

Connecting Cities to Salmon

A path forward for Salmon-Safe Communities



Prepared for: Fraser Basin Council

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About the Project

This project is the product of a partnership between the University of British Columbia's School of Community and Regional Planning (SCARP) program and the Fraser Basin Council (FBC). Through this partnership, SCARP students produced the following document, which includes a Strategic Plan and Business Plan intended to guide the growth of FBC's Salmon-Safe Communities (SSC) eco-certification program. SSC has received uptake in the Lower Mainland since the program's inception in 2013, certifying Vancouver International Airport (YVR) and the head offices of Mountain Equipment Co-op (MEC). The ongoing development of SSC is motivated by FBC's desire to foster sustainable urban land development practices, making urban sites more responsive to natural systems.

FBC STRATEGIC PLAN
Organizational strategic plan
2016-2021

SSC STRATEGIC PLAN
Programmatic strategic plan
2019-2021

SSC BUSINESS PLAN
Programmatic business plan
2019-2021

Informed by a robust information gathering process, the strategic and business plans are evidence-based and reflect findings from academic and desktop research, stakeholder interviews, dialogue with First Nation governments, survey responses, and policy analysis. These plans channel input and recommendations provided by policymakers, developers, public institution employees, and eco-certification specialists to help guide the long-term, sustainable growth of SSC. The Strategic Plan plots SSC's vision, mission, and values, as well as goals, objectives, and actions that will support its growth over the next three years. The Business Plan supports these aims by providing a thorough market and financial analysis of current and projected conditions. Both plans are intended to supplement and contribute to FBC's strategic objectives outlined in *Advancing Sustainability Solutions Throughout British Columbia: Fraser Basin Strategic Plan 2016- 2021*. While they are included together here, these plans are intended as standalone documents



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Salmon-Safe Communities

STRATEGIC PLAN

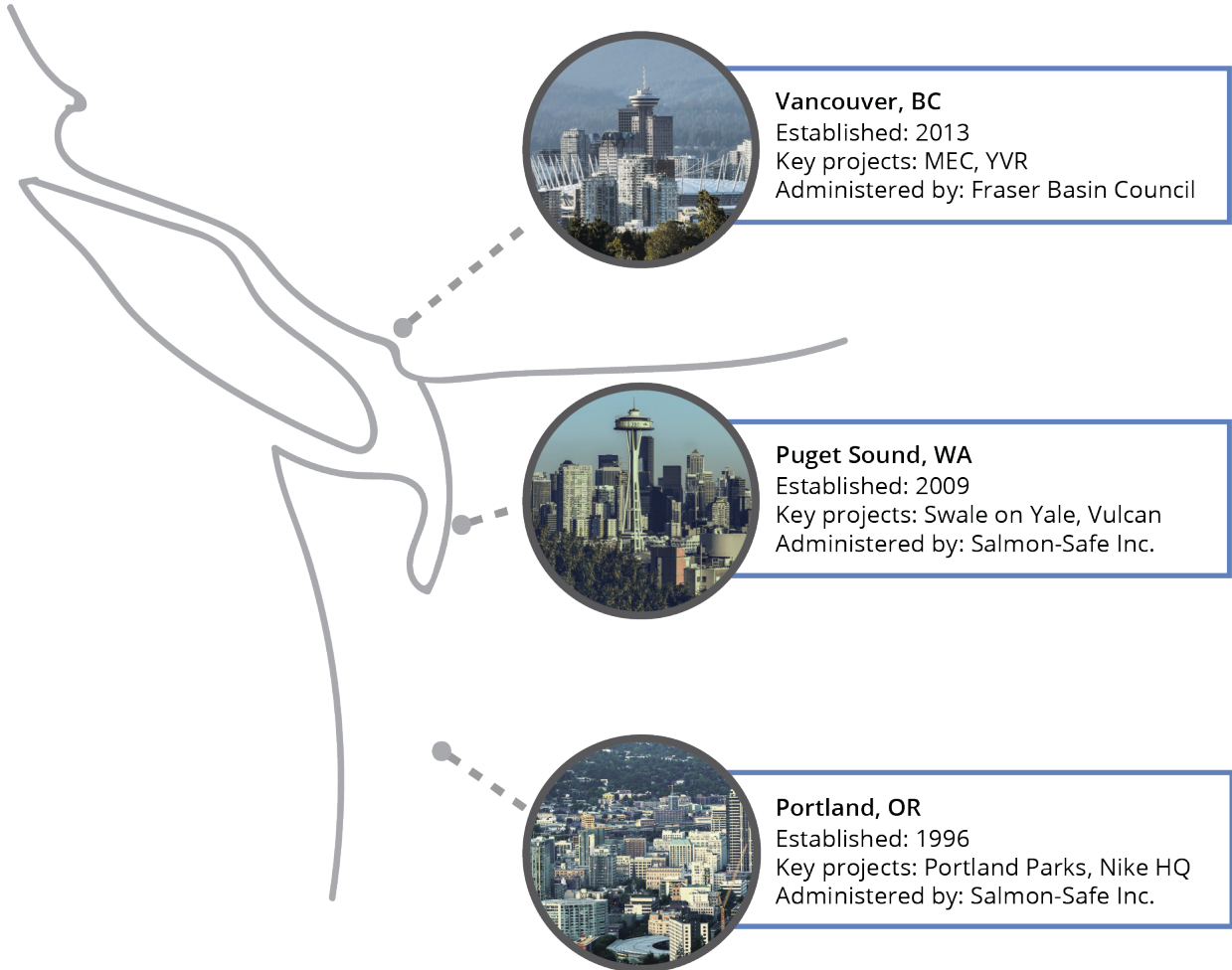
2019-2021

1.0 Introduction to Salmon-Safe Communities

Salmon-Safe BC is Canada’s first eco-certification program that links land management practices with protecting watershed and salmon health. Salmon-Safe Communities (SSC), an urban sub-program, has the potential to enhance water management practices and to re-contextualize urban land development within natural ecosystems.

Salmon-Safe originated in Oregon in 1996 and has since launched programs in Washington and British Columbia (BC). In BC, SSC is administered by Fraser Basin Council (FBC), a non-profit, non-government organization known for its expertise in education, facilitation, and collaboration. Since the inception of the BC program in 2013, two urban sites have been certified in the Lower Mainland: Vancouver International Airport (YVR) and the head office of Mountain Equipment Co-op (MEC).

