



# Community Trends 2018

Responding to the Infrastructure Challenge



# INTRODUCTION



Municipalities across Canada are facing a growing infrastructure challenge that poses a significant threat to the economic stability and quality of life for many communities. Nationally, municipalities own roughly 60 per cent of the core infrastructure in Canada and are facing a growing backlog of unfunded projects with limited options for raising the capital to respond.<sup>1</sup> At the same time, infrastructure is no longer about just building roads and maintaining pipes in the ground. Infrastructure is now synonymous with quality of life for citizens and a city's ability to remain economically competitive.<sup>2</sup>

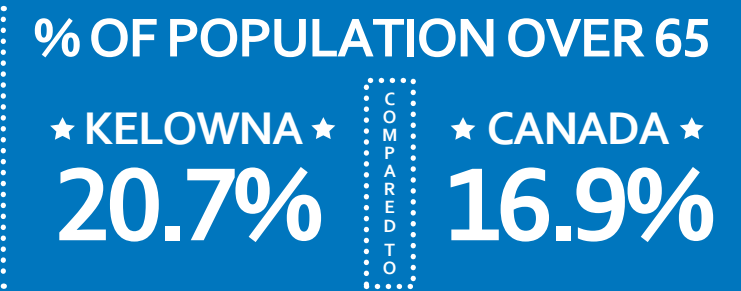
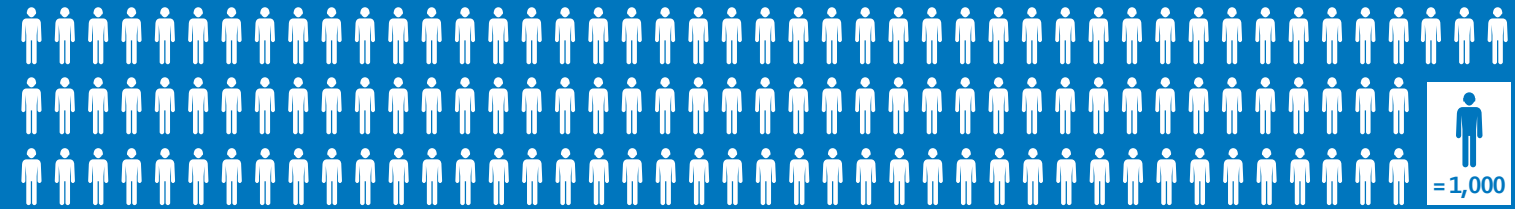
The Community Trends Report is prepared annually to explore how major changes in the future might impact the long-term management of cities. The Community Trends Report is a researched-based document that sets the stage for future action by identifying the local implications of broader national trends. The report allows the corporation to explore complex topics in a less formal manner that is more accessible to the broader community. For this reason, the Community Trends Report is intended to serve as a resource for the corporation and to inform residents, businesses and local community organizations about future shifts in society and the anticipated local impacts.

The Community Trends Report is comprised of two key parts each year. First, the Trends Infographic highlights current key data to gain an understanding of today's community landscape in Kelowna. The other part of the Community Trends Report is a broader review of a larger theme that warrants further research to better understand how the City of Kelowna might shift business practices, policies or service delivery to adapt to challenges that we're seeing other cities face nationally. This year's infrastructure challenge theme was selected to act as a supporting document for the development of the Official Community Plan Review and the Transportation Master Plan work in 2019-20 currently underway. The Community Trends Report will enhance the City's understanding of the cascading servicing impacts between land use and transportation decisions and long-term infrastructure planning.<sup>3</sup>

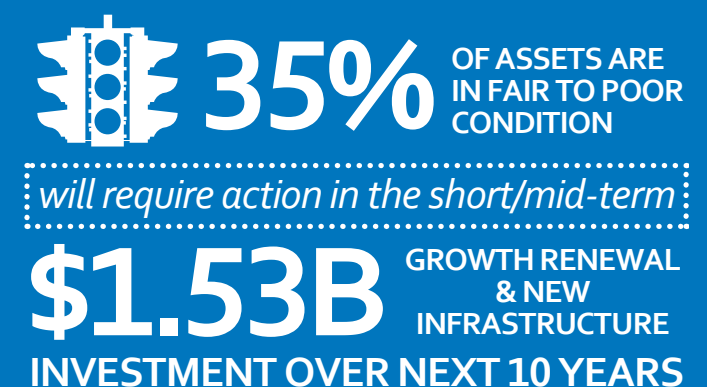
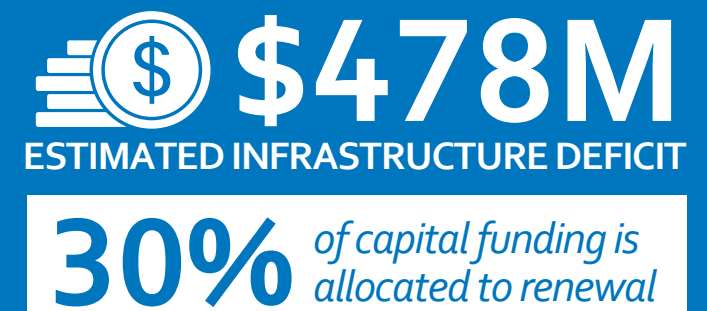
The Trends Infographic, represents key statistical information related to Kelowna's economy, demography, housing market, community infrastructure and other relevant information to paint a picture of Kelowna in 2018. Statistical information from 2017 and 2018 are used to show year-over-year changes on key metrics. The data reinforces that Kelowna continues to experience robust economic growth as the development and tech sectors, job market and airport all reported banner years. In addition, the infrastructure asset management data confirms Kelowna is experiencing similar challenges as many other municipalities across Canada: maintaining our existing infrastructure and responding to our needs for new infrastructure required for growth is increasingly becoming a struggle.


