Regional Growth Strategy

Transportation & Mobility

Discussion Paper

Regional District of Central Okanagan

“Your Home...Your Future”

July 2012
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Forward

This Discussion Paper is part of a series of papers within the process of updating the Regional Growth Strategy for the Central Okanagan. The authors gratefully acknowledge the contributions of the following agencies, institutions, and consortia in the development of this Transportation and Mobility Discussion Paper:

- BC Trucking
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- Interior Health Authority
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- Lake Country Chamber of Commerce
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- School District No.23 (Central Okanagan)
- Tourism Kelowna
- University of British Columbia
- Urban Development Institute – Okanagan Chapter

Prepared for: Regional District of Central Okanagan

Prepared by: Acuere Consulting Inc. in association with Silex Consulting Inc.
1.0 Executive Summary

1.1 Summary of Paper

Faced with increasing growth in the Central Okanagan, the prosperity and quality of life in the region will be challenged from a number of fronts. Transportation is one of the key areas that impacts the social, economic, and environmental goals of the region. However, these goals can be mutually supportive or conflicting, and the complex nature of the inter-twined facets of man-made communities built in natural ecosystems calls for thorough understanding and action.

It is well established that the transportation system of the Central Okanagan is desired to be one that is sustainable. Echoed in the plans and policies of member municipalities and supportive provincial governments is the need for a safe, efficient, equitable, and cost-effective integrated multi-modal system with: increased support for active transportation; more efficient and effective transit service; a densification of land-use to reduce sprawl and improve mobile efficiency; and a system of roads that meets the needs of all users in all travel modes and purposes.

The impact of this interface to the built and natural form raises a number of issues in areas ranging from economic development and land use, to the efficient provision and use of transportation modes; from the consumption of limited energy sources, to the decision and funding process. A range of stakeholders, consisting of government, business, health, tourism, education, and special interest groups, were consulted and contributed to the ranking and identification of issues and gaps related to transportation. Their feedback provides real concerns and challenges that will need to be confronted in order to achieve the transportation objectives and goals in the region.

It is also well acknowledged by the government agencies, business groups, and community stakeholders consulted that there is a need for improved decision making and planning processes to ensure the limited funding available for transportation is invested effectively for the current and future generations. In this regard, the formation of the Sustainable Transportation Partnership of the Central Okanagan (STPCO)—a newly established and enhanced governance arrangement—is underway with a mandate to improve coordination and planning region-wide, in partnership with senior governments and neighbouring regions. Sustainability is not a “solitary game”, nor can it be achieved in isolation as by definition sustainability is all encompassing. Therefore, with a holistic viewpoint, the STPCO seeks to identify and implement best practices towards the development of a sustainable transportation system for the Central Okanagan.

A region-wide strategic transportation plan will be required to tie together various elements and conflicting issues in order to create a consolidated, balanced and equitable strategy. A focus of this plan should be the revisiting of the roles of the various transportation modes and infrastructure needs in light of their effectiveness given the competitive nature within the market of choices for travel. This will better establish realistic expectations and support the development of a more feasible and affordable transportation system, while minimizing conflicts within the system and avoiding unintended consequences.

Sustainability also requires the checking of progress to ensure efforts are converging to—not diverging from—the goals and targets set by the commitments made and documented in policies and plans by local and provincial governments. Monitoring of this progress is vital to not only success, but the measurement of success, and in ensuring investments and decisions are made with transparency, equity, and accountability.
1.2 **PURPOSE OF THE DISCUSSION PAPER**

This discussion paper provides a synthesis of previous plans and policies, the identification of issues and perspectives from stakeholders, a discussion of key concepts and issues, suggested policy directions and role of the Regional District of Central Okanagan, and strategic actions consisting of the establishment of an enhanced transportation governance arrangement and comprehensive monitoring program. This paper can be considered a “living document” with updates made as situations and priorities change within the region.

The content of the paper is presented for purposes of discussion and elevating the dialogue and debate of the Central Okanagan’s transportation future. Specifically, the identification of “friction” or “conflict” points will need to be made such that policies and plans are developed that do not produce unintended consequences. Therefore, the more voices, opinions, and ideas that participate in this discussion, more clarity and understanding will be made as to the correct paths to choose and pitfalls to avoid.
2.0 Context

2.1 Transportation System Overview

The public surface transportation system within the Central Okanagan supports the region’s residents, businesses, and visitors. The system centers on Highway 97, and in conjunction with Highways 97C and 33, provide the main surface connection into, and throughout the region. There are areas of high grades throughout the region in the developed areas, with the majority of the steep terrain on the west-side of the region. Divided by the Okanagan Lake, the newly built William R. Bennett Bridge provides the only surface connection between the western and eastern parts of the region.

A network of arterial, collector, and local roads, connects homes, businesses, and activity centres, servicing a range of modes from walking, cycling, transit, automobile, and trucks. RapidBus, a high-frequency/capacity transit service introduced in the fall of 2010, provides improved connections between Downtown Kelowna and UBCO.

With the region being a major business and tourist destination, the Kelowna International Airport provides access to and from the region for inter-regional and international travellers. Land use and corresponding parking facilities provide the origin and destination points for each trip made, and as such, significantly impact the use and demand for travel.

With economic, environmental, and social considerations affecting the performance and use of the transportation system, transportation is an inter-jurisdictional issue within a regional context, requiring local and senior-government authorities to work together in order to provide an effective and efficient transportation system.

2.2 Regional Population and Household Trends

Various factors affect the travel patterns within the Central Okanagan. The travel patterns within a region describe the resulting usage of the transportation system based on the system’s design, operation, and demand for travel by the system’s users. One of the driving factors of demand is the demographic make-up of the region’s residents.

Since 1986, the population in the region has doubled in 25 years to 188,644\(^1\) by 2011, making the Central Okanagan the 4\(^{th}\) largest region in the Province. Over the next 25 years, the population is estimated to grow to approximately 270,000, or an additional 82,000 people (Figure 2.1) by 2036. Similarly, the number of households has doubled in this time-period, from 36,466 households in 1986, to 79,538 households in 2011. By 2036, the total number of households in the region is estimated to be just under 120,000.

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\(^1\) Source from BC Stats. Census 2011 estimates a population total of 179,830 does not include undercount.
Average annual population growth trends in the region have fluctuated from as high as 6.4% in 1992, to 0.4% in 2010 (Figure 2.2). Overall, an average annual growth rate of 2.9% has been observed in the past 25 years.

Since peaking at 2.7 persons per household in 1991, the number of persons per household has been decreasing steadily to a current low of 2.37 (Figure 2.3). It is estimated in 2036, the number of persons per household will drop to an all-time low of 2.27. This may have many implications in the future, such as the rate of carpooling.
The current population by age group is shown in Figure 2.4. The impact of the post-World War II baby boom can be seen in the population age profile of the Central Okanagan, with the children of the baby boomers currently denoting the largest age groups (45-64 years), followed by their children (15-34), as compared to 25 years ago in 1986. 25 years into the future, the aging of the population is evident with significant increases projected in the older age groups. Age-related services and demands could be impacted as a result of this trend.

The shares of the past (1986), current (2011) and future (2036) population by age groups are shown in Figure 2.5. Over the 50 year period, the shares made up of the 40-64 and 65+ age groups are estimated to continue to grow, while the shares of age groups 39 years and younger show a steady decline.
Over the past 25 years between 1986 and 2011, the rate of growth by age group varied. The older population, characterized by the baby boom generation, more than doubled with the 40-64 age group growing by 162%, followed by the 65+ age group at 115%. The younger population grew slower with the 20-39 age group growing at 77%, followed by the 0-19 age group at 55.8% during this time period (Figure 2.6).

2.3 Transportation Indicators

The current state of the transportation system, in terms of demand and performance provides an initial baseline and situational assessment from which desired changes can be based on. Key indicators such as regional travel mode share, transit use, and travel distances can provide a sense of the “health” of the system, and the identification of improvements required to meet local transportation goals.
2.3.1 Mode Shares

As shown in Figure 2.7 and Table 2.1, the overall 2007 daily mode share of Central Okanagan residents is dominated by auto driver trips at almost 70% of all trips, or 360,500 out of a total of 517,500 daily trips. The remaining “sustainable” modes of travel consist of less than half of this total, comprising of 157,000 trips, or approximately 30% of all daily trips.

Active transportation modes (e.g. walking, cycling, rollerblading/skateboarding, etc.) accounted for just over 7% of the mode share, while trips on buses (public and school) accounted for just 3.7% of all travel. Separating out public transit, only 1.5%² of all daily trips were made on the Kelowna Regional Transit system.

![Figure 2.7. Central Okanagan Mode Share Split, 2007](image)

Source: “2007 North and Central Okanagan Household Travel Survey”, Synovate, 2007³

² For reference the journey to work (commuting trips only) 2006 transit mode share is 2.7% based on a definition of the “typical” mode of travel during the year. The 2007 Household Travel Survey mode shares are based on actual mode of travel for the survey day assigned to respondents.

³ The 2007 North and Central Okanagan Household Travel Survey was conducted during the months of April and May and therefore the results reflect conditions during this seasonal period.
Table 2.1. Travel Mode Shares by Time of Day by Central Okanagan Residents, 2007

<table>
<thead>
<tr>
<th>Travel Mode</th>
<th>Night 0000-0559</th>
<th>AM Peak 0600-0859</th>
<th>Midday 0900-1459</th>
<th>PM Peak 1500-1759</th>
<th>Evening 1800-2359</th>
<th>Total</th>
<th>Total Trips</th>
</tr>
</thead>
<tbody>
<tr>
<td>Auto Driver</td>
<td>85.7%</td>
<td>65.0%</td>
<td>74.0%</td>
<td>68.3%</td>
<td>66.6%</td>
<td>69.7%</td>
<td>360,544</td>
</tr>
<tr>
<td>Auto Passenger</td>
<td>6.5%</td>
<td>17.0%</td>
<td>13.6%</td>
<td>19.4%</td>
<td>26.6%</td>
<td>17.6%</td>
<td>91,293</td>
</tr>
<tr>
<td>Commercial Vehicle Driver</td>
<td>1.4%</td>
<td>1.1%</td>
<td>0.7%</td>
<td>0.6%</td>
<td>0.2%</td>
<td>0.7%</td>
<td>3,576</td>
</tr>
<tr>
<td>Transit</td>
<td>0.8%</td>
<td>1.8%</td>
<td>1.3%</td>
<td>1.6%</td>
<td>0.9%</td>
<td>1.5%</td>
<td>7,642</td>
</tr>
<tr>
<td>School Bus</td>
<td>0%</td>
<td>4.7%</td>
<td>1.3%</td>
<td>2.6%</td>
<td>0.2%</td>
<td>2.2%</td>
<td>11,214</td>
</tr>
<tr>
<td>Bicycle</td>
<td>2.6%</td>
<td>3.4%</td>
<td>1.2%</td>
<td>2.4%</td>
<td>1.7%</td>
<td>2.1%</td>
<td>10,628</td>
</tr>
<tr>
<td>Roller blades/skateboard</td>
<td>0%</td>
<td>0.2%</td>
<td>0.1%</td>
<td>0.1%</td>
<td>0.1%</td>
<td>0.1%</td>
<td>536</td>
</tr>
<tr>
<td>Walk</td>
<td>2.6%</td>
<td>5.7%</td>
<td>6.2%</td>
<td>3.8%</td>
<td>2.6%</td>
<td>4.9%</td>
<td>25,276</td>
</tr>
<tr>
<td>Taxi/airport Shuttle</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0.1%</td>
<td>0%</td>
<td>0%</td>
<td>182</td>
</tr>
<tr>
<td>Others</td>
<td>0.5%</td>
<td>0.6%</td>
<td>1.2%</td>
<td>0.7%</td>
<td>0.7%</td>
<td>0.8%</td>
<td>4,346</td>
</tr>
<tr>
<td>Auto– Combo Driver/Pass</td>
<td>0%</td>
<td>0.2%</td>
<td>0.2%</td>
<td>0.2%</td>
<td>0.3%</td>
<td>0.2%</td>
<td>1,182</td>
</tr>
<tr>
<td>Other combo</td>
<td>0%</td>
<td>0.3%</td>
<td>0.2%</td>
<td>0.2%</td>
<td>0.2%</td>
<td>0.2%</td>
<td>1,093</td>
</tr>
<tr>
<td>Trip Totals</td>
<td>5,818</td>
<td>104,441</td>
<td>182,419</td>
<td>138,182</td>
<td>77,989</td>
<td>100%</td>
<td>517,495</td>
</tr>
</tbody>
</table>

Source: “2007 North and Central Okanagan Household Travel Survey”, Synovate, 2007

Figures 2.8-2.10 illustrate the mode shares for trips to work, to grade school, and for personal/other trips, respectively.
Figure 2.9. Mode Share to Grade School, 2007
Source: “2007 North and Central Okanagan Household Travel Survey”, Synovate, 2007

Figure 2.10. Mode Share for Personal/Other Trips, 2007
Source: “2007 North and Central Okanagan Household Travel Survey”, Synovate, 2007

Figure 2.11 provides the share of the population age groups travelling by each of the major modes. The
Figure 2.11. Travel Modes by Age Group, 2007

Source: “2007 North and Central Okanagan Household Travel Survey”, Synovate, 2007
dominant age groups for auto drivers are the 45-64 age group (46.4%), followed by the 35-44 age group (22.8%). Approximately half of auto passenger trips are comprised of grade-school age group (5-17 years). Transit is the most evenly-represented mode with the highest share from the 5-17 age group (27%), followed by the 45-64 age group (20.3%). These two age groups also dominated the walk mode (35.9% for 5-17 years; 27.6% for 45-64 years) and bike mode (34% for 45-64 years; 27.1% for 5-17 years).

2.3.2 Trip Purpose

Approximately 1/3 (32%) of all trips in a day are for work purposes (to, from or during work or post-secondary school). About 10.5% are for grade school trips, with the remaining 57.5% for various purposes such as dining, recreation, shopping, and other personal business (Figure 2.12).

![Figure 2.12. Central Okanagan 24 Hour Trip Purpose Split, 2007](source: “2007 North and Central Okanagan Household Travel Survey”, Synovate, 2007)

2.3.3 Trip Rate and Starts by Time Period

A daily average trip rate of 3.34 trips per person was found for the Central Okanagan. However, this rate varied by time period and age group (Figure 2.13). The 35-44 age group has the highest daily trip rate of 3.94, with the highest time period trip rate of 1.22 during the mid-day (9M-3PM). The 65+ age group, although with a lower daily average trip rate of 2.99, had the highest time period trip rate of 1.73 trips per person during the mid-day.
Figure 2.13. Daily Person Trip Rate by Age Group and Time Period, 2007

Source: “2007 North and Central Okanagan Household Travel Survey”, Synovate, 2007

The share of trip starts by time period is shown in Figure 2.14, with the greatest portion during the 6-hour mid-day period at 36%. The 3-hour peak periods in the morning (6-9AM) and afternoon (3-6PM) have proportionally higher trip starts at 21% and 27%, respectively.
2.3.4 Average Trip Times

The average trip time by mode is shown in Figure 2.15. **Auto driver** trips, the majority mode, were an average of **16.1 minutes** in duration. **Transit** trips clocked in at the highest at **28.8 minutes** for the average trip. The average for all modes was **16.3 minutes**.

![Average Trip Times by Mode, 2007](image-url)
The average trip times by travel purpose were more consistent, ranging from 13.1 minutes for shopping trips, to 17.8 minutes for work trips. The average for all trip purposes was 16.3 minutes (Figure 2.16).

![Figure 2.16. Average Trip Times by Trip Purpose, 2007](image)

Source: “2007 North and Central Okanagan Household Travel Survey”, Synovate, 2007

### 2.3.5 Commute Travel Distances

The journey-to-work data collected by Statistics Canada in 2006 revealed that almost half of commuters originating from the Kelowna central metropolitan area (CMA) travelled less than 5km to get to work. Specifically, in 2006, 45.2% of commuting trips were less than 5km, followed by 27.6% of trips made within 5 and 10 km. The remaining 27.2% of commuting trips were more than 10 km long. Overall, the median commuting distance was 5.6 km. Figure 2.17 shows the distribution of commuting trips by distance categories.

Further investigations reveal that just over 60% of trips less than 1 km in length are made in an automobile, increasing to 87% for trips between 1 and 4 km, and approximately 96% for trips 5 km or longer (Figure 2.18).

As active transportation modes such as walking and cycling are more feasible for shorter distance trips, or the 45.2% of all daily trips that are less than 5 km in length, there is a large potential for increase in short-distance walk and bike trips.
2.3.6 Inter/Intra-Regional Trips

On a daily basis, the vast majority of trips (97%) originating in the Central Okanagan are destined to, or stay within the Central Okanagan. Only 3% of the trips made by residents in the peak periods leave the region. Of this, approximately 2.4% travel to the North Okanagan region. Conversely, approximately 5.3% of trips originating in the North Okanagan are destined to the Central Okanagan (Tables 2.2 & 2.3).
Table 2.2. AM Peak Period Trip Origins-Destination, 2007

<table>
<thead>
<tr>
<th>AM Trip O/D Matrix</th>
<th>Trip Destination</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trip Origins</td>
<td>Lake Country &amp; North/East EA</td>
</tr>
<tr>
<td>Lake Country &amp; North/East EA</td>
<td>4,172</td>
</tr>
<tr>
<td>West Kelowna, WFN, Peachland, West EA</td>
<td>72</td>
</tr>
<tr>
<td>Central Kelowna</td>
<td>249</td>
</tr>
<tr>
<td>Suburban Kelowna</td>
<td>758</td>
</tr>
<tr>
<td>North Okanagan Region</td>
<td>244</td>
</tr>
<tr>
<td>External</td>
<td>0</td>
</tr>
<tr>
<td>Total Destinations</td>
<td>5,495</td>
</tr>
</tbody>
</table>

Source: “2007 North and Central Okanagan Household Travel Survey”, Synovate, 2007

Table 2.3. PM Peak Period Trip Origins-Destination, 2007

<table>
<thead>
<tr>
<th>PM Trip O/D Matrix</th>
<th>Trip Destination</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trip Origins</td>
<td>Lake Country &amp; North/East EA</td>
</tr>
<tr>
<td>Lake Country &amp; North/East EA</td>
<td>3,413</td>
</tr>
<tr>
<td>West Kelowna, WFN, Peachland, West EA</td>
<td>79</td>
</tr>
<tr>
<td>Central Kelowna</td>
<td>2,087</td>
</tr>
<tr>
<td>Suburban Kelowna</td>
<td>2,272</td>
</tr>
<tr>
<td>North Okanagan Region</td>
<td>632</td>
</tr>
<tr>
<td>External</td>
<td>18</td>
</tr>
<tr>
<td>Total Destinations</td>
<td>8,501</td>
</tr>
</tbody>
</table>

Source: “2007 North and Central Okanagan Household Travel Survey”, Synovate, 2007

During the AM and PM Peak Periods, the following are the share of trips originating from sub-areas of the region:
### From Lake Country & North/East Electoral Areas to:

- Lake Country & North/East Electoral Areas: **52.4%**
- West Kelowna, WFN, Peachland and West Electoral Areas: **1.0%**
- Central Kelowna: **17.2%**
- Suburban Kelowna: **20.7%**
- North Okanagan Region: **8.2%**
- Other External: **0.4%**

### From West Kelowna, WFN, Peachland and West Electoral Areas to:

- Lake Country & North/East Electoral Areas: **0.4%**
- West Kelowna, WFN, Peachland and West Electoral Areas: **67.6%**
- Central Kelowna: **20.4%**
- Suburban Kelowna: **7.7%**
- North Okanagan Region: **1.6%**
- Other External: **2.3%**

### From Central Kelowna to:

- Lake Country & North/East Electoral Areas: **2.7%**
- West Kelowna, WFN, Peachland and West Electoral Areas: **7.9%**
- Central Kelowna: **51.9%**
- Suburban Kelowna: **34.9%**
- North Okanagan Region: **2.4%**
- Other External: **0.1%**

### From Suburban Kelowna to:

- Lake Country & North/East Electoral Areas: **3.4%**
- West Kelowna, WFN, Peachland and West Electoral Areas: **2.8%**
- Central Kelowna: **39.6%**
- Suburban Kelowna: **51.8%**
- North Okanagan Region: **1.7%**
- Other External: **0.6%**

### 2.3.7 Vehicles, Driver Licenses and Mobility Aids

In 2011, the estimated number of registered and insured automobiles (including commercial, motorhome, motorcycle/moped and passenger vehicles) in the region was **136,640** (Source: ICBC). This translates to **1.72 automobiles per household**, or **0.72 vehicles per capita—one of the highest in Canada**. The ownership rates of bicycles are estimated to be slightly lower than the automobile ownership rates.

The 2007 Household Travel Survey found that approximately **80% of residents aged 18 years or older hold a valid driver’s license**, with this rising to **90% for those aged 25 years or older**. Approximately **2%**
of residents utilize a mobility aid (e.g. wheelchair, scooter, walker), with this percentage increasing to 7% for residents 65 years or older (Figure 2.19).

![Figure 2.19. Percent of Mobility Aids Users by Age Group, 2007](image)

Source: “2007 North and Central Okanagan Household Travel Survey”, Synovate, 2007

2.3.8 Fuel Usage, Parking, and Collision Rate

The average annual per capita fuel use in the region is estimated at 1,184 litres in 2006 (TAC, 2009), which is similar to many Ontario regions. In comparison to other regions in B.C., the Abbotsford region’s average annual per capital fuel use was much higher at 1,859 litres, whereas Vancouver (899 litres) and Victoria (702 litres) were much lower.

Within downtown Kelowna, the parking spaces provided per employee in the area, was 0.23 in 2006. This is similar to Abbotsford at 0.21, however Vancouver and Victoria are much lower at 0.05 and 0.08 spaces per employee, respectively (TAC, 2009).

The annual collision rate (injuries and fatalities) per 1000 people was 21.6 in the Central Okanagan in 2006. This is lower compared to the rate of 27.8 collisions per 1000 people in the Vancouver region.

2.3.9 Transit Use and Supply

In the 2010/11 service year, 159,000 revenue hours of transit service was provided on the Kelowna Regional Transit system, which serves the City of Kelowna, District of Lake Country, District of West Kelowna, the District of Peachland, and electoral areas. The service has provided 4.7 million annual rides at a cost of approximately $18 million. This translates to approximately 25.3 annual rides per capita and 0.86 hours of service per capita. The current farebox recovery ratio is approximately 27%.

24hr transit seat-km per capita is a measure of the capacity of transit provided over a daily basis per person in the region. In 2006, the daily transit seat-km per capita for the central Okanagan was approximately 2.94. In comparison, the daily transit seat-km per capita for the Victoria region was 5.44, and 6.70 for the Vancouver region (TAC, 2009).

The number of transit pass holders and ridership provide some insight into the usage of transit services in the Central Okanagan. As shown in Figure 2.20, approximately 3% of Central Okanagan residents are transit pass holders, and approximately 10% of residents have taken transit in the past 30 days when the survey was conducted in 2007.
Comparing ridership by route, the routes servicing central Kelowna leading up to UBC-O carried the most riders during a typical weekday in 2010 (Figure 2.21). The current transit routes are shown in Appendix A.
2.3.10 Airport Ground Access

The Kelowna International Airport is accessed by ground primarily by automobile. In 2005, approximately 96% of trips to and from the airport were by car, with 75% of this share by privately owned cars, and 21% by taxi/limo, rented car, shuttle, or hotel bus/van (Figure 2.22). Although transit route #23 drops off north-bound passengers directly at the airport, there is no direct access to leave the airport south-bound by public transit.

![Figure 2.22. Modes of Passenger Ground Transportation](source: Kelowna International Airport Survey, 2005)

The origin and destination of airport ground traffic is mainly to and from the Central Okanagan, at approximately 60% in both directions. Roughly, 15% of the traffic go to/or from Vernon, and the remaining to other parts of the Okanagan Valley and further beyond (Figure 2.23).

![Figure 2.23. Origin and Destination of Passenger Traffic](source: Kelowna International Airport Survey, 2005)
3.0 Current Plans and Policies

3.1 INTRODUCTION

All levels of government typically have policies related to transportation. These policies describe the principles or rules to guide decisions towards a desire outcome. Although specific policies and their subsequent procedures and protocols may differ from government to government, most transportation goals and fundamental policies are similar within and across government levels. It is in these common areas of policies in which partnerships and the achievement of collective goals can be made. Through the development of plans, funding of initiatives, and the continuous monitoring of progress, the positive outcomes that are desired can be realized.

A thorough literature review was conducted to provide a policy and planning context for the discussion of transportation and mobility for the Central Okanagan. This review, presented in Appendix B, can be viewed as a knowledge bank of previous investments of studies and plans from which future studies, such as the RGS, can be based upon and advance the growth of knowledge. The literature review provides a summary of the documents reviewed categorized by Official Community Plans (OCPs) and land-use plans, regional growth strategies, transportation plans and related documents, and other (i.e. social, economic, environmental). The following provides a summary of the documents reviewed.

3.2 OFFICIAL COMMUNITY AND LAND USE PLANS

The various municipalities of the Okanagan have recently updated their OCPs. The requirements of OCPs are defined in the Local Government Act (Part 26, Division 2), with clauses referencing the development of infrastructure and policies in relation to social needs, social well-being and social development, and specific reference to the relationship of OCPs to the regional context.

Essentially all of the municipalities of the Central Okanagan have adopted OCPs with policies relating to transportation and linkages to land use, air quality, local economy, and general sustainability. Key policies are for the support and increase in modal shift towards walking, cycling, transit, and ridesharing, as well as managed and densified land use developments, and support for goods movement and services, through investments in infrastructure and services

The OCPs, and supporting infrastructure and transportation plans, provide the future blueprint for the local municipalities of the Central Okanagan.

The OCP and land use documents of the following communities were reviewed:

- District Peachland OCP (2000)
- District West Kelowna OCP (2011)
- City of Kelowna OCP (2011)
- City of Kelowna Downtown Plan (2012)
- District of Lake Country OCP (2010)
- Ellison OCP (2007)
- North Westside OCP (2007)
- Westbank First Nation’s Land Use Law (2007)
- Joe Rich Rural Land Use Bylaw (2010)
Overall, the various OCP and land use documents reviewed contained similar transportation-related policies based on creating sustainable communities. Key themes were regarding:

- integration and coordination of transportation and land use, “smart-growth” and densification to reduce travel demands
- promotion of pedestrian-friendly, mixed used urban and village centres
- development of community transportation plans to address vehicular, transit, and active transportation movement
- development of a multi-modal system and complete streets supporting all modes
- specific policies to promote and maximize connectivity for active transportation
- transportation funding and partnerships with local jurisdictions and the Province to improve regional and inter-municipal multi-modal travel
- targets comprising of mode shifts towards sustainable transportation modes and the increase of transit ridership
- promotion of TDM
- access and travel to schools and support for mobility-challenged
- transit priority and emergency response
- containing urban growth and developments in a controlled, planned manner, in order to avoid non-contiguous and sprawling development patterns
- safe access to rural areas, improve traffic flow and safety on Hwy 97 & Hwy 33
- minimize environmental impacts of the transportation network
- Include transportation considerations (including transit and active transportation modes) in the development approvals process.
- management of parking in core centres
- bicycle lanes and wider road shoulders, and overall bicycle network plans

With similar policies in the promotion and development of sustainable modes (i.e. walking, cycling and, transit) within a multi-modal system linked to managed and densified land use developments, the local OCPs and land use plans provide a sound and consistent basis for coordinated region-wide transportation planning and funding.

3.3 **Regional Growth Strategies**

Defined in Part 25 of the Local Government Act, Regional Growth Strategies are required to develop strategies which include housing, transportation, regional district services, parks and natural areas, and economic development. As such, the Central Okanagan and neighbouring regions have developed and updated their Regional Growth Strategies. Regional growth strategy documents reviewed were as follows:

- Regional District of North Okanagan Bylaw No. 2500 (2011)
- South Okanagan Regional Growth Strategy (2007)
The regional growth strategies addressed policy areas such as growth management/human settlement, housing, economic development, transportation, climate change and environmental concerns, governance, and social health. Specific to transportation, policies support the efficient movement of people and goods within a managed regional transportation system. Walkable and well-connected systems of streets, bikeways, and transit networks are considered priorities to support livable communities and local economies. At the same time there is a desire to protect major transportation and utility corridors for future infrastructure needs, which may conflict with sensitive areas.