With its rigorous standards, SSC recognizes that progressive, environmentally-sound management practices on urban lands can help protect salmon habitat and improve water quality. This can apply to any urban site regardless of its watercourse proximity. Sites are assessed according to five key criteria: stormwater management, water use management, erosion prevention and sediment control, pesticide reduction and water quality protection, and enhancement of urban ecological function. The program is founded on the knowledge that salmon are a keystone species and an indicator of ecosystem health. Therefore, by adopting urban development practices that protect salmon, you also protect the health of watersheds and the broader ecosystems that urban areas depend on.

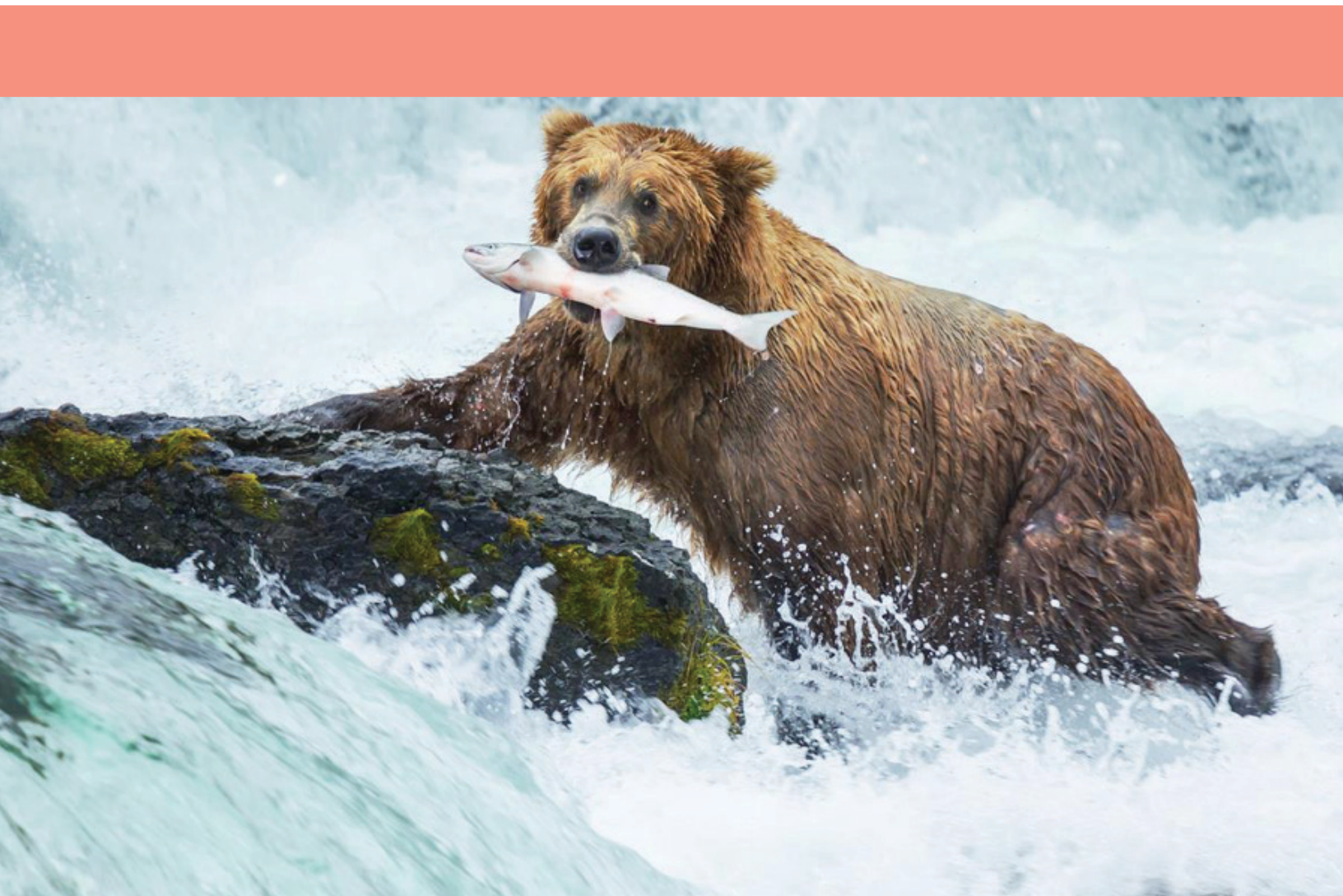


2.0 Why Salmon?

An iconic, keystone species, salmon are as integral to our forest, riparian, and marine ecosystems, as they are to the diverse cultures in BC. Indigenous peoples in the Lower Mainland region have relied on salmon for thousands of years, incorporating the species into their diets, traditional practices, and oral histories. Bears, birds, and otters also connect salmon to the land, their bodies infusing West Coast soils with nitrogen, sulfur, carbon, and phosphorous - key to helping our forests grow tall and dense. In some areas of BC, you can find salmon DNA in the foliage of spruce trees.

Despite their importance, salmon species are in decline. In urban areas, traditional building practices have had an impact on both freshwater and marine areas. Issues such as combined sewer overflows and impervious surfaces have led to stormwater runoff polluting waterways with E. coli, heavy metals, pesticides, fertilizers, and hydrocarbons. Shoreline development has also led to the destruction of salmon habitat and erosion of riparian corridors that are important for the survival of young salmon.

Salmon show us that our actions on land are linked to the water, that changes to one part of the ecosystem affect the whole. This is the story that Salmon-Safe BC seeks to tell. By improving the way we use and manage the land and water in our towns, in our fields, and in our cities, we can positively impact salmon. By working with nature, rather than against it, the effects of our actions can reverberate out from urban areas, through our rivers, and into the depths of the Pacific Ocean.



3.0 Our Vision

Salmon-Safe Communities is a catalyst for the adoption of ecologically sound urban development by promoting standards based on the biological needs of salmon, and facilitating interdisciplinary capacity-building and collaboration among practitioners. Our robust standards are at the forefront of land management best practices and contribute to improving watershed health for the benefit of the environment and society.

4.0 Our Mission

To protect and restore salmon health and habitat through transformative land management practices.