# POPULATION



# >>> 131,600



## MEDIAN HOUSEHOLD INCOME



DEVELOPMENT SECTOR  
**IMPACT**   
**13%** OF JOBS IN KELOWNA ARE IN THE DEVELOPMENT & CONSTRUCTION INDUSTRY  
*compared to 10% across Canada*

**BUILDING**   
*permit values*  
**\$912 MILLION**  
**VACANCY RATE 1.9%**  


 **SALES OF HOMES OVER \$1 MILLION**  
*down from 208 to 178*  
 14% 

**MEDIAN HOUSING COSTS**

 **SINGLE HOMES** ↑ 5%  
**\$682,260**

 **TOWNHOUSES** ↑ 5%  
**\$446,792**

 **CONDOS** ↑ 9%  
**\$331,000**

**TECH SECTOR**  
**IMPACT**   
**399** TECH BUSINESSES IN CENTRAL OKANAGAN  9.5%

**83** EOC DAYS IN 2018  
*down from 131 days in 2017*  
 \* \* \* \* \*

**20** days when pollutants exceeded acceptable limits   
 COMPARED TO 25 DAYS IN 2017

**BIKESHARE** **35,000 TRIPS TO DATE**

 **4,626 trips during the busiest week**

**THE CHALLENGE**

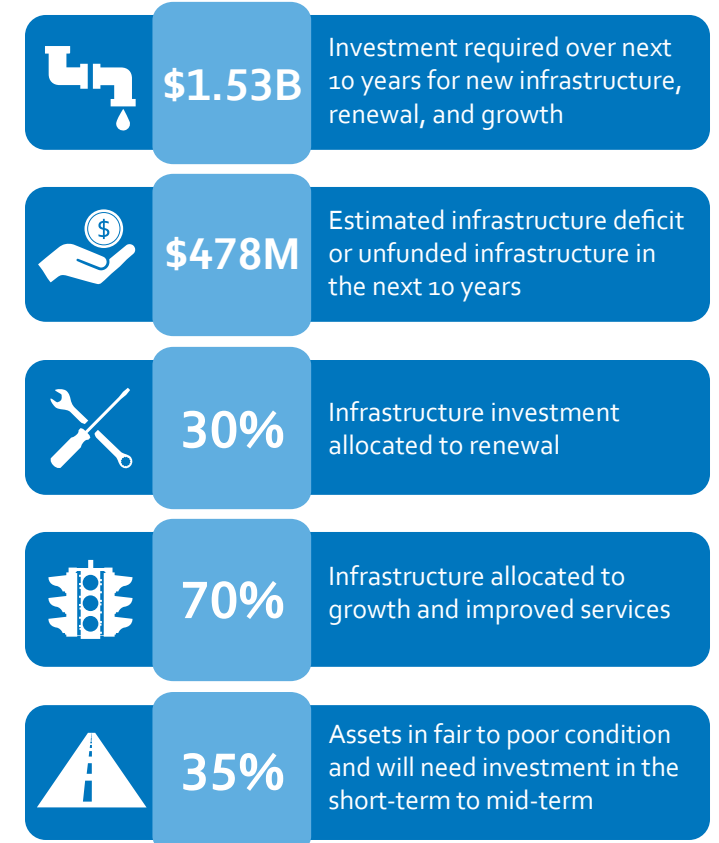
**DEFINING THE INFRASTRUCTURE CHALLENGE**

All cities in Canada are facing the challenge of directing finite financial resources toward a long list of competing infrastructure needs. Recent estimates peg the national infrastructure deficit at roughly \$270 billion.<sup>4</sup> In some ways the need for infrastructure dollars is at its most acute, as cities face a long list of different infrastructure demands.<sup>5</sup> Infrastructure managers are having to dedicate a greater share of budgets to replacing or renewing existing assets (Renewal Capital).<sup>6</sup> If maintenance is delayed the deficit will only rise further, as assets that reach the end of their service life have even higher repair and replacement costs.

At the same time, cities are tasked with funding infrastructure to accommodate new development, be it in the core of the city or the suburbs (Growth Capital). These funding needs are often in direct competition with funding to support enhanced service levels (New Capital). New Capital in the form of parks and recreation facilities, iconic cultural spaces or rapid transit systems are increasingly seen as critical infrastructure to raise quality of life and attract talent and jobs in the 21st century.<sup>7</sup> Not to mention, cities are now facing the very real impacts of climate change with elevated risks of drought, flooding, landslides or wildfires, requiring infrastructure investments.<sup>8</sup> This convergence of infrastructure demand highlights the severity of the challenge and the risk of a runaway infrastructure deficit unless cities commit to taking action.

The reality is that cities will not be able to tackle the infrastructure challenge on their own. Nationally, local governments only collect 8% of tax revenues, but own roughly 60% of core infrastructure.<sup>9</sup> As a point of reference, during the 1950s and 1960s, generational infrastructure investments from the federal and provincial governments financed much of the growth of roads and utilities in Canada's post-war suburbs. From 1975-2005, government funding (as percentage of GDP) for infrastructure declined significantly, burdening local governments with a greater share of infrastructure costs.<sup>10</sup> As a result of the funding shift, reduced funding levels and poor asset management, 35 per cent of Canada's core infrastructure assets are in fair, poor, or very poor condition and are in need of attention.<sup>11</sup> The Federation of Canadian Municipalities estimates the costs associated with assets in very poor or poor condition to be \$141 billion. A major part of the infrastructure deficit is roads, with costs to replace or renew roads in poor or very poor condition estimated at \$48 billion. Meanwhile, all levels of government recognize that taxpayers are feeling squeezed, meaning the infrastructure challenge is unlikely to be solved by merely increasing taxation. Overall, the scale of the problem points to the needs for creative solutions that will provide Canadian cities with new tools.