Indicators to monitor the progress of transportation include measurements such as: % of labour force living and working in the same municipality; median commuter trip distance; region-wide and municipal modal share for journey-to-work trips; and length of cycling infrastructure by facility type. Typical frequencies of monitoring are 5-years, coinciding with the Census.

Overall, the regional growth strategies reviewed support integrated regional transportation planning to encourage multi-modal choices, transit-oriented development, and the exploration of innovative financing options and opportunities.

Appendix C provides a summary of the RDCO’s mandate and Strategic Plan Vision 2020.

### 3.4 Transportation-Related Documents

A number of transportation-related have been developed locally within the Central Okanagan. To provide a summary context of the transportation plans and policies developed in the Central Okanagan to date, the following documents were reviewed:

- Regional Indicators, Regional Sustainable Strategy (RDCO, 2006)
- Regional Growth Strategy Review: Environment, Recreation Space and Sensitive Areas Policy Area (RDCO, 2011)

- Central Okanagan Transportation Workbook (RDCO)
- Transportation & Mobility in the Central Okanagan 20 Year Options – An Evolving Discussion (RDCO, 2002)
- Discussion Paper on Central Okanagan & Mobility 20 Year Options – Evolving Discussion (RDCO, 2002)
- Transportation and Mobility (RDCO, 2003)
- Okanagan Valley Transportation Corridor - An Assessment of Select Projects and Initiatives (Urban Systems, 2004)
- The Cost of Urban Congestion in Canada (TAC, 2007)
- Central Okanagan Traffic Congestion Assessment (HDR, 2009)
- Kelowna Regional transit System Review and Detailed Service Plan (BC Transit, 2007)
- Okanagan needs 100-year transportation strategy (Lovegrove, 2008)
Some of the key highlights from the documents reviewed were:

- The documents supported sustainable and safe travel for children aged 0-6 years. Infrastructure such as sidewalks, pedestrian crossings, curb cuts, and traffic calming measures, including a child-friendly transportation self-assessment checklist, were promoted to ensure safe and sustainable travel for all ages.

- Transportation is identified as a multi-dimensional issue (e.g. financial costs, air pollution and global climate change, road safety, financial inequities, and land use and development impacts). As such, the challenge is in developing plans and policies that can function positively within this complex context.

- The RDCO’s Transportation & Mobility discussion paper (2003) identified three transportation options for the next 20 years:
  1. **Do nothing**: Continue with the status quo under the existing transportation governance structure and approximately a $100 million 20 year capital budget
  2. **Build network road infrastructure and expand capacity**: With a focus on building roads and highways to meet the demand for vehicle trips, work with local and provincial governments under a $600-$800 million 20 year capital budget.
  3. **Build regional transportation services**: With a multi-modal perspective, a new transportation authority would oversee the development of infrastructure, programs, and services with a main goal to reduce single-occupant trips in the region. The estimated 20 year capital budget is $600-$800.

- The Okanagan Valley Transportation Corridor study, consisting of a review of transportation needs in the three Okanagan regional districts, recommended the top 4 corridor expansion projects as 1) widening Hwy 99 from Hwy 33 to Gordon Drive; 2) Kelowna Gateway; 3) Boucherie & Westside Road Interchanges; 4) Hwy 97 4-laning from Peachland to Summerland; and 5) the Westbank Bypass. The study also recommended corridor enhancement initiatives such as Intelligent Transportation Systems (ITS), Design Guidelines, Access Management (at select locations), and Branding.

- The cost of congestion across Canada ranged from $2.3 billion to $2.7 billion (2002 dollars). A similar study specifically for the Central Okanagan estimated in 2007, congestion delays cost society approximately $206 million, excess vehicle operating costs of over $23 million, lost business revenue over $78 million, increased industry costs of $34 million, and lost jobs of 980 positions. By 2030, these costs are projected to increase by 62 to 80%.

- BC Transit’s Transit Future Plan for the Central Okanagan seeks to achieve a mode split target of 7% for commuting trips by 2035, which equates to a four-fold increase in transit ridership from a current 4.3 million annual revenue rides, to over 16 million annual revenue rides. A tiered classification of transit networks based on service levels is planned to provide more consistent, frequent and predictable service.
The Kelowna International Airport is one of the top 10 busiest airports in Canada and a major economic generator to the local community and the province of B.C. The airport generates a total economic output estimated at $610 million to the Province of B.C., supporting up to 2,730 jobs (direct, indirect and induced). Table 3.1 provides the estimates of economic impacts of the airport to B.C. Served by 64 daily non-stop commercial flights, the annual passenger traffic in 2011 was 1.4 million passengers. The forecast by 2025 is expected to be in the range of 1.8 to 2.9 million annual passengers.

Table 3.1. On-Going Total Economic Impacts of YLW in British Columbia

<table>
<thead>
<tr>
<th>Type of Impact</th>
<th>Jobs</th>
<th>Person Years</th>
<th>Wages ($ million)</th>
<th>GDP ($ million)</th>
<th>Economic Output ($ million)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct</td>
<td>1,400</td>
<td>1,290</td>
<td>70</td>
<td>120</td>
<td>300</td>
</tr>
<tr>
<td>Indirect</td>
<td>640</td>
<td>590</td>
<td>30</td>
<td>60</td>
<td>160</td>
</tr>
<tr>
<td>Induced</td>
<td>690</td>
<td>640</td>
<td>40</td>
<td>70</td>
<td>150</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>2,730</strong></td>
<td><strong>2,520</strong></td>
<td><strong>140</strong></td>
<td><strong>250</strong></td>
<td><strong>610</strong></td>
</tr>
</tbody>
</table>

Source: “2010 YLW Economic Impact Study”, InterVISTAS, 2011
4.0 Goals and Issues

4.1 Sustainable Transportation Goal for the Central Okanagan

Before a discussion regarding issues and potential solutions, decisions, and sets of actions can be made, a clear understanding of the goal or vision for the transportation system is required. Based on the previous plans, policies, and consultation, it is clear the ultimate goal is a transportation system that is based on sustainability. Therefore, a brief discussion of sustainable transportation will help to describe this goal and set the framework from which issues can be identified—issues that can be considered as opportunities, threats, and indicators towards the achievement of a sustainable transportation system.

4.1.1 Sustainable Transportation

If the Central Okanagan municipalities are to have a more sustainable transport system, it will require a transportation system that embodies and reflects a broader sustainability framework. While there may be many definitions of sustainability, one common definition\(^4\) refers to “sustainable development,” which recognizes the interdependence between the economy, society, and the environment—the so-called “triple-bottom line” or “three legged stool” of sustainability. This definition recognizes economic development needs to occur, but that it must occur within limits for the greater and long-term interest of society.

Sustainability is both a goal and an approach to decision-making that requires recognition of the complex interrelationships and dependencies between economic, environmental and social elements of strategies and decisions. In order to be effective, decision-making in the three dimensions cannot occur in “silos”: environmental policies need to be socially and economically reasonable; social policies need to be environmentally and economically feasible; and economic policies need to be environmentally and socially sensitive. Moreover, in the context of transportation, modal “silos” where different agencies are responsible for different parts of the system and operate mainly in isolation according to their own mandate, cannot achieve optimum results within the wider three-tiered framework of sustainability.

The inter-relationships between these three dimensions are illustrated in Figure 4.1. The intersection of strategies that support all three dimensions simultaneously represent “comprehensive sustainability”—the space where both opportunities for increased value and synergy, and potential for conflicts and competition, reside.

4.1.1.1 Definition of Sustainable Transportation

Within the overall context of sustainability, there are many possible definitions of “Sustainable Transportation.” One example of a definition of Sustainable Transportation that reflects most of the high order values and aspirations of many urban regions was adopted by the European Union in April 2001, which stated that a “Sustainable Transportation System” is one that:

- Allows the basic access needs of individuals to be met safely and in a manner consistent with human and ecosystem health, and with equity within and between generations.

\(^4\) The emergence of the term sustainable development as a concept in the public arena can be traced back to the Brundtland Report (officially titled “Report of the World Commission on Environment and Development: Our Common Future”, United Nations World Commission on Environment and Development), commissioned by the United Nations World Commission on Environment and Development in 1987. The definition offered at that time was: “Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs”.
- Is affordable, operates efficiently, offers choice of transport mode, and supports a vibrant economy.

- Limits emissions and waste within the planet's ability to absorb them, minimizes consumption of non-renewable resources, limits consumption of renewable resources to the sustainable yield level, reuses and recycles its components, and minimizes the use of land and the production of noise.

![Figure 4.1. The Three Dimensions of Sustainability](image)

### 4.1.1.2 Characteristics of a Sustainable Transportation System

Based on the above, in simple terms a sustainable approach to transportation systems, whether at the regional scale or at the level of a specific facility or corridor, is one that meets mutually reinforcing economic, social and environmental objectives; achieves financial and efficiency targets; adequately addresses users’ needs; and is environmentally sound.

Examples of some specific characteristics of such a sustainable and integrated approach to regional transport and land use are:

**Economy** - for the economy, a sustainable transport system would:

- Support sustainable economic activity and growth
- Provide cost-effective service and capacity
- Be financially affordable in and between each generation
- Minimizes hidden subsidies
- Be funded through diverse, equitable and stable sources
- Use financial tools that are closely aligned with and pursue sustainability objectives
**Communities** - for communities, a sustainable transport and land use system would:

- Meet people’s diverse needs for safe, convenient and affordable access and mobility
- Provide a choice of transport modes within and between communities
- Connect and integrate communities rather than isolate and divide them
- Respect the quality of life in communities

**Environment** - for the environment, a sustainable transportation system would:

- Use land, water and air in ways that have little or no impact on the integrity of ecosystems
- Produce no more emissions and waste than can be accommodated by the environment’s restorative ability, and by society’s ability to reuse and recycle the components of the transportation system
- Rely primarily on fuels and energy sources that are renewable
- Continually seek improvements in energy efficiency

Due to the multi-dimensional and interconnected nature of a framework based on the spheres of environment, society, and economy, a number of “friction” or conflict points can occur within such a system. Due to the individual goals and innate “forces” within each of these spheres, “friction points can occur at the interface between spheres. Such is the case when economic growth is in conflict with environmental preservation. Furthermore, conflicts within individual spheres can occur as in the case of the competitive funding between roads and transit towards the goal of increasing economic vitality and livability.

Likewise, these points of interaction can produce synergistic opportunities where greater value can be produced if such opportunities are taken advantage of. Similar to the eastern concept of “yin and yang”, this natural competitiveness, conflict, and synergy between the various elements of a system, viewed in the lens of sustainability, is what produces the “correctioning” of the system towards an optimum, balanced—and ultimately—sustainable state. However, without a thorough understanding of these issues and interactions, unintended consequences may arise from the implementation of well-intended, yet prematurely developed policies.

### 4.2 Issue Areas

Issues are topics that are of significance or value to society and can be the key to achieving the goal of a sustainable transportation system. Issues are also areas where “friction” between competing goals, policies, or end-points can occur. It is therefore important to identify issue areas that are relevant to transportation and consider their significance in achieving the region’s goals.

The following 17 issues have been identified as a cursory set of issue areas from which feedback was gathered from stakeholders as to their significance, input which can eventually be the basis of policy development:

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5 Internal “forces” can be considered to be driving each of the three spheres of sustainability: Nature itself, and those that advocate for environmental justice seek to increase the environmental sphere’s significance; the needs of societies (e.g. food, energy, habitat, mobility, social interactions) and those that advocate for social justice seek to increase the societal sphere; and the desire for profit, security, and improved lifestyles is the driving force behind the growth of the economy.
1. **Transit** - Transit has been identified as a key mode in the achievement of sustainable transportation, and generally the only practical alternative form of travel to the automobile for long-distance trips and mobility-challenged members of society. However, there are issues of capacity, service levels, coverage, planning, and costs.

2. **Active Transportation** - Active transportation includes all human-powered travel, mainly walking and cycling. Active transportation can play a key role as the main mode of travel for shorter-distance trips. However, there may be a number of issues such as facilities/infrastructure, safety & security, and interaction with motorized vehicles, as well as between themselves (e.g. conflicts between pedestrians and cyclists in heavily used corridors are becoming a common occurrence). As access to transit stops requires walking, the support for adequate pedestrian facilities will also leverage investments in transit.

3. **Single-Occupant Vehicles** - Driving alone in an automobile is the most common form of travel in the Central Okanagan. The single-occupant vehicle (SOV) mode is also considered the main unsustainable mode of travel given the amount of energy and emissions expended per person-km of travel. However, many business services require employees to drive alone and therefore the objective to reduce SOV trips may conflict with economic goals. As the SOV mode will most likely continue to be the primary mode of travel in the region for the foreseeable future, a combination of government action, business leadership, and personal choices will be required to make significant headway in reducing SOV trips.

4. **Carpooling** – “Carpooling” or “ridesharing” is a common method of travel in the Central Okanagan. With the majority of vehicle travel being SOV trips, in which aggregated there is ample capacity in the form of passenger seating, there is a large opportunity for these trips to be converted to HOV or high-occupant vehicle carpooling trips. The difficulty lies in the ability for people to be willing to share their rides and find suitable ride partners beyond their personal networks. However, when the opportunity to share rides are present, carpools and vanpools can be more efficient than transit from a net GHG and fuel use per passenger-kilometre perspective.

5. **Goods Movement** - To support the local, regional, and provincial economy, as well as ensure for the needs of society, the movement of goods and delivery of services is critical to the livability and vibrancy of a region. However, the movement of goods via trucks or rail can come with undesired by-products such as noise, emissions, vibration, and safety concerns.

6. **Roads, Highways & Bridges** - The road, highway and bridge network is the main backbone of the transportation system of the Central Okanagan. Virtually all modes rely on or use this road network. However, in the past decades, roads have symbolized an unsustainable transportation system, which may not be a fair assessment given the social and economic significance of roads. The development of the road network is viewed as a key driver to the success of sustainable transportation as the need to expand the network must be balanced and aligned to sustainability objectives.

7. **Parking** - Automobile and goods movement travel into and within this region as a destination is only possible if there is adequate parking. However, in order to manage the demand for parking, regulations and policies are in place to control the time, use, and space available for parking. The availability of on and off-road (i.e. shopping malls) parking supply is critical to the convenience of residents and visitors and the growth of the local economy. Yet excessive supply may continue to support an auto-dominant culture.
8. **Safety & Security** - The safe travel from one location to another can be considered as the utmost importance. However, safety can be taken for granted as incidents are rarely encountered compared to every-day travel. If the significance of safety is paramount, the identification and improvement of unsafe and unsecure elements of the transportation system will be a key issue.

9. **Transportation Demand Management** - There are generally two ways to manage and improve a transportation system. The first is to change the supply of infrastructure and services. The second is to influence the demand for travel, or apply transportation demand management (TDM) initiatives. TDM initiatives can be a range of incentives or disincentives, such as marketing, education and awareness, programs to support alternative modes, and pricing. It can be said that the supply if infrastructure is akin to invasive surgery, TDM is then akin to natural and lifestyle practices.

10. **Transportation-Land Use Interaction** - The interaction of transportation and land use can be viewed as a two sided-coin in that transportation can impact the development and type of land use, and conversely, land use can impact the development and service levels of transportation. Furthermore, there are pressures to spread out the growth of development relative to the cost of land and desire for space, which can conflict with policies of densification and suppression of sprawl. There are tools designed to deal with this interaction in the development process such as traffic impact assessments, however the adequacy or efficiency of these tools may be limited.

11. **Special Generators** - Special generators, such as the airport, hospital, and post-secondary institutions, play a key role in the quality of life for not just the Central Okanagan region, but neighbouring regions as well. Access to these special generators is important and, in many cases, timely access is critical and requires adequate road infrastructure and operations.

12. **Intra and Inter-Regional Travel** - A vibrant region requires citizens and visitors to have efficient mobility within the region (intra-regional travel) and to/from the region (inter-regional travel). With the various economic, residential, and social zones spread across the region, residents from one area commonly travel to other areas of the region for work, school, and play.

13. **Population** - Population is one of the core drivers for the demand for travel. With the Okanagan being one of the most desirable places to live in Western Canada, the population of the Central Okanagan is projected to grow significantly within the next 20-30 years. The make-up of the population is also a key determinant in the type of travel demand imposed on the transportation system, with retired seniors having differing travel patterns and needs compared to students or those in the workforce.

14. **Economic Development** - Transportation plays a key role in the development and support of a region’s economy. Transportation provides the means to an end for vital economic activities such as commuting to work, the delivery of goods, and the access to businesses. However, a growing economy typically requires an increase in infrastructure and energy use, putting pressures on the environment and creating social impacts. Can the economy grow while increasing the sustainability quotient of the region?

15. **Energy and Emissions** - On the whole transportation is one of the largest consumers of energy in the province. Transportation is also the largest contributor to GHGs in the Central
Okanagan. However, other health-related emissions such as SOx, NOx, particulate matter, and volatile organic compounds (VOCs), need to also be considered.

16. **Planning and Decision Making Process** - The planning and decision making process is a significant part of the development and changes of a region. The current transportation planning process consists of Province-led transit and highways projects and plans, regional growth management strategies, and local government official community plans and subsequent transportation-specific plans. Planning also includes consultation with stakeholders, partner agencies, and the general public. The governance structure and decision making process is a central part of the planning process—effectively the “DNA” of the transportation system. Currently, there are changes being made to the governance of transportation in the form of a new *Strategic Transportation Partnership for the Central Okanagan* which seeks to coordinate plans, funding, investments, and activities.

17. **Funding** - Without adequate and timely funding, improvements to the transportation system cannot be made. Affordability is a key question in terms of the adequate amount of funding that should be sought and made available. Funding for transportation comes from various sources, such as property taxes, gas tax, development cost charges, user charges (e.g. fares) and grants from senior government levels. A sustainable transportation system requires a sustainable funding structure. This requires providing subsidies to “incubate” sustainable modes and investments. However, the progress towards a sustainable system would ideally reduce or eliminate the need for long-term subsidies as **sustainability equates to self-reliance**. Overall, funding can be the most controversial element to managing and developing a transportation system and so there is a need to demonstrate “value for money” invested.

### 4.3 Stakeholder Perspectives

A number of stakeholders were consulted to provide input and guidance in the identification if key issues and gaps. Feedback from government, business, health, tourism, education, and special interest groups were provided (Table 4.1).

**Table 4.1. Stakeholder Providing Feedback on Issues Areas**

<table>
<thead>
<tr>
<th>Responding Organizations</th>
</tr>
</thead>
<tbody>
<tr>
<td>BC Trucking</td>
</tr>
<tr>
<td>City of Kelowna</td>
</tr>
<tr>
<td>Interior Health Authority</td>
</tr>
<tr>
<td>Kelowna International Airport</td>
</tr>
<tr>
<td>Lake Country Chamber of Commerce (speaking for OVTP)</td>
</tr>
<tr>
<td>Ministry of Transportation and Infrastructure</td>
</tr>
<tr>
<td>School District No.23 (Central Okanagan)</td>
</tr>
<tr>
<td>Tourism Kelowna</td>
</tr>
<tr>
<td>University of British Columbia</td>
</tr>
<tr>
<td>Urban Development Institute – Okanagan Chapter</td>
</tr>
</tbody>
</table>
The significance of each issue area was asked from each stakeholder and the results are shown in order from highest to lowest in Table 4.2.

**Table 4.2. Ranking of Issues Areas**

<table>
<thead>
<tr>
<th>Issue Category</th>
<th>Avg. Rank</th>
<th>Samples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Planning and Decision Making Process</td>
<td>4.5</td>
<td>8</td>
</tr>
<tr>
<td>Roads, Highways &amp; Bridges</td>
<td>4.4</td>
<td>9</td>
</tr>
<tr>
<td>Safety &amp; Security</td>
<td>4.3</td>
<td>9</td>
</tr>
<tr>
<td>Special Generators</td>
<td>4.3</td>
<td>9</td>
</tr>
<tr>
<td>Funding</td>
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<td>Parking</td>
<td>4.2</td>
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<td>Active Transportation</td>
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<tr>
<td>Transportation-Land Use Interaction</td>
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<td>9</td>
</tr>
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<td>Transit</td>
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<td>9</td>
</tr>
<tr>
<td>Population</td>
<td>3.8</td>
<td>8</td>
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<tr>
<td>Economic Development</td>
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The top 5 ranked issue areas in terms of significance were (in order): Planning and Decision Making Process (4.5); Roads, Highways & Bridges (4.4); Safety & Security (4.4); Special Generators (4.3); and Funding (4.3).

The middle 6 ranked issue areas were (in order): Parking (4.2); Active Transportation (4.1); Transportation-Land Use Interaction (4.1); Transit (3.8); Population (3.8); and Economic Development (3.8).

The lower 6 remaining ranked issue areas based on significance were (in order): Goods Movement (3.6); Transportation Demand Management (3.6); Intra and Inter-Regional Travel (3.4); Energy and Emissions (3.3); Single-Occupant Vehicles (3.2); and Carpooling (2.6).

The following are some of the feedback received from stakeholders for each of the issue areas:

**4.3.1 Transit**

- Transit needs to be part of an integrated multi-modal system. The path to achieving a more sustainable transportation system must incorporate a ‘complete systems’ view which considers all modes of transportation planning and integration of regional growth management. Local governments must also have more control over key transit planning and marketing functions to improve responsiveness, customer focus and accountability. New sustainable and predictable
funding sources, which do not rely solely on residential and business taxes are also required to fund transit expansion.

- Servicing transit in rural areas is a challenge with remote locations being cost-prohibitive to provide good service.
- Higher density is required to support an efficient and expanded transit system with higher service levels. Such growth justifies a significant investment in transit service.
- The region’s goal is to focus new investment to develop the Frequent Transit Network (FTN) which is identified in the Central Okanagan Transit Future Plan. The short-term strategy is to establish the route structure of the FTN and increase service frequency in all FTN corridors to at least a 15 minute level of service during weekday peak periods. In the future, additional service hours and buses will be committed to FTN corridors during off-peak periods to increase service frequency, as warranted by ridership demand.
- Over the long term, it is anticipated that about 80 percent of the total annual transit service hours will be allocated to core transit services comprising the FTN, and the remaining 20 percent to a lower frequency local transit network which provides basic community coverage.
- It is desired to maximize transit coverage; however, it is recognized that some communities cannot be economically served with conventional fixed route bus service due to low density land use patterns and discontinuous street systems. Other options (e.g., park and ride facilities, demand responsive bus services) should be considered to ensure that all communities have some access to transit services.
- An effective public transit system is very important to a tourism destination. The movement of visitors effectively and intuitively is key.
- Mode shifts that result in reduced congestion is good for goods movement and service vehicles.
- School buses use public transit stops, which is an efficient use of infrastructure and exposure to alternative modes.
- The viability of transit to access health facilities is limited to many people in the region. Providing home care via transit is difficult for health care support workers.
- As demonstrated by the U-Pass program, continued accessibility to regular and reliable transit service for all UBC constituents is critical to UBC’s alternative transportation offerings and the promotion of sustainable transportation on campus and regionally.

4.3.2 Active Transportation

- Increased investment in new active transportation infrastructure is key to supporting the Region’s sustainability goals, in terms of economic competitiveness, environmental stewardship, human health and social inclusion.
- Active transportation is a key component of the multi-modal transportation network. Goals need to be realistic and well-conceptualized, while supported with end-of-trip facilities like lockers and showers etc. in order to be viable. So active transportation needs to be developed in a science-based and holistic manner, but when people can live, work, and play within riding or walking distance of each location, active transportation is a very realistic objective. However, with the current layout of most of our region’s centres and regional climate, it may be a challenge to significantly switch most users to active transportation on a year-round basis.
Distances between traffic generators are generally quite large, precluding the large scale promotion of "active transportation" except for short trips. There is support to expand walking and biking trails and sidewalks, where appropriate to meet demand.

- The current low density development patterns and lack of pedestrian and cycling infrastructure in many areas has created a situation where using a car is the only viable travel option. Going forward, the City is committed to expand its city-wide network of bike lanes and pathways and fund the construction of new sidewalks along arterial and collector roads to address the current infrastructure deficit.

- The school district constantly promotes, educates and encourages students and parents to walk or cycle to and from schools. A Traffic Safety Officer goes to the schools and educates students about pedestrian safety, bicycle safety to encourage encouraging active, safe and sustainable modes of transportation.

- The Kelowna General Hospital (KGH) TDM planning is an indicator of Interior Health (IH) wanting to make active transportation a viable option. However, it has been identified through the KGH staff survey that security of facility, lack of bike storage or safe bike storage is an issue. The potential solutions—storage of bikes within office space, and provision of safe bike storage—are options within the corporation.

- A multi-use pathway has been developed that extends to the UBC campus. The new pathway will complement existing bicycle routes and trails on campus and will provide cyclist and pedestrian commuters with a safe commute to campus. The campus has also established bicycle parking facilities and end of trip facilities at various locations to encourage active transportation options.

- The Central Okanagan Regional Active Transportation Master Plan has been recently completed. It provides a long term vision for a pedestrian and cycling network that will provide parallel travel routes to major Provincial Highways and connect major destinations across the region, including urban centres, employment centres and regional transit services. New and predictable alternative funding sources will be required to fully implement this plan.

4.3.3 Single-Occupant Vehicles

- The current reliance on the private automobile for regional travel has largely happened out of necessity due to the low density, dispersed land use patterns, and the lack of convenient and safe opportunities for walking, cycling and using transit.

- There is much support for efficient transit and active transportation as viable alternatives to single-occupant vehicles. However, there are concerns regarding initiatives or approaches that look to restrict or penalize this primary mode of transportation. The objective of such initiatives should be to incent and encourage higher order transportation, not penalize those that rely on this mode of transportation. It is important to accommodate vehicles, even if they are single-occupant.

- Until reasonable alternatives are available, the automobile is the primary transportation mode in our area. However, car-pooling and shared trips as well as the responsible use of personal and business vehicles should be promoted. The increased market price for fuels has done much to promote responsible travel, however, additional taxation as a means of promoting this is not supported.
• The Region must continue to plan for SOV’s; however, new street design and construction should focus on creating multi-modal street designs that incorporate the needs of pedestrians, cyclists, and transit and function in the context of surrounding land uses. The Region must also continue to undertake coordinated action as part of a comprehensive TDM program to encourage people to change their travel behaviour and feel comfortable in walking, cycling and using transit. The TDM program currently provides a range of infrastructure, programs and incentives which are aimed at shifting travel behaviour towards sustainable transportation modes, such as:
  o New cycling infrastructure (e.g., bike racks on buses, bicycle rack program cost-sharing program with businesses, new requirements for bicycle parking and storage in new developments).
  o Promotional programs (e.g. SmartTRIPS neighbourhood trip planning assistance; Bike to Work and Bike to school promotions)
  o Transit Initiatives – UPASS programs at post-secondary educational institutions.
  o Carpooling – ride match assistance.
• Other potential actions/incentives include expansion of the HOV network in major Provincial Highway and urban arterial corridors, and development of park and ride lots at strategic locations to intercept SOV trips. Efforts must also be made to engage major employers and institutions to encourage the adoption of a range of corporate TDM and trip reduction programs (e.g., discounted transit passes, carpooling/vanpooling, work from home programs etc.). However, the reality is that some staff are required to drive their vehicles for business and work.
• Consideration should be given to the adoption of user pay principles (such as increased gas taxes, vehicle registration fees and parking fees etc.) which can influence travel patterns (i.e., time and level of trips and modes used). Experience elsewhere has demonstrated that user pay concepts can be effective in reducing SOV travel and provide new sources of funding for sustainable transportation infrastructure.
• SOVs showing up in schools is not desired and walking, cycling, and car sharing is encouraged. Too many vehicles cause undesirable pollution and congestion at school sites.
• Currently, the automobile is the only viable access to and from the airport.

