



Facts in Focus



2018

FACTS IN FOCUS

DID YOU KNOW?

Transportation

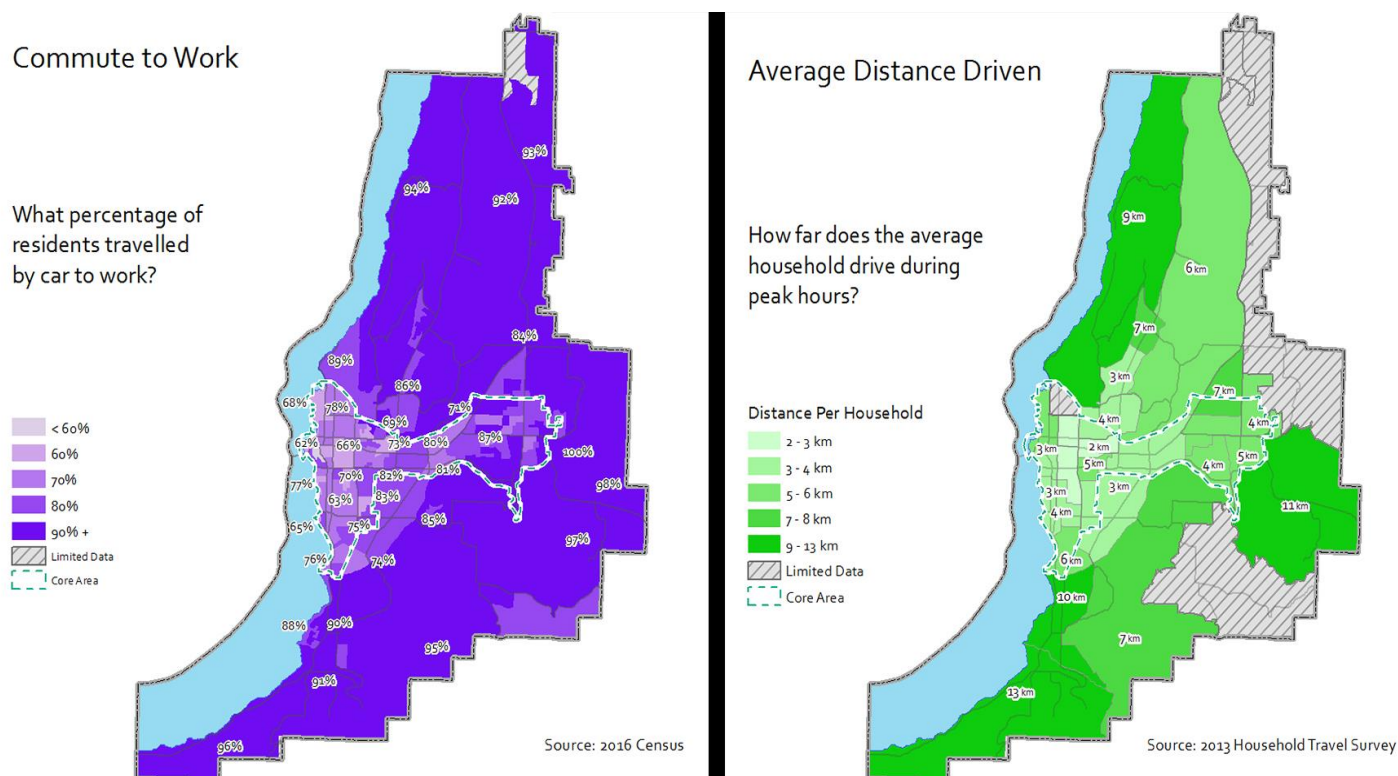
Kelowna's traffic patterns are largely the result of the daily travel decisions made by the City's 130,000 citizens. Where people live, and how far they need to travel to get to work, school, or other services is a key factor that influences how people choose to get around. Today, 79 per cent of residents commute by driving, while only 19 per cent commute by sustainable transportation modes such as walking, cycling, carpooling or taking transit.ⁱ Why aren't more residents choosing to walk, cycle, ride the bus or share their commute? Is Kelowna's attachment to driving exceptionally strong?