**KELOWNA INFRASTRUCTURE SCORECARD<sup>12</sup>**

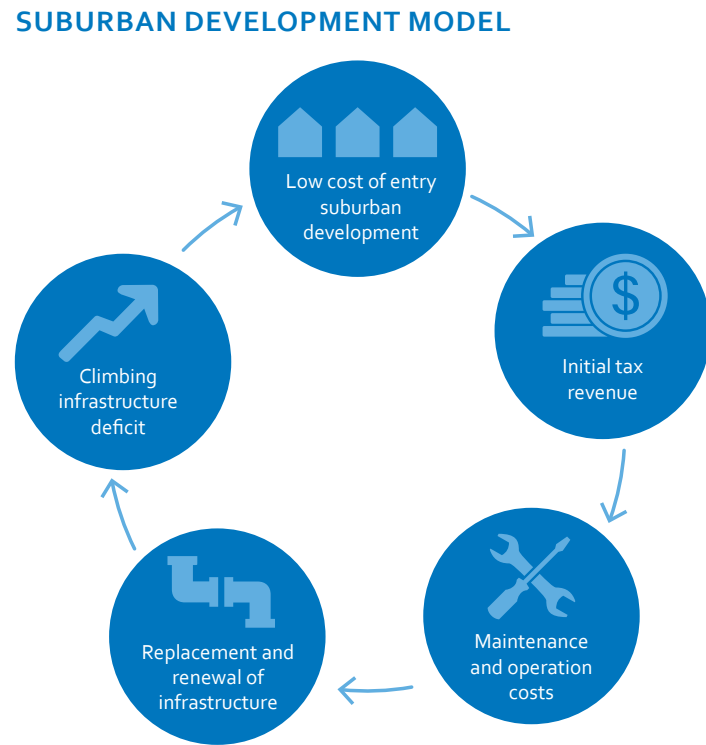


The City of Kelowna initiated a Corporate Asset Management program in 2012 to pro-actively manage long-term infrastructure costs. The program is continually updated to monitor service levels and improve asset and financial stability. A major success of the program is that all renewal projects for the City's Water and Wastewater Services are fully funded.

Here in Kelowna, our infrastructure deficit is identified through the 10-Year Capital Plan as requiring an investment of \$1.05 billion. While our general fund is forecasted to provide funding of \$573 million, there is a deficit of \$477 million of infrastructure project which remains unfunded and will require new funding tools moving forward. The recent Citizen Survey showed that 58 per cent of citizens would support investments in infrastructure renewal rather than new assets.



Cities are recognizing the strong links between land use patterns and long-term infrastructure costs as they take steps to respond to the infrastructure challenge. Over the last 50-60 years a large proportion of growth has occurred in low-density suburban areas where upfront infrastructure costs are largely covered by developers.<sup>33</sup> The suburban development model provides a low cost of entry for municipalities and an initial cash inflow, but commits municipalities to new long-term maintenance and renewal costs once the development is complete.<sup>34</sup> Historically, cities have not had enough data to fully grasp the long-term costs to maintain and renew suburban infrastructure and the degree to which the tax revenue in these areas covers the long-term costs. As a result of major differences in unit density, low-density suburban residential development results in lower levels of tax revenue per hectare compared to high-density mixed-use development. This means that suburban low-density areas require higher subsidies on a per unit basis to cover the long-term costs of maintaining and renewing (lifecycle costs) core infrastructure.<sup>35</sup> Consequently, cities are realizing that suburban development patterns present significant impacts to City budgets in the long-term.



At a time when cities face extraordinary needs for infrastructure funding, local governments are stuck in a cycle of growth where they rely on enhanced revenues from suburban growth that only serve to increase the long-term infrastructure challenge. As more funding is required to maintain and renew infrastructure in suburban areas, less funding is then available for new infrastructure projects or to tackle emerging priorities such as climate change.

For example, Kelowna's ten-year capital plan allocates 30 per cent of the budget to renewal, noting that the annual transportation renewal costs are expected to triple due to aging roads, bridges, and traffic signals over the next 20 years.<sup>16</sup> Infrastructure projects that focus on renewing aging roads and utilities simply serve to maintain existing service levels and to reduce long-term replacement costs, but do little to enhance quality of life. In some cases, renewal cannot be deferred without compromising services or public safety due to potential failure or service disruption unless cities are willing to accept higher risk levels with aging infrastructure.<sup>17</sup>

**Kelowna's annual transportation renewal costs are expected to increase by 250 per cent over the next 20 years due to aging roads, bridges, and traffic signals.**

Within dense mixed-use urban areas where redevelopment has lower long-term (lifecycle) infrastructure costs, cities are often lacking the funding tools necessary to deliver the required up-front infrastructure. Without the funding to invest in urban areas, cities are then challenged to deliver the quality of life needed to attract growth in areas that have higher tax revenue and lower long-term infrastructure costs. Overall, the current development pattern has created a vicious cycle of growth that only accelerates the infrastructure challenge facing cities across Canada.

**SMART GROWTH  
REDUCES UPFRONT  
INFRASTRUCTURE**

**COSTS BY 30-50%**

Based on analysis from Smart Growth America



# RESPONSIBLE

## GROWTH MANAGEMENT CAN BE AN EFFECTIVE TOOL TO REDUCE INFRASTRUCTURE COSTS AND CREATE COMPLETE COMMUNITIES.

The Community Trends Report uses the recently adopted Imagine Kelowna (IK) principles to highlight potential responses to the infrastructure challenge. This section offers promising strategies that relate back to the four IK principles: responsible, collaborative, smarter and connected to provide direction for future action. These principles demonstrate some of the ways that Cities could shift infrastructure planning to increase funds for new capital, reduce long-term liabilities and ensure investments provide the greatest return for the public.

