



Beyond the Horizon

Sustainable Land Use in British Columbia

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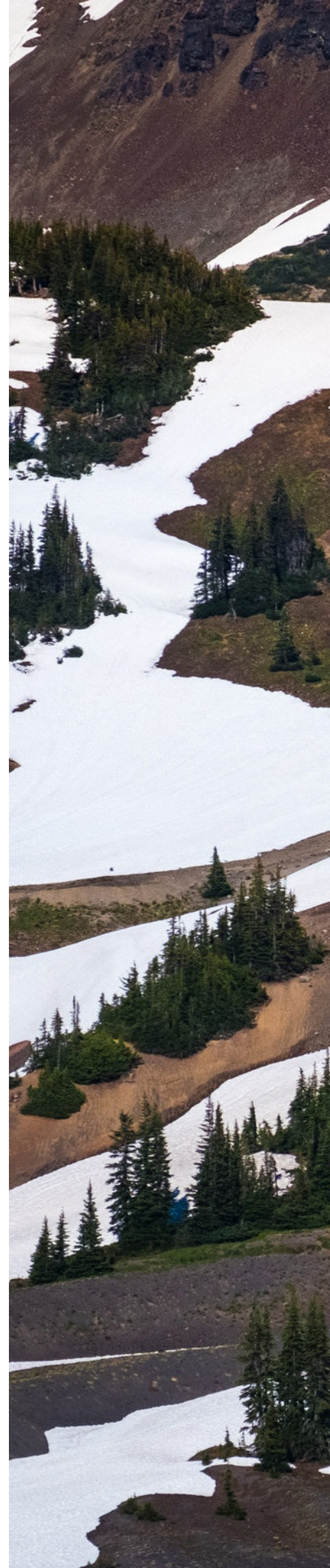


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Foreward

In 2018, we experienced a summer of wildfires, landslides, mountain pine beetle infestations, and controversial pipeline plans that seemed to polarize British Columbians on all sides.

These issues highlight the need for deeper understanding of the context, priorities, public perceptions, status, and trends about land use. As a funder, we can offer greater clarity on our funding role, and help to inform decision-making that fosters more sustainable practices across the province.

Land use is one of five interest areas that REFBC supports, and we commissioned this report to tell a story about land use in BC. With the Firelight Group's assistance, we reached out to thought leaders, grantees, and other land use groups to ask for their views on sustainable land use practices.

We also partnered with McAllister Opinion Research to conduct a public opinion poll on perceptions of sustainable land use. These findings help provide insight into public views and values around land use decisions that impact human settlements, biodiversity, Indigenous communities, and local economies.

On the following pages, we present the findings, broken down into themes and strategic priorities. Each theme and strategic priority is expanded into a series of recommendations to consider as we work on land use issues in BC.

Ultimately, our goal is to seek ways to strengthen land use decisions and practices that promote thriving, resilient communities and natural environments for current and future generations.

We would like to thank all who have contributed to this report, including our advisory committee, grantees, and project partners who are working towards promoting BC's natural assets, encouraging partnerships with First Nations, protecting sensitive ecosystems, and fostering innovative models for collaboration and decision-making.

Sincerely,



Jack Wong
Chief Executive Officer
Real Estate Foundation of British Columbia



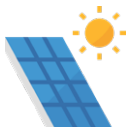
Executive Summary

British Columbia features astounding biodiversity, stunning natural landscapes, and rich cultural history. This report looks at strategies that promote thriving, resilient communities and natural environments for current and future generations.

The purpose of the research is to deepen our knowledge and understanding of sustainable land use, and to inform strategies and actions that can help BC move towards a more holistic and sustainable future. The Nuu-chah-nulth First Nation has a term that captures this holistic approach: “Hishuk ish ts’awalk” or “everything is one.” Other BC First Nations have similar philosophies that connect all living things together with the land in a holistic world view.

With that philosophy in mind, this report takes a wide-angle look at sustainability and land use. We examine sustainable land use from relevant literature, interviews with expert advisors, and responses from a survey of land use professionals and practitioners. Our findings are organized into seven themes:

THEMES IN LAND USE



Climate change
and the sustainable
economy



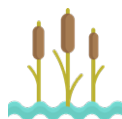
Cross-sectoral
coordination



Environmental laws
and policies in rural
communities



Indigenous-led
initiatives



Ecosystem
conservation



Rural-urban
disparities



Public perceptions
of land use

In each section, we summarize key challenges and barriers and, more hopefully, highlight examples of progress.

Our research identifies overarching challenges, including climate change, industrial development, and poor conservation practices. These issues suggest a sense of urgency in response to rapid change and the need to alter negative impacts, particularly in rural areas and backcountry regions. For instance, climate change and forest mismanagement caused two of the worst wildfire seasons on record in 2017 and 2018. Since 2017, costs associated with firefighting and forest management have reached close to \$1 billion.¹

Other land management challenges include fragmented governmental decision-making, as seen in some attempts to address cumulative effects. Provincial and federal governments are sometimes perceived as ineffective at protecting the environment, such as in the Mount Polley mine disaster. First Nations and rural local governments, responsible for managing the province's largest land bases, are often plagued by a lack of capacity. Another important issue involves implementing economic development opportunities with land use, such as through eco-tourism.

Based on the research, we identified five cross-cutting priorities, numbered for ease of reference:



Suskwa River, near Madii Lii Culture Camp.
(Photo: Noémi Pomerleau)

FIVE PRIORITIES

1

Coordinate land use actors² and initiatives

2

Align and implement strategic land use frameworks

3

Mobilize land use education and outreach

4

Support Indigenous-led processes

5

Adapt the roles of non-profits

The report concludes with recommendations (in no particular order) that illustrate and outline a pathway towards economic prosperity and sustainable land use in BC. Recommendations specific to REFBC will be examined in future research.

SUMMARY OF RECOMMENDATIONS

Recommendations	Lead Agency / Actor
1. Coordinate land use actors and initiatives.	
<ul style="list-style-type: none"> » Convene an annual conference, workshop, or gathering to enhance multi-sectoral collaboration on land use challenges. » Support adoption of UNDRIP through meaningful involvement of First Nations at initial stages of project initiatives. » Advance the concept of the Environmental Stewardship Initiatives or Collaborative Stewardship Forums across BC. » Support land use communities of practice at regional scales to link to key values (e.g. resource use, land development, biodiversity strategies, and water stewardship). 	<ul style="list-style-type: none"> » Non-profits working with First Nations, practitioners, and local, provincial, and federal governments » Ministries of FLNRORD, ECCS, and IRR, working with the federal government, industry, NGOs, local governments, and First Nations » Ministries of FLNRORD, ECCS, and IRR, working with First Nations, federal government, industry, NGOs, and local governments » Non-profits, working with professional associations, academics, First Nations, and practitioners
2. Align and implement strategic land use frameworks.	
<ul style="list-style-type: none"> » Facilitate engagement and update cumulative effects (i.e. the <u>Provincial Cumulative Effects Framework</u>). Incorporate cumulative effects into professional codes of practice in land use (e.g. code of ethics, best practices, and certification processes). Strengthen monitoring for cumulative effects by identifying metrics to track environmental changes. » Build on best practices and experiences to explore a terrestrial partnership model (e.g. <u>Marine Plan Partnership for the North Pacific Coast</u>). » Research existing models and agree on preferred methods for environmental benchmarks. Set thresholds for acceptable levels of change (e.g. # of hectares of protected land for caribou). » Create a Natural Resources Board to realign economic development with land use planning. 	<ul style="list-style-type: none"> » Ministry of FLNRORD working with professional associations, NGOs, and practitioners » Funders working with First Nations, non-profits, provincial and federal governments » Ministries of FLNRORD and ECCS working with federal government, academics, non-profits, and First Nations » Ministry of FLNRORD working with professional associations, non-profits, and practitioners

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SUMMARY OF RECOMMENDATIONS (cont)

Recommendations	Lead Agency / Actor
3. Mobilize land use education and outreach.	
<ul style="list-style-type: none"> » Promote tools and best practices with extension services and training to build capacity in rural areas (e.g. West Kootenay Wildfire Mitigation Plan, conservation fund for the South Okanagan). 	<ul style="list-style-type: none"> » Non-profits working with academics, UBCM, and local governments.
<ul style="list-style-type: none"> » Educate elected officials about land use issues (e.g. Community Energy Association's Community Energy Leadership Program). 	<ul style="list-style-type: none"> » Non-profits working with UBCM, local governments, and professional associations
<ul style="list-style-type: none"> » Promote digital libraries of land use tools and resources (e.g. CivicInfo BC). 	<ul style="list-style-type: none"> » Non-profits working with professional associations
<ul style="list-style-type: none"> » Showcase businesses and industrial innovation that demonstrate the benefits of sustainable land use and economic development approaches (e.g. Vancity Credit Union funding mechanism to support Saturna Island residents' land purchase for conservation). 	<ul style="list-style-type: none"> » Businesses working with non-profits and industry
4. Support Indigenous-led processes.	
<ul style="list-style-type: none"> » Establish training for land managers integrating Indigenous approaches into land management (e.g. Indigenous-led environmental assessment, Indigenous land-use planning, and governance). 	<ul style="list-style-type: none"> » First Nations working with non-profits, academics, and funders
<ul style="list-style-type: none"> » Showcase Indigenous perspectives about land use issues and impacts (e.g. UVic's Indigenous law degree program). 	<ul style="list-style-type: none"> » First Nations working with academics and non-profits
5. Adapt the roles of non-profits.	
<ul style="list-style-type: none"> » Support capacity building in Indigenous communities (e.g. West Coast Environmental Law's RELAW project). 	<ul style="list-style-type: none"> » Non-profits working with First Nations
<ul style="list-style-type: none"> » Create capacity and expertise for First Nations leadership in land use planning initiatives (e.g. Indigenous peer-to-peer exchanges, fellowships, etc.). 	<ul style="list-style-type: none"> » Non-profits working with First Nations
<ul style="list-style-type: none"> » Develop case studies on land use mechanisms with Indigenous partners (e.g. South Okanagan-Similkameen Conservation Program, Columbia Basin Trust and Liard Basin). 	<ul style="list-style-type: none"> » Non-profits working with First Nations

Introduction

“Hishuk ish ts’awalk” (“Everything is one”)

The Nuu-chah-nulth First Nation’s philosophy toward land and life is “Hishuk ish ts’awalk. It represents the connections between people and the ecosystems that they live within. Other First Nations have similar philosophies that connect all living things together with the land in a holistic world view.

