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Indigenous Legal Orders and Climate Law

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I. Introduction

Climate change poses an existential threat to all of humanity. The Supreme Court of Canada recently recognized that climate change "is a threat of the highest order to the country, and indeed the world. ... The undisputed existence of a threat to the future of humanity cannot be ignored."[1] Yet the impacts and challenges for Indigenous communities are unique because Indigenous Peoples have a deep historical connection with nature.

In this paper, we focus on climate change as it is unfolding in the Pacific Northwest, particularly in British Columbia, reviewing recent examples and those most pressing concerns for Indigenous communities. We then address the unique challenges and legal questions that Indigenous Peoples face, drawing on our experience working for the Council of the Haida Nation. We conclude by foregrounding the ways that Indigenous communities are pursuing climate adaptation and mitigation to ensure the resilience of their communities.

II. Climate Change Drivers, Impacts and Challenges

Climate change has been called a "super wicked problem"[2] because of its systemic complexity and compounded impacts within and between natural and cultural ecologies. Illustrating this complexity without oversimplifying the interrelationships of causes and effects is therefore challenging, but such illustrations provide a framework from which to understand how each

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1 *Reference re Greenhouse Gas Pollution Pricing Act*, 2021 SCC 11, at para 167.

2 Richard J. Lazarus, "Super Wicked Problems and Climate Change: Restraining the Present to Liberate the Future" (2009) 159 *Georgetown Law Faculty Publications and Other Works*.

element relates to the others. In this section, we draw upon a model adapted from the Skagit Climate Science Consortium in Washington State [Figure 1], using this as a heuristic device to consider recent climate change events in the Pacific Northwest. We have emphasized those that are of particular concern to Indigenous communities and to those with strong ties to marine environments.

A. Sea Level Rise and Riparian Floodrisk

Climate change drivers refers to increased greenhouse gas emissions, particularly carbon dioxide, 80% of which is caused by human activities relating to burning fossil fuels[3]; the result is rising temperatures and global warming, with cascading effects for all ecosystems.

Coastal communities are particularly susceptible to climate change drivers given their proximity to both rising seas and freshwater drainages. Of the range of impacts, rising sea levels often receive the most attention given how cities globally have developed immediately adjacent to coastlines and therefore, the economic investment in these areas is significant. British Columbia may have "low sensitivity to sea level rise, due largely to a preponderance of high, rocky fjords and skerry shorelines. Due to steep topography, the area of land at risk of inundation is small relative to other coastal areas; yet, the majority of dwellings at risk" are in these areas.[4] Instead, it is the combination of sea level rise with other system impacts that demonstrates the vulnerability of coastal settlements to climate change:

> As sea levels rise, coastal erosion and the severity of coastal flooding will increase, and coastlines will recede unless stabilized by dikes or through sand nourishment. Salt-water intrusion into groundwater, rivers, bays, and estuaries will increase. Changes in rainfall patterns and temperature will modify salinity gradients in estuaries and alter rates of river delta sedimentation, and coastal currents and upwelling patterns are likely to shift geographically and change in intensity. All of these "sea changes" will affect biodiversity in the nation's coastal zones.[5]

The complexity of the resulting impacts can be overwhelming. Indeed, the flooding that occurred in southern British Columbia in 2021, described by Premier John Horgan as "a once-in-500-year" catastrophe,[6] bears witness to the devastating effects of flooding on all aspects of infrastructure including roads, power, communication, emergency services, as well as drinking water[7], food security, health, and security generally.

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3 Canada, "Greenhouse gas emissions: drivers and impacts", (15 April 2021), online: *Government of Canada* <www.canada.ca/en/environment-climate-change/services/environmental-indicators/greenhouse-gas-emissions-drivers-impacts.html>.

4 Richard M. Hutchings, *Maritime Heritage in Crisis: Indigenous Landscapes and Global Ecological Breakdown* (New York: Taylor and Francis, 2017) at 22.

5 Walter Reid & Mark Trexler, *Drowning the National Heritage: Climate Change and U.S. Coastal Biodiversity* (Washington: World Resources Institute, 1991) at 2.

6 Ed Struzik, "The Future of Flooding in Canada", *The Tyee* (19 November 2021), online: <thetyee.ca/Analysis/2021/11/19/Future-Flooding-Canada/>.

7 Brenna Owen, "British Columbia developing plan to protect drinking water, ecosystems", *Times Colonist* (25 January 2022), online: <www.timescolonist.com/bc-news/british-columbia-developing-plan-to-protect-drinking-water-ecosystems-4993056>.

The 2021 floods also highlighted that Indigenous communities are disproportionately affected by these disasters, and that this elevated risk has been known for some time. In the Lower Mainland area, many Indigenous Peoples are not protected by the dike systems in place that offer flood protection to the region.[8] Of the 90 reserves and treaty lands in this area reflecting lands held by 30 Indigenous Peoples, "two-thirds (61 reserves, affecting 26 Indigenous Nations) are vulnerable to flooding."[9] Grand Chief Stewart Philip, President of the Union of BC Indian Chiefs, described the situation:

> As extreme weather events ravage across BC, First Nations continue to bear the brunt of climate change impacts and have been forced to flee their homes again. The unprecedented and continuing weather events prove that this is no longer a climate crisis; we are in an ongoing climate emergency, and lives and communities are at imminent risk. This is no time for the province to forge ahead with antiquated fossil fuel projects and logging of old growth forests that will only continue to worsen the absolute environmental catastrophe we are experiencing. The response to climate change must be cross-ministerial and cannot be siloed into one ministry—the province must start to actively connect the climate crisis dots.[10]

These "climate crisis dots" include mapping out relationships between seemingly disparate events. The 2021 floods followed a particularly devastating summer of wildfires is a dynamic that appears contradictory but is actually well-established:

> It may seem strange making a connection between wildfires and flooding. But floods often follow wildfire because there is little vegetation left on the ground to absorb the moisture. Fires, as well as clearcuts, can also change the chemistry of soil in ways which makes it impermeable. "Hydrophobic" is the word geologists use to describe it.[11]

B. Forest Environments

The forests of the Pacific Northwest are renowned globally and forestry is a mainstay of the British Columbia economy. Yet these forests have been central to the lifeways of Indigenous Peoples since time immemorial, and forest health is strongly connected to the health of its people. In British Columbia, the primary climate-driven impacts threatening forest health are higher temperatures and increased drought, which coalesce with storms to create wildfires.