Many cities are taking a closer look at how responsible growth management can be an effective tool for reducing long-term infrastructure liabilities. Cities are recognizing the financial benefits of infill and urban redevelopment. By shifting growth away from greenfield development, cities can reduce the amount of new long-term liability (roads and utilities) that are assumed as a by-product of each new development.<sup>18</sup> At the same time, these low-density suburban areas often generate lower levels of per hectare tax revenue, requiring subsidies from dense mixed-use areas or commercial areas to cover their long-term infrastructure costs.<sup>19</sup> By reducing the amount of long-term liabilities associated with new development, the proportion of a city budget required for renewal in the long-term decreases.<sup>20</sup> As a result, cities that are able to shift land uses away from sprawl are better positioned to maintain budget funding for new infrastructure projects that benefit the broader community as opposed to devoting a larger and larger proportion of capital spending to the renewal of roads at the edge of the city.

Cities are also recognizing that redevelopment or infill in the core does not require the same scale of upfront infrastructure as low-density suburban development and generates higher tax revenue on a per hectare basis.<sup>21</sup> When redevelopment occurs in urban areas there is often excess service capacity that can be drawn upon, thereby reducing the amount of new long-term lifecycle costs created by new infill development.

### Upfront costs to service hillside development are estimated by local developers to range from \$200,000-\$300,000 per lot.

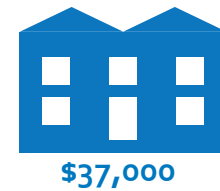
However, urban redevelopment does pose a challenge for municipalities. Key public infrastructure such as public spaces and transportation improvements are often required to spur private investment in urban redevelopment or to encourage the urban development pattern that generates a strong tax base to fund infrastructure in the future.<sup>22</sup> These same urban infrastructure investments often reinforce existing climate action policies and sustainable transportation goals, while enhancing quality of life and economic competitiveness. Municipalities, however, struggle to deliver upfront improvements in urban areas on their own, increasingly relying on one-off partnerships with developers or senior levels of government. This form of urban redevelopment generates some of the highest levels of tax revenue on a per hectare basis. For this reason, cities (e.g.: Edmonton, Halifax, Montreal & Vancouver) are exploring new funding tools that leverage lower lifecycle costs and higher tax revenue in mixed-use urban areas to deliver improvements in the urban core.<sup>23</sup> Urban infill redevelopment is an important tool for cities to reduce the proportion of infrastructure dollars dedicated to renewal, indirectly freeing up capital to support infrastructure priorities that enhance quality of life.

## KELOWNA GROWTH BY THE NUMBERS

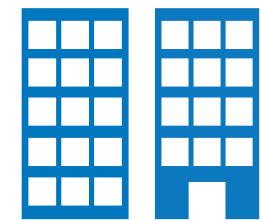
As the Tax Revenue map below shows, the highest tax revenue per hectare is within Kelowna's urban core in areas where densities are higher and there is a greater proportion of mixed-use residential and commercial development. It is worth noting that commercial tax rates are roughly 2.5 times higher than residential tax rates in Kelowna.



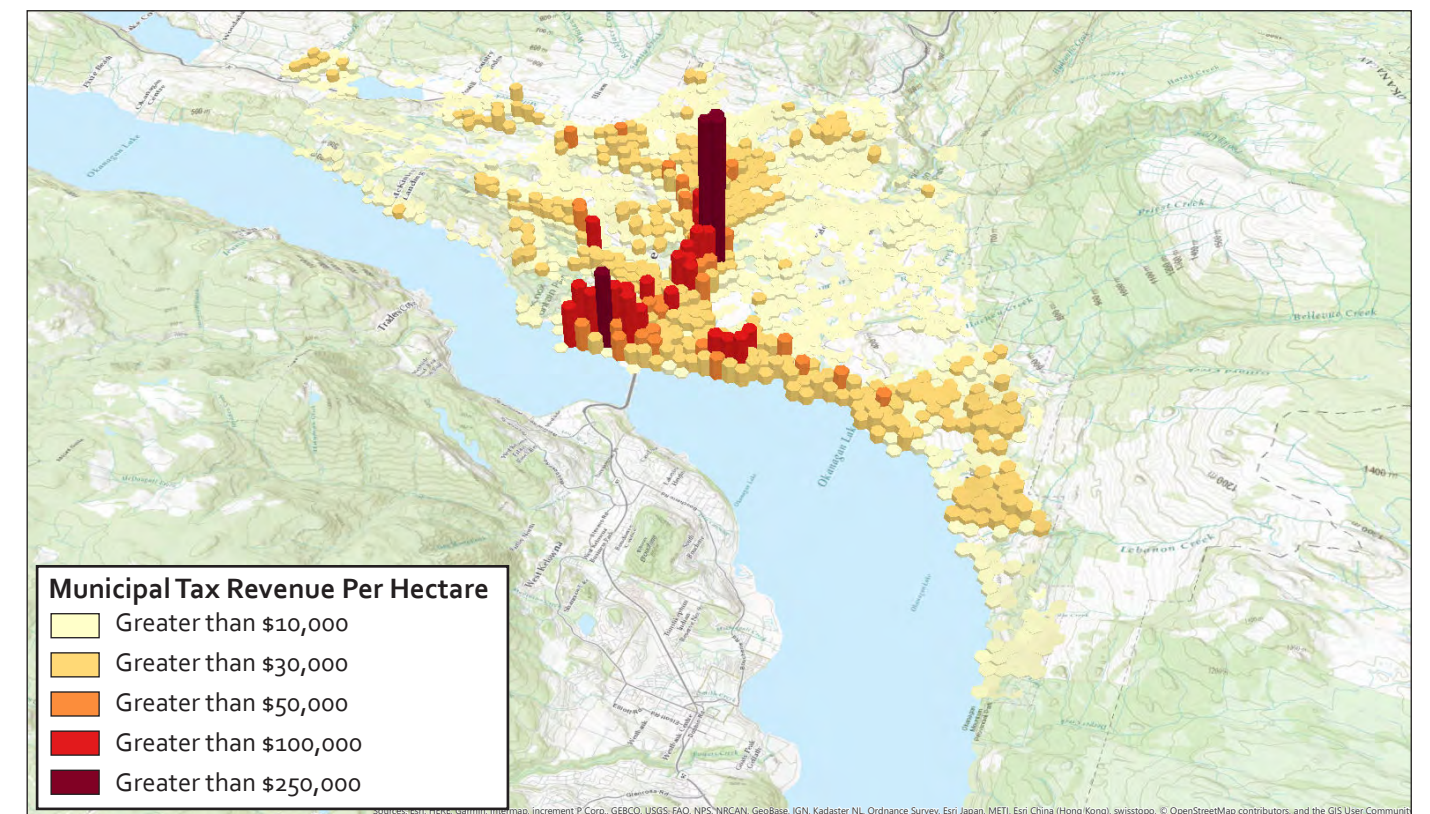
Average annual municipal tax revenue per hectare of single-detached housing in Kelowna