Similarly, the purpose of this study is to deepen our knowledge and understanding of sustainable land use in BC, and to inform strategies and actions to help British Columbians move towards a more sustainable future. This research explores land use management approaches that strategically promote thriving, resilient communities and natural environments. In other words, the report strives to link land with life, or “Hishuk ish ts’awalk.”

The Real Estate Foundation of British Columbia (REFBC) defines land use as the human use of land—the management, conservation, and change of natural environments and semi-natural areas. This report focuses primarily on land use in rural areas of BC.

Sustainable development, or sustainability, is a term that has been applied in the 30 years since *Our Common Future*, also known as the Brundtland Commission Report. The Report defined sustainable development as “development that meets the needs of the present without compromising the ability of future generations to meet their own needs.”³

British Columbia includes 925,000 square kilometres of forest, mountains, valleys, deserts, islands, coasts, grasslands, wetlands, and tundra. This rich landscape includes a wide range of natural resources, such as minerals, wood, oil and gas, and farmland. BC settlers have a history of extracting natural resources for economic development and short-term economic gain. These natural resources are becoming more difficult to excavate for many reasons, including unsustainable environmental practices, a heightened awareness of Indigenous issues, and volatile global prices. These issues and others corroborate the need to re-examine land use rules and practices in BC.



DEFINITIONS WE USE

Land use is the human use of land—the management, conservation, and change of natural environments, built environments, and semi-natural areas—to support settlement and communities.

Sustainable land use is land use that enables humans to thrive within nature’s limits. It integrates social, environmental, economic, and cultural objectives into policy and practice for the long-term well-being of communities and ecosystems.

A Vision for Sustainable Land Use

“Land use decisions and practices promote thriving, resilient communities and natural environments for current and future generations.”⁴



Communities that minimize energy consumption and carbon emissions



Neighbourhoods that provide members with a high quality of life



People with access to natural environments and green space



An understanding that the economy is inextricably linked to the environment



Intact natural areas and ecosystems



People who protect, conserve, and respect natural ecosystems

This vision for sustainable land use recognizes that people and the natural environment are inextricably linked. Economic success can support, rather than hinder, natural environments and community vitality.

The State of Land Use in British Columbia

The challenges facing the land—climate change, biodiversity loss, ecosystem degradation, rapid resource extraction—are mounting.

BC communities must respond to rapid change and mitigate negative impacts, particularly in rural areas and backcountry regions. Land managers must often confront difficult decision processes that include complex trade-offs, particularly where economic gain comes at the expense of conserving natural ecosystems. However, this research suggests multiple opportunities and examples of positive change. In other words, we have a lot of work to do. While we have the tools to make adjustments, we also face challenges—particularly with governance structures and decision-making processes.



Oil and gas extraction in Jonah Field, Wyoming.
(Photo: Bruce Gordon, EcoFlight)

Research participants identified key challenges like climate change, resource development impacts, and the need for natural ecosystem conservation to be a priority in land use decisions. For instance, climate change and forest mismanagement caused two of the worst wildfire seasons on record in 2017 and 2018.⁵ Since 2017, costs associated with firefighting and forest management have reached unprecedented levels in BC.⁶

Other challenges include biodiversity loss, invasive species, and landscapes altered by resource extraction. In addition, with smaller property tax bases, rural communities have fewer resources to manage species at risk, support conservation, and restore natural areas. Local governments in smaller communities are often responsible for larger land areas, which suggests the dollars they receive must stretch further.

Cost-cutting measures can speed up processes and save communities money. However, in the long term, these measures can undermine conservation strategies. For example, wetlands may be considered nuisances that are difficult to work around and limit potential development. While draining or filling wetlands may seem convenient in the short term, wetlands contribute important environmental and health functions, such as soaking up storm water and filtering contaminants and pollution.⁷

Other land management challenges, such as cumulative effects, involve making decisions without cross-agency coordination. Cumulative effects are the changes to environmental, social, and economic conditions caused by the combined effects of past, present, and potential future human activities and natural processes.

The Peace River watershed, for example, has experienced widespread change due to industrial development of its natural landscape. Logging, mining, oil and gas development, large-scale hydro dams, roads, pipelines, and other industrial developments have impacted most of the region's ecosystems.⁸ Numerous agencies, such as the Ministries of Energy, Mines & Petroleum Resources; Forests, Lands, Natural Resource Operations and Rural Development (FLNRORD); Transportation and Infrastructure; and Environment and Climate Change; the BC Oil and Gas Commission, and BC Hydro play large roles in these types of projects. However, no agency oversees how each project collectively affects the communities, rivers, lakes and wildlife in the area.

Provincial government regulations are sometimes perceived as ineffective at protecting the environment. For example, mine proposals and permits do not require companies to eliminate surface water from tailing impoundments, despite expert recommendations after the Mount Polley mine disaster.⁹

Many resource communities face a declining industrial tax base and have little flexibility to fund the shortfall. Struggling small businesses, a dwindling number of residents, and increasing social issues suggest a decline for communities without new revenue sources.¹⁰ A dearth of planning personnel in First Nations land offices, small towns, and regional districts exacerbates these funding gaps. This reality amounts to a lower capacity to manage land use decisions in rural areas.

Finally, a vocal minority of residents believe that land management practices are examples of government interference or "bureaucratic red tape." This perception leads to apathy and inertia, and it slows down positive change.



Walking trails along Witsset Canyon, near Moricetown, BC. (Photo: Noémi Pomerleau)



Vargas Island, near Tofino, BC. (Photo: Hedy Rubin)

Scope and Limitations

Land use covers a range of issues across a suite of inter-connected domains (e.g. agricultural land, watersheds, and transportation). REFBC's other interest areas cover many aspects of land use, such as food lands, fresh water, real estate, and the built environment. Therefore, for the purpose of this research, we have specifically focused on rural areas, rather than urban centres or mega development projects (such as Site C).

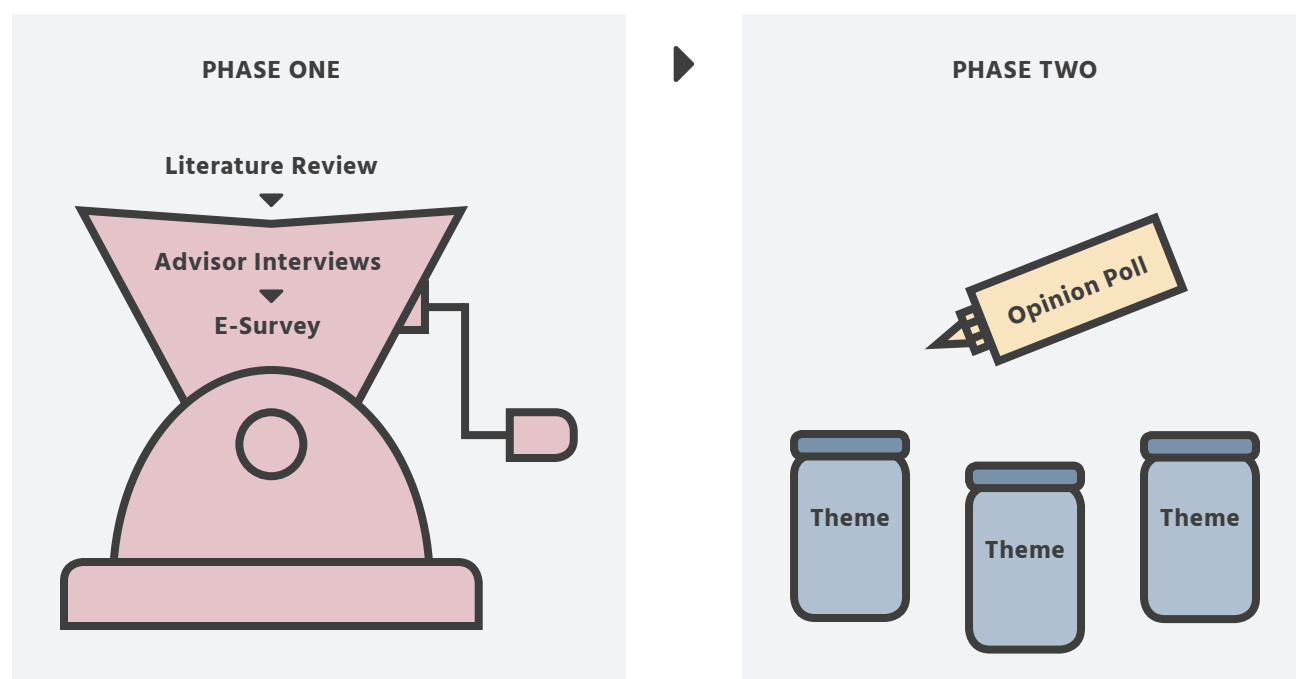
The analysis and findings were based on a relatively small survey sample. The results are interpretations of condensed themes, priorities, and recommendations derived from a range of research inputs.