5.0 Our Values

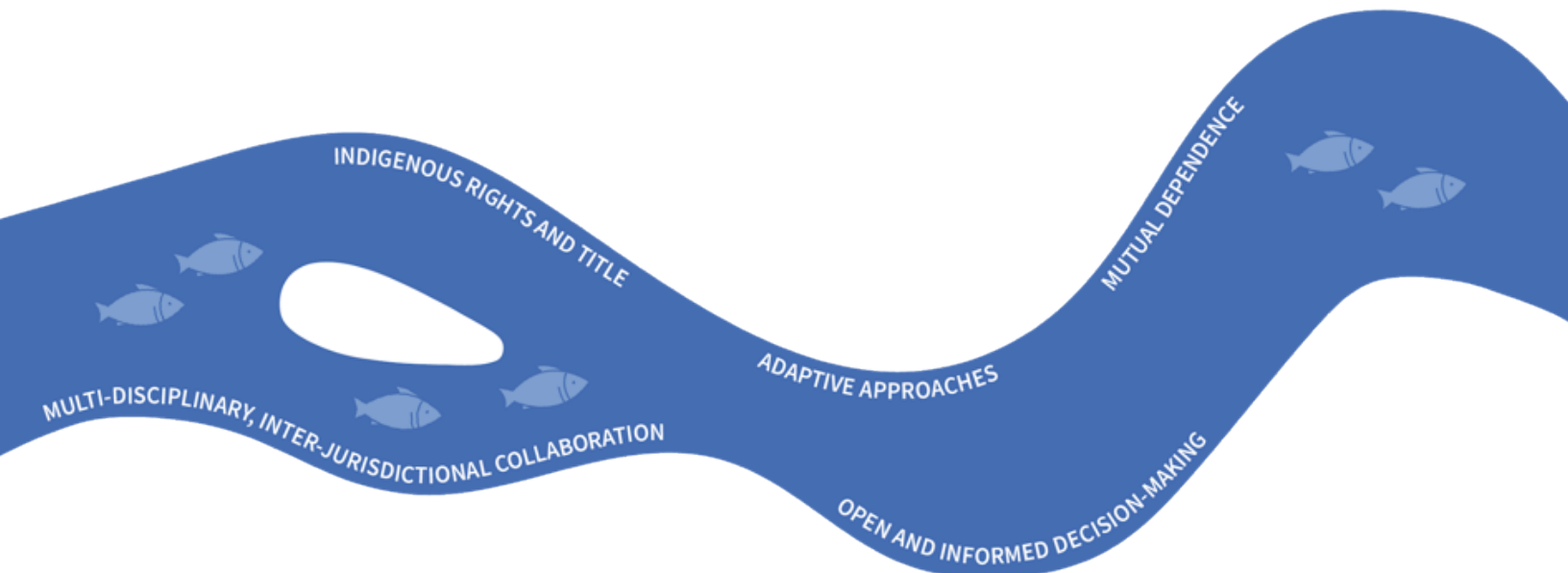
Indigenous Title and Rights: Salmon-Safe Communities recognizes that Indigenous Nations in BC assert title and rights. The program also acknowledges that its work takes place on the traditional, ancestral, and unceded territories of the Indigenous Nations on what is now known as British Columbia.

Multi-disciplinary, Inter-jurisdictional Collaboration: Salmon-Safe Communities is unique in that it catalyzes change-making conversations and collaborations among building professionals, local governments, and First Nations about how to approach development more holistically and build more resilient communities in the process.

Adaptive Approaches: Salmon-Safe Communities recognizes that adaptive approaches are key to learning and evolution. Plans and activities must adapt as new information is acquired.

Mutual Dependence: Salmon-Safe Communities recognizes that land, water, air, and all living organisms including humans, are integral parts of the ecosystem.

Open and Informed Decision-Making: Salmon-Safe Communities recognizes that informed decision-making relies on the best available data and information.



6.0 Strategic Context

As noted in **Section 1.0**, two urban sites have received Salmon-Safe certification in BC. Interest in the program has grown steadily since the inception of SSC in 2013, with several additional sites committed to achieving certification in 2019 and 2020. Given the potential to align with federal, provincial, and local policy as well as changing environmental influences, further program growth is anticipated. A Strategic Plan and Business Plan were developed for the SSC program to ensure that this growth is advanced sustainably and that it is consistent with the program’s mission, vision, and values.

Federal and provincial authorities have each pursued policy solutions that support wild salmon, notably the federal Wild Salmon Policy 2018-2022 Implementation Plan and ongoing development of the provincial Wild Salmon Strategy.¹ These policies present a strategic opportunity for FBC to leverage their connection to both levels of government and further the objectives that align with the Salmon-Safe BC program.

From the Province of BC: *“Wild salmon are facing a complex set of ever-intensifying pressures from ecosystem changes and from development. They require strategic and systemic support to secure their survival over the long term. There is urgency in the task at hand.”²*

The decline of the southern resident killer whale population has also brought attention to the key role that salmon play in marine ecosystems. SSC can build on this publicity and encourage municipalities and land developers to promote watershed health, using certification as a means to this end. Creating a narrative that locates the plight of BC salmon within an urban context will help stir public support for the program while interest in marine ecosystems are high.

¹ Fisheries and Oceans Canada, Wild Salmon Policy 2018-2022 Implementation Plan (Canada: Government of Canada, 2018).

² BC Wild Salmon Advisory Council, Wild Salmon Strategy (Canada: Province of British Columbia, 2018).



The growth of SSC also aligns with FBC’s goal of supporting healthy watersheds and sustainable use of water resources, contained in their 2016-2021 Strategic Plan (priorities illustrated in **Figure 1**). Additionally, the program speaks to the objective of improving “watershed health including water quality and fish and wildlife habitat,” while improving relations between First Nations and other orders of government.³ By plotting a three year path forward that leverages current political and environmental influences, the intention is to help FBC achieve these goals. The purposeful correlation of this plan with the end of the organization’s strategic plan (both of which expire in 2021) ensures SSC remains responsive to shifting FBC priorities.

