

City of Kelowna and UBC Okanagan Collaboration

Theme Area:

- **Climate Resiliency** - The capacity of a community to prevent, withstand, respond to, and recover from climate change impacts.

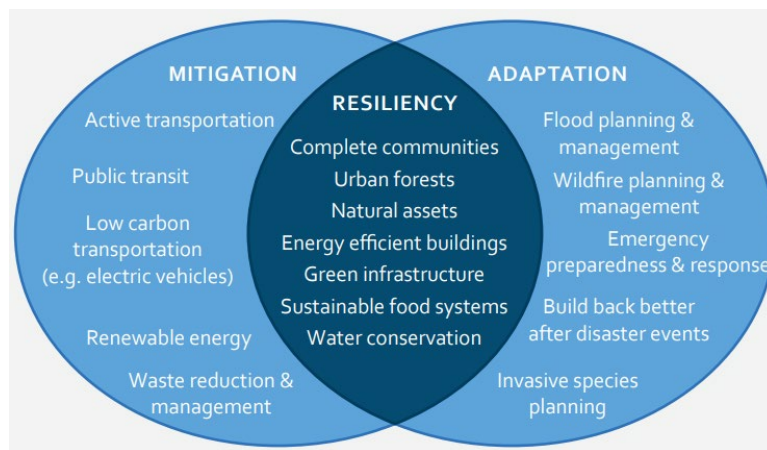


FIGURE 1: CONCEPTUAL DIAGRAM OF CLIMATE RESILIENCY

Challenge Statement:

The City of Kelowna is seeking out innovative design and policy solutions to encourage greenhouse gas emissions reduction and climate change adaptation on private property at the parcel level. Possible solutions could include green/blue infrastructure, green/white/blue roofs, and renewable energy.

Context:

The Intergovernmental Panel on Climate Change (IPCC) warns that global warming needs to be limited to 1.5°C by 2030 to reduce the frequency and magnitude of extreme weather events and other impacts. Unprecedented changes in land use, transportation, and buildings are needed to reach this goal which requires reducing human-caused greenhouse gas (GHG) emissions by 45 percent from 2010 levels by 2030.¹ At a local level, the most recent data (2017) indicates the City has not been able to achieve absolute GHG emissions reductions in line with our Community Climate Action Plan (CCAP) targets², which is paramount to limiting the extent and impact of climate change.

Even with more aggressive climate mitigation/GHG emissions reduction efforts, there is recognition that Kelowna is already experiencing the impacts of climate change. A joint report commissioned and released last year by the

¹ Intergovernmental Panel on Climate Change (IPCC), October 8, 2018. Summary for Policymakers of IPCC Special Report on Global Warming of 1.5°C approved by governments. <https://www.ipcc.ch/2018/10/08/summary-for-policymakers-of-ipccspecial-report-on-global-warming-of-1-5c-approved-by-governments/>

² 2018 CCAP GHG emissions reduction targets: 4% below 2007 levels by 2023; 25% below 2007 levels by 2033; and 80% below 2007 levels by 2050.

regional districts in the Okanagan, *Climate Projections for the Okanagan Region*³, models the changes that the Okanagan climate will experience over the coming decades. Significant changes are projected with hotter, drier summers; warmer winters; increased precipitation in all seasons except summer; and a shifting of the seasons. Thus, regardless of our ability to reduce GHG emissions, we need to adapt to unavoidable changing climate impacts.

While the City has made some progress on climate mitigation through our CCAP, the City does not yet have a Climate Adaptation Plan to understand how climate impacts may affect our community and how ready we are to address them. Further, we do not yet have a clear understanding of the relationship between mitigation and adaptation efforts, and the various co-benefits that can be achieved.

Contact:

For additional information or any questions on this Challenge Statement, you may contact:

- Chris Ray, Champion of the Environment - cray@kelowna.ca

Note: The City of Kelowna has a broad range of assets and infrastructure that may be utilized during the research or application and monitoring of applied solutions, which can be considered and should be identified as part of any proposals.

³ RDCO, RDNO, RDOS, Pinna Sustainability, February, 2020. Climate Projections for the Okanagan Region. <https://pub-rdco.escribemeetings.com/filestream.ashx?DocumentId=2073>.