Research Methods

Research in support of this report included a literature review, interviews with 12 land use expert advisors, and a survey of 54 land use professionals and practitioners, as well as secondary results drawn from a public opinion poll (see Figure 1).¹¹

We condensed the findings into themes that reflect the conditions and sustainability of land use in BC. For each theme, we identified challenges, barriers, and examples of progress. We also pointed to strategies for improving land management as well as the people and groups best suited to implement these changes, including non-profits, Indigenous and municipal governments, provincial and federal governments, and industry. Finally, we identified five strategic priorities and bundled them into a set of recommendations.

FIGURE 1: METHODS AND RESEARCH PROCESS



Themes in Land Use

Land use is complicated, with many inter-related themes issues and topics that should be considered as a whole. We developed these themes from the literature review and advisor interviews. They are inter-related and are not ranked in any particular order (see Figure 2).

FIGURE 2: LAND USE THEMES IN BC





Climate Change and the Sustainable Economy

Climate change is affecting the availability of natural resources and the way British Columbians earn a living. The increasing variability and intensity of temperatures and precipitation is forcing communities to adapt.

Advisors identified climate change and resource development as key drivers impacting land use. Natural resource-based industries (such as fishing, forestry, and agriculture) and non-renewable extractive industries (such as mining, oil, and gas) impact the land as resources become scarce and industrial footprints become conspicuous. Communities that depend on fossil fuels for all their energy needs will likely face greater uncertainty in the future. On the other hand, communities that are diversifying to renewable energy will be more resilient.

For example, recent declines in oil and gas prices have created volatile economic impacts in communities like Fort Nelson and Fort St. John, where oil and gas companies are major employers. Other communities, like Nelson and T'Sou-ke Nation, are moving towards self-sufficiency by diversifying their economic bases to include solar power, wind energy, specialized agriculture, eco-tourism and more.¹²

Many British Columbians aspire to use renewable energy sources. In REFBC's recent public opinion poll, residents identified a sustainable economy (53%), clean energy economy (34%), and green economy (25%) as top choices for their desired financial system.¹³

Advisors emphasized the need to address wicked problems, such as integrating both water and land management into planning. A wicked problem is when incomplete, contradictory, and changing requirements are difficult to recognize and address because of complex inter-dependencies.¹⁴

For example, large wildfires detrimentally affect water supply because reduced forest cover increases soil erosion and water contamination. Forest mismanagement, reduced glacier ice packs, and water withdrawals (e.g. from agriculture or extractive industries) deplete surface and ground water levels, which inadvertently causes more wildfires.

Meanwhile, the Province spent almost \$1 billion fighting wildfires in 2017 and 2018 combined.¹⁵ While it is beyond the scope of this research to investigate freshwater and land use linkages in detail, these connections are often treated separately, which reveals and creates other problems.



The Bear Mountain Wind Park, outside Dawson Creek, can generate 102 megawatts of power. (Photo: Stephanie Butler)



Cross-Sectoral Coordination

A lack of strategic coordination among groups and across sectors often results in land use decisions that occur in isolation and can have unintended effects. Survey respondents shared various examples of successful land management strategies, yet many (43%) observed uncoordinated and piecemeal land use planning at regional and provincial levels.¹⁶

Some previous initiatives have attempted to coordinate land use, but they focused on a lone environmental element, were short-term and out of date, or lacked sufficient engagement with affected groups.¹⁷

For example, Strategic Land and Resource Plans provide direction for Crown land use by establishing broad land use goals, planning zone designations, and land objectives and strategies.¹⁸ Other land use plans include Strategic Resource Management Plans, Land and Resource Management Plans, Regional Land Use Plans, and coastal plans.

A single gas wellhead, forestry cutblock, or new housing subdivision may not significantly impact a natural ecosystem on its own. However, when these impacts are combined, the detrimental effects on ecosystems can be substantial. Associated transportation and energy infrastructure increase each project's impact. This process of "death by 1,000 cuts" has adverse effects on fresh water, fish and wildlife habitat, and the quality of life in rural communities.

The provincial cumulative effects framework is in the process of establishing policies, procedures, and decision-support tools to help identify and manage cumulative effects across BC's natural resource sector. The framework does not create new legislative requirements; instead, it informs considerations using existing natural resource sector legislation, policies, programs, and initiatives. Using the framework will help organizations identify, consider, and manage cross-sector governance tools to address cumulative effects more consistently.¹⁹



Erosion from a dam reservoir. (Photo: Carolyn Whittaker)

Input from civil society, non-profit organizations (NPOs) and non-governmental organizations (NGOs)²⁰ is important for cross-jurisdictional planning initiatives. (In this report, the terms non-profits, NPOs and NGOs are used interchangeably.) However, advisors noted that these groups have recently played a diminished role in land use decision-making, compared to previous decades. Currently, greater attention is placed on negotiations between First Nations and the Government of Canada. The role of non-profits, if any, may not be as obvious as in the past.

Indigenous peoples²¹ are exercising greater authority for their rights and title in their traditional territories with the Government of Canada. This issue is particularly relevant in BC, where the majority of First Nations have not signed treaties. NPOs and NGOs working with Indigenous peoples on land issues will need to reflect, recalibrate and reconsider appropriate roles.



Environmental Laws and Policies in Rural Communities

Regional districts provide a range of service arrangements to residents of municipalities, unincorporated (electoral) areas, and Treaty First Nation lands. In BC, local governments have broad powers that provide services, enter into agreements, and regulate property. Regional districts have more limited regulatory powers than municipalities.²²

While numerous municipal tools are available, unincorporated areas often lack effective land use planning capacity. For example, planners working with interface zones (areas where rural or backcountry lands meet an urban or suburban periphery) can lack access to baseline environmental data, relevant legislation, or funding for residents to engage in land use decisions.²³ Ironically, these zones often include sensitive, diverse wildlife habitats, and they are often at the highest risk of development pressures. Because these areas lack people and a robust tax base, interface zones are often neglected when we consider sustainable land use.

A lack of attention has eroded interface zones around the province. For example, mushroom picking and livestock grazing are occurring more often in the Stelat'en First Nation Reserve areas around Fraser Lake. However, because the community has few regulations on land use in this zone, Nation members have no recourse to address over-grazing and over-picking.

Federal and provincial governments have jurisdiction over land use decisions about mineral exploration, development, conservation, wildlife, and management of non-renewable and forestry resources, such as the permitting of resource projects. For example, the BC Ministry of Forests, Lands, Natural Resource Operations and Rural Development (FLNRORD) determines the annual allowable forest cut (AAC) for large swaths of territory, irrespective of specific local community needs or other development. The *Environmental Assessment Act* uses criteria and evaluation for development projects above particular impact thresholds. Local communities are consulted, but the federal government retains the final decision.

In Canada, environmental laws often involve shared jurisdiction over various land use aspects. Resource development and wildlife management occur at the local level, yet laws governing resource extraction are set by the provincial and federal governments. On the other hand, municipality authority is given by the Province, so municipalities can only regulate areas that appear on the Province's list of powers. A municipality cannot have a power that its Province does not have.²⁴

For example, provincial and municipal governments are responsible for protecting the natural environment. This shared responsibility is limited, however, since municipalities can create their own regulations for matters such as public spaces and animals. Local governments have the potential to exercise sustainable land use approaches because their power to create environmental laws remains substantial.²⁵ They maintain control, for example, of the location of roads and services, as well as sewage treatment. Tools that can help communities use land more sustainably include green bylaws, local conservation funds, and community resource inventory development.²⁶



Indigenous-Led Initiatives

Advisors identified increasing Indigenous leadership towards sustainable land use (see Figure 3). Government-to-government frameworks and high-profile court cases are changing political conditions related to land use, and “early engagement” environmental assessments are a noteworthy innovation.²⁷ For example, Squamish Nation’s environmental assessment approach to the proponent, Woodfibre LNG, involved agreeing to a series of recommendations before the project could move forward.²⁸

Unresolved jurisdictional issues related to Crown and Indigenous rights and title continue to affect land claims and investment predictability. For example, the recent Trans Mountain pipeline expansion project was thrown into jeopardy due to uncertainty in how Canada recognizes and affirms Aboriginal rights and title on their traditional territories.²⁹

Survey results indicate that creating strong and ongoing relationships between First Nations and organizations is crucial for effective collaboration on land use (see Table 1).

Two significant developments are changing the way settlers (non-Indigenous people) work with Indigenous peoples: the UN’s Declaration on the Rights of Indigenous Peoples (UNDRIP) and the Truth and Reconciliation Commission. In 2016, Canada endorsed the adoption and implementation of UNDRIP actions that emphasize free, prior, and informed consent about decisions affecting Indigenous lands.³⁰ Nationally and provincially, the Truth and Reconciliation Commission set mandates for new governance roles for Indigenous Nations and communities in 2012.