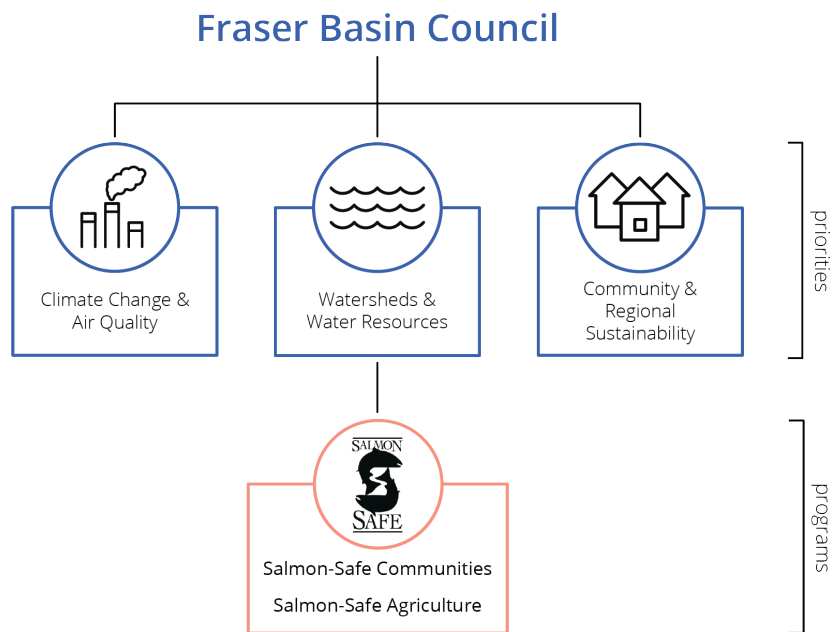


Figure 1: Fraser Basin Council Areas of Practice

3 Fraser Basin Council, Strategic Plan 2016-2021, (Canada: Fraser Basin Council, 2016).

7.0 Planning Process

This plan is the culmination of a seven-month information gathering process from September 2018 to March 2019 (Figure 2). The evidence-based approach used to inform this plan ensures that its content reflects industry best practices and our vision and objectives for the program. Below Figure 2 lies a description of the six key phases conducted by the UBC SCARP studio team which informed the development of the SSC Strategic and Business Plan.

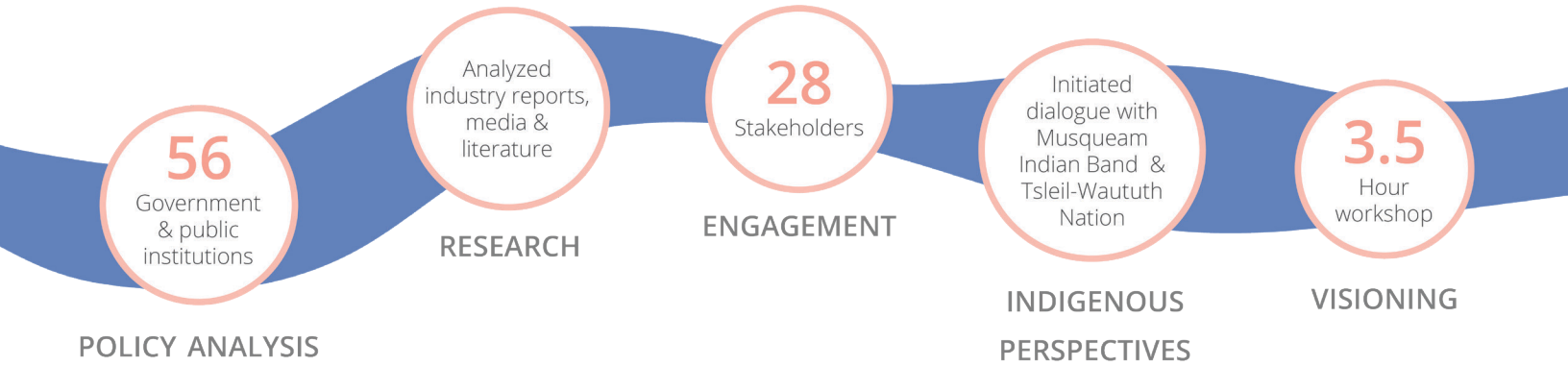


Figure 2: Planning Process

Policy Analysis

The studio team analyzed policies relevant to sustainable water management from 56 governments (municipal, regional, provincial, First Nation, and federal) and public institutions. Findings from this analysis can be found in **Appendix E**.

Research

Extensive desktop research involved analyzing relevant literature, online materials, and corporate reports. The studio team presented findings from this research to us in December 2018. Key findings can be found in **Appendix A**.

Engagement

Interviews

The studio team interviewed 18 key informants from the urban land development industry, including municipal officials, developers, architects, and those versed in eco-certification (Figure 3). This was done in accordance with the Stakeholder Engagement Plan (Appendix B) and interim findings were presented to us in December 2018 and February 2019. A summary of findings and a list of stakeholders can be found in **Appendix C**.

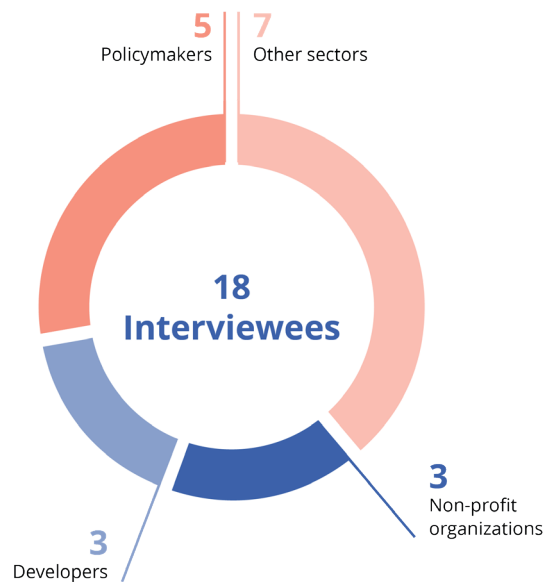


Figure 3: Distribution of Interviewees

Online survey

On behalf of the studio team, Metro Vancouver distributed an online survey to members of its Stormwater Interagency Liaison Group (SILG). The purpose of this survey was to gain a broad understanding of municipalities' current approach to stormwater management. Of SILG's 42 members, 10 responded to the survey (23.8% response rate). A summary of survey results and a copy of survey questions can be found in **Appendix F**.

Indigenous perspectives

In accordance with the First Nations Consultation Plan (**Appendix D**), the studio team reached out to representatives from the Musqueam Indian Band and the Tsleil-Waututh Nation. Due to scheduling and capacity constraints, consultation did not materialize as originally intended and the language surrounding this process has since changed.

Upon suggestion of our contact at the Tsleil-Waututh Nation, the studio team submitted a set of questions to the Nation, which was circulated and commented on internally before being returned. A summary of their response can be found in **Appendix C**. The studio team was unable to formalize conversation with Musqueam Indian Band. These early conversations serve as an initial step towards building relationships with local Indigenous governments.

Visioning

The studio team facilitated a 3.5 hour visioning workshop with the SSC Project Manager and FBC Director of External Relations and Corporate Development in February 2019.

Strategic Plan and Business Plan Development

After gathering information, the studio team drafted the strategic and business plans, which underwent two rounds of revision by ourselves and SCARP and concluded with our final approval of each.

8.0 Learnings

Findings from the foundational research, policy analysis, and informant interviews highlight some of the challenges and opportunities involved in growing SSC. Key ideas pulled from this research ground the plan's strategic goals, objectives, and actions, and will help SSC stand out against other certifications, overcome barriers to adoption, and guide growth. A more detailed summary of findings can be found in the attached appendices.