The last three years have seen unprecedented wildfire seasons in British Columbia and 2021 was one of the worst years on record, although the crisis has been growing for decades:

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8 Fraser Basin Council, "Lower Mainland Flood Management Strategy, Phase 1 Summary report", (May 2016) at 5, online (pdf): <www.fraserbasin.bc.ca/_Library/Water_Flood_Strategy/FBC_LMFMS_Phase_1_Report_Web_May_2016.pdf>.

9 Ibid, at 11.

10 Union of British Columbia Indian Chiefs, "FNLC Calls for a State of Emergency due to Unprecedented Climate Weather Events in BC", (16 November 2021), online: <www.ubcic.bc.ca/fnlc_calls_for_a_state_of_emergency_climate_weather_events>.

11 Struzik, *supra* note 6.

> Since 1980, hundreds of thousands of people have had to evacuate as a result of wildfires in Canada, mostly in British Columbia and Alberta, with more people fleeing in recent years, according to the Canadian Forest Service (CFS). This year alone, more than 40,000 people were given evacuation orders.[12]

About 12 per cent of people in Canada live in homes increasingly threatened by wildfires, which includes 32 per cent of in-reserve Indigenous populations.[13] As a result, Indigenous Peoples are disproportionately threatened:

> The risks are disproportionately large for Indigenous peoples in Canada. While they make up about 5 percent of Canada's total population, 34.8 percent of wildfire-related evacuation events have struck First Nations reserves, according to CFS [Canadian Forest Service], and nearly half have hit communities where the population is more than 50 percent Indigenous.[14]

The fire that destroyed most of Lytton[15] is an example of this dynamic:

> Lytton itself is a village of just 250 inhabitants, but over 1,000 people live in the surrounding Indigenous reserves, and the population is largely made up of Indigenous Nlaka'pamux people. IR18 … has been entirely wiped out, save for one fireproof home.[16]

Indigenous communities are therefore at higher risk of major consequences from wildfires including "more structural and cultural losses, more land alterations, and more inherent social disruptions due to evacuations."[17] Increasingly, traditional knowledge about controlled burns is being referenced as a potential mitigation measure.[18]

The climate change drivers—higher temperatures and drought—that result in wildfires are also directly affecting some forest species that rely on wetter conditions to thrive. Of these, most central and perhaps the species of greatest importance to Indigenous Peoples all along the Pacific Northwest Coast is Western red cedar:

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12 Anya Zoledziowski, "'Like a War Zone': Climate Change is Displacing Thousands within North America", *Vice* (2 November 2021), online: <www.vice.com/en/article/qjb4xq/us-canada-wildfires-climate-change-migrants>.

13 Sandy Erni *et al.*, "Exposure of the Canadian wildland-human interface and population to wildland fire, under current and future climate conditions", (2021) 51:9 *Canadian Journal of Forest Research*, online: <cdnsciencepub.com/doi/full/10.1139/cjfr-2020-0422>.

14 Zoledziowski, *supra* note 12.

15 Angela Dewan, "Unprecedented heat, hundreds dead and a town destroyed. Climate change is frying the Northern Hemisphere", *CNN* (4 July 2021), online: <www.cnn.com/2021/07/04/world/canada-us-heatwave-northern-hemisphere-climate-change-cmd-intl/index.html>.

16 Jeevan Ravindran, "A wildfire has destroyed 90% of this town. Indigenous communities have been hit the hardest", *CNN* (14 July 2021), online: <www.cnn.com/2021/07/08/americas/canada-lytton-wildfire-climate-change-indigenous-intl-cmd/index.html>.

17 Erni *et al.*, *supra* note 13.

18 Cole Burston & Leyland Cecco, "'I came home to fight for my land': First Nations battle Canada blaze that displaced them", *The Guardian* (4 August 2021), online: <www.theguardian.com/world/2021/aug/04/indigenous-firefighters-flee-lytton-battle-flames#:~:text=First%20Nations%20communities%20in%20British,keeping%20the%20fires%20at%20bay>; Jayalaxshmi Mistry & Andrewa Berardi, "Bridging indigenous and scientific knowledge", (2016) 352:6291 *Science*, online: <www.science.org/doi/10.1126/science.aaf1160>.

> Cedar is an essential element of First Nations culture on the British Columbia coast. Throughout the coast and on Haida Gwaii, remnants of totem poles, canoes and traditional longhouses carved from cedar more than a century ago can be found in ancient forests. Massive, towering cedars were needed to create these icons, and that need continues as First Nations strive to sustain their culture into the future. Today in villages along the coast, traditional carvers transform cedar into totem and house poles, canoes and masks. Conserving ancient cedar is essential for the survival of these traditional cultures…[19]

The cultural significance of this species has been emphasized[20] as has its primacy for some Indigenous Peoples as "the tree of life."[21] Long under threat from unsustainable and targeted logging practices,[22] climate models show that "much of red cedar's current range will be too warm and dry in the not-so-distant future" to sustain the species.[23] Cedar has been observed "dying in areas where it should be thriving, such as along streams and within closed canopies. The cause for this sometimes sudden and expanding dieback is currently unknown" [24] but is being widely observed[25] and is of critical concern for Indigenous communities, who are fighting to protect these significant resources.[26]

C. Fish, Wildlife and Biodiversity

An ecosystem approach to understanding climate change begins from the premise of interconnectedness between all living things and elements. Western scientific methods have sought to understand each thing on its own, separate from its surroundings. Indigenous knowledge brings these things back together to understand the whole in context. It is from this position that the concept of biodiversity may be useful to understand how all the climate change

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19 John Nelson *et al.*, "A Vanishing Heritage: The Loss of Ancient Red Cedar from Canada's Rainforests" (2019), at 16, online (pdf): *David Suzuki Foundation* <davidsuzuki.org/wp-content/uploads/2019/02/vanishing-heritage-loss-of-ancient-red-cedar.pdf>.