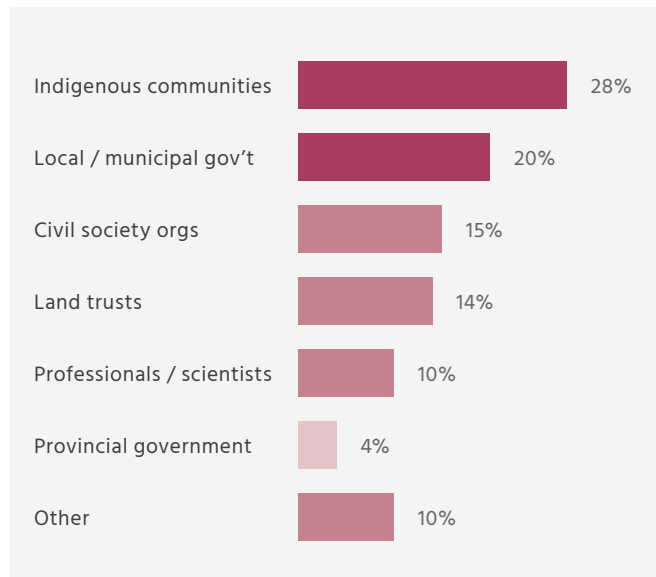
The Truth and Reconciliation Commission also highlighted ways for Indigenous and non-Indigenous peoples to work together on land use issues. Many companies, communities, and government agencies are working to implement the 94 Calls to Action.³¹ For instance, the BC Environmental Stewardship



Indigenous monitors observe land changes near Doig River First Nation, 2016. (Photo: Carolyn Whittaker)

FIGURE 3: ACTORS WORKING TOWARDS SUSTAINABLE LAND USE

Q: In your region, who is working most effectively towards sustainable land use? (n=51)



Initiative is a provincially supported ecological habitat and cumulative effects assessment initiative that incorporates Indigenous values and knowledge into its evaluations and recommendations.

As Indigenous leadership continues to grow, uncertainty remains about how development permits will be approved on Indigenous territory. For example, Tsilhqot'in Nation declared the Dasiqox Tribal Park as a protected area, and after a full environmental assessment, the federal government rejected the New Prosperity mine application. While a New Prosperity appeal is still before the courts, the Province permitted New Prosperity Mine to undertake exploratory drilling in the Tribal Park. The Tsilhqot'in First Nation was awarded an injunction to stop the drilling, but the mining company proposed a revised application to move the project forward.³²

A growing number of First Nations are establishing land management plans. For example, the Heiltsuk First Nation has developed wildlife management plans for numerous species,³⁴ and conservation areas make up 50% of their territory. Other Nations are protecting land and water, positioning ecosystem conservation as a primary value within their laws and customs.

West Coast Environmental Law's RELAW project helps bolster Indigenous laws. The program recognizes Indigenous legal orders and offers perspectives and tools for solving land use problems. Indigenous Protected Conservation Areas, conservancies, and tribal parks are other vehicles for First Nations to develop land designations that acknowledge meaningful relationships with the land. The Clayoquot Biosphere Trust is another example of an internationally recognized sustainable land model (see Figure 4).

While Indigenous communities and nations are undertaking progressive land use planning and stewardship initiatives, significant gaps still remain. For example, many Indigenous peoples lack internal capacity (e.g. technical capacity, personnel, and funding). At the same time, most British Columbians lack a general knowledge and understanding of Indigenous rights and laws.

WHAT IS A TRIBAL PARK?³³

A tribal park supports ecosystems and Aboriginal or treaty rights. Tribal parks aim to preserve, protect, and conserve areas in a more traditional sense with less intensive resource extraction. People can live in tribal parks and make a living from the land by fishing, hunting, trapping, and harvesting in ways that balance nature with livelihoods for future generations. Cultural revitalization is another important component of tribal parks, which bring younger generations together with their elders. Dasiqox and Tla-o-qui-aht Tribal Parks are two examples in BC.

TABLE 1: INDIGENOUS AND NON-INDIGENOUS ORGANIZATIONS WORKING TOGETHER

Q: What are the most important factors for Indigenous and non-Indigenous organizations to work together towards sustainable land use? (Survey respondents selected up to two factors.)

Creating an ongoing relationship between organizations	65%
Financial capacity for Indigenous First Nations or groups to support engagement	47%
Better understanding of Indigenous land use values	39%
Knowledge of procedure for engaging with Indigenous organizations	25%
Education/cultural training for staff	16%
Knowledge of all Indigenous and non-Indigenous initiatives occurring in a territory	4%

Gathering Voices Society (GVS) advances solutions for two challenges facing Indigenous peoples: a lack of sustainable livelihood opportunities, and ecological degradation that threatens cultural and ecological values. GVS uses environment management and stewardship (EMS) to create opportunities to connect First Nations stewards with market-based funding structures. GVS helps remove barriers such as limited public awareness, communication gaps between scholars and stewards, and the complexity in the design and implementation of EMS programs. They created [FNECO.NET](#), an online knowledge-sharing platform specifically for First Nations.

As Indigenous knowledge platforms raise the profile of land stewardship, multi-sectoral partnerships and meaningful collaboration should lead to ongoing and future success.

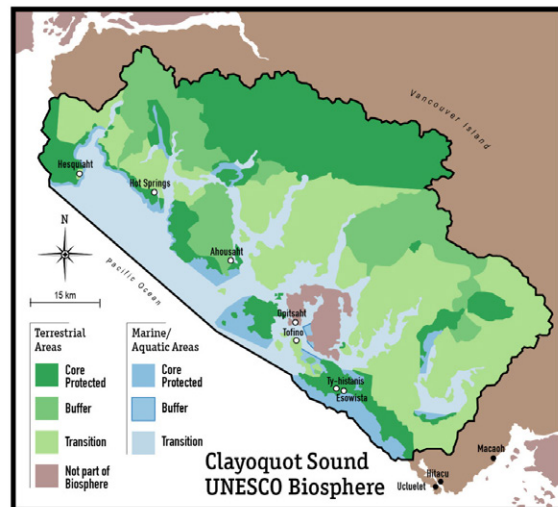
FIGURE 4:
CLAYOQUOT SOUND UNESCO BIOSPHERE REGION AND CLAYOQUOT BIOSPHERE TRUST

First Nations, communities, and the federal and provincial governments support the Clayoquot Sound UNESCO Biosphere Region, which was designated as a UNESCO World Biosphere Trust in 2000. The Trust acknowledges Aboriginal rights and title without the prejudice of ongoing treaty negotiations. Members of eight caretaker communities³⁵ participate in the Clayoquot Biosphere Trust to help build a more sustainable future.³⁶

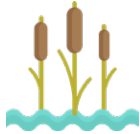
UNESCO Biosphere Regions seek more sustainable ways to work with their natural environments by fostering the integration of nature with people. They approach sustainable development through participatory dialogue, knowledge sharing, poverty reduction strategies, human well-being improvements, respect for cultural values, and addressing climate change.³⁷

Clayoquot Biosphere Trust is community foundation implementing and monitoring the United Nations Sustainable Development Goals framework that set targets for reducing poverty, ending hunger, ensuring quality education, and restoring ecosystem services.

Learn more: www.clayoquotbiosphere.org



(Source: Clayoquot Biosphere Trust)



Ecosystem Conservation

Biodiversity and natural areas are central to a healthy land use base.³⁸ Advisors identified the conservation of natural habitat and wildlife as a top priority.³⁹ Healthy, natural ecosystems are fundamental to long-term, sustainable livelihoods and communities.

Unprecedented environmental change, including the loss of intact ecosystems, is due to accelerated pollution, development, and climate change. A warming planet exacerbates the effects of human disturbances on forests, plants, wildlife, and fish.

The good news is that natural systems are resilient and can adapt to various conditions, but only to a certain point. When pushed beyond a threshold, an ecosystem can “flip” and become so severely degraded that the change is lasting and hard to reverse. A key species or ecosystem can find it extremely difficult to adapt to rapid and potentially irreversible shifts.

Many areas of BC are on the verge of passing or have already passed such thresholds. For example, habitat has been severely diminished for iconic wildlife, such as threatened or endangered grizzly bears and caribou. Moose populations have fallen dramatically, compromising the ability of many First Nations and rural residents to hunt for dietary and cultural needs.

Some advisors emphasized the importance of setting limits on certain kinds of development and stressed the need to maintain healthy land, water, and wildlife. In particular, sensitive habitats, wetlands, watersheds, and species at risk require consideration.

One way to conserve land is through land trusts. Conservation land trusts are non-profit, charitable organizations committed to the long-term protection of natural and/or cultural heritage of lands. A land trust may own land itself, or it may form conservation covenants with property owners to protect and restore natural or heritage features.⁴⁰

The Comox Valley Land Trust (see box) is a good example of how land is conserved in a trust. First Nations, such as Fort Nelson First Nation, are also setting precedents for protecting wildlife, such as caribou, along with land conservation.⁴¹

COMOX VALLEY LAND TRUST

The Comox Valley Land Trust conserves ecologically significant land and wildlife habitat in the Comox Valley. The Land Trust operates the Comox Valley Conservation Partnership and the Land Protection Program.⁴²

The Partnership formed to prioritize and protect sensitive ecosystems on private land, since there was no regional plan in the Comox Valley. It brings together local groups to support projects and provide a voice for conservation in natural areas. The Land Protection Program protects strategic private properties for conservation.