The reality is many residents are living in areas where their only practical option for getting to work, school or services is to use a car. These neighbourhoods, described as "car-dependent," lack sufficient population density to support effective transit service and are too far away from destinations or too hilly to make walking or cycling convenient options. Since households in these areas must drive to meet their daily travel needs, often from the edges of the City, the data show that over 90 per cent of residents travel by car to workⁱ and also drive 2-6 times farther,^{iv} compared to households in Kelowna's core neighbourhoods. Consequently, these car-dependent areas contribute disproportionately to the traffic congestion experienced on our City's roadways, especially during the morning and afternoon rush hour periods.



Every weekday, the residents of Kelowna collectively drive 1.7 million kilometers (that's equivalent to four times the distance to the moon!)

Figure 1: Car-dependent Areas



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The City is Growing

The City and the region are growing and by 2040 it is anticipated that Kelowna will need to accommodate 50,000 new residents.ⁱⁱ Over the same period, the rest of the Central Okanagan will grow by 35,000 residents, for whom many Kelowna is a center for services and employment.ⁱⁱⁱ

Land use and development patterns are often the most significant determinants of transportation behavior. Consequently, the decisions around where new growth is located will have a major impact on the travel patterns of future residents and the transportation system required to support them. If the majority of these 50,000 new residents live in car-dependent areas at the edge of the City, they will have little choice but to drive and will drive farther than the average Kelowna household. This will increase traffic congestion on Kelowna's streets detracting from our region's economic competitiveness, our natural environment, and our quality of life. Additionally, building and widening the roads needed to support these new car-dependent areas could potentially segregate communities, displace existing residents, and be prohibitively expensive, resulting in higher taxes.

By contrast, more urban, "complete communities" that are closer to employment, school, retail, and other key destinations, provide more travel choices for their residents. Trips tend to be shorter, which makes walking and cycling more attractive, and more frequent transit service becomes more feasible to provide. Concentrating growth in central urban areas, developing complete communities and investing in supportive transportation services (e.g. sidewalks, cycling, transit, car share and bike share, etc.) that make alternatives to driving alone easier and more convenient,

DID YOU KNOW?



If all of the 50,000 future residents of Kelowna own as many cars as current residents, it would be the equivalent of adding a line of cars from Kelowna to Hope to our roadway network.



In a recent survey of Kelowna residents, 94 per cent of respondents said they think building more cycling infrastructure is a good idea for Kelowna.^{vii}



helps the City to accommodate the travel needs of our growing population, without slowing down. Residents that are currently located in car-dependent areas, or who want or need to drive will also benefit, as focusing new development in the central core will help everyone move around more easily in the long term.

The City has already seen progress toward this vision with the downtown evolving as a live-work community that is well-served by transit and active transportation routes. Over the next 20 years, by encouraging future growth in urban centres and making investments that make sustainable transportation options easier and more convenient, the City will be able to accommodate the increasing demand for travel with less need for costly and unfeasible roadway expansions. By pursuing centrally located, amenity-rich, complete communities with multiple transportation options the City is also positioning itself to attract business and talent with 21st century skills. Ultimately, this coordinated approach to land use and transportation will allow Kelowna to accommodate our future growth, while simultaneously protecting the high quality of life enjoyed by Kelowna residents and promoting a healthy and low-carbon future.

Current Direction of the 2030 Official Community Plan

The 2030 Official Community Plan introduced the goal of aligning land use and transportation planning to support long-term growth management^v. However, the 2030 OCP and the Transportation Master Plan of the day were not developed concurrently, resulting in OCP policies that were lacking supporting plans or bylaws to ensure implementation. Key OCP policies around multi-modal transportation did, however, lay the groundwork for the recently adopted Pedestrian and Bicycle Master Plan and other initiatives. The below themes relate to integrating land use and transportation planning and highlight the strengths and challenges with implementation to date.