20 Marie J. Zahn, Matthew I. Palmer, Nancy J. Turner, "'Everything We Do, It's Cedar': First Nation and Ecologically-Based Forester Land Managemetn Philosophies in Coastal British Columbia", (2015) 38:3 *Journal of Ethnobiology*, online (pdf): <www.researchgate.net/publication/327909567_Everything_We_Do_It%27s_Cedar_First_Nation_and_Ecologically-Based_Forester_Land_Management_Philosophies_in_Coastal_British_Columbia>.

21 Serena Renner, "Red Cedar: The Amazing Giving Tree", *The Tyee* (15 September 2020), online: <thetyee.ca/News/2020/09/15/Red-Cedar-Amazing-Giving-Tree/>.

22 Nelson *et al.*, *supra* note 19.

23 Renner, *supra* note 21; Justine Hunter, "Red flags in the forest, but there is still time to save B.C.'s giant trees", *The Globe and Mail* (11 November 2020), online: <www.theglobeandmail.com/canada/british-columbia/article-red-flags-in-the-forest-but-there-is-still-time-to-save-bcs-giant/>.

24 Christin Buhl, "Western red cedar dieback monitoring in the Pacific Northwest – Help Wanted" (20 April 2021), online: *Oregon State University TreeTopics* <blogs.oregonstate.edu/treetopics/2021/04/20/western-redcedar-dieback-monitoring-in-the-pacific-northwest-help-wanted/>.

25 Yvette Brend, "Western red cedars die off as extended dry spells continue, say experts", *CBC News* (14 May 2019), online: <www.cbc.ca/news/canada/british-columbia/western-red-cedars-death-dry-climate-change-1.5134262>; Buhl, *supra* note 24.

26 Serena Renner, "Nanwakolas Council Developing New Protocols to Protect Cultural Western Red Cedar", Coast Funds (5 June 2020), online: <coastfunds.ca/news/nanwakolas-council-developing-new-protocols-to-protect-cultural-western-red-cedar/>.

drivers and system impacts coalesce to challenge the life-sustaining biome of the Pacific Northwest.

Biodiversity is the complex mix of living organisms in terrestrial, aquatic, and aerial ecosystems[27]. It is defined by the United Nations as the "variability among living organisms from all sources including, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part", including diversity within species, between species, and of ecosystems.[28]

Direct threats to biodiversity tend to come from human activities such as clear-cut logging practices and commercial fishing; the impacts of these are clear. Changes in biodiversity resulting from climate drivers can be more challenging to discern since the change tends to be species-specific and can result in adaptation in place, migration, or extinction.[29] In their 2016 report assessing how climate change will impact fish and wildlife, the BC Ministry of Forests, Lands, and Natural Resource Operations of British Columbia concluded that:

> Generalist species, and those adapted to unpredictability, will likely benefit; coyotes and crows, bullfrogs and warm-water fish will be able to exploit new conditions. Most specialised species, however, will face stressors. Even species able to migrate to newly-suitable climates will be challenged by atypical ecosystems arising from changed disturbance patterns, increased variability, invasive species and new patterns of disease. Although some changes are predictable (e.g., loss of small wetlands, increased water temperature), surprises will be unavoidable. For example, some bird species assessed as low risk and resilient to anthropogenic disturbance may be sensitive to high nestling mortality due to increased spring storms and changes in the timing of insect prey. Disease outbreaks and ecosystem regime shifts may change conditions rapidly. Most amphibians, alpine and riparian-dependent mammals, aerial insectivores and marine birds, and anadromous and cold-water fish are highly sensitive to climate change.[30]

As with the example of cedar above, shifts in temperatures and moisture are two elements contributing to the reduction in a forest species—but what is meant by "forest species" needs to be redefined in terms of larger systems. As Haida Elder Charlie Bellis once put it, "Salmon are creatures of the forest. They're born in the forest and it's in the forest that they die."[31]

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[27] Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES), Glossary – Biodiversity (2020), online: ipbes: <www.ipbes.net/glossary> [IPBES].

[28] United Nations, Convention on Biological Diversity, (1992), Article 2, online (pdf): <www.cbd.int/convention/>. See also United Nations Development Programme (UNDP)'s Biodiversity Finance Initiative (BIOFIN) and United Nations Biodiversity Conference Draft Report of the Business and Biodiversity Forum at COP 14, 14-15 November 2018, Sharm El-Sheikh, Egypt, online (pdf): <www.cbd.int/business/doc/2018-cop-14-BBF-Report-en.pdf>.

[29] Donald V. Gayton, "Impacts of climate change on British Columbia's biodiversity: A literature review", (2008) 9:2 *BC Journal of Ecosystems and Management*, online (pdf): <www.forrex.org/publications/jem/ISS48/vol9_no2_art4.pdf>.

[30] Karen Price & Dave Daust, *Climate Change Vulnerability of BC's Fish and Wildlife: First Approximation*, BC Ministry of Forests, Lands, and Natural Resource Operations – Competitiveness and Innovation Branch (2016), at ii, online (pdf): <www2.gov.bc.ca/assets/gov/environment/natural-resource-stewardship/nrs-climate-change/adaptation/climate20change20vulnerability20of20bcs20fish20and20wildlife20final20june6.pdf>.

[31] John Broadhead, "Riparian Fish Forest on Haida Gwaii: A Portrait of Freshwater Fish Distribution & Riparian Forests on Haida Gwaii (the Queen Charlotte Islands)" (2009) Gowgaia Institute Technical Report, online

Salmon as a source of nutrients "feeding complex terrestrial food chain and fertilizing riparian areas"[32] is therefore an important contributor to forest health. As such, there is a compounding effect on forests from the climate impact on salmon, which is predicted to be high:

> Salmon need cold water streams; however, with warming waters, a harmful effect of climate change, salmon become more prone to disease. Shifts in weather patterns can also wash away salmon spawning beds, while lower pH levels in the oceans (i.e., ocean acidification) reduces overall fish stocks.[33]

As a key cultural species of prime significance to the Indigenous Peoples of coastal British Columbia, a threat to salmon undermines cultural and community well-being:

> Salmon has been the cornerstone of culture and of the survival of Indigenous peoples since time immemorial. This relationship extends into interconnected segments of life, where salmon hold value socially, economically and culturally. As one delegate remarked, when used for food, salmon is a health concern; when used for ceremony, salmon is a spiritual and cultural concern; when used for employment, salmon is a social and economic concern.
>
> The importance of salmon to Indigenous communities cannot be overstated. It is a relationship of interdependence and mutual sustainability that has been in place for countless generations. The Aboriginal right to fish and assert jurisdiction over fish and fish habitat is also legally protected and has been upheld numerous times in provincial and federal courts. However, salmon stocks have been steadily declining over the years as Indigenous communities are consistently held up in court fighting for the recognition of their rights to protect this valuable resource.[34]

In this interconnected web, changes in one environment or species affect all the others, which can have radical effects on biodiversity across the system. Orcas consume large amounts of salmon and the decline of the latter is thought to be having significant impacts on the whales.[35] Salmon are sustained in large part through a diet of Pacific herring, "a cornerstone species in marine ecosystems...the influences of Pacific herring reach up the intertidal zone and into the forests of this coast."[36] Herring stocks are in an already-fragile state and most fisheries were

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(pdf): < https://docs2.cer-rec.gc.ca/ll-eng/llisapi.dll/fetch/2000/90464/90552/384192/620327/624910/702795/776392/D42%2D6%2D10_%2D_Council_of_the_Haida_Nation_%2D_Riparian_Fish_Forest_on_Haida_Gwaii_Report_%2D_A2K2X9.pdf?nodeid=776295&vernum=-2>.

32 Price & Daust, *supra* note 30 at 29.

33 Leela Viswanathan, "How Indigenous Communities are Protecting Salmon Habitat from the Effects of Climate Change", Indigenous Climate Hub (1 September 2020), online: <indigenousclimatehub.ca/2020/09/how-indigenous-communities-are-protecting-salmon-habitat-from-the-effects-of-climate-change/>.

34 BCAFN, First Nations Summit, UBCIC, Summary Report: Wild Salmon Summit, September 19-21, 2018, at 5.

35 Center for Whale Research, "Southern Resident Orcas & Salmon" (2022), online: *Center for Whale Research* <www.whaleresearch.com/orcassalmon>.

36 Misty MacDuffee, "Pacific Herring: Underpinning the coastal foodweb" (7 June 2018), online: *Raincoast Conservation Foundation* <www.raincoast.org/2018/06/pacific-herring-underpinning-the-coastal-foodweb/>.

recently closed in British Columbia.[37] Herring spawn on eelgrass, which "forms the base of a highly productive marine food web."[38] Eelgrass habitat is especially threatened by sea level rise and those estuary environments are frequently bounded by adjacent development, meaning eelgrass habitat cannot be easily migrated upslope.[39]

D. Power and Development

"Human activity is the main cause of climate change."[40] In British Columbia, from water shortage to flooding, heat waves and wildfires, sedimentation and landslides, and the loss of ecosystem connectivity—these climate impacts are all attributable in one way or another specifically to logging.[41] Massive land clearance and conversion for mining and extractive industries, as well as damming for power sources, all contribute to this growing crisis.

Yet responses to climate change continue to rely on the technologies that have caused it: for example, during the 2021 summer heat dome:

> B.C. Hydro says the province's hot and cold extremes translated into more hours of peak power use on more days in 2021 than in any other year…a key shift as air conditioner use has climbed 50 per cent in B.C. over the last decade, adding summertime peak loads to records more traditionally set in winter, such as the all-time peak of 10,787 megawatts used in a single hour on Dec. 27 during the recent Arctic deep freeze.[42]

In British Columbia, new temperature extremes have resulted in a new "record-breaking, year-round demand for power."[43]

While clean energy solutions may be sought, the increased demand for power will also be generated through projects like BC Hydro's Site C Clean Energy Project in the Peace River region—

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37 Canadian Press, "Federal government announces closure of most Pacific herring fisheries", *CBC News* (16 December 2021), online: <www.cbc.ca/news/canada/british-columbia/pacific-herring-fisheries-closure-1.6289030> The fishery has been closed since 2014 after successful judicial reviews: Ahousaht Nation v. Canada (Fisheries and Oceans) 2014 FC 197 and Haida Nation v. Canada (Fisheries and Oceans) 2015 FC 290.

38 NOAA, "The Importance of Eelgrass", (7 November 2014), online: *NOAA Fisheries* <www.fisheries.noaa.gov/feature-story/importance-eelgrass>.

39 Frank J. Shaugnessy *et al.*, "Predicted eelgrass response to sea level rise and its availability to foraging Black Brant in Pacific coast estuaries", (2012) 22:6 *Ecological Applications*, online (pdf): <wildlife.humboldt.edu/sites/default/files/black/pdf/Shaughnessy%20et%20al%202012%20Eco%20Appl.pdf>

40 Canada, "Causes of climate change" (28 March 2019), online: *Government of Canada* <www.canada.ca/en/environment-climate-change/services/climate-change/causes.html>.

41 Peter Wood, "Intact Forests, Safe Communities", (2021) Report prepared for the Sierra Club, online (pdf): <sierraclub.bc.ca/intact-forests-safe-communities-sierra-club-bc-report/>.

42 Canadian Press, "Utility says B.C.'s heat, rain and cold in 2021 underscore changing demand for power", *The Vancouver Sun* (21 January 2022), online: <vancouversun.com/news/local-news/utility-says-b-c-s-heat-rain-and-cold-in-2021-underscore-changing-demand-for-power>.

43 Canadian Press, ibid.

a project that has been called "a human rights violation" by the United Nations[44] because of the ecological impacts that directly undermine Indigenous cultural survival and Treaty Rights.[45] Indeed, BC's CleanBC Roadmap to 2030 asserts its commitment to partnering with Indigenous Peoples to create strategies for addressing climate change.[46] Yet projects such as Site C and the resulting accelerated climate change remain "the next wave of colonization", threatening "the future of Indigenous Peoples' existence and rights, making Canada's mandated reconciliation of sovereignties unattainable."[47]

III. The Indigenous Legal Landscape

Climate concerns are shared by all globally, but Indigenous communities face unique challenges as place-based peoples and a legally-defined population in Canada. Indigenous Peoples are particularly affected by climate change, given deep connection to nature and longstanding stewardship of the Earth. The Right Honourable Beverley McLachlin situates and summarizes these impacts:

> Dealing with climate change is among the most important challenges that will face Canada and the world in the 21st century. The impact of climate change will be especially felt by already vulnerable people, exacerbating the social and legal difficulties they face.[48]

Last fall, in recognition of Indigenous Peoples bearing "the brunt of climate change impacts", the First Nations Leadership Council called for an "indefinite State of Emergency in BC" and to "advance meaningful government to government relations that recognizes First Nations jurisdiction in all areas, including emergency management."[49]

In fact, the legal landscape nationally, and internationally, has been slowly but steadily shifting and transforming towards recognition of Indigenous Peoples' rights and laws, in parallel with the transformation of the physical landscape through climate change. This transforming landscape has implications for the practice of law, and climate law, in Canada.