Learn more: www.cvlandtrust.ca



Rural-Urban Disparities

Rural communities do not possess the economic opportunities or services that urban centres have. Most natural resources that contribute to the provincial economy (e.g. forestry and mining) are near rural communities, and these communities are often faced with “boom and bust” economies that depend on global commodity markets. Local economies often fail to “future-proof” a town’s economic outlook due to volatility in commodity prices.⁴⁵

Rural communities and First Nations have established community forests as a tool to help provide long-term employment opportunities. Community forests support local livelihoods, promote community participation, and foster environmental stewardship. Across the province, almost 100 communities are planning or operating community forests that collectively represent 2% of BC’s annual harvest.⁴⁶

Most of BC’s population lives in cities.⁴⁷ While housing affordability is prominently highlighted in the BC Lower Mainland, this issue is also of central concern in rural BC. High real estate prices in urban centres have driven development costs higher in rural areas. In some cases, investment properties and second homes escalate property values. In other cases, residents opt for greater purchasing power and move to smaller towns for a higher quality of life. In both cases, the result is often increased demand that drives up housing prices and displaces residents.

While the Province is investing in building affordable housing, some advisors discussed the contentious role that rental housing creates in small and large communities alike.⁴⁸ Creating just one social housing development can take many years due to zoning changes, development permits, and community opposition.

Another option is a Community Land Trust (CLT). A CLT acquires land in trust for affordable housing, usually for low- to moderate-income families. A CLT typically separates the value of the land from the buildings and removes the land value from the private market. CLTs include an array of housing types, including private ownership, co-op ownership, rentals,



“Communities are not being created around the health and well-being of the community, but are built around short-term resource extraction.”⁴³



Creston, BC. (Photo: Nick Davies)

and non-profit rentals. In these examples, the trust owns the land and the individual owns the home. Resale formulas preserve long-term affordability.⁴⁹

CLTs are applicable in smaller towns where land is available and building costs are lower than in cities. Rather than focusing on an individual housing unit or building, the CLT model can apply to multiple homes and even to neighbourhoods. CLTs are well known in the US and Europe but are relatively new to BC.⁵⁰



“There are some problems, affordability is one of them, which will not be solved by soft policies or a lack of coordination. It’s going to take strong coordination, with strong policies and regulations, with the knowledge that some people will not like it because they are going to be hurt.”⁴⁴

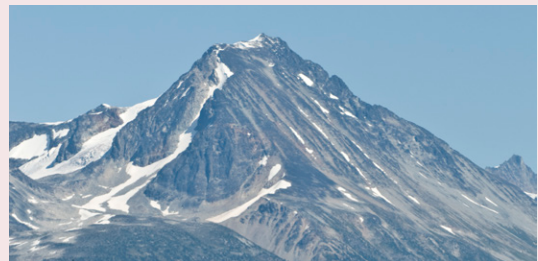
SAN JUAN COMMUNITY HOME TRUST⁵¹

A Community Land Trust (CLT) separates the cost of land from the cost of a home. The land is held in perpetuity by an NGO, while homes are sold to qualified buyers. Homebuyers enjoy the security of homeownership, can build equity, and can pass ownership to their heirs or sell the home back to the CLT.

The San Juan Community Home Trust creates affordable housing for low- and moderate-income island residents. The Home Trust subsidizes the cost of land, infrastructure, and construction costs. The Trust can apply for grants and accept tax-deductible contributions. Homebuyers obtain a mortgage and agree to limit the eventual resale price, which is restricted by a formula tied to the area’s median income.

WHISTLER CENTRE FOR SUSTAINABILITY⁵²

The Whistler Centre for Sustainability develops initiatives to support smaller community infrastructure plans (e.g. the Whistler Transportation Plan) and affordable housing for small communities, such as in Comox Valley. They also support social ventures, such as the Skwxwú7mesh Lílwat Stl’atl ímc Business Start-up Program for new businesses that fill gaps in their communities.



Whistler, BC. (Source: Picture BC / Flickr)

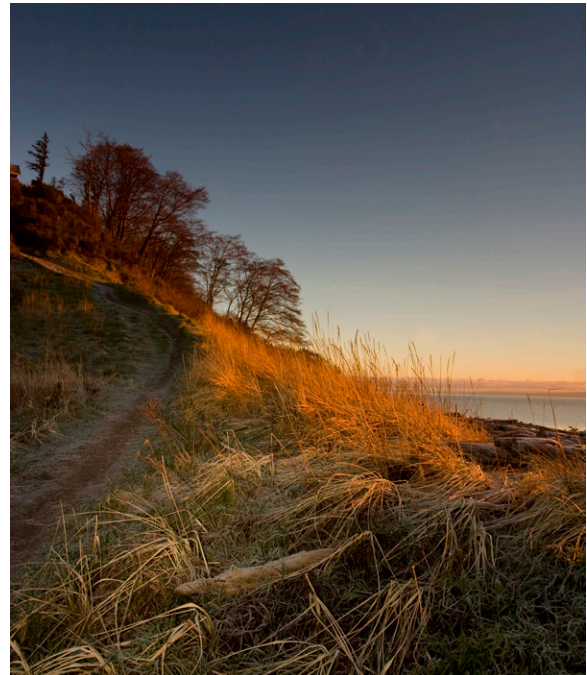


Public Perceptions of Land Use

REFBC poll findings indicate that British Columbians have a limited understanding of the role of sustainable land use and how decision-making affects local residents. Sustainable land use is sometimes viewed as bureaucratic red tape, rather than carefully considered, long-term decision-making for future generations. This perception underscores a lack of political will for making prudent land use decisions that prioritize economic opportunities over holistic land use choices.

This view is currently being played out through projects such as the planned Trans Mountain pipeline expansion. The anticipated economic benefits are positioned as being in Canada's national interest with acceptable trade-offs, in contrast to the potential oil tanker spills that jeopardize coastal communities' livelihoods as well as endangered orcas. The issue is even more complicated when cumulative effects are interwoven into trade-offs such as habitat destruction, contaminant leakage, agricultural runoff, fishery impacts, and the acidification of water from climate change.

The idea that the economy is separate from the environment (rather than inter-connected) presents another barrier to implementing sustainable land use policies. From its Greek origins, economy means "wise and intelligent care of the house."⁵³ But the state of sustainable land use is not all doom and gloom. A shift is evident in public perception as BC transitions to a greener economy.⁵⁴



Comox Valley, BC. (Source: Picture BC / Flickr)



➔ **Download a summary of opinion poll findings at bit.ly/SLUpoll.**

Summary of Land Use Themes

We asked research respondents to identify challenges, barriers, and areas of progress experienced by various actors that influence sustainable land use. We organized the results into themes and indicate how they affect different groups.

TABLE 2: CHALLENGES, PROGRESS, AND OPPORTUNITIES


Climate Change and the Sustainable Economy 		
Affected Groups		
<input checked="" type="checkbox"/> NGOs	<input checked="" type="checkbox"/> Municipal Gov't	<input checked="" type="checkbox"/> Provincial Gov't
<input checked="" type="checkbox"/> Federal Gov't	<input checked="" type="checkbox"/> First Nations	<input checked="" type="checkbox"/> Industry
Challenges	Progress	Opportunities
Increased variability and intensity of temperature, precipitation, and other weather patterns affects the availability of resources.	Some instances of innovation and shifts to a greener economy.	Governments are being forced to address causes and effects related to climate change.
How we interact with the environment.	Public attention is moving towards a sustainable economy.	Communities will see the need to plan strategically and long-term, and more attention should bring more funding.
Complex, large-scale systemic adaptation.	Managing fire interface areas in rural communities (including Indigenous fire-keepers); shoreline planning processes (Interior lakes with heavy shoreline development and increased flood risk).	Additional funding for resilience planning and implementation in rural communities for climate change, particularly floods and wildfires (Okanagan and Kootenays).
Cause and effect are often far removed and not associated.		Full-cost accounting analysis (e.g. asset management).

Chart continues onto next page . 

Cross-Sectoral Coordination



Affected Groups

NGOs
 Municipal Gov't
 Provincial Gov't
 Federal Gov't
 First Nations
 Industry

Challenges

Little consideration for combined effects of land use decisions.

Community averse to change. Most projects are considered on an individual, piecemeal basis.

Conflicting/unclear jurisdictional authority. High cost of processes. Lack of accountability.

Progress

Regional initiatives to coordinate between projects and across sectors are helping to address the complexity of landscape impacts and support more sustainable land use decisions.

Opportunities

Develop best practices (e.g. professional reliance).

Support community-driven processes to determine limits of acceptable change; cross-agency bodies (e.g. build on or assess effectiveness of Rural BC Secretariat, [Asset Management BC](#), [Municipal Natural Assets Initiative](#)).

Environmental Laws and Policies in Rural Communities



Affected Groups

NGOs
 Municipal Gov't
 Provincial Gov't
 Federal Gov't
 First Nations
 Industry

Challenges

Lack of coordination among agencies (e.g. fragmentation and silos).

Lack of dedicated funding and capacity.

Lack of political will to enact change. Inherent political difficulties to performing long-term planning.

Progress

Larger dialogue, collaborative and participatory practices to support land use (Environmental Stewardship Initiative,* [MaPP](#), reviewing Species at Risk and Environmental Assessment processes).

