

Introduction

Okanagan Valley communities are located on the occupied territory of the Syilx and Splatshin peoples who have lived here sustainably for millennia, in harmony with the land, the water and wildlife. The settlement of the Valley has brought significant degradation to its natural ecosystems, and only by returning to traditional knowledge and wisdom can we build climate change resilience in our region: any actions must recognize their rights to the jurisdiction of these lands and be with their leadership and guidance.

The Okanagan Valley & Climate Change

The February 2020 report 'Climate Projections for the Okanagan Region' has clearly identified that the Valley, its ecosystems and communities will see significant adverse changes...

Climate change will cause significant changes in the region. Based on these changes, there is a need to plan for more intense and hotter fires, increasing water shortages, more smoke days, and a greater likelihood of spring flooding. These changes will have serious consequences on ecosystems, communities, and the economy.

The region is no stranger to natural disasters...

- *The Central Okanagan experienced the catastrophic wildfires of 2003 in Okanagan Mountain Park, where 33,000 people were evacuated and 238 homes were lost.*
- *In the North Okanagan (May 2017), flooding on Kalamalka Lake and the Shuswap River had an impact on residents and local infrastructure.*
- *Year-on-year flooding of Okanagan Lake and flash flood events along creeks and streams.*
- *The RDCO, RDNO, and RDOS experienced over 190 wildfires, burning 44,000 hectares of land combined, in 2018*
- *The spring freshet and wildfire season of 2018 activated the RDOS Emergency Operations Centre for 170 days and engaged over 450 staff from across the Okanagan.*

...events like those noted above often have devastating impacts on local ecosystems, residents, and businesses, and cause ongoing emotional and financial stress.

The outcome of these experiences is that there is already a high awareness in the community and its regional/municipal governments of the risks associated with climate change and the need to build resilience to mitigate the impact. The region continues to experience rapid growth and is now home to over 400,000 people: even in the major municipalities many live in areas where they will be severely impacted by climate change and natural disaster events.

Okanagan Sustainability Leadership Council (OSLC)

The OSLC is a not-for-profit BC Society whose mission is to be a source of inspiration and thought leadership for initiatives and public policies that support a resilient, sustainable, regenerative Okanagan Valley. Our vision is that by leveraging our individual talents, collective stewardship, and traditional ecological knowledge we can help to restore a balance between human development and natural ecosystems to create a more prosperous, inclusive society, one that is innovative and agile in dealing with the very real challenges of global climate change.

Our objective in providing this input to the Climate Preparedness and Adaptation Strategy (CPAS) is to form the basis for more detailed dialogue with you on the priorities and implementation. Further information on the OSLC is at Appendix I.

CPAS Proposed Actions, Priorities & Success

Overall comments

While OSLC endorses the overall direction of the CPAS we are concerned that it lacks any sense of the urgency that is required if we are to build resilience and adapt to climate change. In a recent Guardian article, the British MP, Ed Miliband stated...

*“...just over 50 years ago, Martin Luther King said of the fight for racial and economic justice: “We are **now faced with the fact that tomorrow is today.** We are **confronted with the fierce urgency of now.** In the unfolding conundrum of life and history, **there is such a thing as being too late.**” As the generation that stands astride the causes and consequences of this climate emergency, **we must take heed of those words.**”*

Recent weather events around the world have shocked even the climate experts; they did not foresee the severity and duration of these patterns happening so soon, or the destruction of life and property they would cause. The time for consultations and studies is past: expert reports on climate change, land use planning, forestry management, ecosystem restoration, watersheds & water, etc., have been before governments for years, yet little action has been taken.

We recognize that some of the actions needed will be unpopular and may cause short-term socio-economic dislocations: we also recognize that there are significant opportunities to build a more equitable society – for all peoples – and drive new economic opportunities. Governments demonstrated in response to COVID that they are prepared to take extraordinary regulatory and fiscal measures to help their citizens adapt to the pandemic: the urgency to adapt to climate change is even more pressing.

Climate change knows no borders and, while the focus of the CPAS is on adaptation in British Columbia, this will need to be backed by a cohesive and coordinated effort across the Confederation.

Within the context of the CPAS we urge the following foundational actions:

1. That the BC Ministry for the Environment and Climate, with the full backing of Cabinet, be given a clear mandate to cut across ministerial silos and establish a Climate Preparedness & Adaptation Taskforce to implement emergency measures, and provide financial and other resources to Indigenous Nations, regional governments, and businesses to build resilience in their communities
2. That the BC Government establish a ‘Climate Emergency Action Fund’ and allocate a minimum of 2% of its GDP¹ to climate change adaptation; some \$5B annually. Much of this can be funded by a serious reallocation of subsidies, royalty rebates, tax incentives and other government financial support to the resource exploitation sectors. The budgets of all Ministries and Agencies need to be re-examined to ensure that their priorities are fully aligned with fighting the climate emergency.
3. That the BC Water Sustainability Act takes precedence over the Forest & Range Practices Act and other legislation that impacts watersheds and the use of water.
4. That the BC Government immediately curtail all industrial activities in community drinking watersheds until management of them has been returned to regional/local partnerships with Indigenous Nations.

