

Report to Council



Date: January 11, 2021
To: Council
From: City Manager
Subject: Draft 2040 Official Community Plan: Climate, Infrastructure and Environmental Directions
Department: Policy and Planning

Recommendation:

THAT Council receive, for information, the report from Policy and Planning dated January 11, 2021 with respect to the Climate, Infrastructure and Environmental directions of the draft 2040 Official Community Plan.

Purpose:

To provide Council with a summary of the key policy directions regarding climate, infrastructure, and the environment in the draft OCP.

Background:

Kelowna is home to 138,500 residents and is looking ahead to add approximately 45,000 new people to its population over the next 20 years. This growth will bring opportunities and challenges as Kelowna strives to remain prosperous, attractive and resilient over the years to come.

While climate, infrastructure, and environment, each have their own chapters in the draft 2040 OCP, it is not the intent to look at these topics in individual silos. In fact, it is the overall strategic direction, outlined through the ten pillars, that will ensure Kelowna becomes a resilient community on the environment, climate, and infrastructure fronts.

Discussion:

Choosing where and how we grow can provide the most significant opportunity to tackle climate change, protect our natural assets and ensure financially sustainable service delivery. Concentrating growth in Urban Centres and the Core Area, as outlined in the draft 2040 OCP's growth strategy, uses land resources more efficiently reducing pressures on environmentally sensitive areas and agricultural land. As compact complete communities provide homes, jobs and amenities that are all easily accessible, automobile dependence and associated greenhouse gas (GHG) emissions are reduced. Multi-unit housing in these areas results in more shared wall and floor space allowing for reduced energy demand. Further, directing growth into these areas allows for focused investment to service more of the population while minimizing long-term maintenance and renewal costs.

This approach is reflected throughout the draft OCP, not just in the chapters that are the focus of this report. The 10 OCP Pillars and the Growth Strategy work together to direct growth towards the Urban Centres and the Core Area, making more efficient use of land, making alternatives to driving more feasible and attractive, and allowing for infrastructure investments to serve more people. As such the directions for topics like land use, transportation and the public realm provided in the district-based chapters, are a critical component of how the plan addresses these challenges.

Policy Areas

Climate Change and Natural Hazards

Local governments are uniquely positioned to help the community shift towards a low carbon lifestyle and respond to the impacts of climate change and acting now will facilitate greater resiliency in the face of this challenging issue. Strategically planning how the community will grow, commute and interact, as is seen in the draft 2040 OCP's Growth Strategy, will play a large role in reducing GHG emissions and helping the community adapt to change. Policy direction throughout the OCP contributes to this success as illustrated in Figure 1 below.

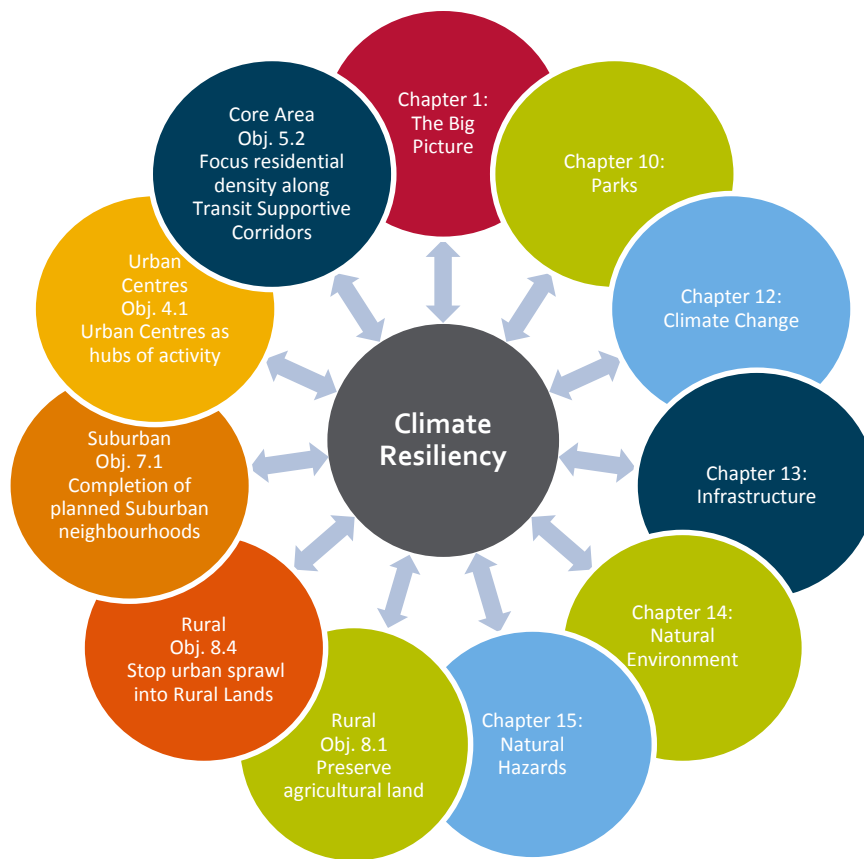


Figure 1: A sample of the connections to climate throughout the draft 2040 OCP

For example:

- *Chapter 1: The Big Picture*, sets the direction for concentrating growth, which will reduce GHG energy and emissions and prepare the community to adapt to the impacts of climate change;

- *Chapter 10: Parks*, outlines policies for creation and preservation of parkland which can sequester carbon through vegetation and help adapt to climate change through mitigating heat island effect and absorbing storm water;
- *Chapter 13: Infrastructure*, provides policy for transportation investment to lower automobile dependence to reduce GHG emissions, as does Objective 5.2 to focus residential density along transit supportive corridors. Further, the infrastructure chapter provides policy to secure supply of water if summers continue to get drier, and address storm water as more frequent and intense storms occur, as climate projection models indicate;
- *Chapter 14: Natural Environment*, provides policy to protect and preserve the natural assets which provide a host of ecosystem services that address climate change including carbon sequestration, rainwater interception and temperature regulation;
- *Chapter 15: Natural Hazards*, provides policy to help adapt to anticipated increase in risk of hazards associated with the impacts of climate change such as wildfire and flooding;
- *Urban Centers Objective 4.1* to strengthen Urban Centres as Kelowna's primary hubs of activity, *Policy 8.4.1* to not support urban uses on lands outside of the Permanent Growth Boundary, and *Objective 7.1* to complete suburban neighbourhoods, all will reduce the impacts of sprawl; and
- *Rural Lands Objective 8.1* to protect and preserve agricultural land can sequester carbon, act as storm water detention and will help ensure community food security as climate change becomes a reality.

Beyond this, the draft 2040 OCP includes a dedicated chapter to address climate change. *Chapter 12: Climate Change Mitigation and Adaptation*, establishes several new directions that are critical to achieving the City's objectives to reduce greenhouse gas emissions (further enforcing the directions of the *Community Climate Action Plan*). Further, the chapter also addresses adaptation, which is new content for the 2040 OCP. Policy aims to build a more resilient community that can better withstand the changes to climate and associated consequences such as increased drought, wildfire, and flooding.

Some highlights include:

- *Greenhouse gas emission reduction targets*: As required by the *Local Government Act* section 473(3), the draft 2040 OCP includes targets for the reduction of greenhouse gas emissions. These targets are consistent with the *Community Climate Action Plan* and are to reduce GHG emissions below 2007 levels by:
 - 4% reduction by 2023
 - 25% reduction by 2033
 - 80% reduction by 2050
- *Building energy efficiency*: New policies encourage greater energy efficiency in both new and existing buildings. These policies can be found in Objectives 12.4 and 12.5 respectively.
- *Moving to 100% renewable energy*: Objective 12.6 sets a target of 100% renewable energy by 2050, and highlights new policies designed to transition the community towards that goal. These policies identify the use of district energy, renewable natural gas and microgeneration of renewable energy as ways to meet that target.
- *Low emission transportation technologies*: Transportation technology is changing rapidly. Advances in electric vehicles (including automobiles, bicycles and other modes) are occurring quickly, along with autonomous driving technology and vehicle sharing networks. All of these approaches have the potential to reduce greenhouse gas emissions from transportation in the city. As such, policies that support these advances are included in Objective 12.7.

- Encouraging and expanding green infrastructure: Green infrastructure (assets designed to mimic and maintain connectivity with natural systems) not only delivers on the function of traditional infrastructure but can also help our community mitigate and adapt to climate change. Policies supporting the use of green infrastructure are included in Objective 12.10.

Infrastructure

Like other cities, Kelowna is facing growing infrastructure challenges due to an increasing population, demand for more and improved services, aging infrastructure, regulatory demands and a backlog of projects with limited options for raising capital to respond. Kelowna's historical outward growth as also resulted in a significant share of its infrastructure investments located in low density residential neighbourhoods towards the edge of the city, making it more challenging to maintain, repair and replace.