Average annual municipal tax revenue per hectare of townhouses in Kelowna

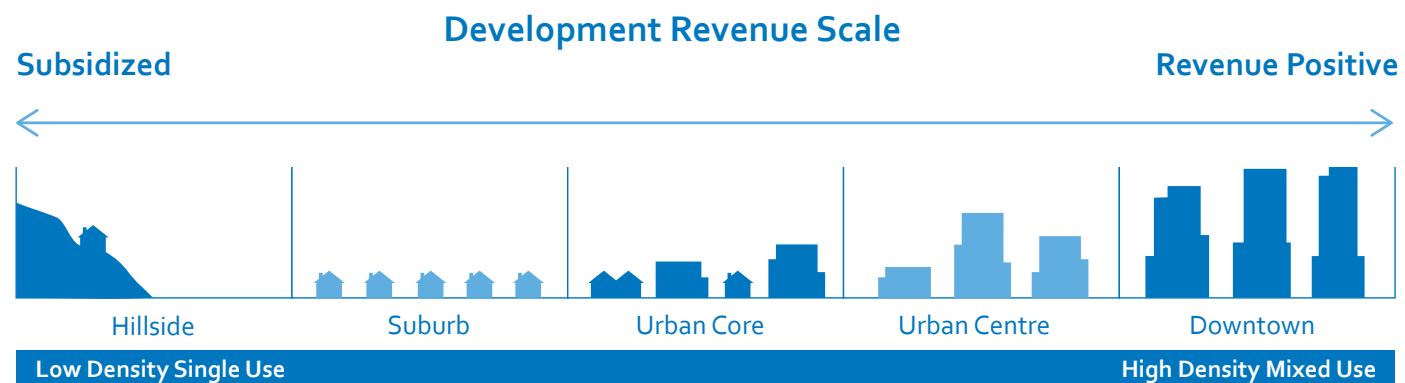


Average annual municipal tax revenue per hectare of multi-family apartments and mixed-use apartments in Kelowna



## AREAS FOR FUTURE ACTION

- Review structure of Development Cost Charge (DCC) program and taxation assist levels for DCC projects to ensure development pays its fair share and taxation impacts of suburban expansion are reduced
- Require all suburban developments to disclose capital servicing costs to understand long-term renewal and liability costs for the City
- Expedite development application process in areas that are likely revenue positive, explore use of pre-zoning for infill or urban centre redevelopment tools
- Explore reduced service levels and higher risk tolerance to decrease infrastructure deficit
- Consider infrastructure lifecycle cost against future revenue when planning future land use





## A SMART CITY APPROACH ALLOWS CITIES TO USE REAL TIME DATA AND TECHNOLOGY TO IMPROVE RESILIENCY AND SERVICE DELIVERY.

By embracing a Smart City approach, cities are realizing opportunities to improve asset management, to reduce greenhouse gases (GHGs), and to enhance resilience by limiting additional capital infrastructure investments. Although, Smart City is a popular buzzword, fundamentally it is about looking for ways to leverage technology to improve operations, increase efficiency or deliver improved customer service.<sup>24</sup> In the era of climate change, a Smart Cities approach provides an opportunity to improve understanding of how infrastructure systems are performing during extreme weather events that test City infrastructure.<sup>25</sup> By taking a Smart City approach, cities can use real-time flow data to enhance understanding of how infrastructure is performing during extreme weather events or peak traffic and informing where intervention is required. This type of analysis can result in early identification of pinch points in a system that could be addressed to extend the life of the existing infrastructure and defer major replacement projects.

Another example of where a Smart City approach can be used to address the infrastructure challenge relates to opportunities for adopting energy efficient technology to reduce cost and

environmental impact. For example, LED streetlight conversion project is a good example of where the City finances the costs of converting to a more sustainable technology through the energy savings. By embracing a Smart City approach cities can realize long-term infrastructure costs and adopt businesses practices that support the shift to a low carbon economy. Overall, a smarter approach will allow for cities to leverage technology to ensure constrained resources have the greatest impact to address many demands facing community infrastructure.

### CASE STUDY: PREDICTIVE MODELLING

During the 2018 Spring Freshet Kelowna took a Smart City approach, working proactively to monitor infrastructure performance and mitigate damages associated with potential flooding. The regional emergency operations centre (EOC) began by standardizing the measurement of flow metres and discharge rates in 24 different creeks and streams in the region to create a real-time data that enhanced the understanding of flooding impacts associated with the large snowpack. Based on the modelling, staff determined a threshold when pumps would be required to ensure the City's stormwater system would not backup. Also, real-time analysis allowed staff to deploy sandbags in advance of any flooding, mitigating public and private property damage along Okanagan Lake and area creeks. This Smart City response enabled proactive flood management that prevented damage of core municipal infrastructure and limited property damage.