4.3.4 Carpooling
• The local chambers of commerce support carpooling. However, carpooling may not be feasible for people travelling locally on business. Similarly, pick-up trucks are used extensively for business—and their use does not lend itself to the concept of carpooling unless it involves a work crew travelling to or from the same work place. Transportation policies need to include business use as a valid and necessary element, often requiring single occupancy vehicles.
• Ride-share programs or online boards that encourage and facilitate carpooling are potentially advantageous. A science-based approach with local results or studies to quantify the potential benefits of these approaches is supported. Taking the HOV lanes through Kelowna for example, it would be very interesting to quantify the impact, particularly in the absence of substantial marketing or park-and-ride facilities. Before the programs are expanded, it would be valuable to know that carpooling increases to a level commensurate with the impact of the initiative. We would encourage caution and diligence with this approach.
• The City is interested in exploring other potential applications for rideshare programs such as employer sponsored carpool/vanpools programs (perhaps in lieu of dedicated parking). It may also be feasible and desirable to establish carpool parking lots at key locations along Hwy 97 to intercept SOV trips and promote ridesharing (similar to the carpool lots adjacent to interchanges along Hwy 401 in Ontario and carpooling which occurs along the access roads to major ski resorts).

• Students, parents and staff are encouraged to make use of carpools.

• Within Interior Health, there is a policy to carpool to/from meetings. Any travel outside of the communities, the policy is to carpool when possible. IH has carpool.ca on their website but the KGH survey indicated over 90% of staff were unaware of it.

• Carpooling is available to all UBC constituents through http://www.carpool.ca. Carpooling options are important to the mix of sustainable transportation options offered to campus stakeholders.

• The Central Okanagan TDM group initiated and supports a ride matching service, Carpool.ca, to the broader Okanagan community. Carpooling is continually promoted as a regional initiative and is reaping rewards in terms of subscription rates and user satisfaction.

4.3.5 Goods Movement

• The efficient and cost-effective transportation of goods and services is a prime objective of the chambers of commerce and business bodies.

• The School bus lot (operations site) is at 685 Deas Road. As it is near auto dealerships and bottle depot, there are numerous conflicts with trucks, especially tractor-trailers carrying vehicles.

• Well-planned and smart-growth principles is supported, and as such, the need to maintain an efficient and clear route for goods movement is endorsed. However, there is also a need for truck routes and noise bylaws to keep these impacts to the highways and arterial roads and away from the local roads through residential neighbourhoods. One needs only to look to the Lower Mainland to appreciate the catastrophic impacts a congested highway system can have on the goods-based economies.

• Equally important, however, is the movement of goods through and from our community. Creating roads that circumvent the constricted nature of Hwy 97 would be advised. This increase in goods movement would allow more manufacturing to locate here, without the difficulties of having to endure increased tourist traffic. Having alternate routes for goods would also increase the harmony of transportation and density.

4.3.6 Roads, Highways & Bridges

• The transportation network is vital to the growth and continued viability of our expanding urban regions. The conceptualization, rationalization, and implementation of well-conceived and progressive road, highways, and bridges are keys to the master-planned growth of our region. We believe that municipalities need to plan, develop, and maintain their networks and find a way to fund these costs based on best practices around asset management and infrastructure renewal. Discussed later is the issue of funding, especially through taxes and levies vs. development cost charges, it is important to appreciate this network is key to all residents and businesses, not just new growth.
- The Central Okanagan is one of the most auto dependant regions in the country based on annual vehicle kilometres travelled (vkt) per household and the high rates of car and truck ownership. Current development commitments will allow significant new growth in suburban areas, which will result in increased travel distances for work and personal trips. Extreme traffic congestion is expected in the future within the Highway 97 corridor. To mitigate these impacts, priority measures such as new HOV lanes and TSP should be implemented to give priority to efficient modes of transportation such as transit and carpools and to ensure that a pathway/trail network is provided for pedestrians and cyclists within the corridor or along parallel routes.

- Current transportation modelling to 2030 demonstrates that new investments will need to be made to key arterials and Highways to gain additional capacity. Travel forecasts indicate that a new Highway 97 crossing of Okanagan Lake and implementation of other components of a Central Okanagan Highway By-pass route will be required. Due to the significance and magnitude of this project, local governments should engage the Province to complete the necessary studies and community consultation to identify and protect a corridor and discuss future staging and funding options for implementation of this corridor.

- City planners should remember to include pathways/sidewalks and bicycle lanes for connectivity in order to promote healthy transportation alternatives.

- Any time we can reduce ground travel times to the airport makes the viability of the airport that much stronger in the Region. For example reducing travel times from Penticton to Kelowna has a positive benefit for both the airport but also commerce within the Region.

- Hwy 97 passes through the center of the city and is therefore slow. There are no overpasses or interchanges in the main intersections. Also tourism increases traffic during the tourist season.

- As an organization we want to move towards sustainability in all of our operations, however the needs of clients are priority.

- The Ministry of Transportation and Infrastructure’s Okanagan Valley Transportation Symposium resulted in a vision statement for the Central Okanagan:
  
  “The long range Okanagan Valley transportation system will:
  
  - Design and build safe, congestion free intersections and adequate passing lanes and alignments.
  - Increase and improve intra and inter-city transit and active transportation opportunities.
  - Support and encourage coordinated multi-modal transportation planning between communities.
  - Protect right-of-ways for utility corridors and movement of people of goods.”

4.3.7 Parking

- These issues can be viewed in two different categories: accommodating current needs and anticipating future needs. We support the creation of adequate parking and accommodation of existing parking needs. We believe that parkades and parking lots and the like are vital to inviting residents and tourists alike into our denser cores. Any initiative which seeks to change the demand for parking through the restriction or reduction of available parking is likely not in the best interests of the local economy as people have many alternatives without such constraints. However, in the creation of future parking, Urban Development Institute (UDI) encourages flexibility in bylaws insofar as allowing new developments to determine their own
parking needs and develop based on those anticipated needs instead of an antiquated or irrelevant parking standard. We have seen initiatives such as utilizing commercial parking lots for commuters in the day and residents at night provide enormous benefit and such opportunities to share parking are ideal.

- Existing bylaws controlling on and off street parking in the Central Okanagan are supported and it is believed that change is not necessary at this time. Automobiles are not negative as personal use of the automobile, including pick-up trucks and recreational vehicles is a prime economic driver in our area. Finding adequate, safe and convenient parking at one's destination is essential in maintaining the vibrancy of our economy and social life.

- The availability and price of parking is an important factor in what modes of transportation choice to use. An abundance of free parking encourages vehicle use, consumes useful land and is expensive to construct and maintain.

- 85% of our tourist traffic travels by road so the need for parking to be plentiful and easily accessible ranks as a priority for us. Parking is essential to our businesses as we support a Regional economy. Therefore, we need to ensure parking is affordable.

- Infrastructure money for more parkade/parking spaces is not a reality and the current parking structure does not reflect the true cost of parking. There is a disconnect that will have to be addressed as the number of staff and services within the KGH site will increase and the number of parking stalls will not keep pace. Alternate options will need to be found and points towards developing partnerships with the Regional District and municipality around transportation.

- We need to provide safe entry, exit and parking at school sites for staff; we do not want to provide excessive parking as we feel it promotes SOVs. Usually there is enough parking for staff. However, students driving can create spill-over into areas around schools.

- At present, demand exceeds parking availability at the UBC Okanagan campus. However, increases in transit service in response to demand has helped narrow the gap between parking supply and demand.

- The move towards more complete streets that support walking, cycling and transit requires complementary parking management strategies. The current downtown parking strategy has been effective in managing traffic flow into the core, increasing transit use, managing the total number of long stay and short stay parking stalls and creating a dynamic downtown. Continuing these strategies and expanding them to other key locations (e.g., urban centres, major institutional uses) throughout the city will continue to shift the focus from providing an abundance of free parking to a more managed approach to parking.

- Due to the high proportion of regional auto trips, park and ride concepts have a potentially important role to play in supporting efforts to increase transit use. Opportunities should be explored to establish park and ride lots at strategic locations to intercept vehicles at the earliest opportunity and to reduce vehicle congestion along the Highway 97 corridor and major regional travel destinations.

- Parking can impact the efficient movement of Goods (i.e. parking on truck routes).
4.3.8 Safety & Security

- Safety and security are essential pre-requisites for encouraging greater use of sustainable transportation modes. If people do not feel comfortable walking, cycling and taking transit, they will continue to rely on their private automobiles for their daily travel needs.

- There is an IH policy on working/travelling alone that helps staff evaluate their risk. The KGH staff survey indicated that safety and perception of safety ranked high on the reasons not to opt for active transportation.

- Perceptions of safety can be enhanced by encouraging compact, mixed use developments and applying Crime Prevention Thorough Environmental Design (CPTED) principles in the design of streetscapes and buildings. The feeling of safety and security results from route illumination, informal ‘eyes on the street’ provided by round-the-clock pedestrian activity and urban design that focuses on providing visibility through windows and doors.

- Other safety and security measures (e.g., security personnel and CCTV surveillance) are necessary at major transit exchanges or bus stops where large numbers of people gather to board, wait and disembark from transit vehicles to provide a strong sense of personal safety for transit patrons.

- Safety on public highways is very important. Keeping our public roads safe has many different elements, depending on the prime use of each medium. So for example, it does not make for safe, efficient and effective transportation corridors if different modes (bicycles, animals, walking, autos, buses, trucks) are all using a high speed highway at the same time. It is sensible to provide different routes and opportunities for different modes. Logging roads have restricted use at certain times and it makes sense for other corridors to have appropriate restrictions on use depending on a variety of factors. Safety is very often a function of the engineering design of each component of the transportation system.

- Safety and Security is paramount at School District 23. School bus transportation is one of the safest modes of transportation available. We attempt to keep school bus pick up and drop off areas separate from student, parent and staff parking areas. Staff are required to pass a RCMP security clearance prior to hiring. School Bus drivers receive specific school bus training and refresher training on an ongoing basis. Additionally, careful consideration is given to ensure that student and SOV interaction is minimized near, around and on school sites.

- Safety is the cornerstone of our business.

- In terms of safety, the safety record of commercial transport is quite good. Security is an issue mainly for goods.

4.3.9 Transportation Demand

- Our school district promotes active transportation through the promotion of safety programs within our schools (i.e. pedestrian safety/bicycle safety presentations), and also collaborates with City Hall’s TDM group on initiatives such as “Bike to school week”.

- In order to get good air access you need to support the services you have today which then encourages a growth in services. The Airlines look for marketing support by communities to promote this air access.

- We are not in support of introducing TDM policies in our quasi rural area without in-depth discussion by all affected parties of what they are, what they mean and what effects they will
have in the short, medium and long term especially on the efficient and cost effective movement of goods and services.

- UDI strongly prefers this version of TDM (e.g. influence demand through marketing, incentives, choices, and pricing) to the concepts of restricting the supply of infrastructure. If there are ways to change preferences and routines, this is a much more appropriate approach.

- Pricing could be an issue. It is important that the value of an improvement that is priced is visible such as savings of fuel and time. If value is demonstrated, then initiatives like tolling could be supported.

- The Kelowna General Hospital TDM plan that will be finalized shortly has 3-4 short and long term solutions. The report will be given to Senior Management to review and determine the economic feasibility.

4.3.10 Transportation-Land Use

- We strongly advocate for the combination of effective transportation with higher density development. With a regional outlook to approvals of higher density development around transit corridors to support and encourage more sustainable and accessible development, this also encourages transit corridors proactively extending into areas of higher density development. As one of our highest priority concerns, we believe that TIA/TIS studies undertaken for each individual development are too myopic and onerous. One of the most significant functions any municipality or regional government can provide is to build and maintain a regional model that accounts for changes in zoning consistent with the OCP. Unfortunately, one of the most-cited complaints around any development is the traffic impact, and frankly density with smart growth and appropriate transit service may not have any significant impact. The public’s interest in transportation/land-use interaction is often focussed on the impacts to them personally as opposed to the best benefit for the larger region. We strongly encourage the development of regional tools to address these concerns.

- This is critical to sustainable development. Improved transit is a key factor in UBCO’s campus planning and will enable better use of land (e.g. as parking lots can be converted to higher uses).

- Existing laws regarding traffic impact requirements for new development are supported and we see no need for change, except to caution that we believe that each proposed new development needs to be reviewed individually in the light of existing and proposed long term policies within each jurisdiction. In other words, all-embracing policies may not be appropriate for every circumstance or community.

- Land use is a key factor in determining the modes of transportation that people use for their daily mobility needs. Extensive research has identified that cities characterized by low-density development and widely separated patterns of housing, employment and urban amenities, are usually highly auto dependent and have relatively low utilization of transit, walking and cycling. Conversely, cities that incorporate compact, mixed-use, walkable development patterns are more likely to accommodate a higher proportion of trips via walking, cycling and transit than by private automobile.

- The City of Kelowna currently offers incentives to the development industry in the form of DCC concessions, taxi incentives, reduced parking standards and payment in lieu of parking and expedited development review to promote sustainable transportation oriented development. The city is also reviewing its traffic impact assessment guidelines, in consultation with the UDI,
to identify a methodology and timelines for assessing new development applications in order to achieve its sustainable transportation goals and streamline the development process.

- Partnerships have also been formed between the City of Kelowna and key business areas to develop strategies and action plans to revitalize key urban centres to achieve sustainable land use and urban design objectives in the OCP. Regular meetings between senior city officials and the development industry also provide an opportunity to hear the development industry's perspective about the barriers and opportunities that exist to achieve a more compact urban form that supports increased use of sustainable transportation modes.

- The identification and protection of designated truck routes is important. However, there is a growing conflict between residential development and truck routes.

- It would be considered important that the Cities OCP keep schools high on the list of priorities regarding connectivity and accessibility. We currently have members of School District #23 (SD23) who sit on the SNAC (Safety Needs Assessment Committee). They work with the local RCMP to mitigate any unsafe traffic/pedestrian related issues.

4.3.11 Special Generators

- We recognise the importance of "special generators" in the social and economic life of the community. We believe that a comprehensive list of such generators would include not only the institutional elements but also the commercial elements such as shopping malls, town centres and other employment centres such as large industrial parks (or the landfill!!), sports stadiums, and major recreational areas. An efficient and effective transportation system will take all of these generators into consideration and seek the optimum means of accommodating each one's transportation requirements.

- We agree unequivocally that these special generators are valuable and important components of the community and maintaining availability to access is a regional responsibility. Funding of upgrades to maintain such timely access comes later, but agreeing in principle that this is a priority would be beneficial. Ultimately, the success of our industrial and commercial areas, the attractiveness of our region to tourists and investors, as well as the appeal and liveability to residents relies largely on these special generators, and they need to be supported as such.

- We know that without key air access most business in the Region will not grow. Therefore, the airport is a key driver to the regional economy.

- Access to business parks and industrial/commercial areas is important.

- KGH is a tertiary centre and will attract clients from a wide geographical area.

- Adequate linkages between UBC and access corridors to and from the airport, for example, are important to consider.

- The special generators noted above represent the highest concentration of employment and economic activity in the region and offer the greatest opportunities for achieving changes in travel behaviour to support a more sustainable transportation system. The Regional TDM program should focus on engaging these key stakeholders to understand the characteristics of the travel demand generated by these uses and jointly discuss a range of TDM strategies that would reduce SOV use and reduce vehicle congestion and parking demands.
4.3.12 Intra and Inter-Regional Travel

- The Okanagan Valley is a cohesive economic and social entity within a spectacular agricultural and recreational region with distinctive local neighbourhoods, towns and cities spread throughout. In a way, it is not dissimilar from the Lower Mainland, just a few decades earlier in its development history. It will be important to continue to develop transportation policies that recognise the importance of the fact that we are all "gateways" for each other along Highway 97.

- Most of the school-related travel is in the region. However, inter-regional trips are taken on field trips. When needed, long-distance highway coaches are used.

- During the PM peak period, the interaction between school buses and personal vehicles can be high. The new bridge has helped travel times, as with the use of the HOV lanes.

- Important part of the regional and local economy and great for our business.

- We are encouraged by the assertion that there is so much inter-regional travel. However, the solutions to intra-regional and inter-regional travel are inextricably linked: if adequate transit and alternative transportation choices are made available, and the traditional transportation network has the capacity and condition, people will be able to move to wherever they see fit.

4.3.13 Population

- Population growth provides opportunities for new economic development but also provides challenges in terms of understanding the characteristics and needs of future residents and providing the necessary services and infrastructure to accommodate growth.

- We support continued population growth in the Okanagan Valley, and the provision of infrastructure for the cost-effective and efficient movement of goods and services throughout the region to serve the needs of the growing population.

- Active participation as a stakeholder in OCP development is critical to controlling demand for travel within our region.

- It is not just population but also the affluence of that population. The Region has a high level of ‘visiting friends and relatives’ (VFR) travel and individuals that do multiple trips in a year.

- The 20 year trend is going down for 4-5 years and then back up. Arrivals of International students are increasing, especially in grades 10-12. Overall, school bus ridership is increasing every year.

- We must accommodate these new residents’ needs instead of limiting their choices. We must provide the opportunities for live-work and age-in-place, as well as those that still want single family homes with yards. However, this is the instance where proactive and prospective funding into trails, paths, bike routes, and bus routes to service these developing areas will shape and alter people’s options and ultimately their preferences. Make alternative modes available to the new population before they develop routines and habits.

- With the demands on our acute services by an ever increasing aging population, the types of travel options available will need to increase as not all seniors will be financially or economically able to drive a vehicle.

- The attractiveness of the Central Okanagan as a ‘retirement’ destination may increase the demand for smaller, single level dwelling units and a preference for mixed use, walkable...
communities where services and amenities are available close to where people live. The City of Kelowna is in a good position to respond to this trend as a result of the good planning work and existing and planned investments in the downtown area and major urban centres such as Pandosy Village, Uptown Rutland etc.

4.3.14 Economic Development

- Local businesses consider economic development a top priority in maintaining sustainable growth in the region. Sound transportation policies that provide for the efficient and cost effective movement of goods and services are a key element of economic growth.

- UDI is at the forefront of economic development in the region and strongly supports initiatives relating to economic growth and stimuli. Through population growth we see increased demand for housing, commercial and industrial opportunities, investment and ultimately taxation. The economic strength of our community directly determines our ability to afford the wide range of services and programs we wish to provide. However, we are concerned that a shift towards taxing and charging new development and growth at an unfair rate will discourage such development. Again, coming to the issue of funding below, economic growth must be encouraged and cultivated for the benefit of the entire region.

- Light and heavy industries, agriculture, and lumber all depend on heavy trucks significantly. Not so much for the tourism, health or technology sectors.

- The Kelowna International Airport is a major economic generator. Access to the airport is primarily by the automobile.

- Universities and other post-secondary institutions have a critical role in economic development. This role is enabled and enhanced by having reliable public transportation that easily links the institution with research parks, businesses, manufacturing sectors, and other members of the cluster. As UBCO develops these opportunities will increase.

- The City of Kelowna works cooperatively with other local governments through the Central Okanagan Economic Development Commission to attract new businesses to the Central Okanagan Region.

- The 2011 strategic plan identifies that the Region should focus its efforts on attracting entrepreneurs and a skilled workforce from across the country and around the world with the aim of establishing permanency rather than temporary residence. Quality of place, which includes an active lifestyle, a healthy environment and affordable mobility are identified as important attributes in attracting people to live and invest in this region. From a transportation perspective, this means that the Region must continue to invest in new infrastructure and services that provide a full range of healthy and affordable mobility choices (walking, cycling and transit) as well as continuing to accommodate the needs of auto drivers and urban goods movement.

4.3.15 Energy and Emissions

- There is a sense that idling traffic caused by traffic congestion is an unfortunate and perhaps curable source of air pollution, and that in general pollution should be minimised as much as is practically possible, but we are aware that Provincial legislation is quite stringent as far as motor emissions are concerned. There is also a concern that the high price of energy is having a disproportionate influence on the increasing cost of goods and services.
• We have a “no idle policy”. We have purchased CNG buses to reduce our GHG emissions. Also, we educate our students on GHG emission reduction. Additionally, the school district employs an Energy and Sustainability Manager who is constantly educating the district and seeking out new ways to reduce our GHGs.

• In terms of truck emissions, since 2006, the industry has switched over to clean diesel. In 2007, the introduction of new EPA standards was imposed in the US, which eventually impacted BC as most trucks are made in the US. Since then, approximately 1/3 of all fleets meet the new EPA standards. Therefore, as technology and safety regulations improve, by-products are reduced.

• UDI does not take a position on the link between transportation and energy/emissions. As above, if energy use or emissions are costing society, prices should reflect such impacts. Arbitrary constraints or constrictions on the transportation system to achieve these objectives are strongly discouraged.

• Reducing SOV’s especially on ‘busy roads’ as defined by Ministry of Transportation (+15,000 vehicles/day) will reduce the health impact to those vulnerable populations (seniors, children) that may live and stay within their residences for extended daily periods.

• IH has to be carbon neutral and the Environmental Sustainability program is working towards ensuring all of the IH operations reduce their carbon footprint.

• Kelowna City Council adopted the Community Climate Change Action Plan on May 28, 2012 which provides actions to help reach the Official Community Plan goal of reducing community greenhouse gases by 33% below 2007 levels by 2020.

4.3.16 Planning and Decision Making Process

• The Okanagan Valley Transportation Panel supports the development of a transportation plan for the region and valley as a whole. Specifically, their core objectives are:

  o To assemble regional stakeholders for discussion regarding their transportation issues related to the Highway 97 Corridor (Osoyoos to Sicamous) and connection to it. This would include all major highway cross sections: public and private road and rail, water and air transportation sectors.

  o To consult with all levels of government including 1st Nations so as to engage appropriate senior level involvement in the “Okanagan Connection” planning process.

  o To promote a cooperative and unified approach in advocating the Okanagan Valley’s transportation requirements.

  o To develop and maintain a dynamic process between the Okanagan Valley Transportation Panel with all levels of government in regards to regional transportation issues and resulting economic opportunities, especially in the goods and services sector.

• We support a more supportive framework for integrating the regional growth management strategies with the local OCP plans, then rationalising the local transportation plans with the proposed regional plans and ultimately the provinces highway and transit departments.

• In the interests of fairness and consistency, we wonder, much like rezoning within the OCP process, if a development or initiative was proposed that was consistent with the Strategic Transportation Partnership, if the extensive analysis and consultation required of each development would be supplanted with recognition that such growth was proceeding as planned.
As one of the largest employers in the Okanagan, we certainly want and need to be a part of that organization. We will be able to reach out and educate thousands of staff, and students who will be our future leaders.

Need to be better engaged from an intermodal perspective.

Multi-jurisdictional partnerships need to work well if decisions on issues such as land use and the economy are important.

Research tells us that improving active transportation and reducing air pollutants helps to reduce the incidence of chronic diseases and obesity. Improvements to transit both routes and route frequency will enable IH staff to engage in active transportation and potentially reduce the number of SOV trips to and from the worksite.

Our views and beliefs are well documented in the work produced for the Sustainable Transportation Partnership and the BC Transit Review Panel.

4.3.17 Funding

There is a need for stable, predictable, fair and sustainable funding sources which do not rely solely on residential and business taxes. It has been demonstrated from experience elsewhere in North American and other parts of the world that a governance structure that can harness diverse and sustainable sources of funding which the public can link to improvements in the overall transportation system (e.g., local gas taxes, vehicle registration levies, parking revenues etc.) and which can influence travel patterns (i.e., time and level of trips and modes used), are likely to be the most effective.

We would draw your attention to the established policy of the BC Chamber concerning this fiscally and politically complex subject. There is no simple answer to how should transportation infrastructure be funded although in general, the Chambers support the concept of "user pay" provided that if taxes are involved, the full amount of the tax (e.g. Federal and Provincial gasoline tax) should be used to support the road system.

A balance of funding is appropriate.

The visibility of value for payment is important.

We encourage RDCO to pursue commitments from the Provincial Government, Federal Government, and other infrastructure providers to identify and detail sources of infrastructure financing. We recognize that strategic regional planning and infrastructure delivery must be coordinated to deliver wise and efficient land use. We also encourage ongoing monitoring and accountability of municipalities in delivering the dwelling targets set by the RGS if approved for implementation.

We advocate a framework of taxes and charges for transportation that that reflects fairness and equitable allocation of costs. Development Cost Charges (DCCs), Community Amenity Contributions (CACs), Property Transfer Tax (PTT), Harmonized Sales Tax (HST), other municipal, provincial and federal taxes, and infrastructure fees and charges combine to severely limit the provision of affordable housing. These costs either constrain the supply and development of new housing or they are passed on to new homebuyers. Both severely impact the economic development and population items above.
We contend that development extractions could best support the provision of new housing, and development of employment lands, when there is a demonstrable nexus between the cost and benefit of those extractions. Alternative broad-based financing mechanisms, for infrastructure and amenities that benefit the surrounding and regional communities, are recommended to preserve intergenerational and geographical equity. We are concerned that a growing number of municipalities are turning to DCC’s and CAC’s in order to keep the tax burden lighter on existing residents and shift the burden to new growth. This is not an appropriate, equitable, or sustainable approach.

The solutions are two-fold: progressive asset management programs to inventory and identify the condition of existing infrastructure, as well as quantifying and accepting the infrastructure funding deficit of the existing networks. By separating this shortfall from the impact of new growth, the costs can fairly be distributed amongst those deriving benefit from the existing systems. This transparent funding approach will allow for revisiting grants and infrastructure funding, as well as alternative improvement levies or taxes or alternative mechanisms to deal with the funding challenges.

It is critical, without funding the wheels on the bus don’t go round and round. SD23 is very proactive when it comes to seeking out funding/grant opportunities, be it Provincial, Federal or local companies, i.e. Fortis. Without funding we will be unable to purchase new (CNG) buses or continue to provide affordable and emission reducing transportation.

The school district operates on a $164 million budget. $3.4 million is allocated to transportation operations, however $4.6 million is required. The average cost to operate a route is $60K/year.

Caution about viewing the trucking industry as a cash cow (e.g. gas taxes may be justified as a TDM measure, however there are no opportunities to shift to other modes for goods movement).

4.4 Issues Monitoring

In order to monitor the significance of issues over time, a monitoring program can be set up that can provide periodic assessments of progress and allow for evidence-based policy development and planning. The key issue areas discussed above can be considered as the subjects of monitoring and their evolution in the region evaluated through indicators. Section 6.3.2 provides a discussion of monitoring and examples of indicators by issue area.
5.0 Analysis

5.1 KEY TRANSPORTATION CONCEPTS

In the past, the delivery of transportation in urban areas was focused on the goals of mobility, reduced travel time, and access. Infrastructure was not always planned and built with the mind of a “complete system”, and rather piecemeal at times. With increased congestion due to increased demand for travel, and the complexities of transportation interactions between modes, as well as external interactions with land use and the environment, a need for a more strategic approach was identified that included a redefinition of goals that support the more holistic concepts of livability and sustainability.

A sustainable transportation planning framework for the Central Okanagan is required as a basis to which transportation planning and delivery can be made in a more coordinated, functional and balanced approach. With limited funds available, yet increasing demands for infrastructure and services in all modes of travel, the key concepts of a sustainable planning framework for the region will need to be understood and discussed at all levels of decision making.

5.1.1 Multi-Modal Planning

5.1.1.1 Advent of Multi-Modalism

In the 1950’s to 80’s, highway budgets were many times greater than that of transit in North America. However, with an understanding that solely building more roads alone would not be sustainable, the combined planning of both modes eventually gave way towards greater transit and funds. Still, the programming of infrastructure was done in a categorical and piece-meal approach, giving regional authorities relatively little flexibility in implementing their plans in a coordinated and timely fashion.

Around the world, the move towards a more integrated multi-modal system was realized through the adoption of supportive policies and passing of alternative mode-centric legislation, allowing for funds to be used more fluidly across several modes for the first time. These policies allowed metropolitan areas to “level the playing field” among the modes by developing solutions to transportation needs without a modal bias. Now a universal understanding is that a single-mode approach to transportation planning in an urban setting is not only inefficient, but can be ineffective and counteract the goals of sustainability.

However, a multi-modal transportation system is not multi-modal, per-se, if it only has the “parts” but does not have the “parts” integrated into a system that allows choices and ease of movement between modes for optimal travel based on sustainable criteria. Therefore, the transition points or interfaces between modes are key areas of investigation to ensure a truly functional multi-modal transportation system.