- ▶ **Encouraging compact urban form:** Directing capital investments (parks, streetscaping, bike lanes, multi-use paths, transit exchanges) toward the City's urban core and urban centres as part of a strategy to attract investment and encourage growth in the urban core.
- ▶ **Developing complete communities:** Encouraging the urban centres to become amenity-rich live-work communities with adequate densities to support frequent transit and amenities.
- ▶ **Prioritizing people-first transportation:** Leveraging new transportation projects or investments as an opportunity to make streets safer for people walking and cycling.
- ▶ **Building safe and connected routes for sustainable transportation:** Establishing connected corridors through planning and infrastructure make it easy and safe for people to walk, cycle or take transit.

FAST FACTS

69%

Since 2011, 69 per cent of transportation and parks investments were within the urban core, providing much needed amenities to attract growth.^{viii}

56%

In a recent survey of Kelowna residents, 56 per cent of respondents said they would like to travel by bicycle more than they do now.^{ix}

79%

The percentage of residents in Kelowna who commute by driving.



What's Working

The 2030 Development Cost Charge (DCC) financing program and Capital Plan funded a number of sustainable transportation projects in the Urban Core that are aligned with the City's growth management plan^{vi}. The City's capital investments in streetscaping, bike lanes, transit, public spaces and active transportation corridors have elevated the City's Downtown and helped to attract recent private sector investment. Recent projects such as Central Green in Downtown and SOPA Square in South Pandosy are evidence that the development community has embraced the City's vision of directing growth toward complete communities.

The City has also made significant progress in its ability to design and build transportation projects that make it easier for people to walk and cycle as illustrated through recent active transportation corridor projects (e.g. Ethel, Lakeshore) and increases in the number of people cycling to work in Kelowna. The recent investments in transit exchanges in Downtown, Rutland and UBC Okanagan alongside transit service improvements have enhanced the public transit experience within key growth areas. Lastly, the City has positioned the Urban Core for future growth by investing in planning processes such as the Civic Precinct, Capri-Landmark and the Urban Centres Roadmap.

Strategic Direction from Imagine Kelowna

The City and community partners recently undertook the most extensive public engagement process to date to create a new community vision for the future. Imagine Kelowna is a draft vision for building a prosperous and sustainable city in the face of an uncertain future. The City will use Imagine Kelowna to help shape its short and long-term planning priorities and provide the foundation for future strategies, plans and projects. The wording of the Imagine Kelowna draft goals may change, however, the overall direction of the goals was supported by City Council at the March 12, 2018 City Council meeting. Key draft directions from Imagine Kelowna include:

Principle: Connected

- ▶ Goal: Embrace diverse transportation options to shift away from our car-centric culture
- ▶ Goal: Create great public spaces that bring people together

Principle: Smarter

- ▶ Goal: Take action and be resilient in the face of climate change

Principles: Responsible

- ▶ Goal: Concentrate on growing vibrant urban centres and stop facilitating urban sprawl
- ▶ Goal: Strengthen the protection of our land, water and air resources
- ▶ Goal: Foster resident-driven solutions

Imagine Kelowna emphasizes the importance of shifting away from the current car culture and making walking, cycling, carpooling and transit the attractive and convenient option for shorter trips. Imagine Kelowna also calls for action in limiting future development that is auto-oriented through the City's land use planning policies and transportation investments. More specifically, Imagine Kelowna signals the need to reduce new development in greenfield areas that remove naturalized areas and create car-dependent areas. Another key direction is to reduce community-wide GHG emissions by shifting behaviours toward walking, cycling and transit. Given that transportation is the largest share of the city's GHG emissions, it will be a significant challenge to make any significant GHG reductions without major gains in the number of people using active modes of transportation.^x To realize these goals, the City must make walking, cycling and transit a convenient and desirable option by focusing growth within complete communities in the City's urban core and urban centres.

Looking Ahead: Future Trends

Due to a variety of shifting trends, we can no longer rely on the past to be a good predictor of the future. With factors such as a changing climate, demographic shifts, and rapid technology change, the way people get around in 2040 is likely to be very different from today.