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44 Amnesty International, "UN Anti-Racism Body Makes It Absolutely Clear That Continued Construction of the Site C Dam is a Human Rights Violation", (9 January 2019), online: *Amnesty International* <www.amnesty.ca/blog/site-c-dam/un-anti-racism-body-makes-it-absolutely-clear-that-continued-construction-of-the-site-c-dam-is-a-human-rights-violation/>; Amnesty International, *The Point of No Return: The Human Rights of Indigenous Peoples in Canada Threatened by the Site C Dam* (2016), online (pdf): *Amnesty International* <www.amnesty.ca/sites/amnesty/files/Canada%20Site%20C%20Report.pdf>.

45 Carol Linnitt, "First Nations File Civil Action Against Site C, Citing Treaty 8 Infringement", *The Narwhal* (16 January 2018), online: <thenarwhal.ca/first-nations-file-civil-action-against-site-c-citing-treaty-8-infringement/>.

46 British Columbia, *Clean BC Roadmap to 2030* (2021), online: <cleanbc.gov.bc.ca>.

47 Terri-Lynn Williams-Davidson, "Engaging Lawyers to Build a Low Carbon Future" (last accessed 03 March 2021), online: *Lawyers for Climate Justice* <www.lawyersforclimatejustice.ca>.

48 The Right Honourable Beverley McLachlin, "Engaging Lawyers to Build a Low Carbon Future" (last accessed 21 February 2021), online: *Lawyers for Climate Justice* <www.lawyersforclimatejustice.ca>.

49 First Nations Leadership Council, Press Release, "FNLC Calls for a State of Emergency due to Unprecedented Climate Weather Events in BC" (16 November 2021), online: <www.ubcic.bc.ca/fnlc_calls_for_a_state_of_emergency_climate_weather_events>.

In 2015, the Truth and Reconciliation Commission ("TRC") released its Executive Summary Report with 94 calls to action to "redress the legacy of residential schools and advance the process of Canadian reconciliation".[50] In response, the Benchers of the Law Society of BC "unanimously agreed that addressing the challenges arising from the TRC Recommendations is one of the most important and critical issues facing the country and the legal system today."[51] In recognition of the role of lawyers in reconciliation, the Law Society of British Columbia: "acknowledges the Truth and Reconciliation Commission's finding that, for over a century, the central goal of Canada's Aboriginal policy can best be described as 'cultural genocide'; and recognizes that lawyers have played, and continue to play an active role in past and present injustices that affect Indigenous people".[52] Beginning in 2021, all lawyers in BC are required to complete a course in intercultural competency to create a "foundation for the legal profession to inform and respond to changes in laws and the legal system in an age of reconciliation".[53] This course is intended to prepare lawyers "to participate in, and respond to, changes to provincial laws as contemplated by the recently enacted *Declaration on the Rights of Indigenous Peoples Act."*[54]

In the *Declaration on the Rights of Indigenous Peoples Act,*[55] the provincial government adopted The *United Nations Declaration on the Rights of Indigenous Peoples* ("UNDRIP"). UNDRIP recognizes the "minimum standards for the survival, dignity and well-being of the indigenous peoples of the world."[56] The federal government has also affirmed the applicability of UNDRIP through legislation.[57] Recently Chief Justice Bauman stated that these new developments have layered a "duty to act" on top of the duty of learn advocated by Chief Justice Finch a decade ago:[58]

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50 Truth and Reconciliation Commission of Canada: Calls to Action (Winnipeg: TRC, 2015) at 5, online: <Calls_to_Action_English2.pdf (exactdn.com)>

51 The Law Society of British Columbia, "Truth and Reconciliation Advisory Committee Terms of Reference" (established in 2016, updated January 2022), online (pdf): *Law Society of British Columbia* <www.lawsociety.bc.ca/Website/media/Shared/docs/about/committees/terms_TRC.pdf>

52 Ibid.

53 The Law Society of British Columbia, "Lawyer Competence requires Indigenous intercultural competency", *online* (pdf): The Law Society of British Columbia <www.lawsociety.bc.ca/Website/media/Shared/docs/initiatives/Indigenousinterculturalcompetence.pdf> [Lawyer Competence].

54 The Law Society of British Columbia, "Law Society adopts Indigenous intercultural competency training", *online* The Law Society of British Columbia <www.lawsociety.bc.ca/about-us/news-and-publications/news/2019/law-society-adopts-indigenous-intercultural-compet/>

55 *Declaration on the Rights of Indigenous Peoples Act*, SBC 2019, c 44.

56 UN General Assembly, *United Nations Declaration on the Rights of Indigenous Peoples,* UNGAOR, 61st Sess, Annex, Agenda Item 68, UN Doc A/RES/61/295 (2007) ["UNDRIP"], Article 43.

57 *United Nations Declaration on the Rights of Indigenous Peoples Act*, SC 2021, c 14.

58 The Honourable Chief Justice Robert J. Bauman, "A Duty to Act" (Paper delivered at the Canadian Institute for the Administration of Justice's 2021 Annual Conference: Indigenous Peoples and the Law, Vancouver, 17 November 2021) [unpublished]. See also, the Honourable Chief Justice Lance SG Finch, "The Duty to Learn: Taking Account of Indigenous Legal Orders in Practice" (Paper delivered for the Continuing Legal Education Society of BC's Indigenous Legal Orders, November 2012) [unpublished].