### CASE STUDY: LED STREET LIGHT CONVERSION

In 2018, the City of Kelowna converted 10,000 high-pressure sodium street lights to LED street lights. The conversion is expected to save the City \$13 million dollars over the next 15 years. The high-pressure sodium lamps have a life span of five years, compared to LED lighting which lasts 3-4 times longer, resulting in reduced annual maintenance costs for the City. The total cost to replace the lighting is \$4 million and that cost will be recouped within the next three to four years due to energy savings and avoiding the need to replace bulbs.

### CASE STUDY: DARK FIBRE EXPANSION

City of Kelowna expanded its dark fibre network with the installation of an additional 22km that connects the Airport, Landfill and UBC Okanagan in the north, Okanagan College, and City infrastructure in the south to the central City core.

City of Kelowna will continue to explore ways to use Smart City principles to tackle the infrastructure challenge.

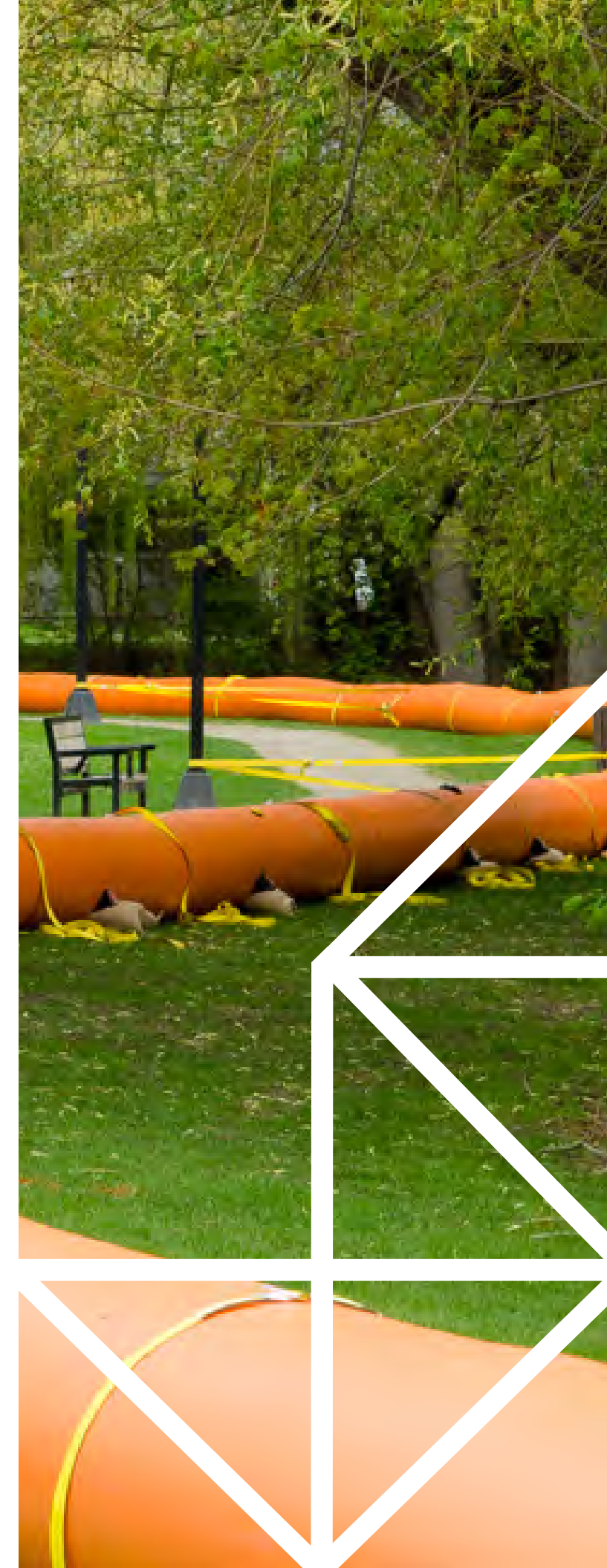
### AREAS FOR FUTURE ACTION

- Continue to apply data-driven Smart City approach to infrastructure planning and asset management
- Introduce stormwater management DCC or levy to provide a stable funding source for Green Infrastructure projects
- Consider expansion of street sensors to improve parking management and traffic flow
- Explore opportunities of smart power poles or street lights to provide real-time data

**DARK FIBRE  
30 LOCATIONS**

**38KMS**

**\$280,000  
YEARLY SAVINGS**





## CITIES ARE EXPLORING PARTNERSHIPS TO FUND EMERGING COMMUNITY INFRASTRUCTURE NEEDS.

The ability of the City to deliver and to maintain infrastructure has a significant impact on the day-to-day quality of life of residents and is quickly becoming an important factor as cities look to attract new residents and businesses.<sup>26</sup> However, many Cities are stretched to maintain core infrastructure and find funding for large new capital projects that can drive urban revitalization or enhance the quality of life for residents. Frequently, a barrier to attracting growth to urban areas is the lack of funding tools for City-led capital investments such as parks, public space, sustainable transportation or other amenities that will serve as a catalyst for urban redevelopment.<sup>27</sup> In other cases, it is a challenge to find the funding for renewal projects that maintain service levels citizens have come to expect.<sup>28</sup> In response, cities are exploring collaborative or partnership-driven approaches to infrastructure to address the backlog of community infrastructure needs.

To find funds for emerging infrastructure priorities, local governments are exploring a range of partnership-driven approaches to infrastructure development. In some cases, a collaborative approach could result in cities re-thinking the role of the community or the private sector in delivering important

community infrastructure. Within many cities, major private development projects are being leveraged as opportunities to partner with developers to develop new infrastructure to accommodate growth, using tools such as community amenity contributions.<sup>29</sup> Some cities are looking to community fundraising or crowdsourcing models to fund infrastructure that provides a benefit to the broader community. In other cases, a project scope could be expanded to bring on another partner or funder, leveraging additional resources and achieving more than any one group could achieve independently. By considering projects that emphasize partnerships valuable public sector investment can be leveraged, meaning a greater benefit to the community in the long-term.