Many tools exist for local and regional governments (e.g. zoning, covenants, land acquisition, etc.)

Opportunities

Workshops to build understanding of land use practices and to bring actors together.

Public and government education to build support for land use.

Advocacy and support from bridging organizations (e.g. Legacy Initiative, Nature Conservancy of Canada).

Chart continues onto next page . ↗

*The [Environmental Stewardship Initiative](#) (ESI) involves four stewardship forums in Skeena, Omineca, the Northeast, and the North Coast to identify and develop projects according to priorities in each area. Additional forums may also be formed. A governance working group is developing ESI governance principles, decision-making, and an operating structure for the Province, First Nations and industry.⁵⁵

Indigenous-Led Initiatives



Affected Groups

NGOs
 Municipal Gov't
 Provincial Gov't
 Federal Gov't
 First Nations
 Industry

Challenges

Unceded territories and unresolved treaties create uncertain authority.

Lack of clarity about the role NGOs and agencies can contribute to government negotiations or industry bilateral agreements within Indigenous territories.

Indigenous governance practice continues to emerge and evolve.

Progress

Municipal-Indigenous programs are a source of innovation (e.g. Indigenous planning; Indigenous environmental assessment; successful government-to-government agreements; emerging Indigenous governance processes; UBC [Indigenous Community Planning](#) program).

Opportunities

A network of Tribal Parks (Indigenous Protected Conservation Areas). Innovative community– First Nation initiatives; Indigenous-led wildlife plans, Indigenous-led environmental assessments, and other Indigenous land use processes.

Ecosystem Conservation



Affected Groups

NGOs
 Municipal Gov't
 Provincial Gov't
 Federal Gov't
 First Nations
 Industry

Challenges

Sensitive habitats, waters, and species require priority consideration in all land use decisions and processes.

Industry, government, and the economy continue to oppose environmental values; wetlands and species at risk are declining quickly.

Progress

Indigenous communities demonstrate ecosystem-based management as a foundation for land use management and decision-making.

Large-scale, long-term collaborations like [South Okanagan-Similkameen Conservation Program](#) show success; The [Great Bear Rainforest](#) is another example.

Opportunities

Include biodiversity as a value in larger watershed or landscape level planning. Include targets or benchmarks (e.g. 65% intact).

Education about the plethora of environmental benefits and value of natural capital.

Mobilize community planning and land use regulation tools for environmental protection.

Chart continues onto next page .

Rural-Urban Disparities



Affected Groups

NGOs
 Municipal Gov't
 Provincial Gov't
 Federal Gov't
 First Nations
 Industry

Challenges

Developers and private landowners are driving unsustainable land use decisions.

The burden of land use decisions is not carried equitably.

Affordability is not adequately addressed in current policies.

Progress

Full-cost accounting tools.

Life cycle analysis showing true costs of land use decisions and illustrate the business case (e.g. [Community Lifecycle Infrastructure Costing Tool](#)).

Opportunities

Coordinate regional infrastructure and transportation planning with land use planning (be shovel-ready with plans in place for funding opportunities).

Develop business cases that outline social equity criteria in land use decisions.

Public Perceptions of Land Use



Affected Groups

NGOs
 Municipal Gov't
 Provincial Gov't
 Federal Gov't
 First Nations
 Industry

Challenges

The economy and environment tend to be polarized, which limits understanding of sustainable land use issues.

The public sees planning as bureaucracy rather than as policy / strategy.

The public favours single-detached homes and continues to support conversion of natural areas in rural interface areas.

Progress

Green infrastructure development is occurring.

Participation and support among community members for some planning processes is increasing.

Opportunities

Provide incentives for creative solutions.

Convene workshops that identify drivers that are leading to outreach mobilization strategies (e.g. [OCCP](#) action teams).

Priorities

We analyzed the central themes and identified five cross-cutting priorities based on advisor interviews and survey results:

1

Coordinate land use actors and initiatives

2

Align and implement strategic land use frameworks

3

Mobilize land use education and outreach

4

Support Indigenous-led processes

5

Adapt the roles of non-profits

Coordinate Land Use Actors and Initiatives

Opportunities exist to engage agencies and groups to coordinate regional land use decision processes.

A coordinated approach can involve knowledge sharing among various groups (i.e. NPOs, NGOs, governments, industry, businesses, and landowners). Sustainable land use approaches warrant effective planning to monitor issues on the ground at local, regional, and provincial scales.

Regional initiatives to coordinate projects across sectors help address the complexity of land impacts and decisions. For example, the South Okanagan-Similkameen Conservation Program (SOSCP) successfully addresses gaps in baseline ecological and landownership data through cross-organization coordination (see box).

Some advisors cautioned that land use planning decisions are increasingly driven by technical professionals with a narrow perspective instead of using holistic, systems thinking.⁵⁶ While technical expertise should guide complex processes, using a systems approach that also engages with community groups and agencies can help shape project goals, values, ownership, and measures of success.

Research respondents identified gaps in coordinated inter-jurisdictional land use initiatives. Hubs and networks coordinate land use implementation at various geographical scales and help organize regional efforts. Respondents suggested that regional conservation and environmental groups should refine their strategic focus

SOUTH OKANAGAN-SIMILKAMEEN CONSERVATION PROGRAM

The South Okanagan-Similkameen Conservation Program (SOSCP) is a partnership of 50 organizations working to conserve biodiversity. Members include an array of governments, non-government organizations, First Nations, and academic institutions.

SOSCP works to promote ecologically sustainable land use by providing tools and guidance to decision-makers, planners, and developers.

The partnership achieves success by implementing high-priority action items related to sustainable land use.⁵⁷ Activities include biodiversity conservation, environmental planning support for local governments, environmental protection bylaws, technical and policy support, riparian and wetland habitat protection, and administering the South Okanagan Conservation Fund.⁵⁸

Learn more: www.soscp.org



and connect related initiatives. For instance, stewardship groups could collaborate with economic development initiatives in rural areas.

The Kootenay Conservation Program co-administers the Columbia Valley Local Conservation Fund (in partnership with the Regional District of East Kootenay) and the Kootenay Lake Local Conservation Fund (in partnership with the Regional District of Central Kootenay). A conservation fund is a local government service funded through a dedicated fee used to support environmental conservation and community sustainability projects. The Columbia Valley Local Conservation Fund was the first of its kind established in Canada.⁵⁹

The Marine Plan Partnership for the North Pacific Coast (MaPP) is a regional conservation model that partners with First Nations, government, and philanthropy (see box). Learnings and best practices from MaPP can inform regional land-based planning as part of an ecosystem management foundation. MaPP is garnering international attention as an innovative partnership model using conservation and sustainable economic development with First Nations.

Research, planning, and decision-making at watershed scales are useful to integrate resilience, biodiversity, and water elements into land use policies and plans. Working at a regional scale is often more comprehensive than taking a species-based approach, such as Species at Risk. Regional approaches can incorporate a scientific basis for developing site-specific requirements as part of development approvals, such as including conditions and standards to protect sensitive ecosystems.⁶¹

Coordinating regional land use and infrastructure planning using full-cost accounting provides a more accurate assessment of the total cost of infrastructure. For example, the City of Terrace used the Community Lifecycle Infrastructure Costing Tool (CLIC Tool) to assess and plan its long-term municipal infrastructure projects. Full- or total-cost accounting provides a more complete assessment of infrastructure costs by considering a wide range of direct and indirect expenses. The tool uses longer time horizons to reflect a project's full economic life. Status quo projects usually fail to incorporate the time value of money, along with hidden and less quantifiable costs.

THE MARINE PLAN PARTNERSHIP FOR THE NORTH PACIFIC COAST

The Marine Plan Partnership for the North Pacific Coast (MaPP) is a co-led process between 17 First Nations and the Province implementing marine use plans on BC's North Pacific Coast. MaPP is notable for its diversity of actors and marine uses. MaPP marine plans help create sustainable economic development opportunities for coastal communities that work in unison with the marine environment.⁶⁰

Marine plans identify and guide recommendations for decision makers and land administrators, project planners, businesses, First Nations, and local governments. The plans aim to balance sustainable economic development with environmental stewardship, improve efficiencies of approval processes, reduce spatial conflicts among marine users, and provide greater business predictability.

An Ecosystem-Based Management framework emphasizes human well-being, ecological integrity, and governance. Local and Indigenous knowledge, input and advice from scientists, and direction from advisory committees inform the work.

Learn more: www.mappocean.org

CUMULATIVE EFFECTS FRAMEWORK IN BC

The Province is creating a Cumulative Effects Framework (CEF) to guide cumulative effects in legislation, policies, programs, and initiatives.⁶⁴ However, the CEF does not address the cumulative effects of land use decisions, and the framework leaves some areas unresolved. Survey respondents identified these important conditions that should be addressed:

- › Are all important values and issues being measured?
- › Are values and impacts being measured accurately?
- › What are the value measurements being compared to baselines?
- › What are the thresholds for acceptable change?
- › How does cumulative effects assessment lead to change on the ground?

Learn more: www2.gov.bc.ca

Align Land Use Frameworks

Research suggests the need for overarching frameworks to guide land use decision-making. Cohesive land use frameworks can more closely align the Province with First Nations priorities, and regional approaches can help address the adverse consequences of project-by-project development scenarios. Site-specific environmental impact assessment (EIA) processes address individual project disturbances, but fail to consider past, present, and future potential resource impacts.