> For Indigenous peoples, the court system has often been a barrier to justice, rather than a critical tool in the pursuit of it. The Truth and Reconciliation Commission tells us that Canadian law has suppressed truth and deterred reconciliation. It is this history, and current reality, that gives urgency to our duty to act.
>
> Adding to that urgency is the development and acceptance of the United Nations Declaration on the Rights of Indigenous Peoples—an Indigenous instrument built by decades of bold work by Indigenous advocates and their allies. The affirmation of the applicability of UNDRIP to British Columbia and Canadian law and the government's commitment to its implementation requires all elements of the state to engage with and implement its principles. Thus, in a concrete way through this new legislation, a duty to act has been layered on top of our duty to learn.
>
> At the forefront of this effort is self-determination of Indigenous peoples. And in this reference to self-determination I note that the Supreme Court of Canada has recognized self-determination as a right of a people to pursue its "political, economic, social and cultural development" albeit within the framework of an existing state.[59]

From an Indigenous perspective, the health of the environment is inextricably tied to the health of communities and culture. Consideration of climate impacts for Indigenous Peoples must be grounded in this understanding and recognize the limitations on Indigenous governance imposed historically through colonial policies resulting in the disenfranchisement of Indigenous communities from stewarding their lands and waters. As the climate crisis threatens all, a new paradigm is needed. The next section explores Indigenous governance in the concept of cooperative federalism.

A. Governance and Cooperative Federalism[60]

Indigenous Peoples have inherent rights of governance over and in respect of their territories. Canadian Courts have long recognized that Indigenous Peoples possess legal traditions that provide a rich knowledge of how to live properly with the land. Indigenous laws and legal orders existed before the assertion of sovereignty, and they continue to exist today:

> The history of the interface of Europeans and the common law with aboriginal peoples is a long one. As might be expected of such a long history, the principles by which the interface has been governed have not always been consistently applied. Yet running through this history, from its earliest beginnings to the present time is a golden thread the recognition by the common law of the ancestral laws and customs the aboriginal peoples who occupied the land prior to European settlement.[61]

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59 Chief Justice Bauman, *supra* note 58, at paras 4-5, quoting *Reference re Secession of Quebec*, [1998] 2 SCR 217 at para 126.

60 This section is adopted from the factum of the Council of the Haida Nation in the *Reference re Environmental Management Act*, 2020 SCC 1, written by Terri-Lynn Williams-Davidson, Q.C., David Paterson, Michael Jackson, Q.C., Louise Mandell, Q.C., and Elizabeth Bulbrook [CHN Reference Case Factum].

61 *R. v. Van der Peet*, [1996] 2 SCR 507, para 263, *per* McLachlin J. (as she then was) in dissent.

These pre-existing legal orders have been recognized by Canadian courts since the earliest years of confederation.[62] In *Mitchell v. M.N.R.,* Chief Justice McLachlin reaffirmed the continued operation of Indigenous legal orders:

> . . . aboriginal interests and customary laws were presumed to survive the assertion of sovereignty, and were absorbed into the common law as rights, unless (1) they were incompatible with the Crown's assertion of sovereignty, (2) they were surrendered voluntarily via the treaty process, or (3) the government extinguished them. . . . Barring one of these exceptions, the practices, customs and traditions that defined the various aboriginal societies as distinctive cultures continued as part of the law of Canada.[63]

More recently, in *Pastion v. Dene Tha' First Nation*, Grammond J. stated that "Indigenous legal traditions are among Canada's legal traditions. They form part of the law of the land."[64] The capacity of Indigenous Peoples in Canada "to make laws concerning matters of leadership and governance are not derived from the *Indian Act* or other statutory power. Rather it is a result of the exercise of the First Nation's aboriginal right to make its own laws concerning governance."[65] This jurisdiction is inherent and forms part of "the common law of aboriginal rights".[66]

Indigenous laws are not inconsistent with the exercise of federal or provincial jurisdiction but can complement it in relation to climate action. A contemporary understanding of cooperative federalism incorporates this understanding. The Supreme Court of Canada recently defined the concept of cooperative federalism as an:

> interpretative aid that is used when interpreting constitutional texts to consider how different interpretations impact the balance between federal and provincial interests. . . . Where possible, courts should favour a harmonious reading of statutes enacted by the federal and provincial governments which allows for them to operate concurrently.[67]

More generally, cooperative federalism is a consensual arrangement between jurisdictions designed to meet "the related demands of interdependence of governmental policies, equalization of regional disparities, and constitutional adaptation".[68] In the *Principles Respecting the Government of Canada's Relationship with Indigenous Peoples*,[69] Canada states: "The

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62 *Connolly v Woolrich* (1867), [1867] Q.J. No. 1, 11 LCJ 197, 17 RJRQ 75 (Que SC), aff'd (1869), 17 RJRQ 266, 1 CNLC 151 (Que QB), *Casimel v Insurance Corp of BC* (1993), 106 DLR (4th) 720 (BCCA).

63 *Mitchell v. M.N.R.*, 2001 SCC 33, para 10.

64 *Pastion v. Dene Tha' First Nation*, 2018 FC 648, para 8.

65 *Gamblin v. Norway House Cree Nation Band Council*, 2012 FC 1536, para 34.

66 Ibid at para 50; see also *Frank v. Blood Tribe*, 2018 FC 1016, para 69; *Chiodo v. Doe*, 2018 BCSC 2078, para 49; *Pastion v. Dene Tha First Nation,* 2018 FC 648, paras 20-24.

67 *Reference re Pan-Canadian Securities Regulation*, 2018 SCC 48, para 17.

68 Peter Hogg, *Constitutional Law of Canada*, 5th ed (Toronto: Thomson Reuters, 2016). See also *Orphan Wells Association v. Grant Thornton Ltd*., 2019 SCC 5, paras 105, 111.

69 *Principles Respecting the Government of Canada's Relationship with Indigenous Peoples*, (Ottawa: Department of Justice Canada, 2018).

Government of Canada recognizes that Indigenous self-government is part of Canada's evolving system of cooperative federalism and distinct orders of government".[70]

Indigenous governments are a third order of government in Canada. Professors Morales and Nichols argue that "In essence, the third order of government has always been here, hiding in plain sight: it is simply that the courts have mistaken it for a municipal order, a creature of statute, when its character is—and has always been—constitutional."[71] As explained by Louise Mandell, Q.C., "Indigenous jurisdiction is the oldest root of the living tree of confederation offering ancient Indigenous Laws" such as respect, responsibility, and balance to assist in the resolution of environmental challenges today.[72]

Jurisdiction is not a zero-sum process and cannot be viewed as an either/or scenario. All governments, including Indigenous governments, have an interest and stake in environmental protection, climate change and climate adaptation, and have a corresponding jurisdiction to enact and enforce laws to protect the environment, and adapt to climate change.