In an urban environment, numerous travel options are typically available for residents and visitors. The availability of a range of transportation infrastructure and services allow for travel in whole, or part, by modes such as automobile, transit, cycling and walking. A “full-suite” of travel over multi-modes permit trips to be made in the most appropriate and cost-effective manner. A multi-modal system-approach is the modern approach to planning, financing, building, and operating sustainable transportation systems.
5.1.1.2 Bi-Modal Approach to Multi-Modal Effectiveness

With the mindset of a multi-modal system, most urban jurisdictions have in place policies that prioritize personal travel modes in the following order:

1. Walking
2. Cycling
3. Transit
4. High-Occupant Vehicle (Carpool/Vanpool)
5. Single-Occupant Vehicle

With a focus in the reduction of automobile use, there are essentially two types of travel modes (i.e. bi-modal) when considering travel in a sustainability viewpoint:

1. Sustainable Modes (walking, cycling, transit, HOV\(^6\))
2. Un-Sustainable Mode (SOV)

With the focus on the reduction of single-occupant vehicle trips (essentially the reduction of automobile operations), and conversely the increase in trips made by sustainable modes, the sustainability goals of a multi-modal system approach is not solely focused on the increase of just one sustainable mode, such as transit, but the net total increase of all sustainable modes, such as walking, cycling, transit, and HOV. Not only does this simplify the issue, without such a mindset unintended consequences can occur if policies are still single-mode focused. Such consequences can be the well-intended investment of funds that do not produce as effectively the results expected or can potentially be.

The reason for this lies in the fact that transportation modes essentially compete with each other in an “open, zero-sum transportation market” and that competition between “sustainable modes” seems to be higher than with the SOV. Rather than engaging in a zero-sum game between sustainable modes, where solutions are either nullified or solve one problem only to create another, a clear understanding of the interconnections between all modes must be made to ensure solutions truly yield net positive outcomes.

To illustrate the consequences of a single-mode focus, consider a hypothetical scenario (“Scenario 1”, Figure 5.1) in which auto driver trips account for 50% of the mode share, while transit (bus and rapid transit) account for 15% of the share, and the remainder (walking, cycling and auto passenger) 35% of the share.

Consider a second hypothetical scenario (“Scenario 2”, Figure 5.2) in which billions of dollars of investment have been made in rapid transit and supporting transit bus capacity and a resulting increase in the transit mode share rising to 27%--which from a single-mode transit-oriented perspective, would be quite a remarkable achievement.

\(^6\) It can be argued that HOV or carpooling is an unsustainable mode due to the fact that it is an automobile-related mode. However, in many cases the per person-kilometre emission and fuel use rate can be lower in automobiles than in transit. Furthermore, total operating fuel use per total person-km can even be higher in transit given the practice of dead-heading and the fact that much of a transit run can service very low or no ridership loads.
However, if such a scenario results in no net decrease in the auto driver mode share (i.e. remains at 50%) but a decrease in walking, cycling and auto passenger mode shares from 35% to 23%, regardless of the significant increase in transit mode share, the investment is ineffective from a sustainability perspective. Effectively, the net usage of automobiles has remained unchanged. Furthermore, with a reduction in active transportation modes (walking and cycling), one could argue that there has been a reduction in positive health-related impacts of these modes, and an increase in life-cycle energy and materials use due to increase transit capacity and operations.
Obviously, there are other costs and benefits associated with the investment of transit, especially the land-use shaping benefits of high-frequency and quality transit service. Nevertheless, the application of policies should consider the more complex and dynamic interactions between modes in an integrated multi-modal system, and ensure unintended consequences and counterproductive inter-modal competition is kept to a minimum.

Single-mode agencies, such as BC Transit, although limited by their governing legislation to public transit, acknowledge the need to integrate with other sustainable modes in order to achieve common goals. Most recently, BC Transit’s recently released Strategic Plan | 2030 acknowledges that the achievement of healthier and more liable communities will require the building of sustainable transportation networks that integrate and promote walking, cycling, and transit, while linking land use and transportation decisions. The document identified that the “lack of integration between land use and a full spectrum of transportation options results in poor value for public dollars spent. It also misses the tremendous responsibility we have to build neighbourhoods that will be livable and sustainable over the long term. In order to address this issue, the Plan’s Priority 2.1 seeks to “Increase integration with other types of sustainable travel”. The acknowledgement of this issue should lead to BC Transit continuing to seeking cooperation with local communities, as well as ensuring transit planning and operations is sub-servant to an overall integrated multi-modal transportation plan.

One of the challenges of a multi-modal system is the need to integrate modes, yet provide a degree of accommodation in the design of the system to allow for the safe and efficient co-existence between motorized and non-motorized means of travel. Planning concepts such as “Complete Streets” provide methods and advice in the adoption of policies and implementation of best practices and designs to reduce the negative aspects of combining disparate modes. Again, a transportation system is not multi-modal if it only has the “parts” but does not have the “parts” integrated into a system that allows choices and movement between modes for optimal travel based on sustainable criteria. The transition points or interfaces between modes are key areas of investigation to ensure a truly functional multi-modal transportation system.

Overall, it is without question that equity and effectiveness in the provision of transportation infrastructure and services can only be truly realized with a multi-modal viewpoint, and a modal-bias only limits the ability to achieve a sustainable transportation system. A perspective of “modal neutrality” is not only a sustainable approach, but a realistic one that will meet the needs of all transportation system users without polarizing groups within communities, or building factions and fragmentation amongst modes.

5.1.2 Regional Coordination

5.1.2.1 Natural Urban Ecosystems

Cities are extremely open ecosystems that interact with other ecosystems both near and far. Urban regional are a natural extension and inclusion of neighbouring cities, such that citizens engage their urban environments in a “borderless” mindset. Solutions to urban problems lie in designing for and allowing ecosystems to “naturally” do the work, rather than always opting for technological or “intervening” solutions. Furthermore, cookie cutter solutions have limited success over the long-term. What is needed are consistent policy adaptations on a city-by-city basis.

Unfortunately, the endeavour towards sustainable cities and regions can be rendered futile if cities in the region trump any of the advances, much like a hockey team of self-serving players seeking to win a championship. As part of a regional ecosystem, each city must not only do its part, but act in a
partnership of good faith and cooperation. The quality of relationships between cities within a shared region is not only essential in achieving sustainability, it defines what can be ultimately be achieved.

In order to undertake the challenge in meeting the goals of sustainable transportation and the creation of livable communities, a team-approach is required amongst various institutional organizations—organizations that not just govern spatial jurisdictions, but organization and industry leaders that also oversee functions such as transit operations, traffic management, road operations, parking provisions, emergency services, and land development. The complex nature of a multi-modal transportation system further necessitates the need for regional coordination in all aspects ranging from strategic planning, to design, and the upkeep and operations of the system.

Initiatives such as Transport Demand Management (TDM) and Intelligent Transportation Systems (ITS) require increasingly high-degrees of coordination, especially with increasing numbers of institutional organizations partaking in regional-level coalitions. Regional coordination is also essential in the creation of “competitive economic ecosystems”, as healthy economies provide a solid foundation from which stable funding can be established to support sustainable transportation systems. Furthermore, through regional coordination, the resulting “unified voice” is advantageous when advocating and competing for limited senior government funding.

“Collaborative processes are needed to help transportation partners along with other stakeholders plan and work across modes, disciplines and traditional 'silos' to build effective multi-modal transportation solutions.”


5.1.2.2 Benefits of Regional Coordination

A number of benefits can be realized in the establishment of a regional cooperative. The following identify a range of user, institutional, and system benefits:

- **User Benefits**: A regional cooperative can offer a single point of reference, providing a customer-centred focus rather than a disaggregated individual agency perception.

- **Institutional Benefits**: Efficiency and cost savings in the pooling and sharing of resources can be realized in a regional cooperative. Further benefits can be achieved in shared responsibilities, broadening of overall specialization of skill-sets and abilities, process improvements through the intimate sharing of best practices, shared and more consistent communications, and timely and creative problem-solving available in a more formal arrangement.

- **System Benefits**: Regional coordination provides opportunities to harmonize and share information and information, and provide contingencies through increased organizational capacities which prove critical in emergency situations.
5.1.3 Sustainable Transportation Planning Framework

5.1.3.1 Need for a Seamless and Holistic Approach

In order to develop plans that reflect the principles identified in the previous section, a holistic approach to transportation planning is required. Even though this is challenging in a multi-agency environment, ideally the approach to planning should be seamless and seek:

- **Sustainability**: Support broad sustainability goals in terms of the transportation system’s social, economic and environmental effects.
- **Community Values and Aspirations**: Fully reflect the community’s broader values and aspirations and ensure that transportation supports the development of the community.
- **A Multi-modal Scope**: Ensure that all transport plans and projects are developed within the context of the development of all modes of transport within the community.
- **A Complete System-View**: Plan, develop and finance transportation as one coherent multimodal system for the cost-effective and efficient movement of people and goods.
- **Need-Driven Planning**: Explicitly develop transport policies, strategies and plans that contribute to meeting the community’s social, economic and environmental needs.
- **Outcomes vs. Outputs**: Focus on transportation outcomes in terms of how people travel and the choices they make, rather than outputs in terms of specific projects.
- **Cost-Effective Solutions**: Prioritize the implementation of least cost solutions in achieving the desired outcomes.

The following sections discuss the specific issues that can be faced in attempting to develop truly integrated transportation plans at various levels of the planning process within the context of a poly-jurisdictional environment.

5.1.3.2 Levels and Order of Transportation Planning

Communities are faced with various institutional, physical, operational, and policy challenges in the development of their transportation systems from a holistic manner. In order to address the deficiencies in the process of transportation system planning, design, and operation, within an institutional context of multiple agencies and levels of government, it is necessary to examine how and when the various activities including policy, planning, financing, construction, and operation are undertaken and which entities are involved. However, **there is not simply one single level of transportation planning activity: there are at least four** according to Dr. Vukan R. Vuchic and they vary from tactical to strategic.

Vuchic identifies what can be seen as a framework in which the planning, organization, and operation of urban transportation may be classified into four levels, ranging from individual system elements to the overall city/urban area level. These four levels of transportation planning are:

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7 Dr. Vukan R. Vuchic is a globally recognized transit expert and the UPS Foundation Professor of Transportation Engineering, Department of Electrical and Systems Engineering, School of Engineering and Applied Science and Professor of City and Regional Planning at the University of Pennsylvania.
1. **Level I: City-Transport Relationship**
   - coordination between transportation system and a city’s physical components and functions

2. **Level II: Multi-modal Coordinated System**
   - incorporation of street networks with transit systems and pedestrian zones

3. **Level III: Single Mode Network or System**
   - street network, rail system, bike network

4. **Level IV: Individual Facilities**
   - boulevards, intersections, bus lines

Figure 5.3 schematically shows the four levels of transportation planning.

“Level 1” is the highest level of urban planning and development coordination, where transportation as a functional system is planned in relation to other activities, whether economic, environmental or social. Vuchic notes that “This planning is the most complex, both theoretically and practically; but, in the long run, it is most important...” and that “Without Level I planning, cities can seldom achieve satisfactory levels of efficiency and livability. The increasing efforts to achieve more sustainable forms of urban development will further increase the need for such planning. The problem in most cities is not only insufficient or inadequate planning at Level I, but inability to implement its results.”

The latter comment can be a symptom of an ineffective governance structure and insufficient funding capacity, as Vuchic further notes that the weakness or lack of powers by local entities can tend to defeat much of Level I work, which is “most critical for achievement of both transportation system efficiency as well as a city’s livability.”

Other challenges Vuchic identifies are the “... narrow, modally oriented mentality of personnel and professionals in many agencies in charge of different transportation modes.” He goes on to note that “The extensive debates about ‘highways versus transit’ or ‘bus versus rail,’ created by the narrow single-mode expertise of many professionals as well as by the emotional biases of some professionals and others, are often stronger than efforts to develop efficient, well coordinated multimodal systems.”

Vuchic indicates that most current urban problems are created by a failure to understand transportation as a system that interacts with most other activities in the city (i.e. Level I). He also notes that the transportation planning process has been effectively backwards in many cities in the past, with agencies developing facilities in a piecemeal fashion (Level IV), or developing single mode systems (Level III) without conscious efforts to integrate such systems into a multi-modal and coordinated system (Level II). In fact, many jurisdictions could be considered to be at best between Levels II and III, and it is only when a city proactively develops an integrated and coordinated multi-modal system that Level I planning and outcomes can be achieved.

Figure 5.4 shows the proper sequence Vuchic suggests should be employed in modern urban transport planning processes.
Figure 5.3. Four Levels of Transportation Planning (Vuchic)
5.1.3.3 **Cyclical Sustainable Transportation Framework and Process**

At the heart of a sustainable transportation system is a planning framework that embodies the principles of sustainability and desires of its community. A complete planning framework links the visions, goals, and objectives of a community, with the authority, ability and will to enact plans, and a means for accountability through monitoring and evaluation. A complete planning framework is one that is a **sustainable** planning framework. The seven elements of a sustainable transportation planning framework/process are identified below:

1. Visions, Goals & Objectives
2. Policy Development
3. Strategic Planning
4. Tactical & Project Planning
5. Implementation
6. Measurement & Monitoring
7. Analysis & Evaluation

This sustainable planning framework is a **cyclical process** in which the outcome of one planning cycle is reviewed and evaluated against the initially stated visions, goals, and objectives, and then contributes to the next planning cycle. This cyclical process provides the opportunity for any corrections along the way (e.g. mid-term plan implementation remediation measures), as well as a means of accountability (e.g. progress toward goals) to ensure a realistic and feasible process. Figure 5.5 illustrates the cyclical nature of this sustainable planning framework using a bicycle wheel as an illustrative allegory.
As demonstrated by the “spokes” of the sustainable transportation planning “wheel”, a notable element throughout the planning process is consultation with stakeholders, which is required at every step to ensure inclusiveness, thoroughness, and accountability. Consultation can be made in various forms from open houses to focus groups, and the use of paper surveys to interactive internet-based tools.

5.1.3.4 Influence of Funding on Planning

The source and method of financing can significantly influence, if not lead, the planning process. A well documented example in which finance led the planning and infrastructure designs is the Los Angeles metropolitan area freeway network built in the 1940’s and 1950’s. Initially locally-developed plans favoured high-capacity boulevards and expressways that better integrated with the land use than the current system of freeways. Plans that considered access to parking, employment, and bus operations (including bus stops on the shoulders of the expressways), were eventually dismissed in favour of a freeway system that considered complete grade-separation and designs more suited to rural areas. The switch in plans was due to the need and acceptance of state and federal funding, and in turn, state and federal designs and standards that intrinsically support inter-urban travel rather than local trip patterns.

Regardless of how infrastructure and services are planned, funding is obviously the key in their establishment. Funding is the “lifeblood” of transportation infrastructure and services and without it, transportation systems will deteriorate and the market-driven demands for transportation will sub-optimally shift. However, funding that is not aligned to adopted plans and policies may not best serve the local interests and goals of a region in the long-term. Overall, the need for balanced, adequate, stable, predictable, and equitable funding is critical to achieving the goals of sustainable transportation.
5.2 **KEY TRANSPORTATION ISSUES**

The present and future needs of regions are identified in their plans and policies, with those of the Central Okanagan previously discussed earlier. With similar universal goals and objectives towards sustainability and livability, all regions share in a common vision. Likewise, the associated challenges facing regions in achieving their goals is similar in nature.

As regions become urbanised, a number of transportation-related issues have arisen that affect most, if not all regions. As in most parts of North America and worldwide, numerous transportation-related issues can be identified that are potential barriers to the achievement of Central Okanagan’s transportation goals.

Similar to most urbanized regions, the Central Okanagan is faced with a number of varying and challenging issues that must be overcome in order to meet regional and local communities’ visions of sustainable livability. Some of the key issues⁸ that currently face the Central Okanagan are:

1. **Capacity for Action**
   a. **Adequate, stable, predictable, and appropriate funding**
      
      Without adequate funding, transportation plans and goals cannot be achieved. Furthermore, as goals are not achieved overnight, stable and predictable funding is required in order allow for the progressive and secure advancement toward goals. The appropriateness and distribution of funding is also important to ensure effective use of limited funds, of which is related to the governance of the transportation system. Finally, appropriate and equitable sources of funding are required to be sought out and maintained. As funding sources, such as fuel taxes, can be in conflict with intended goals of reduced automobile use (as in the case of rely solely on auto-related funding sources to subsidize transit—a funding model that conflicts with the goal of shifting trips from the automobile to transit), sustainable transportation must ultimately be based on sustainable funding.

   b. **Transportation governance based on an integrated multi-modal mandate**
      
      The challenge in turning unsustainable trips into ones that travel on sustainable modes is difficult enough. Even if adequate funding is available, maintaining the current system in separate pieces from an authoritative and decision-making structure may not allow for the most effective use of the funding. The combination of adequate funding and appropriate governance is required for sustainable transportation goals to be achieved.

2. **Regional Development**
   a. **Transportation and land use integration**
      
      It is a universally accepted fact that the interaction between transportation and land use is key in the eventual travel patterns and resulting energy used and emissions produced to transport people and goods. Policies, plans, and bylaws that are sensitive to the transportation and land use interaction will be required in order leverage the authority and funding in the development of communities, and minimize the negative impacts of travel on the economy, environment, and society.

   b. **Sustainable transportation oriented-development**
      
      The potential densities afforded in neighbourhoods, civic centres, and business districts can be

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⁸ The issues identified are not necessarily all-encompassing or official, but merely examples for discussion.
leveraged to maximize the use of alternative modes of travel. Through the concentration of infrastructure and services, alternative modes such as walking, cycling and transit can be given a chance to be a more realistic alternative to the automobile.

c. **Support economic development and competitiveness**
   A transportation system should not only move residents efficiently, but goods and visitors into and through the region. As economic vitality and strength is a key foundation for a given region’s sustainability and quality of life, the transportation system should be planned and operated in a manner that is supportive of economic development goals and inter-regional competitiveness. Industries and businesses can play a significant role in leading the region towards triple-bottom line sustainability.

3. **Environment and Equity**
   a. **GHG, air quality, and energy impacts of transportation**
      One of the key motivations for sustainable transportation is the need for reduced emissions and fuel use from the transportation system. A rigorous combination of plans, technology implementations, funding, and behavioural changes will be required to not only reduce transportation emissions and energy use, but achieve the goals as set out by the Province of B.C.

   b. **Equitable and fair transportation system**
      In the pursuit of developing an efficient and sustainable transportation system, it is important to ensure the system is also effective from an equitable standpoint. As the users of the transportation system vary in age, mobility, and affordability, so must the transportation system be designed to ensure all users are supported in an equitable and fair manner.

4. **Integrated and Adequate System**
   a. **Integrated and regional multi-modal transportation planning**
      A seamless transportation system is difficult to accomplish if the planning does not consider an integrated and multi-modal approach. This includes links to strategic entry points, such as the airport, and the development of a regional road network to reflect the priorities and needs of all modes and trip purposes. Such an approach requires inter-jurisdictional cooperation, consolidation and a focus of transportation goals and objectives, pooling of resources and funding, and broad-based political support to ensure planning frameworks and processes are enacted and carried through.

   b. **Emergency-response needs**
      Transportation services and links are integral to emergency response, with the timeliness and safety in responding to emergencies directly proportional to the quality of the transportation system. This includes timely access to hospital facilities within the “golden hour.” An appropriate transportation system should adequately handle the needs of emergency responders, with the ability to accommodate the safe and efficient passage of emergency vehicles. A coordinated and integrated network of roads with built-in redundancy is vital to efficient emergency response.

5. **Behaviours and Feasibility for Change**
   a. **Sustainability of travel behaviours and patterns**
      Although the design and provision of a sustainable transportation system is necessary to meet transportation goals, the response of the users to the system is key to the final performance of the system. The travel behaviours and resulting patterns of users need to be continuously monitored and analysed, such that plans and programs can be developed to provide corrective
market responses towards sustainable behaviours. The use of transportation demand management (TDM) measures are examples of how the behavioural and motivational drivers of travel can be influenced in cost-effective methods. Strategically, institutions and businesses can take a leadership role in making sustainable travel choices the norm.

b. Potential and role for current walking, cycling, and transit policies and plans in achieving sustainability goals

As discussed previously, approximately 30% of all trips in the Central Okanagan were taken on sustainable modes, which comprise of walking, cycling, transit, and auto passenger trips. However, when considering non-automobile modes (walking, cycling and transit modes), the mode share drops to just over 10%. This brings to question the actual potential that active transportation and transit can have in achieving sustainable transportation goals in the region, and their realistic role in such an endeavour. One favorable fact is that almost half of commuting trips are less than 5 km in length. Ultimately, if the region is serious in supporting non-automobile modes, significant action will be required.

Other factors that can significantly influence the outcomes of a transportation system are international and national economic conditions and events, fuel prices, technological evolution, changing demographics, major security incidents, severe weather-related events, and natural disasters. Although most of these factors are external to the region with very little local control in their occurrences, their impacts can be minimized through the development of a transportation system that is robust, resilient, reliable and, ultimately sustainable.

5.3 Governance

5.3.1 Current Governance Form

Within the Central Okanagan, there are a number of agencies responsible for public surface transportation in various degrees, such as:

- BC Ministry of Transportation & Infrastructure
- BC Transit
- Regional District of Central Okanagan
- Local Municipalities

The scope and breadth of responsibilities by agency is summarized in Table 5.1.

The current institutional arrangement to plan, fund, and deliver transit services (conventional, community & custom) is based on a 3-way partnership between BC Transit, local governments, and an operating company (Figure 5.6). The partnership is defined in a Master Operating Agreement (MOA) that outlines the roles and responsibilities of each partner, transit service area, service specifications, operator rules and regulations, reporting, marketing, tariff notes, insurance requirements, and other terms. An Annual Operating Agreement (AOA) defines the annual terms negotiated for the delivery of services as defined in the MOA, with specifics related to service specifications, budget, payment schedule, tariff fares, and any deviations from the MOA. Together the MOA and AOA define the transit operating agreement for a given jurisdiction. In the Central Okanagan, an AOA exists between BC Transit, the Operating Company, and the City of Kelowna (Kelowna Regional Conventional Transit). Individual AOAs have also been created for the RDCO, District of Lake Country, and District of West Kelowna.
Table 5.1. General Transportation Agency Responsibilities

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<tr>
<th>Agency</th>
<th>Transportation Authority/Ownership</th>
<th>Multi-modal Strategic Planning</th>
<th>Project Planning &amp; Design</th>
<th>Funding Provision</th>
<th>Operations &amp; Maintenance</th>
<th>Revenue Collections</th>
<th>Marketing &amp; Public Relations</th>
<th>Multi-modal Monitoring &amp; Evaluation</th>
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<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>Municipal</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
</tbody>
</table>

Low: ○
Medium: ○
High: ●

9 Scope of transportation system includes planning, designing, and constructing grade-separated and at-grade highways, arterials, collectors, and local roads, bike routes, sidewalks, and transit components, systems and programs. These also consist of transit amenities and facilities; road-side facilities and furniture; intersection controls; signage; street lighting; pre-emption systems; monitoring & data collection; etc.

Figure 5.6. Current Institutional Transit Arrangement (Source: BC Transit)
5.3.2 Towards an Enhanced Transportation Governance for the Central Okanagan

Numerous documents and plans, past and present, have identified the need for a more formalized and cooperative transportation governance structure for the Central Okanagan, and even the Okanagan Valley as a whole. The responses from stakeholder surveys (Section 4.3) have identified that the planning and decision making process is the highest in terms of significance to the region (4.5 out of 5 points). The issue of funding is also rated high at 4.3 out of 5 points.

To this extent, the local governments of the Central Okanagan have been working together to tackle the issues of delivering a sustainable and affordable regional transportation system in light of the current governance structure.

Currently, approximately 70% of daily trips within the Central Okanagan are auto driver trips. The shift from an auto driver-dominated transportation system towards increased use of sustainable modes of travel (walk, bike, transit, carpool) is one of the main objectives required in reaching the goal of sustainable transportation.

As an alternative to the automobile for long-distance or the mobility challenged, transit is the only realistic option. However, the use of transit is approximately 2% of the total “travel choice market”. In order to increase transit use to a significant share of the travel choice in the region, a number of issues related to transit need to be dealt with. This includes the issue of transit as a single-mode organization administered from Victoria, the responsiveness of transit services to community needs, the erosion of local input into transit decisions, and the limitations and constraints in funding transit.

While these transit issues are significant, they are common across most regions in the province, with indications of inadequate governance structures. BC Transit itself has acknowledged the need for changes to the governance of transit in its recent proposal for a commission-based model for the Central Okanagan.

The achievement of a sustainable transportation system requires a holistic and complete framework. Firstly, decisions need to be made through a “triple-bottom line” approach, taking into consideration the impacts to society, economy, and the environment. Otherwise, problems solved in one area may cause negative impacts in other areas.

Secondly, the planning and administration of a sustainable transportation system requires a complete view of the system—not based on a single or independent mode viewpoint but one that is based on a multi-modal perspective. As such there is a need to pursue realistic plans and initiatives that effectively increase travel choices with increased feasibility in choosing active transportation or transit modes as a viable option.

Thirdly, transportation impacts do not respect local boundaries and problems in one community can migrate to, and affect, neighbouring communities. Local communities are in effect “joined at the hip” and share a common destiny by virtue of their sharing of their geographic locations.

Transportation is a key part in achieving sustainability for communities. Sustainable transportation is also the core goal of essentially all modern transportation plans at all government levels, including local, regional, provincial, and federal. But is sustainable transportation too lofty of a goal? Can it be achieved within the challenges of funding limitations? The question may be more specifically: “Can it be achieved in the current structure of the transportation system?” with the structure being not just the transportation system, but the decision making structure underlying the key directions, investments, and actions.
Sustainability is by definition a holistic concept requiring a holistic approach. This starts with local and senior-level governments working in a partnership towards their common goals, with coordination of planning, administration, and operations undertaken as a complete system.

As sustainability is not an option, nor can it be achieved alone, the decision to work together makes sense. The desire amongst Central Okanagan communities to form a partnership exists and the opportunity to achieve one of the key tenets of livability, cooperation, is within view.

In mid-2011, the local government agencies of the Central Okanagan (District of Lake Country, City of Kelowna, Westbank First Nation, District of West Kelowna, District of Peachland, and the Central Okanagan Regional District) came together to discuss the issue of changes to the transportation governance structure within the region in hopes to increase the potential for improvements in order to meet the individual objectives of sustainable transportation.

It was discovered that the individual jurisdictions have very similar goals and policies towards sustainable transportation, indicating that there is much potential in a partnered approach in achieving common goals. The idea of an enhanced governance model for the Central Okanagan was proposed and as a result of the discussions, a set of governance principles were identified. This new governance structure is discussed further in Section 6.3.

5.4 Connection to Other RGS Issue Sectors

Transportation is a sub-system of the overall system that represents a community. As discussed in the previous chapter, due to the multi-dimensional and interconnected nature of a framework based on the spheres of environment, society, and economy, a number of opportunity or “friction” or conflict points can occur between sub-sectors within such a system. Therefore, it is important to understand these interconnections to ensure unintended consequences are minimized.

Table 5.2 highlights the potential interconnections and interactions between the transportation sector and other sectors.

<table>
<thead>
<tr>
<th>Issue Sector</th>
<th>Interconnections and Interactions</th>
<th>Degree of Interaction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Housing</td>
<td>Residential locations relative to destinations such as work, school, and personal trips; access to the transportation network and modes; alternative mode amenities such as sidewalks and bike routes; transit serviceability.</td>
<td>High</td>
</tr>
<tr>
<td>Economic Development</td>
<td>Business locations; access to the transportation network and modes; parking; congestion impacts to economic competitiveness and cost of goods/services; alternative mode amenities such as sidewalks and bike routes; transit serviceability</td>
<td>High</td>
</tr>
<tr>
<td>Environmental Protection</td>
<td>Air quality; construction and development impacts to wildlife; contribution to urban heat islands.</td>
<td>Medium</td>
</tr>
<tr>
<td>Parks &amp; Open Space</td>
<td>Accessibility; parking; transit and alternative modes serviceability</td>
<td>Low</td>
</tr>
<tr>
<td>Water Resources, Lakes &amp; Streams</td>
<td>Run-offs from vehicles; construction impacts.</td>
<td>Low</td>
</tr>
</tbody>
</table>
6.0 Suggestions for Community Discussion

Although a range of critical and complex transportation issues have been identified in the previous section, the aim of this paper is to focus the discussion to a few issues in light of the context provided thus far in this paper. Suggested areas for further discussion are: the role of i) alternative modes, ii) policy directions and role of the RGS, and iii) strategic actions.