### CASE STUDY: A REGIONAL RAIL TRAIL

Together with Lake Country, Okanagan Indian Band and the Regional District of North Okanagan, an Inter-Jurisdictional Development Team acquired 50 km of the former CN railway corridor for \$22 million. In partnership with the local community, roughly 25 km of the Okanagan Rail Trail was constructed in 2018.

### TYPES OF INFRASTRUCTURE PARTNERSHIPS

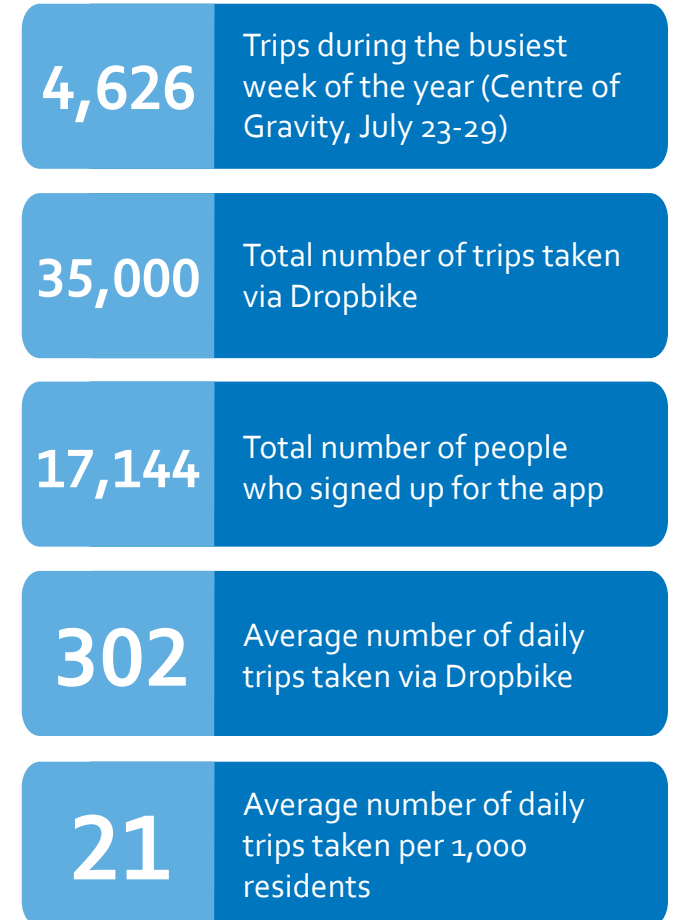
- Public-private (P3) or Infrastructure Bank: Leverage private sector investment on projects with revenue potential
- Community Amenity Contribution: Leverage major development to build key community amenities such as public spaces, daycares, and community centres
- Community to Community: Work with neighbouring local governments on regionally important infrastructure
- Crowdfunder: Leverage community fund-raising and philanthropy for quality of life projects with a broad benefit for community (ORT, RCA, cultural facilities etc)
- Non-profit partnerships: Work with housing providers to deliver important social infrastructure (Community Land Trust for Affordable Housing, Long-term land lease etc)
- Shared-use facilities: Explore partnerships for infrastructure projects with complementary uses such as school / community centre / recreation centre to leverage multiple funding sources
- Pilot projects: Remain open to partnerships with the private sector to allow for low-cost entries to test 21st century infrastructure (bikeshare, uber, lime, shared mobility and micro-mobility)

At a time when government budgets are constrained and there is significant demand for community infrastructure, cities will need to look for new strategies to deliver infrastructure. A more collaborative approach can leverage new funding streams and keep pace with the substantial demands for new infrastructure over the next 30 years.

### CASE STUDY: BIKESHARE PILOT

In 2018, Kelowna Council entered into a partnership with Dropbike for a 18 month bikeshare pilot. The pilot began in spring 2018 operated by Dropbike at no cost to the City. Through the pilot a fleet of bicycles were available for short term rental allowing users to get a bicycle at one location and drop it off at another. The pilot resulted in over 35,000 bike share trips, enhancing transportation options for residents and tourists in Kelowna.

## BIKESHARE BY THE NUMBERS



### AREAS FOR FUTURE ACTION

- Investigate the suitability of new funding strategies (e.g. CACs, Park Development DCC, Density Bonus etc) through upcoming Facts in Focus on Infrastructure Funding Mechanisms
- Explore partnerships with the Regional district, school boards and other institutional partners to deliver shared infrastructure projects
- Partner with community to leverage local fundraising networks and private philanthropy on projects that benefit for all residents (e.g. arts & cultural facilities)
- Explore permit system to facilitate micro-mobility partnerships for innovative pilot projects to support 21st century transportation (e.g. Dropbike, Lime etc)

# CONNECTED

## BY PRIORITIZING DIVERSE TRANSPORTATION OPTIONS CITIES CAN DEFER COSTLY ROAD WIDENING PROJECTS.

In Kelowna, nearly \$20 million is spent annually on new transportation infrastructure with many other important projects remaining unfunded.<sup>30</sup> The roadways line item is often the largest part of the capital budget, with the cost to widen a major road in the core of Kelowna estimated at \$26 million per kilometer.<sup>31</sup> Although cities often face public pressure to build new roads as a way to reduce congestion, cities are increasingly recognizing that this only serves to encourage more drivers by inducing demand in urban areas.<sup>32</sup> At the same time, cities simply cannot afford to build their way out of congestion, reinforcing the importance of strategies that move people more efficiently in cities. By looking at diverse transportation options, cities can optimize the use of existing infrastructure, deferring costly road-widening projects and support community goals of climate action and healthy community design.