B. Lands and Waters

The territories of Indigenous Peoples are central to place-based subsistence, cultural identity, and to the resurgence of legal traditions. Subsistence is not just about food but is a whole way of life reflecting ecological knowledge and practices developed over thousands of years. It is built on the intimate knowledge of ecological cycles and acknowledges the interrelationships between biodiversity and health. Climate change drivers result in damage to these ecological relationships through the loss of plant, animal and marine species, diminished access to freshwater sources, and forced migration due to lack of food and water security. In short, as illustrated in Figure 1 (below), there is a material impact that threatens food security and the subsistence lifeways of entire populations of Indigenous peoples[73], reducing Indigenous Peoples' ability to "sustain themselves and maintain their traditional ways of life."[74]

For coastal Indigenous Peoples, climate change threatens not only contemporary lifeways but cultural survival and connections to history, heritage, and Ancestors:

> Globally, heritage in the coastal zone is under enormous pressure from industrial-scale resource extraction and development, as well as coastal tourism. Infinitely complicating matters is that rising seas over the coming centuries will drown those landscapes not already ravaged by development. Of concern here is that for Indigenous communities, heritage landscapes constitute a "vital part" of culture (Buggey 1999; UBCIC 2013) and are recognized by the UN (2008) as "essential to cultural survival." For this reason,

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70 *Ibid* at 9.

71 Sarah Morales and Joshua Nichols, *Reconciliation Beyond the Box: The UN Declaration and Plurinational Federalism in Canada* (Waterloo: Centre for International Governance Innovation, 2018), at 22.

72 CHN Reference Case factum, *supra* note 56, at para 38.

73 *IPBES, supra* note 27 at 14, 15, 25, 31, 35.

74 *Reference re Greenhouse Gas Pollution Pricing Act*, *supra* note 1 at para 11.

> the global scale destruction of maritime heritage constitutes a major threat to living coastal cultures.[75]

UNDRIP guarantees Indigenous Peoples "the right to maintain, control, protect and develop their cultural heritage, traditional knowledge and traditional cultural expressions".[76] UNDRIP also guarantees "the right to practise and revitalize their cultural traditions and customs. This includes the right to maintain, protect and develop the past, present and future manifestations of their cultures, such as archaeological and historical sites, [and] artefacts ….".[77] UNDRIP further protects Indigenous Peoples' "right to revitalize, use, develop and transmit to future generations their histories, languages, oral traditions" and advocates that "States shall take effective measures to ensure that this right is protected".[78]

UNDRIP emphasizes the protection of the environment and Indigenous environmental laws.[79] The Preamble recognizes that "respect for indigenous knowledge, cultures, and traditional practices contributes to sustainable and equitable development and proper management of the environment."[80] UNDRIP also provides that Indigenous Peoples have the right to promote, develop and maintain their laws.[81]

Indigenous laws, and the knowledge and transmission of Indigenous laws, are contained in the lands and waters of Indigenous territories. John Borrows explains that natural laws are sourced in nature and from observations of the world, such as plants, "watersheds, rivers, mountains, valleys, meadows or shorelines to guide legal actions. As such, these laws may be regarded as literally being written on the earth."[82] The current climate emergency is an opportunity to support resilience in indigenous communities and the resurgence of Indigenous laws and legal orders.

IV. Resilience in Indigenous Communities and Resurgence of Indigenous Laws

As explained above, the climate change drivers, system impacts and human challenges faced by communities on the Pacific Northwest are felt disproportionately by Indigenous Peoples, with critical consequences that undermine health, well-being, and cultural survival. For these reasons, there is a significant role for Indigenous Peoples:

> Indigenous peoples are, however, not simply victims of climate change but have an important contribution to make to address climate change. Due to their close relationship with the environment, Indigenous peoples are uniquely positioned to adapt to climate change. ...

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75 Hutchings, *supra* note 4 at 12.

76 UNDRIP, *supra* note 56, Article 31.

77 UNDRIP, *supra* note 56, Article 11.

78 UNDRIP, *supra* note 56, Article 13.

79 UNDRIP, *supra* note 56, Article 29.1.

80 UNDRIP, *supra* note 56, Preamble, para 11

81 UNDRIP, *supra* note 56, Article. 34

82 John Borrows, *Canada's Indigenous Constitution* (Toronto: University of Toronto Press, 2010) at 28-29, and generally at 28-35.

> Self-determination is a fundamental principle of international law and of utmost importance for indigenous peoples as it affirms their right to freely pursue their economic, social and cultural development.[83]

Indigenous communities are first-hand observers of the on-the-ground impacts from climate change and are leading discussions on monitoring, adaptation, and mitigation, drawing on traditional knowledge and culture as sources of strength and resilience for communities.[84] Indigenous communities are in a unique position because of their sovereignty: they "can develop their own models of dealing with climate change and managing nature in a sustainable way."[85] Self-sufficiency is at the heart of this; for example, in the book *Asserting Native Resilience: Pacific Rim Indigenous Nations Face the Climate* Crisis, Alan Parker outlines ten recommendations for Indigenous Peoples to build resilience in their communities:

1. Gather information on the impacts of climate change in your region and make it available to your tribal community.
2. Secure sources of water.
3. Secure sources of food.
4. Prepare for impacts on plant and animal species.
5. Develop relationships with neighboring governments and communities regarding disaster planning.
6. Consider political alliances to build a renewable energy policy.
7. Consider strategies to unite Tribes and First Nations around the protection needed to defend treaty rights.
8. Consider active involvement as sovereign Indigenous governments in global climate change negotiations.
9. Get youth involved in cultural education and defending the future of their nation.
10. Work with other Indigenous nations across imposed colonial boundaries on the basis of being natural regions (such as the Pacific Rim, Northwest Coast, and Salish Sea).[86]

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[83] Victoria Tauli-Corpuz, Report of the Special Rapporteur on the rights of indigenous peoples (The impacts of climate change and climate finance on indigenous peoples' rights), UNHRC, 36th session, 11-29 September 2017, UN Doc A/HRC/36/46, online (pdf): <undocs.org/en/A/HRC/36/46>, A/HRC/36/46 - E - A/HRC/36/46 - Desktop (undocs.org) at 19 and 8.

