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Xeni Gwet'in Community-based Climate Change Adaptation Plan



Prepared for:

The XENI GWET'IN FIRST NATION

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Ecolibrio**

Please Note: The Tsilhqot'in have met the test for aboriginal title in the lands described in Tsilhqot'in Nation v. British Columbia, 2007 BCSC 1700 ("Tsilhqot'in Nation"). These lands are within the Tsilhqot'in traditional territory and the Xeni Gwet'in First Nation's caretaking area. Nothing in this document shall abrogate or derogate from any aboriginal title or aboriginal rights of the Tsilhqot'in, the Xeni Gwet'in First Nation or any Tsilhqot'in or Xeni Gwet'in members.

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EXECUTIVE SUMMARY

Climate change may be the defining issue of our generation. Since the Industrial Revolution, the mean surface temperature of Earth has increased an average 0.6°C (Celsius) due to the accumulation of greenhouse gasses (GHGs) in the atmosphere.¹ Historically, the Earth is accustomed to experiencing wide-spread severe environmental change and has always been able to adapt to these changes accordingly. Yet, the difference now is the *speed* and *scale* of the warming that is currently occurring. Most of this change has occurred within the past 30 to 40 years, and the rate of increase is accelerating. These rising temperatures will have significant impacts at a global scale and at local and regional levels. As a result, climate change will increasingly impact natural and human systems to alter the productivity, diversity and functions of many ecosystems and livelihoods globally.

For resource-dependent communities, such as many First Nations in BC, climate change may increasingly compound existing vulnerabilities as the availability and quality of natural resources that they heavily depend upon decline. Limited resources and capacities for responding to stresses, such as wildfires, floods and droughts will increasingly constrain their ability to meet basic needs and become self-governing. There is, therefore, an urgent need to begin reducing current vulnerabilities and enhancing adaptive capacity of the communities so that people of these communities can face the longer-term impacts of climate change with resilience.

The Xeni Gwet'in First Nation is one of six Tsilhqot'in communities in the Cariboo-Chilcotin, occupying one of the last intact ecosystems on the east side of the Chilcotin range. While the community is relatively dynamic and healthy, it is still healing from the effects of colonization and the residential school system, it is increasingly experiencing stress over resource use conflicts in their traditional territory (Xeni Gwet'in Caretaker Area) and some of the early impacts of climate change (forest fire and fish stock declines). These impacts alone have left the Xeni Gwet'in somewhat anxious for their future but also determined to face it on their own terms. They envision a development and human activity in the Xeni Gwet'in Caretaker Area, which is grounded in an ecosystem-based approach to land use, minimizing human impact on the land and waters, leaving it as much as possible as a self-sustaining, wild environment with clean water, clean air and abundant fish and wildlife.

According to ClimateBC projections, the Xeni Gwet'in Caretaker Area (XGCA) can expect to see an average increase of 2.5 degrees Celsius and an increase of 104 mm of precipitation by 2050. This increase in temperature will be relatively uniform across the Chilko watershed, but precipitation will mostly increase in mountains at higher elevations. Most of this precipitation is snow, but will decrease by nearly 50 percent by 2050. Seasonally, most of the temperature increase will occur in the winter and spring and the precipitation increase during the fall and winter will become wetter. Summers will become drier. Finally, the higher locations will experience the colder and wetter climate and the lower locations will experience the warmer and dryer climate.

In the short-term, these changes in climate will likely increase the incidences of larger and hotter wild fires in the region, which may put the health, property, water, energy, cultural sites and livelihoods in the XGCA at risk. In the mid to long-term, the XGCA forests may shift

¹ World Bank (2010).

to a preponderance of Interior Douglas-fir and Ponderosa Pine stands with some amounts of the Bunch Grass (BG), resulting in the extinction or migration of some culturally important plants. As well, in the mid to long-term, warmer summers and winters could also threaten glacier stocks and consequently water flows and water quality, especially in the dryer areas of the XGCA like the Chilcotin Plateau. This in turn could have serious negative ramifications for cold water habitat upon which salmon and other cool water fish stocks in the XGCA depend for life. As well, a shift to a milder and drier environment will likely result in seasonal foraging challenges for moose, mule deer, California big horn sheep, mountain goats and grizzly bears, which in some cases may lead to seasonal migration and/or population declines.

These longer-term impacts could weaken wild food security and water security for the Xeni Gwet'in as well as jeopardize certain tourism and energy projects. At the same time, long-term climate changes may not be all bad. A warmer climate could present new opportunities for agricultural growth, a longer tourist season and new eco-forestry development in the XGCA.

These projected changes are by no means guaranteed but they are probable enough that the Xeni Gwet'in would do well to prepare rather than do nothing. The best form of preparation in this case is to strengthen the resilience of the Xeni Gwet'in community, which entails strengthening key support systems (see table below). Key measures include strengthening emergency procedures associated with fire and flooding, protecting and conserving potable water supplies, protecting shelter and infrastructure; protecting, conserving and diversifying energy supplies and food supplies, diversifying livelihoods, and preserving traditional culture. **However, perhaps the most effective way of building the resilience of the Xeni Gwet'in community is to protect and conserve the biodiversity of the XGCA.** The land is integral to the Xeni Gwet'in culture and way of life and the healthier the land is, the healthier and more resilient the Xeni Gwet'in will be. Moreover, a healthy ecosystem will benefit not just the Xeni Gwet'in but all residents of the XGCA and other adjacent and downstream ecosystems and communities.

Climate Adaptation Goals	Objectives
Biodiversity Protection and Conservation	<ul style="list-style-type: none"> • Maintain the XGCA as an intact ecosystem • Conserve Wildlife and Wild Horses in the XGCA • Conserve Fish Stocks • Preserve Wild Plants & the Habitats in the XGCA
Health and Safety Enhancements	<ul style="list-style-type: none"> • Protect Residents and Key Cultural Sites from Wild Fires in the XGCA • Protect Residents and Key Cultural Sites from Floods in the XGCA
Water Supply Protection and Conservation	<ul style="list-style-type: none"> • Protect Key Potable Water Sources • Conserve Potable Water
Food Supply Protection and Diversification	<ul style="list-style-type: none"> • Conserve and Use Wild Food Sources • Increase Development and Diet Cultivated Food Sources • Increase Preservation of Wild and Cultivated Foods
Shelter and Infrastructure Protection	<ul style="list-style-type: none"> • Protect Shelter and Infrastructure • Reduce risk of Mould, Mildew and Rot

Energy Supply Protection, Conservation and Diversification	<ul style="list-style-type: none"> • Protect Existing Energy Sources • Strengthen Energy Conservation • Continue Energy Diversification
Livelihood Diversification	<ul style="list-style-type: none"> • Develop Nature-based Aboriginal Tourism • Develop Eco-forestry and Wood Products • Develop Natural/Organic Agriculture • Develop Other Adaptive Enterprise Opportunities
Good Governance	<ul style="list-style-type: none"> • Incorporate Climate Adaptation Strategies into Local Governance Objectives
Cultural Preservation	<ul style="list-style-type: none"> • Protect the Xeni Gwet'in Culture • Celebrate the Xeni Gwet'in Culture