By expanding the options for how people can get around beyond the automobile, cities can improve traffic flow and extend the lifespan of existing roads. If even a portion of the 1.2 million kilometres driven each day in Kelowna were shifted to active modes like transit or cycling, a reduction in congestion and

GHGs could be achieved. The greatest potential to shift trips to active modes is within dense mixed-use areas where services, amenities and employment are within a short distance.<sup>33</sup> The majority of transportation trips in Kelowna's urban centres are less than 3kms and could be easily shifted to transit, cycling, or walking.<sup>34</sup> To encourage this behaviour change, transportation demand management tools such as reduced parking requirements or incentives to encourage transit or cycling are critical. A reduction in the number of cars on the road could improve traffic flow and defer roadway expansion, thereby decreasing long-term renewal and maintenance costs.

**A traffic lane can move 800 cars with 1,000 people in an hour. Bus rapid transit could carry upwards of 15,000 people in the same road space in an hour.**

Another strategy to make more efficient use of existing roadway space is mass transit or bus rapid transit (BRT) on key corridors. BRT provides faster and more reliable service as a result of separation from traffic and transit priority at key intersections. Instead of adding an extra lane on a congested corridor and having to acquire costly land to move cars at the cost of \$26 million / km, mass transit can carry upwards of 10,000-15,000 people per hour on an existing road at a cost of

\$3-14 million per km, providing a more cost-effective way of moving people at peak times.<sup>35</sup>

Also, by giving buses the priority and getting them out of traffic, transit becomes more competitive with the private automobile.<sup>36</sup> Overall, strategies like BRT offer the potential to move more people in the available roadway space, deferring future roadway projects and enabling reductions in GHGs.

### CASE STUDY: CALGARY CYCLE TRACK PILOT

In 2015, Calgary piloted three protected cycling corridors in the downtown to enhance safety and encourage cycling. The pilot was built rapidly using flexible delineators, planter boxes, temporary curbs, and floating signals. Bicycle counts showed that during the pilot there were 1.2 million bicycle trips, representing a 40% increase in the number of residents arriving downtown via bicycle.<sup>37</sup> In 2016, council voted to make the network permanent, recognizing the cycle tracks as a cost-effective approach to enhance transportation options in the downtown core.

### CASE STUDY: QUICK-BUILD CYCLE NETWORK<sup>38</sup>

The City of Seville built an 80 km bicycle grid in 18 months. The whole network cost \$32 million for the protected network. It serves 70,000 trips per day compared to the local metro line that cost the equivalent of \$1.2 billion and serves 44,000 trips.

### AREAS FOR FUTURE ACTION

- Continue to focus growth in urban centres to provide residents with increased transportation options
- Explore opportunities for moving towards BRT on key corridors
- Accelerate the construction of protected bike lanes to establish a minimum to boost number of cycling trips
- Reduce minimum parking requirement in areas that are well served by transit, walking and cycling infrastructure
- Continue to expand bikeshare and investigate options for new types of shared mobility





# CONCLUSION

## A CHALLENGE THAT WILL REQUIRE LONG-TERM COMMITMENT

Cities across Canada are faced with the daunting challenge of maintaining and replacing the infrastructure that exists today, while finding new funding sources to invest in the infrastructure of the 21<sup>st</sup> century. The Community Trends Report outlines some of the factors associated with the infrastructure deficit and highlights how other cities are beginning to shift land use and funding strategies to encourage growth in urban areas to reduce future infrastructure liabilities. Also, the report has shown that technology and partnerships can be leveraged to improve the return on investment for cities as they spend valuable tax dollars. Regardless of the response, there is no silver bullet for addressing a challenge of this scale. Instead it will require a range of strategies to diversify funding options, to reduce future costs and to leverage future investments.

Although the areas for future action are not formal recommendations, they are intended to set the stage for future City processes. For example, the upcoming OCP review, Transportation Master Plan and the Servicing Plan will all have a strong relationship to long-term infrastructure planning.

It is clear that the infrastructure challenge will be one of the defining challenges for cities, requiring long-term commitment on the part of the corporation. It is a challenge that will require innovative thinking, unique partnerships, responsible planning and strategic decisions to ensure a resilient future for Kelowna.



## Notes

- <sup>i</sup> Standing Committee on Transport, Infrastructure and Communities. June 2015. Updating Infrastructure in Canada: An Examination of Needs and Investments. Retrieved from: <http://www.ourcommons.ca/Content/Committee/412/TRAN/Reports/RP8042716/tranrpo9/tranrpo9-e.pdf>
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- <sup>iii</sup> Blais, Pamela. 2011. Perverse Cities: Hidden Subsidies, Wonky Policy, and Urban Sprawl.
- <sup>iv</sup> Caninfra. 15 Things to know about Canadian Infrastructure. Retrieved from: [https://static1.squarespace.com/static/59c96387268b96752ffd6100/t/59d3ee32d7bdcef89793aee4/1507061319999/15\\_things\\_to\\_know.pdf](https://static1.squarespace.com/static/59c96387268b96752ffd6100/t/59d3ee32d7bdcef89793aee4/1507061319999/15_things_to_know.pdf)
- <sup>v</sup> FCM. From opportunities to outcomes. How Federal Budget 2018 can empower municipalities to deliver for Canadians. Pg. 4.
- <sup>vi</sup> Canadian Infrastructure Report Card. 2016. Informing the future. CanadianInfrastructure.ca
- <sup>vii</sup> World Economic Forum. 2014. The Competitiveness of Cities
- <sup>viii</sup> Local Government Asset Management. 2018. Climate Change and Asset Management.
- <sup>ix</sup> Standing Committee on Transport, Infrastructure and Communities. June 2015. Updating Infrastructure in Canada: An Examination of Needs and Investments.
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