6.1 ROLE OF ALTERNATIVE MODES

A key policy objective is to shift automobile driver trips to sustainable transportation trips. However, it should be noted that every **marginal increase** in sustainable mode shares will **generally be more difficult to achieve** than the previous increase due to diminishing returns from **supply-demand relationships** that govern travel choices. Therefore, the potential and role of active transportation and transit within the region should be discussed further to ensure expectations are realistic.

6.1.1 Significance of Walking and Cycling

Walking and Cycling account for just over 7% of all daily trips in the Central Okanagan in 2007. Although relatively small in share, the potential for walking and cycling to be more significant modes is high. A key driver in the feasibility of walking and cycling is the trip distance. With just over 45% of commuting trips less than 5 km in length, the potential for almost half of commuting trips to be made by walking or cycling is high, especially the portion of commuting trips less than 1 or 2 km. Although commuting accounts for only 1/3 of all daily trips in the Central Okanagan, typically commuting trips are the longest in distance compared to other trip purposes such as grade school, recreation, or personal trips. Therefore, it could be estimated that approximately half of all trips on a given weekday are less than 5km, and therefore making walking and cycling a much more realistic and significant alternative to the automobile.

Further analysis would help in determining a more refined understanding as to the potential for cycling and walking to take on a much more significant role in travel options for the Central Okanagan. This could include the consideration for a much more sizeable investment in pedestrian and cycling infrastructure, amenities, and supportive programs with appropriate business cases supporting such strategies relative to investments and modal share returns from other modes.

6.1.2 Significance of Transit

Currently, public transit plays a small role in the movement of people in the region, yet is required to take on a much larger role if sustainable transportation is to be realized in the Central Okanagan. With only 1.5% of daily trips observed to be made on the Kelowna Regional Transit System, this accounts for one of the smallest, if not the smallest share of all modes. Within the market for travel, transit plays an important role as possibly the only significant alternative to the automobile for longer-distance trips that are not as practical by foot or bike. However, the disconnect between the current state of uptake of transit compared to what is required in order for public transit to be a viable alternative to the automobile is quite large. One reason for this problem lies in the efficiency of transits systems defined by routes that meander through communities to increase coverage, only to the detriment of efficiency and time travel. More efficient routing designs would be to utilize mainline-feeder hierarchical type of system, however land use patterns and transit market density are key factors in the feasibility of such systems (Figure 6.1).
There are a number of areas for improvement in the provision of increased transit services. Primarily, funding is the main issue given the significant costs in the initial capital and operation of transit vehicles and infrastructure. However, there are other issues that are relatively “low-cost” solutions that can be made with changes to how transit is governed, planned, and funded. A key issue is in the planning of increased transit service that are less to the detriment of other sustainable modes such as cycling and carpooling, and targeted more specifically to the auto-driver mode share.

6.1.3 Significance of Carpooling

The significance of carpooling is measured by its share of all modes of travel. Carpooling is the largest “sustainable mode” in the Central Okanagan, with automobile passengers comprising of 17.6% of the mode share for all trips (or an average of 1.25 occupants per vehicle). However, this share drops to 6.4% for commuting trips (1.08 occupants per vehicle). The significance of carpooling is further established by the fact that the vast majority of vehicles have available seats and so the potential to share rides is high.

The sharing of rides does not necessarily translate to a reduced vehicle trip, as approximately 50% of automobile passengers are grade-school children who mainly do not have a driver’s license or own a car. However, with the relatively smaller share of carpooling (6.4%) vs. single-occupant drivers (82.9%) for
commuting trips, the potential to convert SOV trips into carpool trips is high. Therefore, initiatives that seek to increase carpooling can be a cost-effective approach to reducing automobile use.

The issue of the role of alternative modes should be discussed further with goals to either significantly strengthen the potential for the uptake of these modes, or more realistic roles and expectation be defined.

6.2 **Policy Directions and RGS Role**

The Regional Growth Strategy is to provide the policy direction for the Central Okanagan and be a key document for coordinating growth in the region. From the review of literature, best practices, and stakeholder feedback, a range of policy directions and priority areas can be identified.

6.2.1 **Policy Directions**

The following can be considered foundational policies that can provide direction in the development of transportation-related policies for the Regional Growth Strategy:

1. Support, influence, and align with local OCPs as well as Provincial and Federal policies to establish cooperative planning and funding environments.

2. Invest in transportation infrastructure and services that support concepts of Smart Growth, vibrant neighbourhoods and communities, and Livable Cities, and a vibrant economy based on sustainable practices.

3. Support the development of a safe and sustainable transportation system, with efficient access within and into the region, including the airport.

4. Support sustainable transportation modes, which include walking, cycling, transit, and carpooling, in an integrated and mutually supporting manner through the expansion of infrastructure and programs, as well as options and convenience for these modes relative to age groups and travel purposes.

5. Support the reduction of GHG and common/criteria air contaminant (CAC) emissions, ensuring the marginal impact of investments provide a reduction of emissions from status quo.

6. Investment in transportation should be based on standard triple-bottom-line business case approaches that ensure more efficient and affordable infrastructure and services, while identifying and internalizing externalities such as the cost of air pollution and other impacts.

7. Planning should consider a holistic and multimodal scope to minimize unintended consequences that may erode the positive impact of investments and decisions. An appropriate yet effective standardized Multiple Account Evaluation (MAE) should be adopted and used for all major investments and planning processes as the basis of business casing.

8. Planning and decisions should be coordinated through an effective governance structure and assessed for success based on evidence through a complete and thorough monitoring program.

9. Adequate, stable, predictable, and sustainable funding sources should be sought beyond local property taxes that link to usage demands and travel choice with subsidies geared mainly towards the “incubation” of cost-effective sustainable modes and initiatives.

10. Pricing should be considered as a form of sustainable revenue to fund the operations and investments of all modes, as well as a feedback signal to incent efficient use, and funds generated to be used to further support sustainable behaviours and demands by users.
6.2.2 Role of RGS and RDCO in Transportation Planning

The main role of the RDCO in terms of transportation planning is found within the Regional Growth Strategy. Having a region-wide scope and perspective, the RDCO is in a prime position to moderate consultation and discussion regarding key issues to define policy directions and best practices, ultimately supporting the development of regional policies for the RGS. Furthermore, the RDCO can play a major role in the monitoring of the RGS policies to “take the pulse” of the region through the establishment of a monitoring program consisting of key indicators.

Therefore, the specific role the RDCO can play in the region’s transportation planning can be to:

1. Moderate consultation and discussion through forums and form interactions between public, private, and academic institutions, and share knowledge and best practices.
2. Identify strategic issues and provide supporting research and analyses through the utilization of best practices.
3. Define policy directions and develop supporting policies.
4. Provide leadership in the monitoring and evaluation of the effectiveness of adopted policies and plans.

6.3 STRATEGIC ACTIONS

Given its position and role in transportation planning in the region, a number of strategic initiatives can be developed or supported by the RDCO. The progress towards the development of an enhanced governance structure and supportive funding framework can be supported by the Regional District. Likewise, the development of a monitoring program can support regional members’ interests.

6.3.1 Funding and Governance

Funding and governance provide the ability to enact and direct resources and action towards the goal of achieving sustainable transportation. Without adequate funding, even the best of plans cannot be achieved. Moreover, without a proper governance structure, regardless of the amount of funding available, the efficient, effective, and equitable use and distribution of funding can be limited, resulting in sub-optimal results.

6.3.1.1 Funding

Currently transportation-related funding in the Central Okanagan arise mainly come from provincial and local sources, with financial support on select projects from the federal government. Funding sources range from gas tax, property tax, and transit revenue, to parking fees and development cost charges. Major projects typically require support from senior governments to cover the majority of capital costs. However, operating costs are typically covered by dedicated sources earmarked for specific use.

Ideally, funding packages should not only be capable of generating sufficient revenue, they should provide financial stability, be fair regionally and across income groups, encourage more efficient use of the infrastructure, have some element of user-pay, and reflect the balance of benefits of transportation received by users directly and society at-large, among others. In order to guide the evaluation of funding sources and their integration into a package, a number of principles or criteria can be considered in developing such a funding package:
• Yield, Adequacy, Stability & Predictability
• Fairness and Equity
• Sustainability
• Feasibility
• Transparency and Neutrality
• Implementation & Administration

Given the significance of the transportation governance structure in the Central Okanagan, and how it influences the funding, planning, and eventual transportation outcomes, BC Transit’s recent proposal (Fall 2009) into the possibility of a transit commission for the region is not surprising. In fact, BC Transit’s Strategic Plan | 2030 identified a number of weaknesses communicated by local government partners. In particular, the lack of multi-year, predictable revenue sources and budgets was identified as by far the greatest weakness in the current organization and structure of BC Transit.

As discussed earlier, funding is a major influence on planning decisions, of which itself is subject to the governance structure that is required to enact and carry-through on those planning decisions.

6.3.1.2 Establishment of the Strategic Transportation Partnership of the Central Okanagan

Within a region consisting of multiple jurisdictions, sustainable transportation is not a goal each jurisdiction can achieve in isolation. With a shared economic, environmental, and social area, the jurisdictions within a common region share a common destiny in which success can only be achieved together. In order to achieve the sustainable transportation goals defined in the individual plans and policies of the local governments of the Central Okanagan, it is imperative that these government agencies work together to effectively and efficiently plan, coordinate, manage, and monitor the region’s transportation system.

A strategy to enhance the currently existing local transportation governance structure, plans, and programs within the region has recently been developed based on a multi-jurisdictional partnership founded on a common ground of issues, policies, and investments towards a common goal of sustainable transportation. This enhanced governance strategy seeks to shift the region from a state of individual agencies working independently with only periodic and informal coordination, to a more formalized partnership with regular and structured coordination of policies, plans, resources, programs, and projects.

On this basis, the establishment of the Sustainable Transportation Partnership of the Central Okanagan (STPCO) has been formed encompassing the local governments of the Central Okanagan:

• City of Kelowna
• District of Lake Country
• District of Peachland
• District of West Kelowna
• Regional District of Central Okanagan
• Westbank First Nation

The objectives of STPCO are:
to establish a more efficient means of administering, governing and coordinating the delivery of services such as transit (i.e. through single or shared agreements),

- to establish a single voice to lobby senior-government for support in the achievement of the Partnership’s sustainable transportation goals,

- to pool limited funds and resources to synergistically achieve more significant and positive impacts,

- to establish region-wide unified policies and strategic transportation plans,

- to regularly collaborate through senior officials and key multidiscipline staff on regionally-significant projects and programs, and

- to establish a region-wide monitoring program to measure and provide feedback towards the achievement of sustainability goals.

The potential benefits afforded by STPCO include:

- reduced cost and effort from the synergies in sharing resources such as staff and expertise, data and models, best practices, and funding,

- collectively seek stable, predictable and sustainable sources of on-going funding beyond local property taxes,

- a collective voice to provide an efficient and effective means of communicating to senior levels of government,

- the establishment of a central clearinghouse to provide greater convenience and service, and a stronger coordinated regional image,

- greater regional equity, and

- consistent planning, standards, and operations

Common goals provide the basis and desire to work together. Eleven ‘Governance Principles’ were identified by the local governments to identify the Partnership’s purpose, intent, and values to guide the development of a functional and appropriate governance structure:

1. Respect local autonomy

2. Strive for regional fairness and equity

3. Adopt a common set of Regional Transportation Values and Policies

4. Maintain trust and positive relations

5. Employ a consensus-based decision model

6. Adopt sustainable funding and planning principles

7. Employ an adaptive and flexible governance structure

8. Single point for regional transportation and senior government interactions
9. Dedicated leadership at all levels

10. Ensure the structure is adequately resourced and maintained

11. Initial governance model should be simple with further changes as appropriate

The proposed scope of STPCO includes 3 functional areas:

1. **Transportation Planning**, which may include: policy research and development, multi-modal short, medium and long-range strategic plans, capital and implementation plans, transit route scheduling, monitoring and evaluation.

2. **Program Administration**, which may include: regional TDM, marketing and advertising, analytical support services, U-Pass program, bus-stop inventory and asset management, intelligent transportation systems (ITS) / transit signal priority (TSP) coordination, funding and revenue administration.

3. **Project Administration**, which may include the coordination for the delivery of regionally-significant infrastructure and services such as road projects, transit services and projects, and active transportation projects.

Utilizing the current data and tools available in the Central Okanagan, a comprehensive transportation monitoring and analytical tools program would be established to support evidence-based and systematic multi-modal planning. From this enhanced governance platform, the evaluation of transportation policies, plans, investments, and decisions can be made to ensure proper targets are established and met in order to progress towards a sustainable transportation system.

The limited and disaggregated mandate of mode-specific governance by nature restricts the delivery of a fully integrated multi-modal transportation system. Furthermore, mode-specific institutions rely on indicators and performance measures that although may validate institutional success, can result in failure to achieve broader transportation sustainability goals. An integrated governance structure will also allow for a more effective monitoring program to be established.

### 6.3.2 Monitoring and Performance Indicators

The goal of a sustainable transportation system can be summed up as the “movement of people and goods in an efficient, safe, affordable, lasting, economically-supportive and environmentally-sensitive manner that is managed, operated, and developed to meet the needs of the individuals and societies that it serves.” However, as much as these “end-products” are important objectives, the “behind the scenes” elements of a sustainable transportation system require a systematic, focused, coordinated and accountable process.

At the heart of a sustainable transportation system is a planning framework that reflects the principles of sustainability. A complete planning framework links the vision, goals, and objectives of a community, with the **authority to enact plans**, and a **means for accountability through monitoring and evaluation**. A **complete** planning framework is one that is a **sustainable** planning framework one that is **accountable**.

An accountable planning framework requires the monitoring of progress so that successes can be measured, or when initiatives are lacking in progress, remediativ actions can be made before negative
consequences arise. The following process illustrates the “data-to-decisions” process that can help to ensure sustainable results:

- Definition of collective values, goals and objectives
- Identification of issues
- Adoption of supporting policies
- Development of indicators to measure the progress of policy effectiveness
- Development of plans and the setting of targets (based on indicators)
- Development of a monitoring program to support the collection and processing of data to adequately develop indicators
- Reporting of progress and identification of remediative measures where necessary

6.3.2.1 **Indicators**

In order to monitor the significance of issues over time, a monitoring program can be established that can provide periodic assessments of progress and allow for evidence-based policy development and planning. Key issue areas can be considered as the subjects of monitoring and their evolution in the region monitored through indicators. The following provides an example set of indicators by issue area, with primary indicators being the main measurements (of success) and secondary indicators providing further diagnostic measures or validation. Note that these indicators are examples and the selection of specific indicators should be based on transportation-related policies that are adopted.

**Table 6.1. Example Issues Monitoring Indicators**

<table>
<thead>
<tr>
<th>Issue Area</th>
<th>Primary Indicators</th>
<th>Secondary Indicators</th>
</tr>
</thead>
</table>
| Transit            | • transit mode share  
                    | • sustainable mode share  
                    | • transit cost recovery ratio  
                    | • average transit distance  
                    | • annual ridership per capita  
                    | • accessibility-service index  
                    | • average transit trip time  
                    | • transit share by trip purpose and age group  
                    | • rides per revenue hour  
                    | • revenue hours per capita  
                    | • rides per revenue km  
                    | • revenue-km per capita  
                    | • pop. 500 m to a bus stop  
| Active Transportation | • walk and bike mode share  
                        | • average walk and bike distances  
                        | • sustainable mode share  
                        | • share of active transportation volumes by screenline  
                        | • average walk and bike trip times  
                        | • walk and bike shares by trip purpose and age group  
                        | • km of designated cycling routes  
                        | • % of roadways with sidewalks  

<table>
<thead>
<tr>
<th>Section</th>
<th>Key Indicators</th>
<th>Key Indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single-Occupant Vehicles</td>
<td>• auto driver mode share</td>
<td>• average auto driver trip time</td>
</tr>
<tr>
<td></td>
<td>• average auto driver distances</td>
<td>• auto driver share by trip purpose and age group</td>
</tr>
<tr>
<td></td>
<td>• sustainable mode share</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• share of SOV volumes by screenline</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• vehicle ownership/capita</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• average auto driver trip time</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• auto driver share by trip purpose and age group</td>
<td></td>
</tr>
<tr>
<td>Carpooling</td>
<td>• auto passenger mode share</td>
<td>• average auto passenger trip time</td>
</tr>
<tr>
<td></td>
<td>• average auto passenger distance</td>
<td>• auto passenger share by trip purpose and age group</td>
</tr>
<tr>
<td></td>
<td>• sustainable mode share</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• share of HOV volumes by screenline</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• vehicle ownership per household</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• average auto passenger trip time</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• auto passenger share by trip purpose and age group</td>
<td></td>
</tr>
<tr>
<td>Goods Movement</td>
<td>• truck volumes across screenlines</td>
<td>• total length of assigned truck routes</td>
</tr>
<tr>
<td>Roads, Highways &amp; Bridges</td>
<td>• total vehicle volumes and people across screenlines</td>
<td>• total length of roads by classification</td>
</tr>
<tr>
<td>Parking</td>
<td>• ratio of parking supply to employment in economic zones</td>
<td>• cost of parking by facility type</td>
</tr>
<tr>
<td>Safety &amp; Security</td>
<td>• collisions per 1000 people</td>
<td>• transit, walk and bike safety and security indices</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• conflict rate at collision-prone and sensitive locations</td>
</tr>
<tr>
<td>Transportation Demand Management</td>
<td>• workforce mode share</td>
<td>• participation in bike to work week</td>
</tr>
<tr>
<td></td>
<td>• post-secondary school mode share</td>
<td>• visits to smartTRIPS website</td>
</tr>
<tr>
<td></td>
<td>• grade school mode share</td>
<td>• participation in sustainability events</td>
</tr>
<tr>
<td></td>
<td>• major institutions mode share</td>
<td>• TDM registered work places</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Transportation-Land Use Interaction</td>
<td>• population within 500 m to a bus stop</td>
<td>• population density in developed areas</td>
</tr>
<tr>
<td></td>
<td>• sustainable mode shares vs. density</td>
<td>• new developments within proximity to transit and bike facilities</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• ratio of new developments within compact urban areas</td>
</tr>
<tr>
<td>Special Generators</td>
<td>• annual airport passenger volumes and mode share</td>
<td>• average population distance to special generators (centroid analysis)</td>
</tr>
<tr>
<td></td>
<td>• mode share by special generator category</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• ratio of trips by regional residents vs. external residents</td>
<td></td>
</tr>
</tbody>
</table>
When committing to the use of an indicator, the following should be considered:

- **Appropriate**: All indicators should provide a strong representation of what are the key characteristics from which decisions should be based on. The higher the degree of appropriateness, the greater the applicability and usefulness of the indicator’s representation.

- **Measurable**: An indicator needs to be measureable, in that a study and related equipment is feasible enough such that observations can be made to provide adequate data for the indicator. Ideally, quantifiable measures are desired. However, measurements may be intangible and therefore require qualitative measurements (i.e. opinions).

- **Sensitive**: An indicator should be sensitive enough to be able to differentiate changes in a significant manner within the time period desired. Indicators vary in sensitivity with the...
example of the speedometer and fuel gauge of a dashboard providing vital yet, varying sensitivity over time and driving conditions. Considerations for statistical significance, measurement error, and biases are required in order to ensure an indicator’s sensitivity is adequate relative to analysis needs and the importance of the subject matter.

- **Repeatability and Frequency:** As analyses that deal with trends require multiple observations, indicators need to be designed such that the collection of supporting data can be repeated in identical fashion. The frequency of indicator reporting will depend on both the significance of the indicator, the sensitivity of the indicator (as previously described), and feasibility of obtaining the necessary data elements.

- **Data Elements and Sources:** Indicators may require one or more data elements, especially in the case of normalized indicators such as “per capita” calculations. The source of all data elements should be considered as their accessibility, reliability, and quality.

- **Acquisition Methodology:** The methodology in data is acquired and processed is important for the consideration of quality of results, and comparability over time. An improvement in methodology used in past indicators may not necessarily be beneficial to the comparability to past indicator values. Therefore, changes to methodologies should be weighted to the benefit of improved quality/accuracy, to the disruption in comparability to ensure an “apples to apples” comparison.

- **Resources:** The data elements and expertise for indicators varies with their complexity and commonality. Some indicators can be derived within a very short timeframe at minimal cost. Others can take a year or longer and require extensive expertise and costs.

- **Cost Effectiveness:** The collection of data for indicators should consider the amount of resources required (budget, staffing, equipment, time). The affordability of indicators will play a role in determining their cost-effectiveness and priority within an overall monitoring program.

- **Quality and Adequacy:** The quality and adequacy of an indicator is based on the methodology and data used in deriving indicator values. The significance and importance of an indicator will be the main driver to influence the quality and adequacy in the development and use of a given indicator.

### 6.3.2.2 Targets

Planning targets are based on key indicators that represent the progress and effectiveness of policies, plans and investments. Targets are the measure in which success can be defined and define the standard to which a region is held accountable. **Targets can also be the main focus of attention post-planning**, and therefore caution is required in ensuring targets are defined properly. Therefore, the establishment of targets should be done with adequate planning, analysis, and information base to ensure targets are both realistic yet challenging enough to cause positive change.

To provide examples, some of the specific transit targets set in the Central Okanagan are as follows:

- Within the 25 year **Transit Future Plan for the Central Okanagan**, which defines the future transit network vision for the region by 2035, targets have been set regarding the desired performance of the transit system. The stated goal is to achieve an annual ridership from 4.3 million rides today, to **nearly 16 million rides by 2035**, with a **mode share target of 7%**.

- The Kelowna Regional Transit System’s farebox recovery ratio, currently at 0.27 has a target of 0.30 by
It is suggested that in conjunction with a thorough transportation planning process, targets are set for key transportation indicators such as mode share, infrastructure and service provision, and development patterns that support sustainable transportation.

### 6.3.2.3 Monitoring & Analytical Tools Program

The Central Okanagan is fast becoming a desirable place to live, work and visit and increasingly playing a more significant role in Western Canada. Therefore, a monitoring and analytical tools program is required for the region to manage positive and intended growth.

Essentially all progressive cities worldwide conduct transportation surveys and develop analytical tools to manage growth through an evidence-based approach. Investment in transportation planning initiatives has led to successful cities that are livable, sustainable, and economically thriving. Data and analytics are also investments that are a critical part of ensuring for a thriving and livable region.

Sustainable transportation is already a very difficult goal to achieve, with unintended consequences that can be a product of well-meaning “good decisions”. Without guidance of good information, planning is essentially done blind and is prone to failure from the start. Some essential activities are as follows:

**Travel Surveys**

Travel surveys are typically the central source of information used in transportation planning—essential information that provides a “market assessment” of the current travel characteristics of the residents within a region. This assessment provides the basis for sound business cases to be developed to best ensure investments are optimally made. An important piece of information collected is the origin and destination for a given trip. This provides key information in determining the spatial demand for travel and the logistical nature of travel patterns made by residents. Broken down by the travel mode, and combined with other essential information such as trip purpose and start time of trips, strategic information can be produced that is vital to the making of informed decisions. Section 2.3 provided a demonstration as to these types of information made possible from travel surveys (most recent survey was in conducted 2007).

Travel surveys are essential for transportation planning processes, such as regional Growth Management Strategies. Partner municipalities benefit from travel surveys conducted at the regional level and not only can, but should, be used as key input into the transportation components of Official Community Plans. Furthermore, travel surveys can provide the necessary information to help determine important activities such as GHG inventories for regions. The evaluation of transportation and land use policies and investments requires a holistic monitoring program to assess long-term impacts of such decisions. Travel surveys are a core element to such monitoring programs.

**Analytical Tools**

The data provided by surveys is required to be processed and utilized for analysis. A suite of analytical tools such as travel demand models, geographic information systems (GIS), and databases are essential to the development and monitoring of policies and plans. These tools provide the ability to synergistically combine datasets in order to extract useful meaning and strategic intelligence from the data. Figure 6.2 provides an illustration of a monitoring and analytical tools program that is both policy sensitive and results-oriented.

Overall, travel surveys and analytical tools are a requisite part of transportation planning. They are the essential building-blocks and tools in the development and implementation of policies, plans, and investments that bring regions and communities closer towards a sustainable transportation system.
Figure 6.2. Example Transportation Monitoring and Analytical Tools Program
7.0 Next Steps

7.1 SUMMARY OF PAPER

Faced with increasing growth in the Central Okanagan, the prosperity and quality of life in the region will be challenged from a number of fronts. Transportation is one of the key areas that impacts the social, economic, and environmental goals of the region. However, these goals can be mutually supportive or conflicting, and the complex nature of the inter-twined facets of man-made communities built in natural ecosystems calls for thorough understanding and action.

It is well established that the transportation system of the Central Okanagan is desired to be one that is sustainable. Echoed in the plans and policies of member municipalities and supportive provincial governments is the need for a safe, efficient, equitable, and cost-effective integrated multi-modal system with: increased support for active transportation; more efficient and effective transit service; a densification of land-use to reduce sprawl and improve mobile efficiency; and a system of roads that meets the needs of all users in all travel modes and purposes.

The impact of this interface to the built and natural form raises a number of issues in areas ranging from economic development and land use, to the efficient provision and use of transportation modes; from the consumption of limited energy sources, to the decision and funding process. A range of stakeholders, consisting of government, business, health, tourism, education, and special interest groups, were consulted and contributed to the ranking and identification of issues and gaps related to transportation. Their feedback provides real concerns and challenges that will need to be confronted in order to achieve the transportation objectives and goals in the region.

It is also well acknowledged by the government agencies, business groups, and community stakeholders consulted that there is a need for improved decision making and planning processes to ensure the limited funding available for transportation is invested effectively for the current and future generations. In this regard, the formation of the Sustainable Transportation Partnership of the Central Okanagan (STPCO)—a newly established and enhanced governance arrangement—is underway with a mandate to improve coordination and planning region-wide, in partnership with senior governments and neighbouring regions. Sustainability is not a “solitary game”, nor can it be achieved in isolation as by definition sustainability is all encompassing. Therefore, with a holistic viewpoint, the STPCO seeks to identify and implement best practices towards the development of a sustainable transportation system for the Central Okanagan.

A region-wide strategic transportation plan will be required to tie together various elements and conflicting issues in order to create a consolidated, balanced and equitable strategy. A focus of this plan should be the revisiting of the roles of the various transportation modes and infrastructure needs in light of their effectiveness given the competitive nature within the market of choices for travel. This will better establish realistic expectations and support the development of a more feasible and affordable transportation system, while minimizing conflicts within the system and avoiding unintended consequences.

Sustainability also requires the checking of progress to ensure efforts are converging to—not diverging from—the goals and targets set by the commitments made and documented in policies and plans by local and provincial governments. Monitoring of this progress is vital to not only success, but the measurement of success, and in ensuring investments and decisions are made with transparency, equity, and accountability.
This discussion paper provides a synthesis of previous plans and policies, the identification of issues and perspectives from stakeholders, a discussion of key concepts and issues, suggested policy directions and role of the Regional District of Central Okanagan, and strategic actions consisting of the establishment of an enhanced transportation governance arrangement and comprehensive monitoring program. This paper can be considered a “living document” with updates made as situations and priorities change within the region.

The content of the paper is presented for purposes of discussion and elevating the dialogue and debate of the Central Okanagan’s transportation future. Specifically, the identification of “friction” or “conflict” points will need to be made such that policies and plans are developed that do not produce unintended consequences. Therefore, the more voices, opinions, and ideas that participate in this discussion, more clarity and understanding will be made as to the correct paths to choose and pitfalls to avoid.

7.2 “Call to Action”

As a discussion paper, the scope for recommendations is limited. However, there are some strategic actions in areas that could benefit forward progress. The following are example next steps that can be considered to invoke change and “establish ground” towards a sustainable transportation system for the Central Okanagan.

7.2.1 Active Transportation

The need for travel choices not based on non-renewable resources has increased the priority for active modes of transportation, namely walking and cycling. It was identified that a large share of trips in the region are within walking distance for many of the residents. Therefore, there is much potential for active transportation to play a more significant role as an effective solution towards sustainability.

The recently developed Central Okanagan Regional Active Transportation Master Plan presents a unified vision of a future bicycle and pedestrian network for the active transportation needs of the region. The implementation and support of this plan will be vital to achieve the region’s sustainability goals.