Barriers to Adoption

SSC operates in a global market that is saturated with well-established green building certification programs such as LEED and BOMA Best.^{4,5} This competitive marketplace provides developers many options to choose from to demonstrate their commitment to sustainability. To stand out, eco-certifications should offer clients financial efficiencies, develop a recognizable brand identity, and continuously innovate to keep up with new market trends.

Informants also revealed that there is a misconception within the urban land development industry that sites eligible for certification must be adjacent to a body of water. This speaks to a general lack of understanding of urban water management principles.⁶ Informants also expressed uncertainty about the long-term obligations and maintenance of certification and how to transfer responsibility if the certified site is sold. These individuals also questioned the value of the certification beyond its environmental benefits and noted they would require a clear business case before committing to certification.⁷

In speaking to municipal decision-makers, some noted they would be hesitant to fully incorporate SSC into policy before building industry capacity to meet anticipated demand.⁸ Others questioned the viability of the program itself, arguing that to invest in SSC, Salmon-Safe certification would need to be recognizable as a brand by the public. Finally, in all conversations with policymakers, the lack of internal capacity, which provides little time to examine SSC in depth and understand how it can integrate with municipal priorities, was a key barrier to adoption.

KEY THEMES

Informants spoke to a number of key themes during interviews. Most commonly identified was the importance of leveraging community champions, narrative building, and the potential of partnering with municipalities (**Figure 4**).

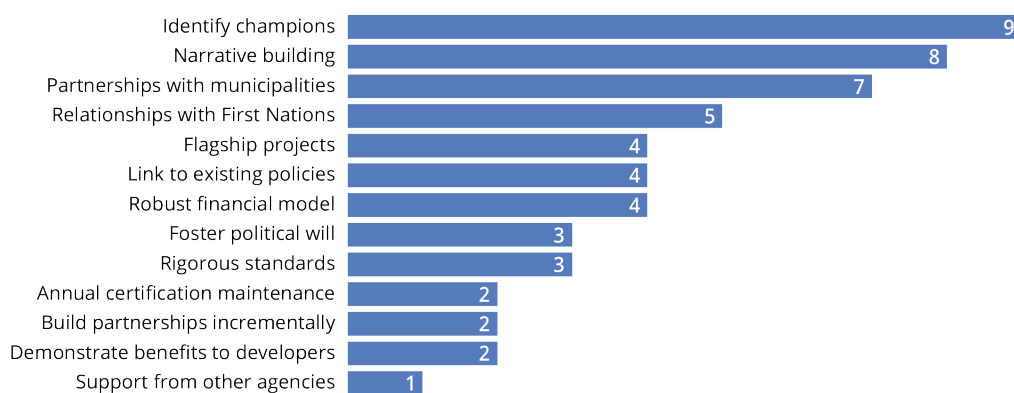


Figure 4: Number of Informants per Identified Interview Theme

4 CBRE and Maastricht University, "International Green Building Adoption Index," www.cbre.ent.box.com, (2018).

5 See Appendix C: Interview Findings (Canada Green Building Council Board Member, Ecolabel Index) for more details.

6 See Appendix C: Interview Findings (Quadreal) for more details.

7 See Appendix C: Interview Findings (Canada Lands Company, Vulcan Real Estate) for more details.

8 See Appendix C: Interview Findings (Food Systems Scholar, City of Vancouver, City of North Vancouver) for more details.

Identify Champions

Informant highlighted relationship-building as critical to sectoral expansion. For Salmon-Safe US, identifying champions has been key to promoting the program to municipal and development industry decision-makers. Fostering these strategic partnerships can also help to normalize SSC among industry and government as the desired certification for on-site land and water management.

Narrative Building and Brand Awareness

As noted previously, for a number of informants, the impact of urban land development on watershed health is unclear, particularly for sites located away from rivers and streams. Marketing, branding, and education campaigns can help explain this connection, while promoting certification as a tool for improving ecosystem health. Education initiatives may also to normalize these practices and help to create a community of practice oriented around low impact development.⁹

MEC and YVR both noted that the alignment between SSC's values and their own was a primary reason for pursuing certification. Building brand awareness is key to reaching clients unswayed by value alignment alone, and showcasing successfully certified sites and program achievements is one way to do so. By proving that the program has been tested, SSC can become an easily recognized certification with market appeal.¹⁰

Partnerships with Municipalities

Informants recommended partnering with municipalities as a way to maximize the program's potential. From the SILG survey, 60% of the respondents foresee a benefit in aligning with a site-based certification. Partnerships with municipalities may take different forms depending on the capacity and goals of each. For smaller municipalities, SSC can serve as a pre-packaged set of standards to help achieve sustainability goals and can be integrated into policy through an incentive structure. For example, Salmon-Safe US (Puget Sound) has found success in partnering with municipalities that provide density bonuses and expedited permitting to Salmon-Safe accredited applicants. Other forms of partnership could include city-owned demonstration projects that showcase the benefits of low impact development and certification.¹¹

Based on the policy analysis, the following municipalities demonstrate a high potential for integration with SSC: Burnaby, Coquitlam, Maple Ridge, North Vancouver (City), North Vancouver (District), Port Moody, Richmond and Vancouver (**Figure 5**). See **Appendix E** for more details.

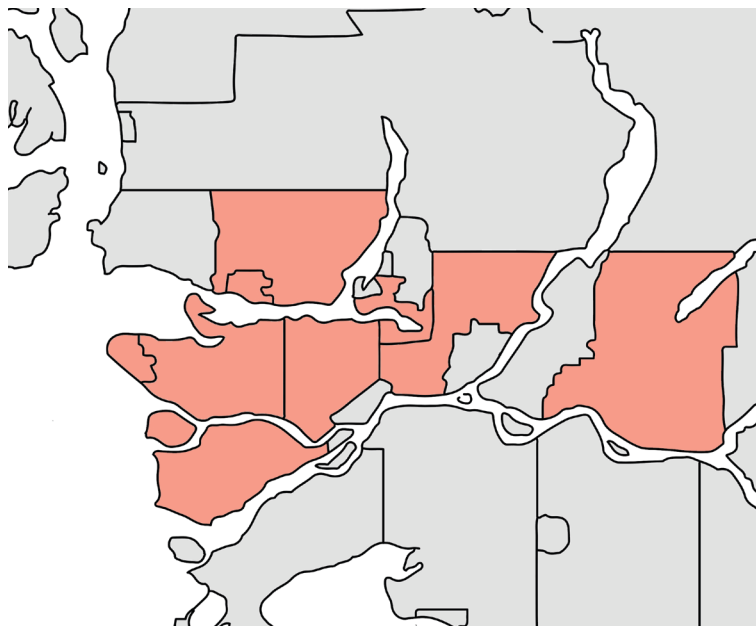


Figure 5: Municipalities with High Potential to Partner with SSC

⁹ See Appendix C: Interview Findings (Ecolabel Index, Pacific Salmon Foundation, MEC, Vulcan, Salmon-Safe US, City of North Vancouver, Salmon-Safe US (Puget Sound)) for more details.