Chapter 13: Infrastructure establishes policy to put the City on a financially sustainable path to deliver new infrastructure services while balancing the obligations to maintain existing infrastructure. The 2040 OCP Growth Strategy is a major response to supporting this direction by focusing growth and consequently investment in the Urban Centres and Core Area, allowing more population to be serviced while minimizing long-term maintenance and renewal costs. This direction represents key new directions:

- Prioritizing investment: Objective 13.1 and 13.2 support prioritization for infrastructure with consideration of life-cycle asset management to optimize infrastructure dollars.
- Stormwater: Targeted density in the Urban and Core areas alongside changes in climate, addressing stormwater will become increasingly more important. The policies associated with Objective 13.3 provide guidance to incorporate nature into design to help combat climate change, provide habitat and amenity spaces for people.
- Drinking water: Objective 13.5 provides policy for protecting drinking water quality and underscores the importance of an area-based and multiple-barrier approach to ensure high quality water from the source to the tap.
- Landfill: The draft 2040 OCP introduces policy guidance to prohibit development of urban residential uses surrounding the regional landfill site. As outlined on Map 13.6, establishing this buffer will allow landfill operations to continue for the service life of this regional asset.

Environmental Directions

Kelowna's natural environment is unique. The lakes, valley hillsides, streams and air draw many people to live and visit, contributing significantly to the local economy and as expressed through Imagine Kelowna, the community wants these assets protected. Kelowna's natural environment is susceptible to the impacts of human development and activity and ongoing impacts could have long term irreversible consequences to the livability of the community.

Policy in *Chapter 14: Natural Environment* builds on the environmental protection policies established in the 2030 OCP. It provides policy guidance on protecting and restoring environmentally sensitive areas, protecting biodiversity, and enhancing the urban forest. Expanding on the current OCP, the new draft incorporates new topics and refines existing policy to ensure our air, water, natural landscapes and species diversity, will continue to benefit future generations. Key new directions include, but are not limited to:

- *New air quality policies.* The draft OCP now includes policies that guide land use and infrastructure design decisions to consider air quality impacts to support the health of vulnerable populations and to increase enjoyment of active transportation along busier corridors. These policies can be found under Objective 14.1.
- *Protection and expansion of the urban forest.* The draft OCP includes new policies under Objective 14.2 that will help protect the urban forest as the city grows and densifies. Policies include prioritization for tree preservation in new development and a focus on indigenous species.
- *Protection of Okanagan Lake.* Okanagan Lake is central to life in Kelowna, providing environmental, traditional, cultural, spiritual, and recreational values. As its protection was identified as one of the goals of Imagine Kelowna, the draft includes expanded policy direction under Objective 14.3 to ensure that the health of Okanagan Lake is preserved.
- *Ecosystem Connectivity Corridors.* New to the 2040 OCP, the preservation of two ecosystem connectivity corridors is included to prevent habitat fragmentation. These corridors have been identified for the movement of species between important habitats and environmentally sensitive areas, and without them, could risk many species to go locally extinct.

The draft OCP also includes a revised Natural Environment Development Permit Area that provides detailed guidance for specific applications that fall within environmentally sensitive areas. Affected properties and guidelines can be found in *Chapter 21: Natural Environment Development Permit Area.*

Implementation Actions

The draft OCP is intended to be a living document that is flexible, adaptable and is put into action by more detailed work during its lifespan. As outlined in previous reports, it includes a chapter entitled “Making the Plan Work” that outlines the implementation actions that would be undertaken following adoption. This includes many actions that speak specifically to climate action, infrastructure and the natural environment that are critical to making progress in addressing the challenges we face.

Conclusion:

This report provides Council with key highlights of how the draft 2040 provides direction for mitigating and adapting to climate change, tackling our infrastructure and servicing challenges and protecting and enhancing our natural environment. The final report in this series will be a high-level comprehensive summary of the draft 2040 OCP direction for public launch and to commence Phase 4 public engagement of this multi-year Master Plan update.

Internal Circulation:

Divisional Director, Planning & Development Services
 Divisional Director, Partnerships & Investment
 Department Manager, Real Estate
 Department Manager, Development Planning
 Divisional Director, Financial Services
 Divisional Director, Infrastructure
 Divisional Director, Corporate Strategic Services
 Divisional Director, Active Living and Culture
 Department Manager, Integrated Transportation
 Strategic Transportation Planning Manager
 Infrastructure Engineering Manager
 Parks and Buildings Manager

Communications Manager

Legal/Statutory Authority:

Local Government Act, Section 471

Legal/Statutory Procedural Requirements:

Local Government Act, Sections 472-478

Existing Policy:

Imagine Kelowna
2030 Official Community Plan
20 Year Servicing Plan
Council Policy No. 372: Engage Policy

Attachments:

1. Draft 2040 Official Community Plan [Draft OCP](#)
2. Abbreviated Summary of the Future Land Use designations [Future Land Use Summary](#)
3. Draft 2040 Future Land Use Map [Future Land Use Map](#)

Submitted by: R. Miles, OCP Project Planner

Approved for inclusion:



D. Noble-Brandt, Policy & Planning Dept. Manager