7.2.2 Transit

Transit is the primary alternative to the automobile for long distance and motorized trips for most of residents and visitors to the Central Okanagan. However, the challenge is in servicing the varied and wide-spread travel patterns cost-effectively and timely within a relatively disbursed land mass. The cost of fuel and increase in congestion can boost transit ridership, yet the same economic forces increase the costs to expand and operate the transit system. Therefore, more streamlined and efficient planning and operations is required that is based on a more intimate knowledge of travel demand or “market” patterns within the region.

7.2.3 Regional Road Network

With virtually all trips in the region requiring the use of the network of roads within individual communities and beyond, the road system is the backbone of the region’s transportation system. All modes—from walking to cycling, transit and automobile—make use of the road system. The mixed use of modes is desired, however creates additional complexities related to safety, operations, and congestion. The establishment of a regionally-significant road network could ensure this transportation backbone serves the best interest of all road users in a realistic manner towards sustainability.
7.2.4 Sustainable Governance

The continued development of the newly-formed sustainable transportation governance structure will be an essential step in establishing and managing a sustainable transportation system for the Central Okanagan. Governance can be thought of as the “DNA” of a transportation system’s development and operations, and as such, it is crucial for the structure to be formed with sound principles and clear intentions. Based on a partnership form, the strength of the structure lies in the foundation of trust, cooperation, equity, and the sharing of common goals. Furthermore, it will take champions and leadership at all levels to fortify this governance structure and ensure an unwavering vision towards the Central Okanagan’s sustainable transportation future.
8.0 References

- “Central Okanagan - Regional Active Transportation Master Plan”, Local Governments of the Central Okanagan, June 2012.
- “Central Okanagan Transportation and Mobility 20 Year Options Stakeholder Feedback”, Central Okanagan Regional District, September 2002.
- “Child Friendly Transportation for Young Children”, Society for Children and Youth of B.C.
- “Child Friendly Transportation Self-Assessment Checklist”, Society for Children and Youth of B.C.
- “Coping...or Meeting the Challenge Choices for Child Care in the Central Okanagan to 2011”, Community Action Toward Children’s Health (CATCH) Coalition, 2006.
- “Downtown Plan”, City of Kelowna, February 2012.
- “Kelowna Regional Annual Operating Agreement, April 1, 2011 to March 31, 2012”, BC Transit.
- “Okanagan needs 100-year transportation strategy”, G. Lovegrove, Fresh Outlook Foundation, Building SustainAble Communities e-zine, July/August 2008.
- “Options for Transit Service Change in West Kelowna”, BC Transit, date unspecified.
- “Regional District of North Okanagan Bylaw No. 2500” A Bylaw for Regional District of North Okanagan to adopt a Regional Growth Strategy, September 2011.
- “Regional Transportation Directional Statement”, Okanagan Valley Transportation Panel, October 22, 2010.
- “Strategy For Integrating Environment And Sustainable Development Into The Transport Policy”, resolution adopted by the Ministers responsible for Transport and Communications, 2340th meeting of the European Union’s Council of Ministers, Luxembourg, April 4-5, 2001
• “Transit Future Plan Central Okanagan Region”, BC Transit, August 2011.
• “Transportation & Mobility in the Central Okanagan 20 Year Options – An Evolving Discussion”, Central Okanagan Regional District, June 2002.
• “Transportation and Mobility”, Central Okanagan Regional District, February 2003.
9.0 Appendices

APPENDIX A – Transit Network, 2011 & 2035

APPENDIX B – Literature Review

APPENDIX C – Planning Mandate and Vision of the RDCO
Source: *Transit Future Plan – Central Okanagan Region*, BC Transit, August 2011 (Draft)
Source: Transit Future Plan – Central Okanagan Region, BC Transit, August 2011 (Draft)
9.2 **APPENDIX B – LITERATURE REVIEW**

This Literature Review is essentially a “Knowledge Bank” of transportation-related document investments made to-date. The documents are categorized as:

- OCPs
- Transportation Plans
- Regional Growth Strategies
- Transportation-Related
- Other (i.e. economic, social, environmental documents)

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<th>No.</th>
<th>Title</th>
<th>Date</th>
<th>Category</th>
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<tbody>
<tr>
<td>1</td>
<td>Peachland OCP</td>
<td>2000</td>
<td>OCPs</td>
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<tr>
<td>2</td>
<td>West Kelowna OCP</td>
<td>2011</td>
<td>OCPs</td>
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**Transportation-Related/Significant Policies/Issues:**

**Peachland OCP (2000):**

- The OCP promotes the integration of land use and transportation planning through compact residential and non-residential development within the ‘fan area’ (6.1.11).
- The OCP promotes a pedestrian-friendly, mixed use downtown commercial area (8.5).
- The OCP recommends the preparation of a Transportation Plan that will address vehicular, transit and bicycle movement.

**West Kelowna OCP (2011):**

- Urban development to be concentrated in Boucherie / Westbank Centre and Corridor areas.
- Development mainly in the form of intensification and redevelopment. Greenfield development of areas outside of designated growth areas to be discouraged. Transit, bicycle and pedestrian modes of transportation to be encouraged in Boucherie / Westbank Centre and Corridor areas.

**General Transportation Network Policies:**

1. A multi-modal transportation system will provide for the following designated transportation features: Pedestrian and cycling routes; local, collector and arterial roads; and, provincial highways.
2. Provide funding for the installation and upgrading of transportation infrastructure and facilities in consideration of targets for modal splits, as defined in the DWK Master Transportation Plan.
3. Promote partnerships and work with the Province toward improvements on Highway 97, specifically regarding the couplet, pedestrian overpasses and intersection improvements.
4. Promote development in Boucherie/Westbank Centres, Corridors and Neighbourhood Centres with the intention of establishing a sufficient concentration of population to make walking, cycling and transit viable.
5. Consider partnering with other provincial agencies and other jurisdictions to provide transportation system continuity. At a minimum, the Ministry of Transportation and Infrastructure, WFN, RDCO, City of Kelowna and District of Peachland will be encouraged to participate in mobility network planning in order to integrate and improve regional and inter-municipal multi-modal travel.

6. Coordinate land use planning and transportation planning to reduce transportation demand.

Policies include promoting Transportation Demand Management to reduce single occupant vehicle use. Alternative transportation forms such as walking, cycling, motorcycling, transit and carpooling to be promoted.

Active transportation forms – walking and cycling to be promoted.

Increase transit use by making improvements towards a more economical, convenient and practical means of travel. Proposed higher density development in Boucherie / Westbank Centre and Corridor areas will facilitate increased transit use.

Future and existing roads should be developed to appropriately encourage all modes of travel - walking, cycling, transit and vehicle use.

A Master Transportation Plan will be developed in the future. The Master Transportation Plan will identify an integrated road, transit, pedestrian and cycle route network.

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<td>3</td>
<td>Ellison OCP</td>
<td>2007</td>
<td>OCPs</td>
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**Transportation-Related/Significant Policies/Issues:**

Ellison is a smaller, developing community situated directly south of the District of Kelowna. Development pressures will come about due to the proximity of Ellison to Kelowna. It is still very automobile-oriented, however, there may be potential to introduce alternative transportation forms as the community develops.

Road and highway policies seek to develop the roadway system in an integrated, planned manner.

Transit policies are aimed at improving town centre (Kelowna) express and student services. As well, the OCP encourages BC Transit to restore historic levels of financial participation in operating and expanding the Kelowna Regional Transit System.

The OCP also supports a priority of transit and emergency response over private vehicles and truck traffic when needed due to growing congestion along Highway 97 at peak periods.

The OCP contains policies to develop new residential areas in a controlled, planned manner, avoiding non-contiguous, sprawling development patterns.
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<th>No. : 4</th>
<th>Title: City of Kelowna OCP</th>
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<td>Date: 2011</td>
<td>Category: OCPs</td>
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**Transportation-Related/Significant Policies/Issues:**

**Related OCP Goals:**

The OCP is focused on creating a sustainable community. Key goals are:

- **Contain Urban Growth.** Reduce greenfield urban sprawl and focus growth in compact, connected and mixed-use (residential and commercial) urban and village centres.

- **Feature a Balanced Transportation Network.** 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.

**Transportation Objectives and Policies**

City of Kelowna transportation objectives are focused on generating greater use of sustainable modes - active transportation (cycling / walking) and transit – as well as TDM programs that promote reduced car ownership, reduced vehicle trips, reduced peak hour trips and managing parking supply toward reduction of the need to expand the road network or capacity. Roadway planning will support sustainability goals.

Policy direction focuses on maximizing connectivity for pedestrians and cyclists and prioritizing funding on active transportation. Policy does not provide for roadway modifications that increase capacity until failure is imminent, unless there are safety issues.

Regarding the integration of transportation and land use planning, the OCP contains policies to include transportation considerations (e.g. pedestrian and cyclist movement and transit service needs) in the development approvals process.
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<th>No. : 5</th>
<th>Title: Westbank First Nation Land Use Law</th>
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<td>Category: OCPs</td>
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**Transportation-Related/Significant Policies/Issues:**

The Land Use Law is applicable to all five tracts of Indian Reserve lands under the jurisdiction and authority of the Westbank First Nation. There are three interrelated parts to the Land Use Law: (1) Land Use Plan; (2) Zoning Regulation; and (3) Development Servicing Maps.

The **Land Use Plan** has a number of policy areas directly related to transportation planning.

**Westbank First Nation Land Use Plan Vision:** ‘The Westbank First Nation Land Use Plan promotes planned community development, bringing together business, residents and membership resources for policies to guide growth in a manner consistent with WFN goals to establish a complete and sustainable community.’

Land Use Plan transportation-related goal: ‘To provide an effective and efficient transportation system, that balances opportunities for a variety of modes of travel, while ensuring the efficient movement of goods.’

Regarding Growth Management, the Land Use Plan encourages “smart growth” types of development, i.e. compact and complete communities, higher density residential uses and mixed use developments.

Regarding Transportation and Servicing, the Land Use Plan contains policies to increase transit use, to promote development that is contiguous and cost-effective, to develop a road system that supports people and goods movement and to provide safe alternatives to car travel such as cycling, walking routes and better transit service.

The Development Servicing Maps include a map of existing and future roads for IR #9 and #10.

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<th>No. : 6</th>
<th>Title: North Westside OCP</th>
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<td>Date:  2007</td>
<td>Category: OCPs</td>
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**Transportation-Related/Significant Policies/Issues:**

The North Westside OCP area extends along the western shore of Okanagan Lake within Electoral Area ‘G’, north from Bear Creek Provincial park to Westshore Estates. As it is an unincorporated area, the OCP was prepared by the Regional District of Central Okanagan.

The OCP recognizes that the North Westside area will continue to remain a rural area with limited community services and infrastructure.

Westside Road provides access to North Westside. The existing condition of Westside Road, including safety concerns and the need for improvements is a key community issue. OCP transportation policies are focused around the need to improve Westside Road, taking into account the community’s concerns regarding safety and to avoid expanding the roadway to a highway or a possible Kelowna by-pass.
Title: District of Lake Country OCP

Date: 2010

Category: OCPs

Transportation-Related/Significant Policies/Issues:

The District of Lake Country is a rural community of approximately 11,000 residents located in the Central Okanagan. The District is located between Kelowna and Vernon. Lake Country is known for its three main lakes, Kalamalka Lake, Wood Lake and Okanagan Lake.

The population of Lake Country is projected to grow to 21,000 people by 2030. The District’s growth management goals emphasize infill and the intensification of land use in appropriate locations to make the best use of existing infrastructure and reduce environmental and financial costs of growth. Growth will be focused in the identified core or Town Centre (higher level commercial and higher density residential uses), in addition to designated nodes (local service commercial and mixed use density residential). New development will be encouraged near transit connections.

Transportation policies to support the Regional Growth Strategy:

- Support the improvement of the public transit system to encourage higher ridership levels for school access and mobility throughout the community.
- Ensure that major development projects support public transit use and incorporates active transportation strategies.
- Prepare and implement an Active Transportation Plan.
- Incorporate public transit services with pedestrian and cycling facilities to encourage intermodal travel.
- Collaborate with neighbouring communities to plan interconnecting active transportation routes, including a Glenmore Road and Commonage Road bicycle connection.

Transportation Goals:

- Create a multi-modal transportation network to provide a range of transportation options.
- Provide a safe and efficient transportation network.
- Minimize the environmental impact of the transportation network.
- Reduce greenhouse gas emissions from the District transportation network.

Transportation Objectives:

- Provide viable non automobile transportation options.
- Provide active transportation options in the community.
- Improve traffic flow and safety along the Highway 97 corridor.
- Improve the safety and efficiency of the District transportation network.
- Enhance the sustainability performance of the existing transportation network.
**No. : 8**

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<tr>
<th>Title: Regional District of North Okanagan Bylaw No. 2500 (North Okanagan Regional Growth Strategy)</th>
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**Transportation-Related/Significant Policies/Issues:**

The bylaw enacts the Regional Growth Strategy for the North Okanagan Regional District.

‘The Regional Growth Strategy provides an integrated strategic policy framework for addressing growth management, economic development, transportation, other infrastructure, and environmental concerns. These policies play three key roles: (1) give direction for implementing the Regional Growth Strategy, (2) create a common strategic framework for planning at various levels within the North Okanagan, and (3) provide the vision for all levels of government to strive towards.’

The RGS is structured around nine interrelated policy areas:

- Urban containment / rural protection*
- Agriculture and food systems
- Water stewardship
- Environment and natural lands
- Economic development
- Transportation and infrastructure*
- Housing
- Governance and service delivery
- Energy and emissions*  

*Policy areas with transportation implications

Under Urban containment and rural protection, Goal UC-1 is to ‘Focus development into growth areas.’ This will direct development into designated, serviced growth areas and promote compact, complete community design. Transportation will be designed to be walkable where possible and served with a well-connected system of streets, bikeways, recreation trails and public transit. Within existing communities, community centres will be designated. The community centres should be compact and complete and community oriented.

The Transportation and infrastructure policy area has the greatest transportation impacts out of all of the policy areas. Goal TI-1 is to ‘Manage regional transportation corridors.’ This is to coordinate local, regional and provincial transportation planning in the region and to allow for coordinated transportation corridor planning. Goal TI-2 is to ‘Support integrated regional transportation planning.’ This is to encourage integrated, multimodal transportation choices, support transit-oriented development, explore innovative financing options and opportunities and to encourage integrated transportation and land use planning.

The Energy and emissions policy area has some implications for transportation. Goal EE-1 is to ‘Reduce regional greenhouse gas emissions by 15% by 2020 and 25% by 2030. This is supported by Goal TI-2 of supporting integrated regional transportation planning.’

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<th>No. : 9</th>
<th>Title: South Okanagan Regional Growth Strategy</th>
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**Transportation-Related/Significant Policies/Issues:**

The South Okanagan Regional Growth Strategy (RGS), launched in 2004, is a long term commitment to manage growth in the southern Okanagan of the Regional District Okanagan-Similkameen (RDOS).

The RGS applies to the southernmost reaches of the Okanagan Valley (pg.6 South Okanagan Regional Growth Study Area) and includes the municipalities of Oliver, Osoyoos, Penticton and Summerland, and rural electoral areas ‘A’, ‘C’, ‘D’, ‘E’ and ‘F’.

Guiding the RGS growth management goals are six themes on the region’s economy, environment, governance, human settlement, infrastructure and social health.

Under the fourth theme, the Human settlement and land use goal is to ‘direct development to serviced areas and strengthen the distinct identity of each south Okanagan community. Policy H2 under this goal is ‘Promote compact urban form.’ Under this policy, the south Okanagan municipalities and electoral areas agree to ‘Create walkable, livable mixed-use neighbourhoods and communities’ and ‘Integrate transportation infrastructure within and between communities.’

Under the fifth theme, the Infrastructure goal is to ‘Coordinate efforts throughout the south Okanagan that maximize efficient and effective delivery of infrastructure and services, reduce environmental impact and recognize the scarcity of resources.’ Policy I6 under this goal is ‘Increase transportation options, improve transportation efficiency and reduce automobile dependency.’ Specifically, the south Okanagan municipalities and electoral areas and Ministry of Transportation agree to:

1. Support the creation of an inter-regional Transportation Plan from the regional transportation study, to include comprehensive transportation demand management, innovative transportation options and funding strategies.
2. Support the creation of walkable neighbourhoods and pedestrian / cycle / transit networks that offer both alternative transportation and recreational opportunities, and work with the Province to further develop the pedestrian / cycle network in conjunction with highway improvements.
3. Expand formal agreements with transportation providers for public transportation options beyond current service boundaries.
4. Encourage the identification of land in community cores appropriate for transit hubs.
5. Consider Light Rapid Transit (LRT) as an option to improve community linkages and mitigate the effects of transportation on air quality and climate change.

Policy I7 under the Infrastructure goal is ‘Protect and improve Highway 97 as a key transportation corridor.’

The progress of the Regional Growth Strategy will be monitored through performance indicators. Transportation-related performance indicators and their review frequency are as follows:

- **T-1**: % of labour force living and working in the same municipality (5-year)
- **T-2**: Median commuter trip distance (km) (5-year)
- **T-3**: Region-wide and (ii) municipal modal share for journey-to-work trips (5-year)
- **T-4**: Length of cycling infrastructure by facility type (multi-user path, bike lane, bike route) (Annual)
Transportation-Related/Significant Policies/Issues:

The Regional Growth Strategy (RGS) is not a land use plan, but rather a co-operative strategy for achieving a sustainable future for the region. The RGS provides a framework for:

- taking action on development and settlement issues by the regional district, its member municipalities and government agencies
- coordinating efficient use of land, public facilities, services, finances and other resources over the next 20 years
- encouraging a variety of economic opportunities, land use choices and quality of life attributes in an affordable and efficient manner
- ensuring our environment and natural amenities are protected and conserved as the region continues to develop

A RGS goal is to ‘Maintain mobility throughout the region.’

Policies for transportation and energy are included under Growth Management Policies:

Transportation and Energy

*Integrate transportation and energy considerations with land use and settlement planning to achieve mobility, conservation and efficiency goals.*

1. Recognize local, regional and provincial transportation goals respecting the efficient movement of people and goods.
2. Recognize and protect major transportation and utility corridors for existing function and potential expansion. Address impacts on adjacent lands through appropriate corridor planning.
3. Recognize the importance of air transportation service within the region and encourage the potential for expansion of facilities and service.
4. Support energy and resource conservation programs, energy-efficient land use and development design and the use of alternate sources of energy.
5. Encourage compact community design in order to save transportation and energy costs and to provide more opportunities for walking, cycling and other forms of alternative transportation.
**Child Friendly Transportation for Young Children**

**Date:** Not specified  
**Category:** Transportation-Related

**Transportation-Related/Significant Policies/Issues:**

This policy paper was adapted from the *Making Your Community More Child and Youth Friendly: Focusing on the Early Years* from the Society for Children and Youth of BC. It sets out guidelines for making transportation friendlier for children aged 0-6 years of age.

Child friendly transportation for young children focuses largely on safe and easy ways for parents to take children with them on buses, in cars, by bike, or on foot.

**Examples:**

**Buses:** A child friendly community ensures that parents and young children are welcomed onto the bus by the driver, that assistance is provided if necessary, and that the child, parent, and stroller are safely secured.

**Car:** For parents travelling by car, child friendly transportation includes community initiatives to make car travel safe for young children. These include programs that lend or rent infant/child car seats for all ages and instruction on usage and other car safety issues.

**Community Planning:** In a child friendly community, local planning and development takes into account the needs of pedestrians as well as cyclists. Safe walking for parents with young children can be encouraged by adding sidewalks, pedestrian crossings and curb cuts, slowing traffic speeds (e.g., through speed bumps and circles), and designating walking routes to key locations such as shopping areas, parks, and recreation centres.

**Child Friendly Transportation Self-Assessment Checklist**

**Date:** Not specified  
**Category:** Transportation-Related

**Transportation-Related/Significant Policies/Issues:**

This is a checklist to assess the extent to which a community is supportive of child friendly transportation. The checklist focuses on safe and easy ways for parents to take children with them on buses, in cars, by bike or on foot. Progress is evaluated under one of the following categories: ‘Not currently considering’, ‘In progress’, ‘Completed’, and ‘N/A’. This may be a useful tool for evaluating the ‘child-friendliness’ of a community.
| No. : 13 | Title: Central Okanagan Transportation Workbook |
| Date: 2011 | Category: Transportation-Related |

**Transportation-Related/Significant Policies/Issues:**

This is a draft workbook that was distributed for comment to the Intergovernmental Advisory Committee (IAC) members for comments. The workbook appears to be a resource to be used in discussing the future of transportation in the Central Okanagan Regional District. It presents transportation as a multi-dimensional issue (e.g. financial costs, air pollution and global climate change, accident impacts, financial inequities and land use and development impacts). The workbook also discusses transportation system components of the Central Okanagan Regional District (i.e. highways, air, rail, marine and pedestrian/cycle networks and issues related to them).

| No. : 14 | Title: Transportation & Mobility in the Central Okanagan 20 Year Options – An Evolving Discussion |
| Date: 2002 | Category: Transportation-Related |

**Transportation-Related/Significant Policies/Issues:**

This is a discussion paper on enhancing transportation and mobility in the Central Okanagan region over the next twenty years. It presents three options for planning and managing regional transportation.

Rapid urban growth and development within the Central Okanagan has occurred during the last 40 years, a time of emphasis on the personal automobile. Thus the transportation system almost exclusively relies on the public road and highway network. However, the highway network within the Central Okanagan has lagged behind development so that there are now four segments of Highway 97 that are considered at or over capacity during parts of the year.

At the same time, other transportation infrastructure such as rail and marine is being gradually dismantled. Even public transit this year is facing a reduction in government subsidy. Without major shifts in transportation policy, route corridors, facilities and the integrity of these systems may be irreparably lost.

The discussion paper cites the vision for transportation contained in the Regional Growth Strategy for the Central Okanagan Regional District: *The Central Okanagan is “an area that actively promotes a transportation system that is energy-efficient, affordable, accessible and convenient. The needs of all residents, including youth, seniors, and those without access to a car, are considered in our planning decisions”*. The paper also cites the “Generic Vision” proposed by the Transportation Association of Canada.

The paper presents three options for transportation planning in the Central Okanagan as a basis for discussion:

**Transportation Option 1: Do “nothing” for as long as possible**

Under this option, the existing transportation governance structure will remain in place, with the operation and funding of transportation systems fragmented between seven government authorities. Decisions will be based on the priorities of each authority, e.g. one corridor segment or one transportation mode, and will be short-term and project-specific. The 20 Tear Capital Budget for transportation will be under $100 million. This will result in major deficiencies in the transportation system, i.e. gaps in the corridor, poor coordination between modes, etc.
**Transportation Option 2: Build network road infrastructure and expand capacity**

Under this option, provincial, local and first nation governments will agree on and commit to a regional road network and highway plan. The 20 Year Capital Budget for transportation will be in the vicinity of $600 to $800 million. This would result in measures being put in place for financing of highway and network road construction to meet demand for personal vehicle, trucking, transit and emergency vehicle and other trips.

**Transportation Option 3: Build regional transportation services**

Under this option, funding and operation of regional transportation networks will be overseen by a regional authority responsible for investments in multiple modes of transportation. All communities will agree to take measures that slow the rate of increase of single occupant vehicle trips in the region. The 20 Year Capital Budget will be in the vicinity of $600 to $800 million and provide for the apportionment to various modes of transport. Measures will include a mix of capital investments in commuter cycle corridors, transit and HOV lanes, and other TDM measures proportional to highway and network road investments.

Community organizations were invited to consider the three options presented and to participate in evaluating them.

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**No. : 15**  
**Title:** Discussion Paper on Central Okanagan & Mobility 20 Year options – Evolving Discussion

**Date:** 2002  
**Category:** Transportation-Related

**Transportation-Related/Significant Policies/Issues:**

These notes summarized the main messages received to the discussion paper described in No. 14 from key stakeholders in the region.

**Main messages:**

**Business and Economic Development Associations:**
- General agreement for coordinated and/or consolidated decision-making
- Public transit viewed as viable alternative mode of transport
- Agreement that federal fuel tax revenues should be used to finance transportation investments in BC; support for user pay mechanisms

**Neighbourhood Associations and Advisory Planning Commissions:**
- Support for transportation planning across the Central Okanagan urban region, perhaps including the entire Okanagan Valley
- No consensus on the need for a second highway crossing of Okanagan Lake between Westside and Kelowna as opposed to a bypass route
- General agreement that people will live to choose where there are economical savings in housing prices; the length of a daily commute will not be sufficient to influence housing choices

**Peachland:**
- Council is not unanimous in concluding that Highway 97 requires a 2nd lake crossing.
- Council recommends a good consumer survey (why does the region have such a high number of
motor vehicles per capita? what are the barriers to alternate modes of transport?).

- Council would participate in a one-day workshop to exchange ideas and work in setting priorities with neighbouring communities.

**Kelowna:**
- Most components of the “Generic Vision for Urban Transportation” are supported. “High Priority” is given to town center development with transit priority along connecting corridors; compact mixed use communities based on pedestrian, cycling & transit friendly design; planned and coordinated highways, arterials, parking & truck routes; decreasing percentage of trips made by single occupant vehicles; roads & bridges in good state of repair; and declining air pollution from motor vehicles.
- Council recommends protecting an alternate corridor crossing Okanagan Lake for commuter traffic (needed in +/- 20 years time).

**Lake Country:**
- Local community has requested a Winfield Town Centre bypass since 1965.
- Highway 97 at Wood Lake improvements will save lives but appear to fall off provincial and regional priority lists in favor of Okanagan Lake bridge.
- Past decisions, including financial obligations, are frustrating to Council.

**Westbank First Nation:**
- Council’s interest is to create economic opportunities and employment on the Westside.
- Reserve lands are limited in size. Highway footprint has an impact that should be reimbursed.
- “High priority” is given to town center development with transit priority along connecting corridors; and to planned and coordinated highways, arterials, parking & truck routes.

**Ranking of Vision Statements (mainly from TAC’s Generic Vision):**

**Rated as High Priority:**
1. “Roads and bridges are in a good state of repair”.

**Generally Rated as High Priority:**
2. “Transit, highways, arterials, parking and truck routes are planned and coordinated across the urban area”.
3. “The physically challenged enjoy universal access to public transport facilities and services”.
4. “Air pollution from motor vehicle sources is declining”.
5. “Urban transportation infrastructure and services are adequately funded from stable and sustainable revenue sources”.
6. Political leaders have the support of a well informed public when making decisions on urban development and transportation systems to serve the area”.

**Generally Rated as Medium to High Priority:**
7. “A long term urban development plan has been approved. It emphasizes multi-use town centers and high density, mixed use along connecting corridors. Transit has funding and operating priority in those corridors”.
8. “Short-medium term community / neighbourhood plans have been approved. They emphasize compact, mixed use communities based on pedestrian, cycling and transit friendly design”.
9. “The percentages of trips made by walking cycling, transit and high occupancy automobiles are all increasing; the percentage of trips made by single occupant vehicles is decreasing”.


Generally Rated as Low or Medium Priority:
10. “The average distance and time for peak hour commuter travel is decreasing”.
11. “An area wide parking strategy is in place and enforced”.
12. “There are very few places which still require on-street goods transfer”.

No. : 16  
Title: Transportation and Mobility
Date: 2003  
Category: Transportation-Related

Transportation-Related/Significant Policies/Issues:
This is a discussion paper that furthers the discussion and findings of the Transportation & Mobility in the Central Okanagan 20 Year Options – An Evolving Discussion (No. 14) and Discussion Paper on Central Okanagan & Mobility 20 Year Options – Evolving Discussion (No. 15) papers.

This discussion paper summarizes the issues facing transportation in the Central Okanagan. It presents three general options for future transportation investments (same as in No. 14); presents input from community, economic, provincial and national stakeholders; and proposes a number of collective local actions intended to bring about the desired investments. A key step towards improving transportation in the Central Okanagan will be to establish a regional transportation authority with dedicated and sustainable financial resources.

No. : 17  
Title: Okanagan Valley Transportation Corridor An Assessment of Select Projects and Initiatives
Date: Date not Specified  
Category: Transportation-Related

Transportation-Related/Significant Policies/Issues:
This report gathers together proposed investments in transportation infrastructure in the Okanagan and Similkameen Valleys in an effort to produce a consolidated, consistent and prioritized transportation infrastructure investment list aimed at establishing a sound platform upon which to make decisions and lend support. The goal is to identify which projects are the most significant, in terms of offering the greatest range of benefits specifically to the Valleys.