¹⁰ See Appendix C: Interview Findings (Canada Lands Company, Vulcan Real Estate) for more details.

¹¹ See Appendix C: Interview Findings (City of Vancouver (Green Infrastructure), Salmon-Safe US (Puget Sound), City of North Vancouver) for more details.



9.0 Business Case

SSC is well positioned to scale up market presence over the next three years. At a time when water management is increasingly prioritized by local, provincial, and federal governments, SSC is the only certification that explicitly links land use management to watershed health. By building relationships with local governments, universities, and the private development sector, SSC can achieve its growth goals.

A targeted focus on forming partnerships with municipal governments in the Lower Mainland will allow SSC to expand its influence among urban land developers. Partnerships may also include using certified, city-owned sites as demonstration projects. The public sector, driven less by a profit-imperative, may be more inclined to make value-driven decisions about its real-estate assets.¹² Promoting certification of public sites can also help build the development industry's knowledge of integrated rainwater management. As developers vie for municipal contracts, they will be required to meet the standards of Salmon-Safe certification. FBC's position as a trusted non-profit organization with public institution and government connections will play a central role in establishing these partnerships.

SSC is also well-positioned to help municipalities achieve targets related to local food systems and reconciliation. For example, Action 2.2 in Vancouver's Food Strategy Action Plan 2017-2020 directs the City to work with different cultural communities to "revisit and broaden food assets definition and examine opportunities for preserving and incorporating these diverse assets into planning processes and new developments."¹³ In conversation with a City of Vancouver Food Systems Planner, they indicated that this definition could be broadened to include Salmon-Safe certification.¹⁴ The connection between SSC and the protection of salmon as both a food asset, and a traditional and cultural food of Indigenous groups in BC, is closely linked with the City's goals around sustainability, resilience and reconciliation.

Creating relationships with local institutions, one of the most rapidly growing green building segments in Canada, can also help SSC grow.^{15,16} For FBC, universities like UBC and Simon Fraser University (SFU), which have integrated sustainability into their core values and campus culture, offer a learning environment ripe for collaboration.¹⁷ Partnering with groups like UBC's Centre for Interactive Research on Sustainability on workshops and speaking events oriented around water management can help build communities of practice.¹⁸ Establishing ties with local universities may also open the door to demonstration projects and other certification opportunities.

12 See Appendix C: Interview Findings (City of Vancouver (Green Infrastructure)) for more details.

13 James O'Neill and Sarah Carten. Vancouver Food Strategy Action Plan 2017-2020. (Vancouver: City of Vancouver, 2017).

14 See Appendix C: Interview Findings (City of Vancouver (Food Systems) and Food Systems Scholar) for more details.

15 Dodge Data and Analytics. SmartMarket Report: World Green Buildings Trends 2018. (Massachusetts: World Green Building Council, 2018).

16 Cees J. Gelderman, Janjaap Semeijn & Rob Vluggen, "Development of Sustainability in Public Sector Procurement," *Public Money & Management*, 37, no.6, (2017): 435-442.

17 See Appendix C: Interview Findings (University of British Columbia (UBC)) for more details.

18 Ibid.

With regard to private development, eco-certifications are increasingly used to help attract high-profile tenants to commercial properties. While LEED remains the industry standard, SSC envisions itself as the “go-to” site-based certification for on-site land and water management. Other certifications have had success in capturing market share through establishing themselves as local or issue specific counterparts or supplements to LEED - a strategy that SSC should explore.

The SSC program manager has successfully built momentum over 2018 and the following projects will be certified in 2019: The MEC flagship store and the Nature's Path headquarters. In addition to attracting individual sites for accreditation, SSC will also seek to grow its presence among sustainability-focused urban land developers and designers. As demonstrated by Salmon-Safe US’ partnership with Vulcan Real Estate, this type of partnership can yield multiple unsubsidized sites.¹⁹

The opportunity to capitalize on the program’s momentum and the current political context, renders this time the ideal moment to expand SSC and invest in internal capacity.

10.0 Our Strategy

The goals, objectives, actions, performance measures, and key partners presented in this section serve as a strategic roadmap for achieving program success over the next three years. This framework is informed by evidence gathered throughout the strategic planning process and focuses on areas of opportunity for program growth. Taking into account the current capacity and regional scope of opportunity, objectives and actions are geographically limited to the Lower Mainland. A dense, urban metropolitan area, the Lower Mainland is well equipped to support SSC’s steady growth through the next three years.

Each goal communicates what the program will focus on from 2019 to 2021, and is accompanied by specific objectives, actions, key partners, and performance measures. Objectives are initiatives that help achieve goals, and can be realized through actions (**Figure 6**). Key partners that may be necessary to achieve a given action are also identified, many of which have been selected based on suggestions by informants. Performance measures determine how progress towards each objective will be measured, ensuring accountability and allowing program managers to evaluate the plan’s success. All goals, objectives, actions, key partners, and performance measures are evidence-based and were developed through a lengthy information gathering process (see **Section 7.0** for more details).



Figure 6: Strategic Framework

Over the next three years, SSC will continue to engage and form meaningful connections to the First Nations that have inhabited the Metro Vancouver region for thousands of years, as well as members of the urban Indigenous community if opportunity allows. This is not stated as an objective, as engagement will be conducted according to the pace and willingness of First Nations and Indigenous peoples.

¹⁹ See Appendix C: Interview Findings (Salmon-Safe US (Puget Sound)) for more details.

11.0 Our Strategic Goals



TELL THE STORY

Salmon-Safe Communities seeks to tell the story of what it is and why it is important. To do so, it builds awareness of the impacts of urban land development on watersheds and salmon.



BUILD COMMUNITY

Salmon-Safe Communities strives to have the support of a diversity of people and sectors. Embodying Fraser Basin Council's collaborative approach, the program ambitions to serve as a catalyst for capacity building and community.



DIVERSIFY KNOWLEDGE AND PRACTICE

Salmon-Safe Communities is committed to deepening relations with Indigenous governments. Through collaboration, dialogue, and partnership, the program aims to reflect a diversity and wealth of knowledge (including traditional ecological knowledge) pertaining to sustainable land and water management practices, ecological integrity and environmental conservation. This work will contribute respectfully towards sustaining our environment and salmon habitats for generations to come.