¹ Nicholas Stern – former Chief Economist for the World Bank

Pathway 1 – Strengthen Foundations

<p>Integrate the Changing Climate into Governance and Decision Making</p>	<p>Through Bill 41, BC has enshrined the provisions of UNDRIP to work in harmony with Indigenous Nations is foundational to planning a resilient future: examples of partnerships that are instructive are:</p> <ul style="list-style-type: none"> • Cowichan Stewardship Roundtable • Gwaii Haanas • Okanagan Nation Alliance Water Strategy <p>Success will be when indigenous traditions, wisdom and practices form the basis for resilience to climate change, with decisions on watershed management and land use planning devolved to regional control in the Okanagan.</p>
<p>Explore Opportunities for Community-based Climate Resilience</p>	<p>Success will be when climate risk assessments are mandated, not only for infrastructure but for all development proposals, public and private. Projects should demonstrate that they consider and incorporate appropriate innovations that improve resilience and/or climate impact.</p>
<p>Expand Education on Climate Impacts and Adaptation</p>	<p>OSLC endorses the actions to expand climate resilience education at the K-12 level: our youth will be living with the consequences of climate change, and it is critical they understand the impact and their role in expanding the resilience of our region. SD22 and schools in Vernon are an example of early success in developing learning resources. However, there needs to be a consistency of approach and financial and other resources provided to ensure success.</p> <p>Okanagan College and UBC Okanagan are heavily invested in working with the community on the social and technological aspects of climate change, and their expertise will be invaluable in building the region’s resilience. Two very relevant reports by UBC Okanagan researchers Drs. Adam Wei² and Mathieu Bourbonnais³ are referenced below.</p>
<p>Enhance Climate Data Monitoring and Forecasting</p>	<p>While the need for enhanced monitoring and forecasting is evident, the one metric that is not being tracked on any consistent basis in BC is money: what are the measurable costs of climate change, what is being spent on preparedness and adaptation, and what impact is it having? The urgency of the climate crisis does not allow for any room for the less than effective use of financial resources, prioritized to where they will have the most lasting effect.</p> <p>BC is now in the unenviable position where since 2002 our forests are significant net emitters of carbon; in fact they are the largest source but this is not currently taken into account in government reporting. Honest and transparent reporting on all sources of carbon emissions is needed if BC is to have any credibility on its preparedness for climate change.</p>

² [Forests, Floods and Freshwater](#)

³ [Scientists say current wildfire situation is beyond a crisis & Bourbonnais White Paper - Wildfires and Climate Change](#)

Pathway 2 – Enhance Community Climate Resilience

<p>Support Resilient Community Planning and Disaster Risk Management</p>	<p>An additional priority is the regular updating of a regional inventory of the resources that need to be available as climate change impacts accelerate. This should include regional companies and facilities that have the skills and resources to rapidly transition to provision of emergency materiel. During COVID we saw examples of local companies that had the technology to rapidly transition to PPE production; local craft distilleries moved quickly to produce hand sanitizer: identifying potential industry partners who can adapt to needs related to climate change will enhance our resilience.</p>
<p>Strengthen Individual and Community Health and Wellness</p>	<p>The Okanagan has a strong agri-foods base but is still heavily dependent on food supplied from outside of the region. Significant work has already been done to identify the key priorities for securing and expanding region food systems and is transitioning to defining the practical steps needed to maintain community wellness, including:</p> <ul style="list-style-type: none"> • Food systems policy from a community wellness perspective • The use of agri-technology and production methodology to enhance productivity and reduce climate impact • Food supply chain management to enhance consumption of locally sourced foods
<p>Facilitate Collaboration and Shared Learning</p>	<p>The Okanagan Nation Alliance is already providing leadership in establishing partnerships with the Okanagan Basin Water Board and the Okanagan Collaborative Conservation Program to share knowledge and develop initiatives that enhance climate resilience. This is a solid foundation for an expanded network within which to share wisdom and expertise, with climate scientists participating on adaption – combining the science with indigenous knowledge.</p>
<p>Additional priority Communications</p>	<p>Communications is certainly captured in Pathways 1 & 2 in terms of learning, but we do not see this issue addressed more broadly in terms of communicating with the public to engage them fully in the fight against climate change.</p> <p>We have seen during the COVID pandemic how inconsistent, inappropriate and inaccurate government communications have caused issues related to the uptake of prescribed public health measures. In this age of social media, people opposed to climate change actions have instant access for expressing their views; the Universities of Twitter, Facebook and YouTube are often seen as more credible than well researched and intentioned communications from expert and official sources.</p> <p>A resource that has been helpful for helping understand the problems in communicating with the public on climate change is Climate Outreach, based at Oxford University UK https://climateoutreach.org. They point out that a fundamental problem is that people are not good at understanding and/or acting on risk they perceive to be in the future, particularly if they feel they are being asked to sacrifice or change today to mitigate the threat.</p> <p>It is worth noting that the US Military now consider climate change the number one threat to national security, not least because of the potential for misinformation to foment a breakdown of civil society. OSLC believes it is vital that the Province get ahead of this issue and develop/augment a supporting Communication Strategy to increase public awareness and mitigate against misinformation. Working through credible and trusted community groups will help communicate the urgency of the situation, and the opportunities to build a more sustainable, inclusive and economically dynamic response.</p> <p>Above all, our government leaders have to put aside their timorous approach to this crisis and exhibit a Churchillian leadership style that can rally people to the cause: polls show clearly that the population is ahead of the politicians in recognizing the need for action; they need to be shown the way.⁴</p>