Updating tools to incorporate cumulative effects into professional practice, such as codes of ethics, best practices, and certification processes, should improve accountability and transparency. Many advisors viewed enacting the Professional Alliance Review recommendations as an appropriate first step.⁶²

Some advisors emphasized the need for stronger positive feedback mechanisms by which indicators measure environmental changes over time. The *Environmental Assessment Act* was noted for its lack of scientific independence, peer-review, and transparency in environmental assessments.⁶³ Environmental Assessment (EA) amendments are a positive direction for integrating high-quality assessments into land use considerations. For example, the Fort Nelson First Nation created a community-based monitoring program based on criteria and indicators for the Liard Basin Monitoring Initiative. The program is designed to contribute important data to environmental trends.

CLIC TOOL

Understanding the economic benefits and burdens of land use planning can help assess the consequences of low-density planning. The Community Lifecycle Infrastructure Costing (CLIC) Tool calculates the economic impacts of long-term cost-benefit evaluations of land use planning. Local governments can build business cases for more compact, complete, and connected communities. The tool helps local governments estimate the cost implications of various infrastructure changes over a 100-year period.⁶⁵

Learn more: www2.gov.bc.ca

Mobilize Land Use Education and Outreach

Successful sustainable land use initiatives depend on communities understanding the role and significance of various land use approaches. Communities, elected officials, industry proponents, and land developers can benefit from education about land use terminology, options, and preferential practices.

Community forums can help engage citizens on relevant issues, and once engaged, people are more likely to understand contrasting perspectives. A web portal can serve as a repository of land use resources to support training and implementation. For example, the Carrier Sekani Tribal Council Environmental Stewardship Initiative developed a web portal to share regional data related to cumulative effects with communities.

Elected officials make high-profile decisions about land use, and advisors noted a lack of political will hampering sustainable land use solutions at each level of government. Training targeted at elected officials working in local governments can help educate communities.

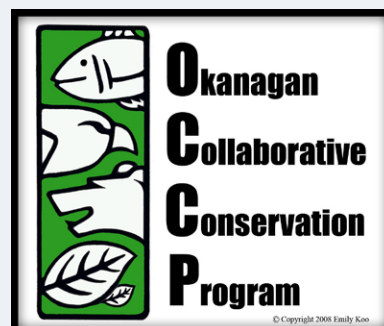
Building awareness about concepts such as conservation and stewardship efforts, wildlife corridors, and the role of wetlands can help strengthen land use connectivity. For example, the Okanagan Collaborative Conservation Program (OCCP) uses an action team model that merges stewardship education with policy implementation (see box).

OKANAGAN COLLABORATIVE CONSERVATION PROGRAM

The Okanagan Collaborative Conservation Program (OCCP) is a partnership of organizations and governments focused on conservation issues. OCCP uses action teams to identify priority conservation projects through meetings, group discussions, and surveys. Action teams select projects based on partner criteria and objectives in the Biodiversity Conservation Strategy.⁶⁶

OCCP facilitates each stage of the action teams' processes by setting meetings, establishing working groups, and hiring consultants. Once resources are secured, OCCP prepares a project charter that sets out roles and responsibilities for each action team member. Action team members are responsible for providing some financial and in-kind support. Upon project completion, OCCP presents the findings to elected officials and staff.

Learn more: www.okcp.ca



Support Indigenous-Led Processes

Our findings revealed a desire for greater inclusion of Indigenous perspectives, perhaps fuelled by high-profile court decisions. For example, *Tsilhqot'in Nation v. British Columbia 2014 SCC 44* was a landmark decision that established Aboriginal land title for the Tsilhqot'in First Nation. The Supreme Court of Canada decided that Aboriginal title constitutes a beneficial interest in the land, the underlying control of which is retained by Canada. Rights conferred by Aboriginal title include the right to decide how the land is used, and how to proactively use and manage the land and natural resources.⁶⁷

The Tsilhqot'in decision, along with others,⁶⁸ indicates a growing recognition of the duty not only to consult with First Nations, but to meaningfully collaborate in partnership with Nations. These decisions are changing relationships between First Nations, Canada, and industry on resource development projects. They signal a growing prudence for Canada to provide greater clarity and predictability to industrial proponents on future developments.

Indigenous governance is intimately linked to the land. Development projects on Indigenous territories are often opposed or slowed down in response to environmental factors and considerations. Partnerships that model co-management with Indigenous peoples have become successful elements of land use initiatives.⁶⁹ For example, the Tsilhqot'in National Government and the Province recently established a co-management agreement for moose habitat.⁷⁰

Capacity building for land use planning and procedures is another way to support Indigenous-led processes. Innovative peer-to-peer learning models can help create opportunities for First Nations to learn from each other about issues and solutions. For example, Indigenous Protected and Conserved Areas designate land for traditional and sustainable livelihoods. They also help Canada meet its conservation targets to increase terrestrial protected areas to 17% of the land base.⁷¹

Indigenous-led guardian programs and other types of community monitoring programs build capacity through managing ancestral land according to traditional laws and customs.⁷² Guardian programs help maintain and re-establish Indigenous connections to land through recording wildlife sightings, fishing and hunting activities, and cultural and ecological site impacts. Indigenous sources of knowledge can fill in gaps, verify, and even challenge conventional scientific datasets.⁷³



Supporting Emerging Aboriginal Stewards (SEAS) program guides in Kitasoo - Xa' xais Territory. (Photo: Hedy Rubin)

Adapt the Roles of Non-Profits

Since the 1970s, BC has witnessed heightened environmentalism and an expansion of conservation awareness. Over the years, the roles of NGOs in Indigenous land use issues have shifted. Our research offered some contrasting perspectives on appropriate approaches.

Some advisors considered dealing with Indigenous land use issues only through appropriate government-to-government processes. These advisors believed NGOs do not have a legitimate role in those discussions, and explained that these groups should get out of the way and let negotiations proceed.

Others identified alternative pathways to complement, yet not replace, formal negotiations. In this case, NGOs might help by convening dialogues for First Nations that raise awareness about land issues.

These roles for NGOs come with caveats. NGOs should only consider participating if invited by a First Nation. Groups without deep relationships or experience, like the greater civil society, can embrace opportunities to learn from First Nations. One option is to spend time in their communities and territories.

While their approach might seem straightforward, NGOs face the considerable reality of fundraising for their programming. Non-profits are usually funded for project-based initiatives via short-term, consultant-led, and campaign-based contracts and grants. This project-based funding presents challenges to covering core operational activities. Many research respondents noted the need for longer-term, core funding—in the form of grants that support a non-profit organization's mission, rather than specific projects or programs—to retain organizational expertise and cover administration. Core funding can help ensure long-term relationships that build mutual trust and understanding with First Nations.



Community planning exercise in Williams Lake, BC (Tsilhqot'in Territory). (Photo: Hedy Rubin)

Recommendations

Our recommendations outline various priorities highlighted in the research. They set future directions to help maximize sustainable land use impacts. We categorize the recommendations by priorities and identify lead agencies when appropriate. We will address REFBC-specific recommendations in additional research.

Recommendations	Lead Agency / Actor
1. Coordinate land use actors and initiatives.	
<ul style="list-style-type: none"> » Convene an annual conference, workshop, or gathering to enhance multi-sectoral collaboration on land use challenges. 	<ul style="list-style-type: none"> » Non-profits working with First Nations, practitioners, and local, provincial, and federal governments
<ul style="list-style-type: none"> » Support adoption of UNDRIP through meaningful involvement of First Nations at initial stages of project initiatives. 	<ul style="list-style-type: none"> » Ministries of FLNRORD, ECCS, and IRR, working with the federal government, industry, NGOs, local governments, and First Nations
<ul style="list-style-type: none"> » Advance the concept of the Environmental Stewardship Initiatives or Collaborative Stewardship Forums across BC. 	<ul style="list-style-type: none"> » Ministries of FLNRORD, ECCS, and IRR, working with First Nations, federal government, industry, NGOs, and local governments
<ul style="list-style-type: none"> » Support land use communities of practice at regional scales to link to key values (e.g. resource use, land development, biodiversity strategies, and water stewardship). 	<ul style="list-style-type: none"> » Non-profits, working with professional associations, academics, First Nations, and practitioners

Chart continues onto next page . ↻

Recommendations

Lead Agency / Actor

2. Align and implement strategic land use frameworks.

- | | |
|---|--|
| <ul style="list-style-type: none">» Facilitate engagement and update cumulative effects (i.e. the Provincial <u>Cumulative Effects Framework</u>). Incorporate cumulative effects into professional codes of practice in land use (e.g. code of ethics, best practices, and certification processes). Strengthen monitoring for cumulative effects by identifying metrics to track environmental changes.» Build on best practices and experiences to explore a terrestrial partnership model (e.g. <u>Marine Plan Partnership for the North Pacific Coast</u>).» Research existing models and agree on preferred methods for environmental benchmarks. Set thresholds for acceptable levels of change (e.g. # of hectares of protected land for caribou).» Create a Natural Resources Board to realign economic development with land use planning. | <ul style="list-style-type: none">» Ministry of FLNRORD working with professional associations, NGOs, and practitioners» Funders working with First Nations, non-profits, provincial and federal governments» Ministries of FLNRORD and ECCS working with federal government, academics, non-profits, and First Nations» Ministry of FLNRORD working with professional associations, non-profits, and practitioners |
|---|--|