ACHIEVE FINANCIAL SUSTAINABILITY

Through sound financial and strategic planning, Salmon-Safe Communities intends to achieve long-term financial sustainability. By reducing economic risk, the program will develop a financially sustainable model for growth that is adaptive to changing market circumstances.



11.1 Tell the Story

People know Salmon-Safe Communities and they know why it is important. Salmon-Safe Communities tells a clear story that builds awareness of the impacts of urban land development on watersheds and salmon.

Preamble: Program success relies on a strong SSC identity that the general public, urban land developers, and policymakers can understand and connect to. This goal and its objectives are supported by a marketing and communications plan, found in the Business Plan, which further describes strategies and methods to achieve this goal.

OBJECTIVE 1: Increase public knowledge of the connection between urban development and watershed health.

Each objective is ranked as either **low**, **medium**, or **high** in terms of a capacity scale. This scale is based on a projected level of resources required to achieve each objective:

Low: considered potential 'quick wins' and may be achieved in a relatively short term

Medium: require moderate levels of resources and will take 2-3 years to achieve

High: require significant levels of resources and planning and will depend on the achievement of other objectives

Action A: Produce an educational video showing the impact of certification on watershed health.

Performance measures: Number of web visits; number of social media views, shares, likes, impressions

Key partners: City of Vancouver, educational institutions*

Messaging: Emphasize the connection of urban development and stormwater management to the health of salmon, orcas, and ecosystems. Use non-technical language and simple diagrams accessible to the general public.

Capacity scale: High

Action B: Improve website functionality and design.

Performance measure: Number of website visits

Key partners: Salmon-Safe US, educational institutions*, MEC, YVR

Messaging: Make website accessible to a wide audience and include a range of educational information about certification and the connection between urban development and watershed health (level of detail should range from low to high).

Capacity scale: Medium

Action C: Develop a social media strategy.

Performance measures: Number of social media views, shares, likes, impressions

Key partners: Salmon-Safe US, educational institutions*

Messaging: Target specific audiences with intentional social media posts that are strategic, consistent, and relevant.

Capacity scale: Low

OBJECTIVE 2: Build SSC brand awareness in the Lower Mainland region.

Action A: Create a branded package for certified developments (social media toolkit, signage, poster, key non-technical talking points).

Performance measures: Number of materials created; number of certified sites using branded package; number of views, shares, and likes on partners' social media

Key partners: Salmon-Safe US, educational institution*

Messaging: Packages will provide consistent, simple, and identifiable imagery, and should include guidelines on how to market SSC certification. Inclusion of the branded package is framed as a certification benefit.

Capacity scale: Medium

* Explore opportunities to host post-secondary students as part of an internship or co-op.

Action B: Host an annual Salmon-Safe BC event featuring SSC and Salmon-Safe Agriculture.

Performance measure: Number of attendees

Key partners: MEC, YVR, certified farmers, wineries

Messaging: Opportunity to celebrate and highlight program successes while raising brand awareness by showcasing wine and food from certified producers.

Capacity scale: High

OBJECTIVE 3: Increase industry understanding of what SSC is and how to engage with the program.

Action A: Create a one-page high level document for developers, landscape architects, and designers that describes the certification process and highlights its benefits.

Performance measures: Number of inquiries from potential clients, number of design competition submissions, number of new certified sites

Key partners: Vulcan Real Estate, MEC, YVR

Messaging: Draw on testimonials and experiences from MEC and YVR to demonstrate the benefits of certification. Document should inspire potential clients and clarify the certification process.

Capacity scale: Low

Action B: Create a one-page high level document for policymakers and municipal staff that highlights the benefits of certification and how SSC can help municipalities meet sustainability goals.²⁰

Performance measures: Number of inquiries from municipalities, number of municipalities that formally support SSC

Key partners: Salmon-Safe US

Messaging: Draw on examples from Puget Sound to show how municipal tools can promote and support SSC (e.g., demonstration projects, density bonusing, fast-tracked permitting). Language should be easily accessible across departments, such as planning, engineering, and permitting.

Capacity scale: Low

²⁰ See Appendix C: Interview Findings (Port Moody, City of Vancouver (Green Infrastructure) and (Food Systems) Food System Scholar) for more details.

11.2 Build Community

Salmon-Safe Communities has the support of a diversity of people and sectors. Embodying Fraser Basin Council's collaborative approach, the program serves as a catalyst for capacity building and community.

Preamble: SSC recognizes that the program alone cannot achieve its aim of protecting salmon and improving watershed health. Developing communities of practice, fostering municipal partnerships, and collaborating with other non-profit organizations will be key to success.

OBJECTIVE 1: Foster communities of practice among the urban land development industry.

Action A: Engage one key municipal partner and facilitate integration of Salmon-Safe certification in municipal policies (e.g., Rezoning Policy for Sustainable Large Developments) to catalyze private industry capacity.²¹

Performance measures: Number of municipalities that incorporate Salmon-Safe certification into development policy

Key partners: City of Vancouver, City of Port Moody, City of Burnaby²²

Messaging: Clearly communicate how Salmon-Safe certification achieves or surpasses current water management targets and how the program can achieve objectives across policy documents. Consider emphasizing how certification can increase marketability and reduce development costs. Draw on policy examples from Washington State and Salmon-Safe US projects.

Capacity scale: High

Action B: Facilitate semi-annual webinar by leaders of Salmon-Safe certified sites and/or Salmon-Safe certified developers or designers, targeted to urban land developers.

Performance measures: Number of webinars, number of webinar attendees (record to track attendance trends), sectoral diversity of webinar hosts

Key partners: MEC, YVR, Nature's Path, [future accredited designers or developers]

Messaging: Frame information sharing around people, planet, and profit and stress efficiencies gained through accreditation. Draw on examples of success from Salmon-Safe US.

Capacity scale: Medium

Action C: Facilitate an annual Salmon-Safe BC design competition awarding the winner a subsidized accreditation package.

Performance measures: Number of applicants, diversity of applicants compared to years prior

Key partners: (Cross-promotion) Canada Green Building Council, Pacific Salmon Foundation, David Suzuki Foundation, other environmental non-profits, engaged municipalities, certified developers and designers, Salmon-Safe US; (testimonials) MEC, future winners

Messaging: Communicate the benefits of certification (people, planet, profit) in addition to what the winner will receive.