[84] Coastal First Nations Great Bear Initiative, Fraser Basin Council, Coastal First Nations Climate Adaptation Workshop Series, February 2021.

[85] Zoltán Grossman, "No Longer the 'Miner's Canary", in Z. Grossman & A. Parker, eds, *Asserting Native Resilience: Pacific Rim Indigenous Nations Face the Climate Crisis* (Corvallis, OR: Oregon State University Press, 2012) at 176.

[86] Alan Parker, "Recommendations to Native Government Leadership", in Z. Grossman & A. Parker, eds, *Asserting Native Resilience: Pacific Rim Indigenous Nations Face the Climate Crisis* (Corvallis, OR: Oregon State University Press, 2012) at 189.

As discussed elsewhere[87], Indigenous self-determination, self-representation and sovereignty must be honoured through formal governance relationships with climate change activities of states:

- Indigenous Peoples should be integrally involved on a government-to-government basis in all national climate change planning and monitoring, and all projects, conservation, development, and climate change initiatives that impact the territorial lands and waters of Indigenous Peoples.
- Indigenous governments should be formally included in decision-making in relation to all projects, conservation, development, and climate change initiatives that involve Indigenous territories.[88]
- Where Indigenous territories are involved, Indigenous Nations must be full partners in any economic, conservation, and climate change initiative, from conceptualization through to realization and ongoing operations, including co-design, management or co-management, and oversight of economic activity and implementation of metrics to assess projects and measure progress to biodiversity/conservation targets, and in allocating the economic benefits generated.[89]
- Provide more direct funding mechanisms to support Indigenous Peoples' own initiatives for climate change mitigation, adaptation, conservation, and sustainable development.[90]

Robert Phillips of the First Nations Summit Political Executive put it this way:

> Make no mistake: the failure to address the climate emergency will lead to further devastating losses in our communities. First Nations require immediate and on-going supports to address the recurrent devastating impacts of climate change. We need action and we are not going to wait around for this action any longer. The government response continues to underestimate the emergency we are facing and it's time for First Nations to lead the work required to protect our communities for our future generations.[91]

Indigenous Peoples leading the way through the climate emergency is most effectively done through the recognition and resurgence of Indigenous legal orders. Chief Justice Bauman spoke about the "work" required to make space for Indigenous legal orders, to supplant notions about law and equity, and the humility to act:

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87 Terri-Lynn Williams-Davidson and Janis Sarra, *Haida law of* gina `waadluxan gud ad kwaagiida *and Indigenous rights in conservation finance* (Vancouver: The Canada Climate Law Initiative, 2021).

88 Tauli-Corpuz, *supra* note 83 at 21.

89 Adapted from the Recommendation from an International Research Roundtable hosted by the CCLI, University of British Columbia in September 2020, on file with authors.

90 Tauli-Corpuz, *supra* note 83 at 21.

91 UBCIC, *supra* note 10.

> As we find space for Indigenous legal orders, we must look to Indigenous peoples to determine what that space will look like. ...
>
> In embracing that approach, our western, liberal, lifeworld must be supplemented—and maybe in some circumstances supplanted—and our assumptions about law and equity, questioned. We must unlearn, and, to be frank, defer. We must hold space for hard conversations, and be willing to be wrong. If there's anything that the last 200 years of Canadian–Indigenous relations has taught us, is that our jealous need for control is destructive. Indigenous peoples forcibly learned European language and history, became subject to settler–colonial law, and were made to navigate a social system that did not reflect their values or traditions. The result was catastrophic. *Now is the time to do what we should have done when we arrived here as uninvited guests—demonstrate that we care enough to discover and learn, and to act responsively within the matrix of Indigenous customs, traditions, and protocols. Now is the time for humility.*
>
> Yet in that humility, it is also the time to act.
>
> Engaging with Indigenous laws, on Indigenous peoples' terms, recognizes the honour of Indigenous peoples—honour that we are responsible for attempting to erode—by responding with humility. …. I would add that, if anything, laws developed on this land might be more just in that they found their genesis here—not on distant shores divorced from the unique reality of place. Settler–colonial law has been an instrument of harm to our relationship. Indigenous legal orders may well be the instrument of its repair.[92]
>
> [emphasis added]

The resurgence of Indigenous legal traditions will contribute to developing equitable, and just solutions to climate change.

As a legal profession, we need to not only develop "climate conscious lawyering", but lawyering with humility, respect, and a duty to act. Such lawyering is the indicia of a competent lawyer, that begins with familiarization with UNDRIP, DRIPA and UNDRIPA, and educating clients[93] about the "far-reaching changes to the political, legal, economic and social landscape of our country and province."[94] Further, competent lawyers can also encourage industry and government actors to respect the human rights of Indigenous Peoples and the need to make space for Indigenous legal orders. Finally, lawyers can work to creatively find ways for clients to work *with* (rather than *for*) Indigenous Peoples to address climate change,[95] and to ensure that the integrity of Indigenous territories is respected. Your successful efforts will ensure a continued source for cultural resurgence and resilience—which will benefit everyone in our precarious existence in the global climate crisis.

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92 Chief Justice Bauman, *supra* note 58, paras 7, 8, 9, 10.

93 We have adopted the recommendations of Becky Clissmann in "The Chancery Lane Project" (PowerPoint 4.1 delivered at the CLE Climate Law Conference 2022, Vancouver, 25 February 2022) [unpublished] at 9.

94 The Law Society of British Columbia, "Competence", *supra* note 53, quoting Greg D'Avignon, CEO, Business Council of British Columbia.

95 We have adopted the recommendations of the Honourable Justice Brian Preston in "The Courts, The Legal Professions and Climate Change" (PowerPoint delivered at the CLE Climate Law Conference 2022, Vancouver, 25 February 2022) [unpublished] at 23.

Figure 1. System impacts from climate change, adapted from Skagit Climate Science Consortium, 2019, with the assistance of Pauline Petit.