Reporting to a Steering Committee of representatives from the three Regional Districts, Western Economic Diversification Canada and the First Nations’ communities, the objective of this assignment is to develop and deliver this preferred and prioritized transportation infrastructure list along with project justification and rationale, as well as an assessment of potential funding mechanisms. Consideration is given to alternative modes of transportation, to ensure that costly investments in transportation infrastructure could not be deferred by the successful implementation of more environmentally sustainable modes of transportation.

The study area is focused primarily on the transportation corridor between Osoyoos and Enderby (Okanagan Valley) and along the transportation corridor between Osoyoos and Princeton (Similkameen Valley).
Comparative Ranking of Select Projects and Initiatives

Corridor Expansion Projects (in order of ranking):
1. Hwy 99 Widening, Hwy 33 to Gordon Drive
2. Kelowna Gateway
3. Boucherie & Westside Road Interchanges
4. Hwy 97 4-laning Peachland to Summerland
5. Westbank Bypass
6. Hwy 97 Wood lake 4-laning
7. Kelowna North End Connector
8. Vernon West Bypass

Corridor Enhancement Initiatives:
1. Intelligent Transportation Systems (ITS)
2. Design Guidelines
3. Access Management (selected locations)
4. Branding

Alternate Travel Mode Initiatives:
1. Valley Trail System
2. Integrated Transportation Demand Management (TDM)
3. Commuter Transit
4. Water Based Travel
5. Intermodal Facilities
6. Commuter Rail (Light Rail Transit)

The report also presents a number of recommendations towards improved coordination of transportation planning among the three regional districts, the creation of a valley-wide transit and/or transportation authority, identifying corridors having regional transportation and economic benefits to all three regional districts and more detailed study of selected corridors.

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<thead>
<tr>
<th>No.</th>
<th>Title</th>
<th>Date</th>
<th>Category</th>
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<tbody>
<tr>
<td>18</td>
<td>Okanagan Lake Bridge Comprehensive Traffic Report</td>
<td>2004</td>
<td>Transportation-Related</td>
</tr>
</tbody>
</table>

Transportation-Related/Significant Policies/Issues:

The Okanagan Lake Bridge (OLB) Project involves the replacement of the existing bridge, and upgrading of the approach roads. It is intended that the Private Sector would participate in the project, and revenues would come from a combination of different types of performance payments.

The purpose of this report is to present the Investment Grade traffic forecasts that have been developed for the Okanagan Lake Bridge under different bridge improvement scenarios.

Historically, traffic growth on OLB appears strongly related to growth in the local population. The long-term population projections for the Central Okanagan Regional District (CORD) envisage that the current (2001) population of 154,000 will reach over 280,000 by 2041. This magnitude of growth and how it is distributed within CORD will have significant implications for OLB traffic, and conversely the capacity of OLB will have significant implications on the distribution of growth.
Future scenarios for OLB are designed to offer progressive improvements to the capacity of both the bridge and its accesses, and operate under the assumption that wider area network improvements capable of supporting these changes would be implemented as required. Seven network scenarios have been defined for this study, but the improvement options for OLB can be covered by just four of these:

- Scenario 3, Base Case Scenario – 5 Lane Bridge with Westside Road Westbound Improvements, OLB system capacity 3,300 vph E/B (AM) and 3,700 vph W/B (PM)
- Scenario 5 – 5 Lane Bridge with improved capacity at Westside Road in both directions, OLB system capacity increases to 3,800 vph E/B (AM) and 4,600 vph W/B (PM)
- Scenario 7 – 6 Lane Bridge with OLB system capacity at 4,600 vph both directions (AM and PM)
- Scenario 9 – 6 Lane Bridge with improved capacity through all elements of the OLB system, OLB system capacity determined by the bridge and at Westside Road, with at 5,700 vph both directions (AM and PM)

Traffic forecasts for the four scenarios are as follows:

<table>
<thead>
<tr>
<th>Year</th>
<th>Base (Sc 3)</th>
<th>Scenario 5</th>
<th>Scenario 7</th>
<th>Scenario 9</th>
</tr>
</thead>
<tbody>
<tr>
<td>2003</td>
<td>46,000</td>
<td>46,000</td>
<td>46,000</td>
<td>46,000</td>
</tr>
<tr>
<td>2007</td>
<td>53,500</td>
<td>53,700</td>
<td>53,800</td>
<td>53,900</td>
</tr>
<tr>
<td>2012</td>
<td>65,400</td>
<td>66,100</td>
<td>66,300</td>
<td>66,800</td>
</tr>
<tr>
<td>2017</td>
<td>69,400*</td>
<td>72,200</td>
<td>72,600</td>
<td>73,400</td>
</tr>
<tr>
<td>2022</td>
<td>72,700*</td>
<td>77,400</td>
<td>78,200</td>
<td>79,300</td>
</tr>
<tr>
<td>2041</td>
<td>84,200*</td>
<td>92,800*</td>
<td>96,500*</td>
<td>102,000</td>
</tr>
</tbody>
</table>

*constrained capacity

**Investment Grade Forecasts**

The forecasts in the above table are derived directly from the ‘Main’ traffic model developed for this study. The forecasts need to be assessed within the context of their variability to different methodologies within the traffic model and to different assumptions for key input assumptions, such as population growth.

The implications for the traffic forecasts to different assumptions or methodologies have been determined using a formal risk assessment methodology, based on the Monte Carlo method. The risk analysis defines factors that should be applied to the forecasts (above table) in each year in order to reach particular levels of confidence (e.g. 80% confidence that traffic will reach X vehicles by year N) – these percentage factors are shown in the table below.
### Risk Analysis Percentage Factors:

<table>
<thead>
<tr>
<th></th>
<th>2007</th>
<th>2012</th>
<th>2017</th>
<th>2022</th>
<th>2041</th>
</tr>
</thead>
<tbody>
<tr>
<td>90% confidence</td>
<td>84.5</td>
<td>81.7</td>
<td>81.0</td>
<td>80.0</td>
<td>72.6</td>
</tr>
<tr>
<td>80% confidence</td>
<td>87.8</td>
<td>85.3</td>
<td>85.0</td>
<td>84.6</td>
<td>78.4</td>
</tr>
<tr>
<td>70% confidence</td>
<td>90.4</td>
<td>88.2</td>
<td>88.2</td>
<td>88.1</td>
<td>83.2</td>
</tr>
<tr>
<td>60% confidence</td>
<td>92.7</td>
<td>90.9</td>
<td>91.0</td>
<td>91.2</td>
<td>87.4</td>
</tr>
<tr>
<td>50% confidence</td>
<td>94.9</td>
<td>93.3</td>
<td>93.8</td>
<td>94.3</td>
<td>91.6</td>
</tr>
<tr>
<td>40% confidence</td>
<td>97.1</td>
<td>95.8</td>
<td>96.7</td>
<td>97.4</td>
<td>95.6</td>
</tr>
<tr>
<td>30% confidence</td>
<td>99.6</td>
<td>98.4</td>
<td>99.6</td>
<td>100.9</td>
<td>100.3</td>
</tr>
<tr>
<td>20% confidence</td>
<td>102.3</td>
<td>101.6</td>
<td>103.0</td>
<td>104.9</td>
<td>105.5</td>
</tr>
<tr>
<td>10% confidence</td>
<td>106.0</td>
<td>106.1</td>
<td>108.0</td>
<td>110.6</td>
<td>112.7</td>
</tr>
</tbody>
</table>

### Transportation-Related/Significant Policies/Issues:

Transport Canada’s The Cost of Urban Congestion in Canada research study developed congestion indicators for the nine largest urban areas in Canada. From east to west, the urban areas were: Québec City, Montréal, Ottawa-Gatineau, Toronto, Hamilton, Winnipeg, Calgary, Edmonton and Vancouver. The study focused on recurrent peak period congestion, that is, the congestion that is associated with the regular, daily build-up of traffic during the morning and afternoon commuter peak periods. The research developed common measures of congestion, using data from each urban area’s travel demand models.

The analysis of congestion has two general approaches: ‘engineering’ and ‘economic.’ This study considered both but – by design – it focused on the engineering approach to define and to develop the congestion indicators and to estimate the social costs of congestion associated with extra time wasted due to congestion and the cost associated with greenhouse gas (GHG) emissions.

The study estimated that the total annual cost of congestion (in 2002 dollars) ranged from $2.3 billion to $3.7 billion for the major urban areas in Canada. More than 90 percent of this cost represents the value of the time lost to auto travellers (drivers and their passengers) in congestion. The remainder represents the value of fuel consumed (around 7-8 percent) and GHGs emitted under congestion conditions (around 2-3 percent).
<table>
<thead>
<tr>
<th>No. : 20</th>
<th>Title: Kelowna Regional Transit System Review and Detailed Service Plan</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date: 2007</td>
<td>Category: Transit</td>
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</tbody>
</table>

**Transportation-Related/Significant Policies/Issues:**

This Kelowna Regional Transit System Review and Detailed Service Plan complements the April 2005 Central Okanagan Smart Transit Plan by providing details on how the existing route structure and services must evolve to meet future population growth and transportation goals. Specifically, it recommends how existing services must change to coordinate with a planned bus rapid transit (BRT) line that will link the region’s major centres. It also describes how the system’s on-time performance, service reliability, and convenience of connections and transfers can be improved to maintain existing customers and attract new ones.

This review provides an overview of the current system and summarizes feedback from passengers, staff, residents, and key stakeholders on what they would like to see changed and improved. It also summarizes major planned developments by area and existing transit service issues. Resulting service concepts and proposals are presented for the immediate, short, medium, and long range periods. The plan also includes supporting strategies to support the service plan and improve transit system performance.

<table>
<thead>
<tr>
<th>No. : 21</th>
<th>Title: Okanagan needs 100-year transportation strategy (by Dr. Gord Lovegrove)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date: 2008</td>
<td>Category: Transportation-Related</td>
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</table>

**Transportation-Related/Significant Policies/Issues:**

This paper, authored by Dr. Gord Lovegrove, states that “emerging issues are putting the health, prosperity, and mobility of Okanagan Valley residents and businesses in jeopardy. A comprehensive 100-year Okanagan Valley transportation strategy is needed to address them, and to sustain our social, economic, and environmental well-being.”

Key issues and their impact on transportation in the Okanagan Valley are as follows:

- **Climate change:** To reverse global warming trends, and the risks they pose to our human, economic, and environmental health, it has been suggested that drastic changes in our travel habits (e.g., reduced auto dependence) are required. However, sprawl, low-density development, single-use neighbourhoods, extensive highway networks, and plentiful free parking, all coupled with limited alternatives to driving, have frustrated civic efforts and sustainability advocates to date. As a result, transit and bicycle use remain very low, at less than five percent of all trips.

- **Peak Oil:** Scientists worldwide are forecasting that discovery of major oil and natural gas reserves have peaked (or will have peaked by 2010), and as that peak is passed, the supply of carbon-based fuels will not keep up with growing world demand. Given that the high price and limited supply of conventional fuel will preclude its continued use, it is very likely that conventional means of transportation (e.g. private vehicles, SUVs, long-haul trucking) will diminish. A strategic opportunity to consider is that electric railways will become a critical short- and long-haul alternative for commuters, tourists, and businesses in the Okanagan Valley.
• **Electric railway:** Electric rail is a well-established technology, widely used in Europe, and could be incorporated into existing Okanagan rail infrastructure relatively quickly, subject to rail gauges, and electric (overhead pick-up) motive units. Moreover, rail corridors already exist along much of the Okanagan Valley, between Vernon and Kelowna, and, between Summerland and our border with the US. Unfortunately, time is running out to secure needed right-of-way and to build an electric rail link across the Okanagan Valley. The most critical segment would run across Okanagan Lake, and south through Westbank and Peachland to Summerland.

• **Vision for a Regional Transportation Authority:** The establishment of an Okanagan Regional Transportation Authority (ORTA) to oversee the provision of a sustainable inter-regional transportation system is essential to maintaining the high quality of life in the Okanagan. Subject to legislation, this authority would deliver services — planning, funding, construction, operation, and/or governance — for municipalities throughout the Okanagan. Representation on the authority would come from the three regional districts of the Okanagan, North Okanagan Regional District (NORD), Central Okanagan Regional District (CORD), Regional District of Okanagan Similkameen (RDOS). Provincial and federal interests would also need to be integrated into this new authority's operation.

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**Transportation-Related/Significant Policies/Issues:**

The findings from the national emissions analysis indicate that, at the national level, emissions from private motor vehicle operations are on the rise and significantly higher than the 1990 level. In 2005, personal vehicle use accounted for nearly two-thirds (63%) of total household emissions, while per capita vehicle emissions increased at almost twice the growth rate of population between 1990 and 2007.

Findings also show that lower-middle income Canadians (as a group) contributed the highest vehicle GHG emissions. This was likely a result of the lack of fuel efficiency of the type of vehicles they drove, mainly due to the age of the vehicle fleet.

Canadians in the highest income bracket were more likely to drive less fuel-efficient types of vehicles, such as trucks and SUVs, and had the highest emissions on a per capita basis compared with other income brackets.

With respect to the regional concentration of private vehicle emissions from diesel and gasoline-operated vehicles, the results indicate that despite the significantly higher total levels of emissions in Ontario, Quebec, and British Columbia, the major CMAs in these provinces have the lowest per capita emissions among all the CMAs.

This can be attributed to the composition of their more fuel-efficient fleet. On the other hand, the study also revealed wide variations among the CMAs. The per capita vehicle emissions of Kingston and Greater-Sudbury were the highest of all CMAs.
This is a memo from Ron Westlake, Director, Regional Services to the City Manager of the City of Kelowna regarding the Central Okanagan Region – Transit Future Plan. The memo describes the Plan and its implications to the City of Kelowna. It provides a good synopsis of the Transit Future Plan, which is summarized below.

Over the next 25 years, the Central Okanagan Region is projected to grow from 188,000 to approximately 264,000. Today, there are over 120,000 registered vehicles in the region, and 90 percent of residents commute to work by car. Transit travel currently accounts for only three percent of work commuting trips. However, by linking land use and transit decisions and investing in new services and infrastructure where it makes sense, there is potential for transit to accommodate a significantly larger share of regional travel market and contribute to the goal of creating stronger, more sustainable communities. To help build a sustainable future in the region, the Transit Future Plan has been designed to achieve a mode split target of 7 percent by 2035, which equates to a four-fold increase in transit ridership from 4.3 million annual revenue trips to over 16 million annual revenue trips.

The proposed Transit Future Plan reflects creative thinking on how transit can play a larger role in mobility in the region. It is based heavily on creating a Primary Transit Network, operating at frequencies of 15 minutes or better, 15 hours a day, seven days a week, linking major urban and village centres.

To be successful, land use and transit decisions need to be linked to ensure that the urban form supports quality transit service and that quality transit service is provided in a timely manner to support land use intensification. In this regard, the Primary Transit Network will be an organizing tool for transit planning and land use to ensure that each element supports the other. The regional transit vision also recognizes that investments in new pedestrian and cycling infrastructure must be incorporated within the scope of the proposed transit stations to safely connect pedestrians with transit services and urban development across the region and to encourage new Transit-Oriented Developments.

The Primary Transit Network will form the foundation of the transit system and incorporate two layers of service - a regional Rapidbus service operating in the Highway 97 corridor and an integrated web of high frequency express and regular transit routes operating in other major transportation corridors. Major changes to the built environment will take time to occur; therefore, the proposed Primary Transit Network will evolve gradually to respond to changes in urban form. The Transit Future Plan also recognizes that full implementation of the plan will require significant capital and operating investment in the transit system over the next 25 years.

The Transit Future Plan proposes that the level of transit investment across the Central Okanagan Region be increased gradually over the next 25 years from 0.94 transit operating hours per capita to 2.3 operating hours per capita. In order to achieve Transit Future Plan targets, a three-fold increase in annual transit operating hours is required over the next 25 years. This equates with an annual service increase of approximately 17,000 growth hours annually, distributed among the Local Governments in the Central Okanagan Region.
<table>
<thead>
<tr>
<th>No. : 24</th>
<th>Title: Central Okanagan Smart Transit Plan</th>
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<tbody>
<tr>
<td>Date: 2005</td>
<td>Category: Transit</td>
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</tbody>
</table>

**Transportation-Related/Significant Policies/Issues:**

The Central Okanagan region is one of BC’s fastest growing regions. The region is expected to continue to grow at approximately 3% per annum from 160,000 persons at present to some 225,000 persons in 2021, a growth of 65,000 people.

The region enjoys the services of a comprehensive transit system which provides conventional fixed route service and HandyDART service. Transit ridership has been growing from just over 1 million passengers per year 10 years ago, to almost 3 million passengers in 2003, a growth of 10 – 12% per annum. A more modest growth of 4 – 6% per annum is projected over the next 10 – 15 years.

This strong growth of population and employment, coupled with the substantial growth in transit travel demand, provides an opportunity to pursue Smart Growth and Smart Transit, i.e. a land use plan which supports and encourages efficient modes of transportation such as transit, walk and cycle.

The Central Okanagan Region and local municipalities commissioned this Smart Transit project to:

1. Work with stakeholders to develop a vision for sustainable or smart transit for this region.
2. Develop guidelines for encouraging transit-supportive land use development, or smart growth.
3. Develop a business plan to direct transit investments to achieve the transit vision.

Based on experiences elsewhere and review of local planning principles, a series of land use and transportation guidelines was developed to structure land use growth and define transportation plans to integrate land use and transportation, with the objective of encouraging efficient transportation modes such as public transit, walk and cycle. These transit-oriented development guidelines were then applied to identify locations for encouraging transit-oriented development, in the form of higher density, mixed use developments structured around efficient transportation nodes. From west to east, these TOD areas include:

- Westbank town centre, Westside town centre, Kelowna downtown, Pandosy town centre, Orchard Park, Rutland town centre and UBC Okanagan.
- Peachland and Winfield are other town centres that are linked to the regional transit system, but will likely experience more limited growth.

The physical location of these town centres affords a unique opportunity to be linked together with high quality, limited stop, transit services, that will attract relatively high ridership and justify frequent services.

The future transit vision proposes a hierarchy of transit services structured around the identified centres. Components of the future transit vision are:

- A frequent, rapid and reliable, limited stop transit service along Highway 97, Highway 33 and Rutland Road, linking the majority of the town centres.
- A frequent, fixed route service linking the more central town centres, Queensway, Pandosy town centre, Orchard Park and Rutland town centre.
- Increased frequency of service on fixed routes during the off-peak periods.
- Conversion of some fixed route services to demand-responsive community bus services in the lower density suburban areas and during lower periods of demand.
It is notable that a number of transit priority measures are proposed as part of the Plan. As well, the Plan is proposed to be phased in between 2005 and 2021.

Expressed in 2004 dollars, it is estimated that the Conventional Transit program would involve net annual costs to the region and the local municipalities ranging between $2.26 million to $2.95 million, compared to approximately $2 million currently. This estimate assumes that the BC Transit share is maintained at 47% of total costs over this period, as in past years.

The net cost to the Region of the custom transit service is also expected to increase from just over $300,000 per year in 2005, to approximately $500,000 per year in 2021. Again, this is expressed in 2004 dollars, and assumes that the BC Transit portion of costs is maintained at 67%.

The smart transit improvement program outlined in this report is designed to accommodate an almost 100% increase in transit riders, yet is achieved at an increase cost to the region of less than 50%.

<table>
<thead>
<tr>
<th>No. : 25</th>
<th>Title:  Regional Growth Strategy – Sustainable Planning Framework</th>
</tr>
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<tbody>
<tr>
<td>Date: 2011</td>
<td>Category: Transportation-Related</td>
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</table>

**Transportation-Related/Significant Policies/Issues:**

The Sustainable Planning Framework is comprised of Transportation Goals, Policy Objectives, Key Indicators and Metrics. It provides a means of “drilling down” from overall goals to measurable metrics and can be used as a tool to monitor progress towards achieving specific goals.

<table>
<thead>
<tr>
<th>No. : 26</th>
<th>Title: Options for Transit Service Change in West Kelowna</th>
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</thead>
<tbody>
<tr>
<td>Date: 2011</td>
<td>Category: Transit</td>
</tr>
</tbody>
</table>

**Transportation-Related/Significant Policies/Issues:**

This report begins with a critical assessment of all transit routes serving the District of West Kelowna and then presents three options for improving transit services.

All three options have the following objectives:
- Match transit service to land use & demand
- Improve efficiency and effectiveness
- Increase ridership
- Decrease commuting traffic
- Maintain some coverage

The options also share the following strategies:
- Protect and improve good ridership routes
- Establish the network spine – RapidBus service
- Focus service in the peak periods
- Reduce coverage in low-performing areas
- Reduce service in low-performing times
- Introduce Park & Rides at strategic locations
- Creative marketing and branding solutions
The three options that are presented all share the same improvements to the base service level presented in Option 1. Option 2 adds 6,000 hours to the base level improvements, while Option 3 adds 12,000 hours.

<table>
<thead>
<tr>
<th>No. : 27</th>
<th>Title: Greenhouse Gas Implications of Land-Use Scenarios for the Regional Growth Strategy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date: 2012</td>
<td>Category: Transportation-Related</td>
</tr>
</tbody>
</table>

**Transportation-Related/Significant Policies/Issues:**

Sustainability Solutions Group (SSG) modeled the impact of different potential land-use decisions on community-wide greenhouse gas (GHG) emissions in the Regional District of Central Okanagan (RDCO). The scope of the analysis included private and commercial transportation, private and commercial buildings, solid and liquid waste, forest area and agricultural activity. A baseline was created for the year 2007 in SSG’s model GHGProof, and three different scenarios were compared against that baseline. The scenarios included a business as usual (BAU) case, and the evaluation of a 33% reduction over 2007 levels by 2020 (Scenario 1) and an 80% reduction over 2007 levels by 2050 (Scenario 2).

The BAU scenario found that emissions would increase by 25% by 2020, mainly due to continuing population increase and continuing land-use development according to historical patterns. Significant changes in land-use and technology would be required to achieve the GHG emissions reduction target of 33% or 793,000 tonnes carbon dioxide equivalent (tCO2e) by 2020. However, those changes would difficult to implement because many dwellings projected to be constructed by 2020 have already been permitted or are in the planning process, and emission reductions possible through other measures like transportation and agriculture would be limited. Instead, it is recommended that as a medium term target the RDCO focus on stabilising emissions by 2020 at 1.2 million tCO2e. Stabilizing GHG emissions would be a reduction of 25% from the BAU scenario. A 25% reduction target will still be challenging given the projected population increase over that period. Additionally, the adoption of the 80% by 2050 over 2007 levels is recommended for the Regional Growth Strategy (RGS). This target brings the RDCO back in line with provincial goal and the RDCO will have more time to work with member municipalities on a common regional vision and strategy to reduce emissions.

A strategy of significantly reducing GHG emissions would favour complete, compact communities in land use planning. For transportation, trips in vehicles tend to be shorter and there are increased opportunities for people to walk, cycle and take public transit.
**No. : 28**  
**Title: City of Kelowna Downtown Plan**  
**Date: 2012**  
**Category: Land Use Plan**

**Transportation-Related/Significant Policies/Issues:**

The Downtown Plan for the City of Kelowna contains a strategy and 10 year action plan towards achieving the long term vision for downtown, i.e. “Downtown will include areas where citizens choose to live, shop, play and congregate and where businesses choose to do business and where developers choose to develop.”

The Downtown Plan has three principal goals:
1. Attract people to downtown
2. Increase sense of safety
3. Attract private sector investment

Transportation-related policies are included in the Action Plan and specific policies for the Downtown area. The Action Plan includes five “priority focus areas.” Two of these are transportation-related, i.e. to make Downtown more pedestrian friendly and to make it easier to park.

Key transportation-related policies are as follows:
- Policies to ensure connectivity between Downtown and surrounding neighbourhoods and within Downtown, especially for pedestrians and cyclists.
- Policies to assign high priority to public transit, including the retention of the Downtown transit exchange.
- Policies that support alternative, non-automobile modes of travel for commuting to Downtown and travel within Downtown.

Policies to manage parking in the Downtown area.

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**No. : 29**  
**Title: Coping...or Meeting the Challenge Choices for Child Care in the Central Okanagan to 2011**  
**Date: 2006**  
**Category: Other**

**Transportation-Related/Significant Policies/Issues:**

The Community Action Toward Children’s Health (CATCH) Coalition established a Child Care Action Team to investigate the current state of child care in the Central Okanagan and develop a child care plan which will help the community ensure the child care network meets the needs of parents and children. The objective of this plan is to inform decision-makers in the current issues facing the child care sector, the current child care network and the projected needs for child care to 2011.

The report identified several key issues affecting child care in the Central Okanagan:
- There is a shortage of qualified workers and workers are hard to retain as wage rates are low.
- There is a shortage of child care spaces in most communities in the Region.
- The centres of child care and out of school care populations are changing and existing facilities are not meeting this changing demand.
- Child care is funded through provincial programs; budgets are based on provincial, rather than local demand.
The report had a number of recommendations to address these issues:

- Protect the workforce by raising wage rates, improving the intrinsic rewards of the work, improving workplace flexibility and attracting older workers.
- Increase the number of spaces.
- Provide the right spaces in the right locations.
- Influence government support for child care.

Transportation impacts of these recommendations, if implemented, will likely be minor. More spaces could increase movement from residences to child care facilities; however this could be offset by more localized facilities.

<table>
<thead>
<tr>
<th>No.</th>
<th>Title: District of Lake Country Official Community Plan Review Public Input Stage Summary of Survey Responses and Stakeholder Input Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date: 2007</td>
<td>Category: OCPs</td>
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</tbody>
</table>

**Transportation-Related/Significant Policies/Issues:**

This report summarizes public input received in the District of Lake Country Official Community Plan Review and includes:

- A summary of survey responses.
- A summary of stakeholder group input.
- Mayor and Council Visioning session results.

Several common themes emerged from both the closed ended and open ended survey questions; these are:

- Emphasis on creating / completing the Town Centre and having that as a hub of activity allowing for more commercial, retail and mixed residential.
- Desire to control the rate of growth and its location.
- Improve Highway 97 in terms of safety, ease of use and traffic flow.

Respondents were asked to rank transportation initiatives and the following were the highest ranked:

- Road maintenance
- Accommodate all forms of transportation (bike, pedestrian)
- Wider road shoulders
- Bicycle lanes on all major routes
- Expansion of public transit services

Additionally, improvements to the transportation infrastructure was ranked #5 among the top 5 issues that Lake Country should address over the next 5 – 10 years.
<table>
<thead>
<tr>
<th>No. : 31</th>
<th>Title: Regional Indicators - Regional Sustainability Strategy, Regional District of Central Okanagan</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date: 2006</td>
<td>Category: Transportation-Related</td>
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</table>

**Transportation-Related/Significant Policies/Issues:**

The Regional Indicators appear to be metrics to measure the progress of the RDCO’s Regional Sustainability Strategy.

Transportation-related indicators are listed under ‘Mobility’ and are as follows:

**Mobility**
- Transit ridership
- Serviceable area population
- # Passenger Vehicles, # per capita
- Highway traffic volumes
- # Airport passengers

<table>
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<tr>
<th>No. : 32</th>
<th>Title: Economic Development Strategy District of West Kelowna</th>
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<tbody>
<tr>
<td>Date: 2010</td>
<td>Category: Other (Economic development)</td>
</tr>
</tbody>
</table>

**Transportation-Related/Significant Policies/Issues:**

This document was commissioned by the District of West Kelowna in November 2009, under direction from the District’s 2009 Strategic Plan that requested the preparation of an integrated economic development strategic plan that would contribute to strong and sustainable economic activity in the community.

The Economic Development Goals for West Kelowna:
- Positive local business climate
- Local job opportunities
- Expanded business tax base
- Value-added products and services
- Vibrant downtown
- Productive relations with Westbank First Nation

The Plan recommended nine strategies for implementation that collectively would contribute to the Economic Development Goals for West Kelowna.

The nine strategies are:
- Business development guide
- Building and land inventory
- Employment land
- Cooperation with Westbank First Nation
- Tourism Services
- Service Improvements
- Town Centre Development
- Public Services
- Gateway and Cultural Centre
The Economic Development Strategy could potentially bring about increased economic vitality and activity to West Kelowna. This should result in increased transportation and transit demand, especially to a revitalized Town Centre. It is notable that a new transit exchange and services were identified at a planning workshop as a needed public service in West Kelowna.