- ▶ **Demographics and Changing Values:** Recent data suggests younger generations are more likely to go car-free than previous generations. Millennials and generation Z's preference to live in urban amenity-rich areas indicates a shift away from greenfield, car-oriented suburbs.^{xi}
- ▶ **Sharing Economy:** The emergence of "*mobility as a service*" and the growth of shared mobility networks (car-sharing and bike-sharing) will allow people to use smartphones (apps) to instantly access transportation options (car-sharing, taxi/uber, bike-sharing, transit etc) on a trip by trip basis, dramatically reducing the need for car ownership in the future.^{xii}
- ▶ **Technological Shifts** The roll-out of autonomous vehicles in the near future will impact travel behavior and car ownership. The degree to which cities encourage car-sharing in coordination with autonomous vehicles will affect future vehicle usage rates. The growth of autonomous vehicles and mobility as a service is also expected to reduce the demand for parking, parkades, and surface parking lots.
- ▶ **Climate Change:** The increase in major rain events will put pressure on bridges, paths and roads, reinforcing the role of green infrastructure projects such as the Mill Creek Linear Park system that can provide additional flood capacity and provide additional routes for walking and cycling in urban areas to support a low-carbon future.^{xiv}

It is next to impossible to anticipate how the next generation of Kelowna residents will travel based on the various trends that will shape our society. However, as staff and council look ahead the goal must be to provide future residents with transportation options that are resilient, sustainable and equitable.

Current Challenges of the 2030 Official Community Plan

Through this OCP update, it is known that the following transportation-related challenges will require forethought and deliberate consideration to advance the community's desires as identified through the Imagine Kelowna engagement:

- ▶ Many areas outside of the city's core are car-dependent due to their topography and distance from key employment and activity hubs (figure 1). By continuing to facilitate growth and making investments in areas outside of the urban core, the City is creating more car-dependent areas where people are likely to drive two to six times more than those in the core. A growth management strategy that focuses on complete communities and active modes of transportation will require the development community to pivot away from business as usual greenfield development practices.
- ▶ The imminent threat of climate change will put areas of Kelowna at greater risk of extreme weather events like flooding and wildfires, testing the resilience of our neighborhoods.
- ▶ The Development Cost Charge (DCC) program should be reviewed to ensure new development is paying its way in all areas of the City. At the same time, a number of areas within the City's urban core have significant deficits in basic infrastructure (discontinuous sidewalks, parks, and street trees).^{xv} This will also require the current Subdivision and Servicing Bylaw to be updated to reflect the City's OCP and Pedestrian and Bicycle Master Plan, as current roadway designs or frontage improvements do not always reflect the City's policy objectives of prioritizing walking and cycling.
- ▶ To advance the uptake of active modes transportation, concentrated infrastructure improvements in the urban core will be required to make active modes safe and convenient. As transportation options improve in the urban centres, parking management strategies can also be leveraged to encourage more people to use active modes of transportation.

The traditional approach of cities attempting to build their way out of congestion is not only ineffective but also very costly given the average cost of \$3 million / km for new suburban roads, and much more in core areas where our greatest congestion challenges exist. In order to accommodate growth in a cost-effective and efficient manner, the City will need to look at the challenge of congestion more holistically.

Attracting more people to live in 'complete communities' in the urban core will place them close to employment, daily services and amenities and active modes of transportation that are convenient and safe.

Key Directions for 2040 Official Community Plan

Using the foundation of the lessons learned through the successes and challenges in delivering previous transportation policy, and the draft goals from Imagine Kelowna, the following key directions emerge to help inform our action for the next 20 years:

Align land use and transportation planning:

Ensure the City is coordinating future land use planning goals with transportation planning policy to ensure major transportation investments are reinforcing the City's growth management strategy.

Minimize growth of car-dependent areas: The City cannot afford to continue to support future development in outlying areas that lack sufficient population density to support effective transit service and are too far away from destinations or too hilly to make walking or cycling convenient options.