⁴ Seth Kline 'A Good War', Chapter 3 – Ready to Rally: Marshalling Public Opinion, Then and Now

Pathway 3 – Foster Resilient Species & Ecosystems in a Changing Climate

<p>Enhance Watershed Security and Strengthen Marine Resilience</p>	<p>This is the core issue for the Okanagan. The area is already water stressed and the local watersheds have suffered significant damage from industrial logging, ranching and mineral extraction activities. In particular, the practice of clear cutting is leaving the Okanagan even more susceptible to the impact of climate change with increased opportunity for wildfires, erosion and mudslides, and creek and stream degradation. The impact on the region’s biodiversity, wildlife and supply of quality drinking water has reached a critical point.</p> <p>As an example of the impact on drinking water supply, the communities of Summerland and Peachland have between them had to spend over \$40M to install sophisticated water treatment facilities because of the degradation of their watersheds by industrial logging and ranching. The City of Vernon’s water supply was recently threatened by proposed logging above Deteau Creek, fortunately averted for now.</p> <p>The issues are well known, well studied and solutions developed: the need for action is urgent, not only in the Okanagan, but across the Province. To be successful, OSLC strongly advocates for:</p> <ul style="list-style-type: none"> • The immediately curtail all industrial activities in community drinking watersheds until management of them has been returned to regional/local partnerships with Indigenous Nations. In our region the Okanagan Nation Alliance has released its Water Strategy and is working with the Okanagan Basin Water Board to develop implementation plans and partnerships to make this a reality through the Okanagan Lake Responsibility Planning Initiative. • The recognition that the BC Water Sustainability Act takes precedence over the Forest and Range Practices Act, the Oil and Gas Activities Act, and other Acts to ensure that the need to preserve and enhance the supply and quality of water for future generations is paramount. • The expansion of the Healthy Watershed Fund. • Forming Community Forest Boards – aligned with the management of watersheds above – to ensure that logging practices and volumes do not negatively impact the long-term health of the regional ecosystem and its biodiversity. • Increased conservation of natural areas – forests, grassland and wetlands – to ensure that native flora and fauna have habit in which they can adapt to climate change. <p>The POLIS Water Sustainability Project report, Watershed Security Agenda for British Columbia provides five principles which are certainly reflected in the CPAS. However, their last point...</p> <ul style="list-style-type: none"> • Appoint a Provincial Watershed Security Officer who is accountable for planning, implementing, and overseeing a watershed security regime, breaking down government silos, and empowered to unite and coordinate provincial action on water as a priority. <p>...addresses a fundamental problem in that there is no coordinated provincial oversight of water to work with and support regional bodies. This must change: however, this position should be at the Deputy Minister level with the necessary regulatory clout to ensure compliance.</p>
<p>Enhance Tools and Approaches for Managing Ecosystems, Parks and Protected Areas</p>	

