset costs by leveraging BC Transit's expertise and scope with other organizations (e.g., fleet procurement or bulk fuel contracts)
- Continue to support local governments to offset costs by identifying and creating local transit funding partnerships with other agencies
- Explore new revenue opportunities and funding mechanisms in conjunction with development of rapid transit lines

Full implementation of the Transit Future Plan will require significant capital and operating investment in the transit system over the next 25 years. In particular, investments in transit priority measures are critical to the plan's success by increasing demand and creating an increasing return on service hour and fleet investments.

The ambition of the plan and the *Provincial Transit Plan* will require BC Transit and its partners to continue their endeavors to achieve stable and predictable revenue sources. For this reason, BC Transit has established an internal task force to investigate alternative funding and transit incentive options in an attempt to reduce the dependence on increasing local property, provincial and federal taxes to fund transit projects.

Implementing the Plan

The Implementation Strategy directs immediate and short term investment in the Central Okanagan and informs the three year service planning process. This process aims to provide a closer link to municipal/regional budgeting processes in order to ensure that funding availability is better aligned with local needs and provincial funding. This is accomplished by providing three-year base budgets, and proposed service expansion cost estimates by year. The service planning process is also performance based and allocates a per cent of annual service hours to groups of systems. These groups are created from performance criteria and thresholds, as described below:

- **Rides per service kilometer** – (a boarding is an entry to a transit vehicle) A measure of productivity. Longer regional services or systems that have a spread out urban form will not perform as well compared to compact urban communities
- **Rides per service hour** – A measure of effectiveness
- **Cost per passenger trip** – Measures how expensive a service is to operate relative to the volume of people using the service
- **Cost recovery** – Measures the cost of providing service versus the rate of return through the fare box
- **Passengers per capita** – A relative measure of the overall service level

Achieving Success

BC Transit has begun to take steps to guide the Transit Future Plan from a vision to a reality. These efforts will only be successful if done in partnership with local governments, the Regional District, the Ministry of Transportation and Infrastructure, and the community. A continuous and open dialogue is required to ensure strong links between:

- Land use planning and transit planning
- Provincial and regional transportation planning and transit
- Transportation policy and funding availability

How will this plan be used?

- As a tool to communicate the region's vision for transit to partners, stakeholders, and the public
- To identify where and in what order key transit investments will occur
- To strategically move projects through the capital planning process
- To inform the three year service planning process
- To work with partners on integrating transit plans and investments with other major infrastructure plans and projects
- To respond to planning and development proposals

What actions does BC Transit need from local and regional partners to succeed?

- Integrate the Transit Future Plan into regional plans, Official Community Plans and transportation plans
- Integrate and consider the Transit Future network when developing local corridor plans or any road infrastructure projects. For example, incorporating transit signal priority measures with an intersection upgrade project
- Integrate and consider the Transit Future network when developing active transportation infrastructure plans and projects. For example, a pedestrian and cycling infrastructure project on a transit corridor could improve access to transit by providing or improving sidewalks
- Ensure that local and major development proposals and projects are received and reviewed by BC Transit to ensure support of the Transit Future Plan
- Implement Travel Demand Management strategies that encourage shifting automobile trips to transit such as, implementing High Occupancy Vehicle lanes, transit priority measures, marketing efforts, restructuring parking fares and reducing parking availability/requirements in areas well served by transit
- Support and encourage Transit Oriented Development
- Work with BC Transit to explore incentives to attract high density and mixed use development to areas well served by transit
- Work with BC Transit to pursue new funding streams for transit services and infrastructure fares, and reducing parking availability/requirements in areas well served by transit.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