Accelerate investment in urban core: To shift transportation behaviour in Kelowna will require a significant increase in the number of people living and working within the urban core as well as major infrastructure investments in the urban centres to make active modes safe and convenient.

INDUCED DEMAND

As Kelowna grows, the City will need to increase the number of people and trips we can accommodate on key corridors at peak times. At first glance, the answer may seem clear: to support future growth, build new roads, add more lanes, and make parking easier. However, building more roads has never solved traffic congestion in the long term. When roads are expanded, people quickly adjust their routines – leaving earlier, changing routes, choosing to drive more, or living further away. The end result is roads fill back up, often within just five to ten years, on average.^{xvi} The only long-term solution is to concentrate growth in a smart way to facilitate shorter trips and provide



Prioritize moving people not cars: By aligning the Subdivision and Servicing Bylaw and other key regulations with OCP and Pedestrian and Bicycle Master Plan policies, the City can ensure future roadway designs and frontage improvements are prioritizing walking and cycling.

Embrace shared mobility: The City has a major opportunity to anticipate the impact of autonomous vehicles and shared mobility (car sharing, bike sharing) to ensure new technological impacts reinforce the City's goals for reduced vehicle use and sustainable transportation.

The efforts to fully coordinate this OCP update with the Transportation Master Plan for the City of Kelowna represents a major undertaking that has not been attempted for over 20 years. This approach reflects a shift from a reactionary, incremental approach to a holistic long-range plan for the next 20-30 years. This holistic approach will require new implementation tools, so that growth, development, and transportation investments are aligned with OCP and Imagine Kelowna directions.

Beyond the logistical challenges associated with integrating land use and transportation, there are various challenges and opportunities that will need to be balanced as the City moves ahead with the key directions for 2040 associated with an integrated approach to land use and transportation planning.

Opportunities

Cities that attract 21st century jobs are those that build complete communities with amenities. The revitalization of Kelowna's urban centres offers major growth and investment opportunities for the development community. The values of younger Canadians and even some baby boomers are changing with growing preference for living in downtowns / urban centres where people can walk for most services.

By focusing investments on active modes and green infrastructure the City can reduce GHGs, promote healthy behaviours and lead the transition to a low-carbon future. Recent investment and development in and around the downtown are beginning to show the potential of this approach with roughly 25-35 per cent of commuters using active modes alongside a burgeoning live-work population.^{xvii}

By harnessing the potential of shared mobility (car sharing, bike sharing) and “mobility as a service” autonomous vehicles can be a tool to reduce vehicle use and congestion.

The shift from greenfield to urban centre revitalization will require a shift in how the private and public sector invests in cities to support growth, requiring new funding tools to support multi-modal live-work urban centres. To deliver these amenity-rich urban centres, the City will need to shift its financial policies (price signals) in outlying areas and consider new funding tools to develop the infrastructure required to support the shift to multi-modal complete communities. The City of Kelowna has a rare opportunity to accommodate future growth in a cost-effective way that will position the area for future economic success and deliver a high quality of life to future residents.

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iii BC Stats, 2017. Sub-Provincial Population Projections - P.E.O.P.L.E. 2017 (Aug 2017). Central Okanagan Projection for 2040.

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vi City of Kelowna, 2011. 20-year Servicing Plan and Financing Strategy, Development Cost Charge Rates.

vii Impacts of Bicycle Infrastructure in Mid-Sized Cities (IBIMS) Study. 2016 Findings. Simon Fraser University, Health Sciences. www.sfu.ca/ibims

viii City of Kelowna, 2017. OCP Indicators Report 2016

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x City of Kelowna, 2012. Community Climate Action Plan.

xi Resonance Consultancy, 2017. Future of BC Housing: A Study of buyer and renter sentiment in British Columbia

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xiv City of Kelowna, 2017. A Changing Climate: Special Edition Community Trends Report 2017.

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xvii Statistics Canada, 2016. Census Community Profile. Journey to Work for City of Kelowna.