Pathway 4 – Advance a Climate-Ready Economy & Infrastructure

<p>Increase the Resilience of our Buildings and Infrastructure</p>	<p>OSLC endorses the steps in this section.</p> <p>An additional initiative that will help the public engage with and understand the need for climate change resilience in their own homes is to build even more visibility and uptake of the BC FireSmart™ and Okanagan WaterWise programs: regional and municipal governments are offering some combination of property assessments under FireSmart™, and/or domestic irrigation systems under WaterWise.</p> <p>Residential and commercial building landscaping practices do not yet reflect the hot dry climate reality of our region. Xeriscaping must be the norm for new developments with incentives in place for retrofitting existing properties: highly combustible plants and trees should be banned.</p>
<p>Support Business and Industry to Respond to Climate Risks</p>	<p>An untapped source of funding and entrepreneurial drive that can catalyze new technologies and systems to combat climate change are the regional angel investor networks that exist across BC. They are very connected in their communities, know where new solutions are, and can bring their financial and business expertise to the commercialization of viable ventures. Some are already active in green technologies and others are specifically working with women and Indigenous entrepreneurs to address social justice through economic opportunity. The BC Government should work with these groups to identify what financial investment supports are needed to accelerate these efforts.</p> <p>The Thompson Okanagan Tourism Association (TOTA) has provided excellent leadership in its sector with their sustainability initiatives, including Biosphere Commitment, Accessibility and Indigenous Tourism https://www.totabc.org/sustainability-tools : it is an example of how an major economic sector can learn how to adapt to climate change.</p> <p>The OSLC ‘Zero Waste Valley’ initiative aims to reduce forest, agricultural and municipal waste, and transform it into resources for bio-based materials and renewable energy.</p> <p>In the agricultural sector, Okanagan technology companies – along with researchers at our post-secondary institutions – are developing new techniques, hardware and software to assists the sector proactively monitor their operations to be more effective in their use of water and other inputs</p> <p>The forest sector will go through a difficult transition: it is a mature industry with a deeply rooted belief in its supremacy; one that resists change and that has the government minding its back. Government policy will need to be a ‘carrot & stick’ mix of incentives to adopt new practices and high value-added products, and severe penalties for noncompliance. The government will need to be vigilant in resisting attempts to greenwash forests as a source of renewable energy.</p>

Draft Guiding Principles

1. Build a Shared Path to Climate Resilience with Indigenous Peoples

The Province recognizes that our relationships with Indigenous peoples need to evolve and we are committed to building a shared path to climate resilience in true partnership with Indigenous peoples.

2. Take an Equity-Informed Approach

Enhancing climate resilience for everyone in B.C., regardless of where and how they live, requires a just approach that integrates equity considerations into climate adaptation responses.

3. Enhance Health and Well-being for All

There are many opportunities to choose adaptation actions that reduce health risks, like increased asthma and mental health issues, related to climate change while also improving community resilience and well-being.

4. Promote Nature-Based Solutions to Enhance Community Resilience

Nature-based solutions are actions that can protect, sustainably manage and restore ecosystems in ways that benefit people as well as biodiversity and ecosystem function.

5. Align Emissions Reduction with Climate Adaptation

Strategically aligning actions for climate adaptation and greenhouse gas emissions reduction can enhance the effectiveness of both while also avoiding risks and generating economic, ecological, and social benefits.

6. Take a Proactive Approach: The Business Case for Adaptation

Managing climate risk is part of building an innovative and resilient economy and ensuring that B.C. maintains a competitive business environment in the climate of the future.

The Principles are well-meaning good intentions, but the destination of the highway paved with these is well known. We reiterate our concern that we are in a crisis and that the CPAS lacks any of the urgency and ‘action now’ focus required if we are to have any chance of averting a catastrophe...



Picture: David Jenkins, Board Member, Okanagan Sustainability Leadership Council

Appendix I – Okanagan Sustainability Leadership Council.

We now have over one hundred participants in the OSLC. Membership includes regional mayors and city planners, organizations such as the Okanagan Basin Water Board, GECCO and Okanagan Collaborative Conservation Program, First Nations representatives, scientists from UBCO and Okanagan College, environmental advocates from Flipside Sustainability, Green Step Solutions, Fresh Outlook Foundation and Global Citizen, developers from Troika and Landform Architects, executives from Fortis, Telus, MNP and Lawson Lundell.

The OSLC is now focused on four key initiatives:

1. HEALTHY ECOSYSTEMS

Purpose: To incorporate best management practices and indigenous knowledge to protect and restore our natural ecosystems. Objectives: Protect the last remaining riparian forests, grasslands, wildlife corridors, lakes and streams; Identify and implement projects to restore critical areas.

2. ZERO WASTE VALLEY

Purpose: To reduce forest, agricultural and municipal waste, and transform it into resources for bio-based materials and renewable energy. Objectives: Develop a waste-to-energy project utilizing wood waste and MSW at the Glenmore landfill; develop valley-wide composting program combining food and agricultural waste streams.

3. INTELLIGENT OKNG

Purpose: To promote the values of connectivity, shared mobility, social equity and resources efficiency in the planning and development of our region. Objectives: Support unified transportation and land use planning strategies; water conservation and sustainable agriculture; green buildings and high-performance design.

4. CONNECTED COMMUNITIES

Purpose: To create an on-line community to promote our initiatives and those of others, thus engaging citizenry in the health, well-being, and sustainability of our valley. Objectives: Develop a comprehensive web site and social media presence; implement a communications strategy; provide resource library; share success stories.