<table>
<thead>
<tr>
<th>No. : 33</th>
<th>Title: Regional Growth Strategy Review Economic Development Policy Area</th>
</tr>
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<tbody>
<tr>
<td>Date: 2011</td>
<td>Category: Regional Growth Strategy</td>
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</tbody>
</table>

**Transportation-Related/Significant Policies/Issues:**

This document discusses the issue / policy area of Economic Development as part of the RDCO Regional Growth Strategy Review.

It first presents the policies in the existing Regional Growth Strategy regarding Economic Development and then presents comments and issues received through the consultation process, which could shape policies in the new Regional Growth Strategy.

Regarding transportation, the following comments / issues received in the consultation process are relevant:

- More accessible employment centres (i.e. accessible by foot, transit, bike and car) tend to be more successful, vibrant, safer and healthier than single use town centres and/or office parks and help attract and retain businesses.
- Linking and connecting employment and housing centres.
- Transportation needs to be enhanced for tourists, i.e. trolley, motor car tours, water front activities expanded with more activities, dragon boat competitions, water skiing events, drag boat races, like in earlier days.
No. : 34 | Title:  Regional Growth Strategy Review, Environment, Recreation Space and Sensitive Areas Policy Area

Date:  2011  | Category:  Regional Growth Strategy

Transportation-Related/Significant Policies/Issues:

This document discusses the issue / policy area of Environment, Recreation Space and Sensitive areas as part of the RDCO Regional Growth Strategy Review.

It first presents the policies in the existing Regional Growth Strategy regarding Environment, Recreation Space and Sensitive areas and then presents comments and issues received through the consultation process, which could shape policies in the new Regional Growth Strategy.

Comments received through the consultation process are very supportive of a number of policies intended to protect the environment, natural areas and resources, etc. Regarding transportation, it can be assumed that environmental integrity will be an essential consideration for future transportation planning, corridors, projects, etc.

No. : 35 | Title:  Central Okanagan Regional Growth Strategy Review Preliminary Consultation Report

Date:  2011  | Category:  Regional Growth Strategy

Transportation-Related/Significant Policies/Issues:

This report provides an overview of the Preliminary Consultation Process conducted as part of first phase of the Central Okanagan Regional District’s Regional Growth Strategy Review project. The goals of the preliminary consultation process were to:

- Raise the level of awareness of the Regional Growth Strategy
- Obtain input to the future regional vision
- Identify issues of concern to regional growth management

A Community Workbook was distributed to residents throughout the region and to elected officials. The Workbook included information on the RGS Review and summarized major regional issues and trends that the RGS would need to consider. It also included a set of potential policy directions for each of the issues. Respondents were asked to rank both the issues and policy directions in order of importance.

The six regional planning issues identified by the Community Workbook were:

- Climate change
- Parks and open space
- Regional services and infrastructure
- Economic development
- Transportation
- Housing

While not the top-ranked issue, Transportation was considered “very important” or “important” by over 80% of respondents.
Of the policy direction options outlined in the Community Workbook, supporting sustainable transportation options and encouraging transit-oriented development were identified as the most important transportation issues for the RGS to address. Addressing climate change and air quality received less support, while reducing congestion received the least support.

For the regional planning issue of Economic Development, it is notable that the policy approach of linking and connecting employment and housing centres was the second ranked issue to address.

For the regional planning issue of Climate Change, the policy approach of directing new development to existing centres and encouraging more compact settlement patterns was the #1 ranked issue to address, while promoting active transportation options was #2.

<table>
<thead>
<tr>
<th>No. : 36</th>
<th>Title: Kelowna Regional Transit System Review &amp; Detailed Service Plan</th>
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<tbody>
<tr>
<td>Date: 2007</td>
<td>Category: Transit</td>
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**Transportation-Related/Significant Policies/Issues:**
This report complements the April 2005 Central Okanagan Smart Transit Plan by providing details on how the existing route structure and services must evolve to meet future population growth and transportation goals. Specifically, it recommends how existing services must change to coordinate with a planned bus rapid transit (BRT) line that will link the region’s major centres. It also describes how the system’s on-time performance, service reliability, and convenience of connections and transfers can be improved to maintain existing customers and attract new ones.

The report provides an overview of the current system and summarizes feedback from passengers, staff, residents, and key stakeholders on what they would like to see changed and improved. It also summarizes major planned developments by area and existing transit service issues. Resulting service concepts and proposals are presented for the immediate, short, medium, and long range periods. The plan also includes supporting strategies to support the service plan and improve transit system performance.

The report presents a series of proposed service improvements to the Kelowna Regional Transit System. Proposals are organized by three jurisdictions: City of Kelowna, Regional District of Central Okanagan (including services to Peachland, and areas of Westbank First Nation), and the District of Lake Country.

The proposals are also organized by three time periods:
- Short-Range: Next 1-2 years.
- Medium-Range: Next 2-7 years.
- Longer-Range: Next 7-20 years.

Each short- and medium-range proposal includes a description of service; market served, key benefits, and annual cost and revenue impacts. Short-Range proposals also include suggested implementation dates based on logical order, vehicle availability, and preliminary discussion with local governments. While availability of provincial operational funding for expanded services is not confirmed, traditional provincial share of funding is noted for the information of decision makers.

Longer-range options are outlined as concepts rather than as costed proposals since costs for some items may change substantially in the interim and since community growth patterns and priorities may also change.
The most significant issue facing the local governments and BC Transit will be finding the funding resources to implement the transit service expansion proposals outlined in this document. In particular, as of yet there is no confirmation on the level of provincial funding available for expanded services in the Kelowna system in the 2007/08 year or in subsequent years.

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<th>No.</th>
<th>Title</th>
<th>Date</th>
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<tr>
<td>37</td>
<td>Regional District of North Okanagan Regional Growth Strategy “One Region, One Future”</td>
<td>2011</td>
<td>Regional Growth Strategy</td>
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</table>

**Transportation-Related/Significant Policies/Issues:**

This is an earlier version of the North Okanagan Regional Growth Strategy reviewed in No. 8.

The North Okanagan Regional Growth Strategy provides an integrated strategic policy framework for addressing growth management, economic development, transportation, other infrastructure, and environmental concerns. These policies play three key roles: (1) give direction for implementing the Regional Growth Strategy, (2) create a common strategic framework for planning at various levels within Okanagan, and (3) provide the vision for all levels of government to strive towards.

Regional policies are grouped into nine interrelated policy areas. Transportation and Infrastructure is one of these policy areas. Under Transportation and Infrastructure, there are three goals and related policies:

- **Manage regional transportation corridors:** This is intended to coordinate transportation network and corridor planning across local, regional, and provincial jurisdictions.
- **Support integrated regional transportation planning:** This is intended to promote integrated transportation planning for all modes of transportation across all levels of government. This policy extends to the integration of transportation and land use planning, in addition to goods movement.
- **Create effective, efficient and sustainable infrastructure:** This is intended to manage the existing infrastructure and plan new infrastructure in a cost-effective, efficient and sustainable manner.

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<th>No.</th>
<th>Title</th>
<th>Date</th>
<th>Category</th>
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<tbody>
<tr>
<td>38</td>
<td>Okanagan – Shuswap Land and Resource Management Plan</td>
<td>2011</td>
<td>Land Use Plan</td>
</tr>
</tbody>
</table>

**Transportation-Related/Significant Policies/Issues:**

The Okanagan – Shuswap Land and Resource Management Plan (LRMP) covers approximately 2.5 million hectares. The plan was approved by government in January 2001.

The plan was developed by over 30 public and government participants representing a wide range of values such as water, timber, wildlife, fisheries, mining, recreation, tourism, conservation and agriculture. First Nations expressed an interest in the process but chose not to participate.

The LRMP provides direction for the management of the Crown land and resources within the plan area. Through their recommendations package the participants clearly articulated their vision for a balanced land use strategy.
The plan provides policies for transportation in the plan area. Transportation policies are directed at protecting and maintaining the role, function and adequacy of primary and secondary highways, and to maintain options for transportation corridors. Another key goal is to promote land use and transportation policies that reduce pollution and related impacts.

<table>
<thead>
<tr>
<th>No. : 39</th>
<th>Title: Our Okanagan Today’s choices. Tomorrow’s realities</th>
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<tbody>
<tr>
<td>Date: 2007</td>
<td>Category: Regional Growth Strategy</td>
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**Transportation-Related/Significant Policies/Issues:**

*Our Okanagan presents* a computer-generated future scenario for the Okanagan region, i.e. the three regional districts that make up the region.

With ‘current’ variables (2001) loaded into the model and a growth rate of 1.2% annually applied, the model analyzed and projected the future (2041) on the following variables: population, housing, traffic, greenhouse gas emissions, pollution, energy, water, waste, ecological footprint, fiscal health and economic activity.

In May 2007, public workshops were held to gain input from the residents of the Okanagan. The three-hour “Our Okanagan” workshops enabled participants to explore and examine how current trends could affect the Okanagan in 2041 and allowed them the opportunity to manipulate choices and explore desirable future scenarios. The workshops presented an opportunity for residents to have an informed discussion and topics, such as land use planning, not usually available to the general public.

The report summarizes the future (2041) of the Okanagan based on the ‘Current Trend’ and a ‘New Scenario’ created by the residents of the Okanagan in the ‘Our Okanagan’ workshops.

For transportation, the ‘Current Trend’ will maintain existing support for alternative transportation modes and existing disincentives for single occupant auto use. Single occupancy vehicles will therefore continue to dominate. This dependency on automobiles for mobility will increase the demand for road infrastructure and parking lots which impact the fiscal health of the region. Commute distances and times will double. Traffic injuries will triple from just under 2000/yr. to almost 6000/yr.

The current trend for transit was clearly not acceptable to the participants. Their desire was evenly split between “Favouring Alternatives” (carpooling, pedestrian and bicycle services, discouraging auto use through further economic disincentives like road tolls and parking fees) and “Alternatives Only” (strongly promotes the use of public transit, carpooling, pedestrian and bicycle facilities and service). With both choices there is a dramatic decrease in commute distances, times and injuries from the current trend projections to levels similar or below today.
### Transportation-Related/Significant Policies/Issues:

The Joe Rich area generally lies in the Mission Creek valley to the east of the City of Kelowna in the vicinity of Highway 33. The Joe Rich area is an unincorporated part of the Regional District of Central Okanagan and lies within Electoral Area “Central Okanagan East”.

A Rural Land Use Bylaw (RLUB) is developed and used in accordance with the requirements of the legislation of the Province of British Columbia. It contains some of the elements of a zoning bylaw, subdivision bylaw, as well as an official community plan. An RLUB is intended to be a simple, comprehensive document for a rural area. The RLUB is intended to acknowledge the unique rural character of the area and provide direction for future growth.

Transportation-related policies are included in a number of sections of the bylaw.

Under Section 4 – Future Objectives and Policies, Part 2 – General and Future Form and Character, one of the General Objectives is to ‘Encourage and support the provision of safe, effective and efficient road and highway systems that will accommodate through traffic, local vehicular and non-vehicular needs, and that will provide access to adjacent properties.’ This objective is reiterated under Part 9 - Roads and Services.

In addition, there are a number of notable transportation-related policies in Part 9 – Roads and Services:

- Support and encourage road improvements to Highway 33.
- Support the restriction of the number of roads entering the bylaw area from the City of Kelowna to avoid urban sprawl and allow for appropriate evaluation and planning prior to development.
- Support the provision of walkways and bike paths along all future collector roads, especially those with potential future linkage to the City of Kelowna.
- Support the development and implementation of a Bicycle Network Plan for the Regional District that considers the Joe Rich area.

### Transportation-Related/Significant Policies/Issues:

The Regional District of Central Okanagan (RDCO) is undertaking a comprehensive review and update of its Regional Growth Strategy (2000) (RGS). The purpose of the RGS is to address issues which cross the boundaries of the constituent municipalities. A recent change to the Local Government Act and Community Charter mandated the inclusion of greenhouse gas (GHG) emissions targets in a RGS. As a precursor to a modelling exercise, this report reviews the context for establishing GHG targets in the RDCO and includes several parts including:

- The rationale for GHG targets;
- A profile of RDCO to review factors which determine the region's GHG emissions;
- A review of Community Energy and Emissions Inventory considers the GHG inventory of the RDCO and its constituent municipalities in comparison with the GHG profiles of other regional districts and municipalities in BC;
• A review of targets that have been established by other municipalities and regional districts in BC; and
• A review of policies and strategies that are being employed to reduce municipal GHG emissions.

The Official Community Plans (OCP) and Rural Land Use Bylaw in the RDCO represent a solid foundation for reducing GHG emissions. The policies that they contain support the development of compact, complete communities with active transportation; these types of policies result in low GHG emissions.

There are regions in BC with significantly lower GHG emissions than RDCO and a preliminary analysis shows that transportation emissions are the most significant part of that difference, a variable heavily influenced by land-use planning. Investigating the relationship between land-use planning and transportation in other regions will provide guidance for RDCO's efforts to reduce GHG emissions.

The District of West Kelowna, the District of Lake Country, the District of Peachland, the City of Kelowna, the parts of the Central Okanagan East Electoral Area covered by the Joe Rich Rural Land Use Bylaw, the Rural Westside Official Community Plan and the Ellison Official Community Plan have adopted the provincial GHG target of 33% reduction over 2007 levels by 2020.

The report notes that the GHG target of 33% reduction over 2007 levels that the RDCO and member municipalities have adopted will be extremely difficult to achieve. The target will require significant changes in land-use planning and technologies for transportation and heating and cooling buildings. The modelling exercise, the next step, can be used to explore what is required to achieve the target.

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<tr>
<td>Date: 2010</td>
<td>Category: Land Use Plan</td>
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**Transportation-Related/Significant Policies/Issues:**

This report was prepared by the Similkameen Valley Planning Society, a not-for-profit organization comprised of 7 governing bodies from Keremeos and Princeton, BC:

- Municipalities of Keremeos and Princeton
- RDOS Electoral Areas B, G & H
- Indian Bands of Lower Similkameen and Upper Similkameen

This report is Phase 2 of a three-phased project intended to develop and implement a strategy for the social, environmental and economic sustainability of the Similkameen Valley. Phase 1 developed essential information on in-migration into the Valley, Phase 2 formulated a strategy for the sustainability of the Valley and Phase 3 will involve implementation of this strategy.

The sustainability strategy was developed through extensive community participation. It employed a multiple scenario strategic planning approach to develop four alternative scenarios for the 2011 – 2040 time period. From these scenarios, Valley residents chose the one they considered most likely to unfold (Scenario B: Gradual Shift). The scenario is driven by two societal forces: 1) a decreasing local role in public policy decision-making for sustainability; and 2) an increasing demand for places rich in natural and socio-cultural amenities. The scenario is characterized by moderate in-migration, decreased citizens’ role in governance and low societal support for supporting sustainability. The success of this scenario is contingent on valley residents’ involvement and participation in maintaining the Similkameen Valley, attracting like-minded in-migrants, developing a range of housing types and overall, harnessing the
The sustainability strategy does not include any transportation-specific policies. However, it can be assumed that any future transportation projects would have to be developed taking into account the overall direction of the strategy, i.e. collaborative approach to planning and decision-making involving local residents, sensitivity to all aspects of the sustainability strategy.

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<tr>
<th>No.</th>
<th>Title: Transportation Issue Paper, Regional District of Central Okanagan</th>
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<tr>
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<td>Date: Not specified</td>
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<td>Category: Regional Growth Strategy</td>
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**Transportation-Related/Significant Policies/Issues:**

This report is an ‘issues’ paper prepared for the Regional Growth Strategy Review for the Regional District of Central Okanagan. The report provides an overview of transportation in the Central Okanagan and then identifies opportunities for transportation in the future.

Safe, efficient and accessible transportation systems are vital to a more sustainable Central Okanagan. The RGS will be a vehicle for guiding provincial transportation infrastructure and transit decisions and provides an opportunity to establish common priorities for investment in a sustainable, efficient and accessible transportation system.

Identified opportunities for transportation are:

- **Public transit:** While transit services have improved and ridership increased, only 3% of people currently commute to work by transit, about equal to the provincial average. BC Transit’s Transit Future Plan envisions a transit market share of 7% in 2035, or an increase in ridership from 4.3 million in 2010 to 16 million passengers a year by 2035. This will involve an expansion of the new RapidBus service along Highway 97 to West Kelowna and Westbank First Nation. Higher frequency transit services are difficult to provide to some areas in our region where there are lower population densities or more dispersed rural populations.

- **Walking and biking:** The City of Kelowna is working hard to support cycling and walking in the city. While other municipalities and Electoral Areas are also working to improve, link and coordinate walking and cycling networks, only 7% of people in the region walk or bike to work.

- **Potential growth in un-serviced locations:** New, large-scale developments in widely separated locations make effective public transit servicing difficult and would likely increase single-occupancy vehicle travel in the region. Currently, 90% of people get to work by private vehicle in the region.
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<th>No.</th>
<th>Title</th>
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<th>Category</th>
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<tr>
<td>44</td>
<td>2011/12-2013/14 Service Plan, BC Ministry of Transportation and Infrastructure</td>
<td>2011</td>
<td>Transportation-Related</td>
</tr>
<tr>
<td>45</td>
<td>Shaping our Future: BC Transit’s Strategic Plan</td>
<td>2010</td>
<td>Transportation-Related</td>
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</table>

### Transportation-Related/Significant Policies/Issues:

Continuous plans are produced by BC MoTI to outline their plans for infrastructure and services for 3-year periods. The 2011/12-2013/14 Service Plan comprises of a range of goals with supporting objectives:

- Goal 1: Improved infrastructure drives economic growth and trade
- Goal 2: British Columbia’s transportation industries are globally competitive
- Goal 3: Greenhouse gas emissions from the transportation sector are reduced
- Goal 4: British Columbia’s highway system is safe and reliable
- Goal 5: Excellent customer service

Other relevant plans and targets that the Province of B.C. has identified include the following:

- Double Transit Ridership by 2020
- Expand RapidBus
- Address Climate Change
- More Compact Urban Form

### Transportation-Related/Significant Policies/Issues:

BC Transit’s recent Strategic Plan / 2030 outlines general strategic direction and policies that will help guide the corporation over the next 20 years. With renewed vision, mission, and value statements, BC Transit identified five major plan objectives that will be the priorities that guide their actions:

1. Develop Financial Sustainability
2. Support and Shape Livable Communities
3. Change the Perception of Transit
4. Deliver Operational Excellence
5. Strengthen Our People and Partnerships
<table>
<thead>
<tr>
<th>No. : 46</th>
<th>Title: Okanagan Sustainable Prosperity Strategy</th>
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<tbody>
<tr>
<td>Date:</td>
<td>Category: Other</td>
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</table>

**Transportation-Related/Significant Policies/Issues:**

This report was prepared by ICF Consulting for the Okanagan Partnership. The report develops a bottom-up and collaborative strategy to ensure that the Okanagan region remains “economically viable while preserving a high quality of life that has inspired many to move to the region and continues to retain those who live here.”

The report identifies opportunities for sustainable growth in the region and develops crosscutting themes or flagship issues for the region to work together on. It is notable that two of the flagship initiatives, regional planning and a regional airport strategy, are transportation-related.
9.3 APPENDIX C – PLANNING MANDATE AND VISION OF THE RDCO

Recently, the Regional District of Central Okanagan initiated the review and update to their Regional Growth Strategy (adopted June 26th 2000). The goal of the updated Regional Growth Strategy is to consolidate local and provincial policies and plans and facilitate the dialogue, coordination, research, and monitoring of Central Okanagan transportation system and linkages to neighbouring regions.

9.3.1 Overview and Scope

As outlined in the Local Government Act, regional districts are board-run corporations formed to provide an independent, responsible and accountable order of government within their jurisdiction than can be include a number of local municipalities and areas. Municipal councils appoint one or more members to sit as municipal representatives on their respective regional board. Through this coordination, shared regional services can be provided, as well as the stewardship of public assets, and the fostering of current and future economic, social, and environmental well-being of the community.

Specific principles for provincial relations that a regional district must adhere to are:

a. cooperative relations between the Provincial government and regional districts are to be fostered in order to efficiently and effectively meet the needs of the citizens of British Columbia;

b. regional districts need the powers that allow them to draw on the resources required to fulfill their responsibilities;

c. notice and consultation is needed for Provincial government actions that directly affect regional district interests;

d. the Provincial government recognizes that different regional districts and their communities have different needs and circumstances and so may require different approaches;

e. the independence of regional districts is balanced by the responsibility of the Provincial government to consider the interests of the citizens of British Columbia generally.

The Central Okanagan Regional District (RDCO) was created in 1967 and currently consists of two unincorporated electoral areas and four member municipalities of Kelowna, West Kelowna, Peachland, and Lake Country. The Central Okanagan is currently the fourth largest urban area in the Province, home to almost 190,000 residents. The Regional District also provides basic services such as recreation, park facilities, sewer and garbage collection to the 10,000 homes and businesses located within the Electoral Areas. The District is also responsible for a wide range of regional services such as 911 and recycling for the member municipalities.

The Westside Electoral Area’s incorporation into the District of West Kelowna in late 2007 was a key change in the RDCO’s role as a provider of local services to the Westside. The incorporation of West Kelowna shifted the responsibility for local services, as well as a significant portion of the organization’s resources from RDCO to the new municipality.
9.3.2 Legislative Mandate

Key legislative mandate given to regional districts include the following from the Local Government Act:

a. **to make agreements respecting**
   - (i) the regional district's services, including agreements respecting the undertaking, provision and operation of those services, other than the exercise of the board's regulatory authority,
   - (ii) operation and enforcement in relation to the board's exercise of its regulatory authority, and
   - (iii) the management of property or an interest in property held by the regional district;

b. **to make agreements with a public authority respecting**
   - (i) activities, works or services within the powers of a party to the agreement, other than the exercise of regulatory authority, including agreements respecting the undertaking, provision and operation of activities, works and services,
   - (ii) operation and enforcement in relation to the exercise of regulatory authority within the powers of a party to the agreement,
   - and
   - (iii) the management of property or an interest in property held by a party to the agreement;

c. **to provide assistance for the purpose of benefiting the community or any aspect of the community;**

d. **to acquire, hold, manage and dispose of land, improvements, personal property or other property, and any interest or right in or with respect to that property;**

e. **to delegate its powers, duties and functions, including those specifically established by an enactment, to its officers and employees, its committees or its members, or to other bodies established by the board;**

f. **to engage in commercial, industrial and business undertakings and incorporate a corporation or acquire shares in a corporation for that purpose;**

g. **to establish commissions to**
   - (i) operate regional district services,
   - (ii) undertake operation and enforcement in relation to the board's exercise of its regulatory authority, and
   - (iii) manage property or an interest in property held by the regional district.

Regional districts are also required to develop and adopt Regional Growth Strategies in coordination with local municipalities.
9.3.3 Key Plans and Policies

9.3.3.1 Strategic Plan: Vision 2020 – Planning for the Future

Prompted by the incorporation of the District of West Kelowna, the RDCO recently adopted their “Strategic Plan: Vision 2020 – Planning for the Future”, which outlines the region’s re-defined role, priorities, internal goals, situational analysis, and vision as stated as:

“The Regional District of Central Okanagan (RDCO) will provide effective and efficient services that meet the needs of our citizens, in a manner that nurtures growth, opportunities, and prosperity, while maintaining and enhancing the unique Central Okanagan lifestyle and environment.”

RDCO’s Strategic Plan identifies a “Stewardship of the Vision”, or a mission statement, and six priorities that were determined to be the most important and of significant benefit to the Central Okanagan, given the limited resources of the RDCO:

Stewardship of the Vision — The idea that the Regional District would play an important role in identifying goals and voluntary standards for jurisdictions to meet, and in monitoring and reporting out on the progress made. The Regional District would also identify the metrics by which to gauge success in promoting the vision (State of the Region report; indicators; goals; progress), with the main concern being sustainability. This is an overarching effort that will track progress made on the Regional Districts other priorities.

1. Growth Management — There is a need for a new regional plan. Such a plan should take into account sustainability goals, resource management and transportation, among other issues.

2. Transportation — The focus here was placed on the possible need for the Regional District to become active in corridor planning, advocating for resources, planning for transit and major road connections, and coordinating local efforts.

3. Climate Change — There is a need to identify indicators and report on the situation in the region. There is a need for some analysis, research and education. At present, there is no collective understanding of climate change impacts and mitigation efforts for the region as a whole. There is no collective focus on the bio-region (i.e., water, air, bio-diversity).

4. Intergovernmental Affairs — All member jurisdictions must interact with provincial ministries and agencies and other bodies. It may be advantageous to all members to work through the Regional District in some cases. This includes First Nation relationships which are important to all member jurisdictions. Working as a region to promote such relationships may be advantageous. There is also some uncertainty as to the future situation under new (pending) provincial legislation. A collective focus on the issues may be useful.

5. Hazard Management — There may be a need for a regional, coordinating role in efforts aimed at adaptation and mitigation, emergency planning, risk assessment, drought management and other related efforts (including rockfalls, floods, fires, pine beetle, etc.).
6. **Social Policy and Planning** — There may be a need for, or value in, a regional role in setting affordable housing policies, and in developing strategies to deal with other social issues that are common to all members. It was suggested that at a minimum it would be useful to have basic dialogue and information exchange about such issues at the Board table.

With these priorities in mind, the RDCO articulated the desired state of the region in ten years as follows (with specific goals underlined that are noteworthy to this discussion paper):

**Sustainability:**
- A sustainable region characterized by environmental protection, responsible water stewardship and a "green" ethos.
- A model of livability — one of the most livable places on earth.
- A model healthy community.
- A walkable region — one with physical connections (e.g., trails, bike routes, transportation corridors) between the parts.
- A region that respects, protects, and strengthens its agriculture and rural assets.
- A region with protected bio-diversity throughout.
- A region that produces zero waste.

**Social & Economic:**
- A centre for health services.
- A centre for education.
- Home to a thriving Green Economy (producer of clean, green products and services, including technology).
- A diverse economy.
- A region with strong cultural and recreational opportunities.
- "Portland of the North" — a region that is a recognized leader and innovator on many fronts (environmental, social, community, economic, government, etc.).
- An affordable region — affordable for a mix of ages and incomes.
- A Smart Growth region — one that emphasizes growth centres, sustainable transportation, mixed land uses.
- A region that protects its heritage.
- A region with a beautiful transportation spine.
- A region with an efficient transportation network that features an excellent transit system.
- A region that is caring and compassionate, welcoming to all, and socially aware.
- A region with an engaged and politically active citizenry.

**Governance:**
- A region with a governance model that facilitates the vision.
- A centre for coordinated, basin-wide governance.
- A region in which First Nations are celebrated as full and important partners.
9.3.3.2 Regional Growth Strategy

Regional growth strategies are the aggregate vision of regional districts designed to “promote human settlement that is socially, economically and environmentally healthy and that makes efficient use of public facilities and services, land and other resources”. Specifically regional growth strategies are guides as to how a region will grow, change and develop over a 20-year period. Specifically they are required to consider five essential elements:

1. housing
2. transportation
3. regional district services
4. parks and natural areas; and,
5. economic development

Regional growth strategies must also consider the provincial government’s goals for regions:

- avoiding urban sprawl and ensuring that development takes place where adequate facilities exist or can be provided in a timely, economic and efficient manner;
- settlement patterns that minimize the use of automobiles and encourage walking, bicycling and the efficient use of public transit;
- the efficient movement of goods and people while making effective use of transportation and utility corridors;
- protecting environmentally sensitive areas;
- maintaining the integrity of a secure and productive resource base, including the agricultural and forest land reserves;
- economic development that supports the unique character of communities;
- reducing and preventing air, land and water pollution;
- adequate, affordable and appropriate housing;
- adequate inventories of suitable land and resources for future settlement;
- protecting the quality and quantity of ground water and surface water;
- settlement patterns that minimize the risks associated with natural hazards;
- preserving, creating and linking urban and rural open space including parks and recreation areas;
- planning for energy supply and promoting efficient use, conservation and alternative forms of energy; and,
- good stewardship of land, sites and structures with cultural heritage value.

Municipalities must confirm their OCPs adherence to the regional growth strategy through Regional Context Statements that outline consistencies between regional and municipal plans.

The current regional growth management strategy in the Central Okanagan was adopted on June 26th, 2000. Currently the regional district is undergoing an update to their growth management strategy, to be completed within the coming year.