3. Mobilize land use education and outreach.

- | | |
|---|--|
| <ul style="list-style-type: none">» Promote tools and best practices with extension services and training to build capacity in rural areas (e.g. West Kootenay Wildfire Mitigation Plan, <u>conservation fund</u> for the South Okanagan).» Educate elected officials about land use issues (e.g. Community Energy Association's <u>Community Energy Leadership Program</u>).» Promote digital libraries of land use tools and resources (e.g. <u>CivicInfo BC</u>).» Showcase businesses and industrial innovation that demonstrate the benefits of sustainable land use and economic development approaches (e.g. Vancity Credit Union funding mechanism to support Saturna Island residents' land purchase for conservation). | <ul style="list-style-type: none">» Non-profits working with academics, UBCM, and local governments.» Non-profits working with UBCM, local governments, and professional associations» Non-profits working with professional associations» Businesses working with non-profits and industry |
|---|--|

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Recommendations	Lead Agency / Actor
4. Support Indigenous-led processes.	
<ul style="list-style-type: none"> » Establish training for land managers integrating Indigenous approaches into land management (e.g. Indigenous-led environmental assessment, Indigenous land-use planning, and governance). 	<ul style="list-style-type: none"> » First Nations working with non-profits, academics, and funders
<ul style="list-style-type: none"> » Showcase Indigenous perspectives about land use issues and impacts (e.g. UVic’s Indigenous law degree program). 	<ul style="list-style-type: none"> » First Nations working with academics and non-profits
5. Adapt the roles of non-profits.	
<ul style="list-style-type: none"> » Support capacity building in Indigenous communities (e.g. West Coast Environmental Law’s RELAW project). 	<ul style="list-style-type: none"> » Non-profits working with First Nations
<ul style="list-style-type: none"> » Create capacity and expertise for First Nations leadership in land use planning initiatives (e.g. Indigenous peer-to-peer exchanges, fellowships, etc.). 	<ul style="list-style-type: none"> » Non-profits working with First Nations
<ul style="list-style-type: none"> » Develop case studies on land use mechanisms with Indigenous partners (e.g. South Okanagan-Similkameen Conservation Program, Columbia Basin Trust and Liard Basin). 	<ul style="list-style-type: none"> » Non-profits working with First Nations

Conclusion

Our research aims to characterize sustainable land use in British Columbia, and what we learned is both dire as well as heartening. Overall, our findings indicate that BC is facing significant challenges, such as the loss of vital ecosystems and increased vulnerability to drought, wildfires, and a changing climate. However, examples and trends also showcase positive change, such as Indigenous-led land use planning initiatives and innovative stewardship practices.

Each identified theme and priority has its own challenges, opportunities, and pathways towards progress. As the Province moves forward with the Truth and Reconciliation Commission’s call to action—anchored by commitments to adopt UNDRIP—these recommendations can help recalibrate the role of land use planning in BC.

Perhaps the most important takeaway from this research is that it’s all right not to have all the answers. We face wicked problems and complex challenges where trade-offs are increasingly difficult to implement. By developing strategic partnerships and taking note of an apparent shift in culture and approach, we can modernize land use planning and help it gain more prominence.

The good news is that we already have most of the necessary tools to move forward. What we need is continued leadership to ensure appropriate tools and governance structures help generate better decision-making for current and future generations of British Columbians.



Haida pole in Naikoon Park, Haida Gwaii. (Photo: Hedy Rubin)

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Glossary and Acronyms

BC CEF	British Columbia Cumulative Effects Framework
CLIC Tool	Community Lifecycle Infrastructure Costing Tool
CLT	Community land trust
Cumulative Effects	Changes to environmental, social, and economic values caused by the combined effect of past, present and potential future human activities and natural processes
Ecosystem Services	The benefits or goods and services people obtain from ecosystems
ESI	Environmental Stewardship Initiative
EMS	Environment Management and Stewardship
GVS	Gathering Voices Society
ICE	Indigenous Circle of Experts
LUP	Land use plan
Ministry of FLNRORD	Forests, Lands, Natural Resource Operations and Rural Development
Ministry of IRR	Indigenous Relations and Reconciliation
Ministry of ECCS	Environment and Climate Change Strategy
Natural Capital	The stock of natural resources (finite or renewable) and ecosystems that provide direct or indirect benefits to the economy, our society, and the world around us
NGO	Non-governmental organization
NPO	Non-profit organization
OCP	Official Community Plan
OCPP	Okanagan Collaborative Conservation Program
SLU	Sustainable land use
SOSCP	South Okanagan-Similkameen Conservation Program
TRC	Truth and Reconciliation Commission
UBCM	Union of BC Municipalities
UN	United Nations
UNDRIP	United Nations Declaration on the Rights of Indigenous Peoples
UNESCO	United Nations Educational, Scientific and Cultural Organization

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Appendix: Research Methods

Literature Review

We reviewed various documents and focused on topics related to sustainable land use in BC. We organized the literature review into an annotated bibliography, summarizing the focus and key aspects of each resource. Documents reviewed include reports, assessments, and action plans from a variety of sectors: local/regional governments, NGOs, and researchers. The literature review identified important issues and examples related to sustainable land use.

Advisor Interviews

We conducted 12 semi-structured, 45-minute interviews with advisors who were subject experts in sectors relevant to land use in BC. These advisors were identified by REFBC and other practitioners using a snowball sampling method (i.e. referrals). Their expertise included urban and regional planning, rural development, environmental conservation, natural resource management and green energy, organizational development, environmental law, Indigenous land management, wildlife conservation, and land use governance.

Advisors work in a variety of roles, including:

- › Local and regional governments,
- › Private consulting firms,
- › Research organizations and academia,
- › Legal agencies,
- › Non-governmental organizations (NGOs), and
- › First Nations governments.

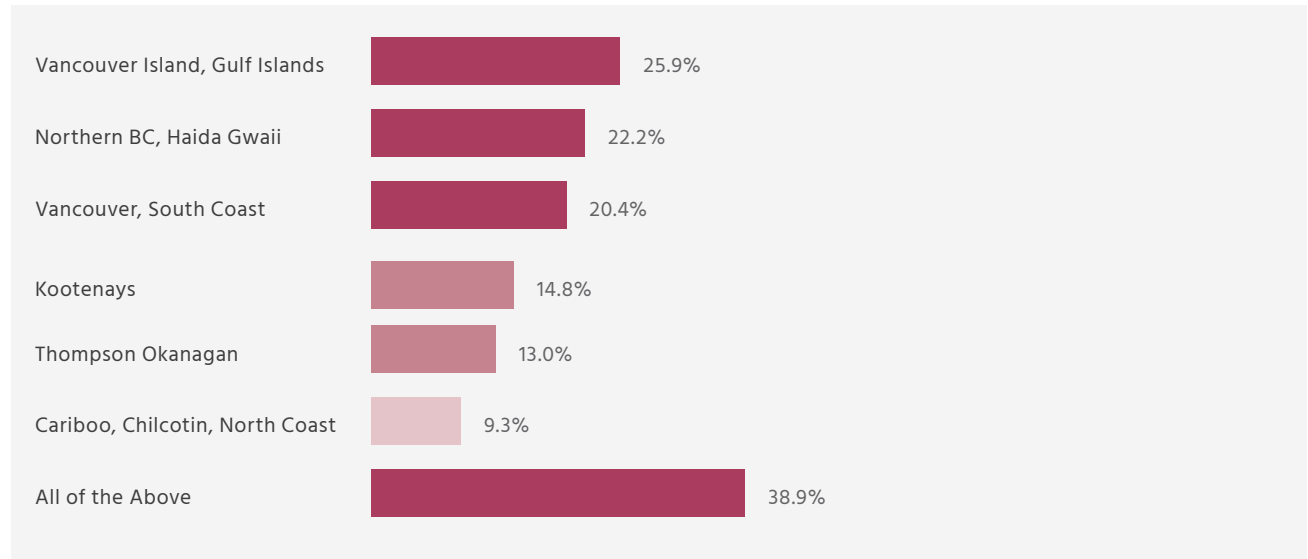
We conducted interviews by telephone, took notes, and made confidential audio-recordings with the consent of participants. We then coded and analyzed interview notes in a spreadsheet to sort results, and to identify the status of core land use issues and cross-cutting themes.

Electronic Survey

We used a preliminary analysis of results from the interviews to design an electronic survey administered to a broad selection of practitioners working in land use. In addition to gathering information on current initiatives, gaps, and trends, this survey was designed to gain perspectives on strategic priorities that would most benefit and influence sustainable land use.

The survey (n=141) garnered 54 responses, or a 38% response rate. Survey respondents reported that organizations they work with have fewer than ten employees (51%), or more than 40 employees (34%). The survey reached organizations working in all regions of BC.

FIGURE 5: REGIONS IN BC WHERE SURVEY PARTICIPANT ORGANIZATIONS WORK



Public Opinion Poll

REFBC commissioned a public opinion poll administered by McAllister Research. The online public opinion poll responses replicated a cross-section of the BC population. The poll included over 350 question items and received 1,658 responses.

Download a copy of the opinion poll report at bit.ly/SLUpoll.



Canoes in the sun at the Haida Heritage Centre, Kay Llnagaay, Skidegate, Haida Gwaii. (Photo: Hedy Rubin)



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