Capacity scale: Medium

²¹ See Appendix C: Interview Findings (City of Vancouver (green infrastructure)) for more details.

²² See Appendix C: Interview Findings (City of Vancouver, City of Port Moody) and Appendix E: Policy Analysis for more details

OBJECTIVE 2: Increase municipal support for SSC.

Action A: Engage one municipality in pursuing a Salmon-Safe certified demonstration project.

Performance measure: Number of Salmon-Safe certified municipal demonstration projects

Key partners: City of Vancouver, City of Port Moody, City of Burnaby²³

Messaging: Clearly communicate how Salmon-Safe certification achieves or surpasses current water management targets, how the program can achieve objectives across policy documents, and how certification can increase industry capacity. Draw on examples of success from Salmon-Safe US.

Capacity scale: High

Action B: Pursue outreach opportunities to municipal decision-makers facilitated by Metro Vancouver.

Performance measures: Number of presentations to SILG, number of presentations to other groups facilitated by Metro Vancouver, diversity of municipal decision-makers in attendance

Key partners: Metro Vancouver

Messaging: Clearly communicate how Salmon-Safe certification achieves or surpasses current water management targets, how the program can achieve objectives across policy documents, and how certification can increase industry capacity. Draw on policy examples from Washington State and success of Salmon-Safe US projects.

Capacity scale: Medium

OBJECTIVE 3: Build a community of stewardship around stream and water protection.

Action A: Partner with environmental organizations to host stream restoration events.

Performance measures: Annual number of joint initiatives, number of attendees, social media engagements

Key partners: Streamkeepers associations (North Vancouver, West Vancouver, Still Creek, Spanish Banks, Pacific Streamkeepers), Evergreen, Lower Mainland Green Team

Messaging: Emphasize the connection between urban development, watershed health and salmon

Capacity scale: Low

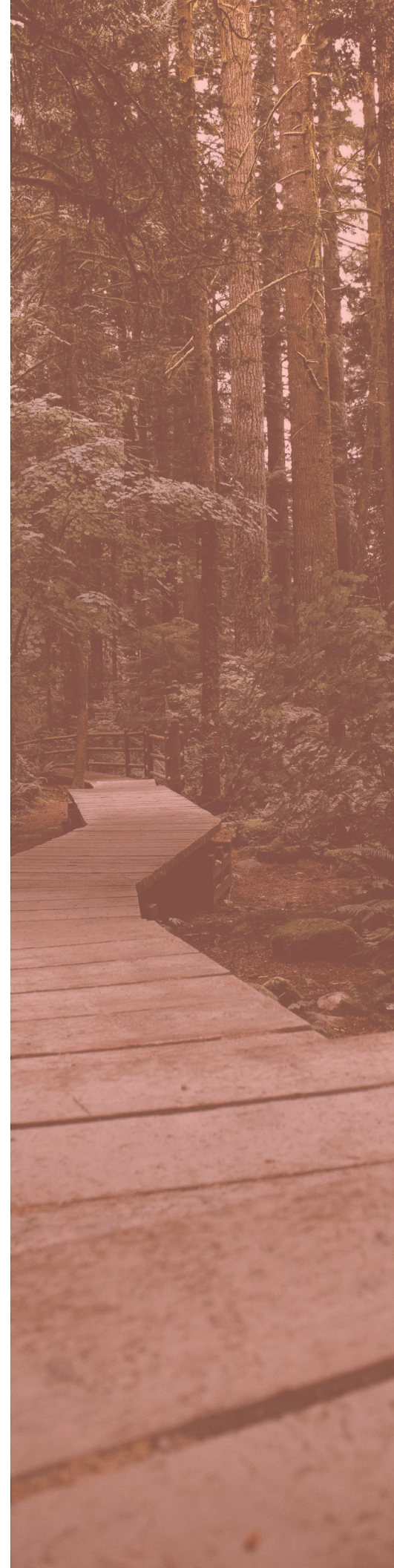
Action B: Explore partnering with the [Wild Salmon Caravan](#) celebration and the event's Indigenous leaders.

Performance measure: Partnership with event creators

Key partners: Wild Salmon Caravan leadership team

Capacity scale: Medium

²³ See Appendix C: Interview Findings (City of Vancouver, City of Port Moody) and Appendix E: Policy Analysis for more details



11.3 Diversify Knowledge and Practice

Salmon-Safe Communities is committed to deepening relations with Indigenous governments. Through collaboration, dialogue, and partnership, the program aims to reflect a diversity and wealth of knowledge (including traditional ecological knowledge) pertaining to sustainable land and water management practices, ecological integrity, and environmental conservation. This work will contribute respectfully towards sustaining our environment and salmon habitats for generations to come.

Preamble: The goal of diversifying knowledge and practice will be met by maintaining a commitment to learning, building capacity, and fostering relationships with First Nations. To put this into practice, SSC has initiated a dialogue with two local First Nation governments. The program team is committed to decolonizing their eco-certification practice and, with support from FBC, will continue to dedicate their time, energy, and resources toward this ongoing endeavor.

Unlike other program goals outlined in this report, the nature and process of developing objectives, actions, and performance measures to meet this goal will be determined in partnership with local First Nations. However, SSC will pursue the following objectives internally.

OBJECTIVE 1: Decolonize the SSC program.

Action A: Implement an intercultural training module for new staff.

Performance measures: Increased staff sensitivity, awareness, and understanding of local First Nations culture, and the context of operating on unceded territories.

Key partners: SSC assessment team, FBC staff

Capacity scale: High

Action B: Create spaces and opportunities for further dialogue, collaboration, and partnership with First Nations in order to facilitate the ongoing decolonization and indigenization of SSC.

Performance measures: Event collaborations and SSC program developments done in partnership with local First Nations, feedback and input from First Nations

Key partners: First Nation governments, FBC staff

Capacity scale: High

Action C: Explore contracting arrangements with First Nations assessment professionals, and First Nations membership work-learn opportunities with the SSC assessment team.

Performance measures: Partnership and contract agreements negotiated

Key partners: SSC assessment team, First Nations, Seven Generations Environmental Services Ltd.

Capacity scale: High



11.4 Achieve Financial Sustainability

Through sound financial and strategic planning, Salmon-Safe Communities intends to achieve long-term financial sustainability. By reducing economic risk, the program will develop a financially sustainable model for growth that is adaptive to changing market circumstances.

Preamble: The financial sustainability of the program will ensure SSC possesses enough resources to effectively work towards improving watershed health.

OBJECTIVE 1: Secure additional funding for initial capacity building.

Action A: Devote staff time to applying for multiple grants throughout 2019.²⁴

Performance measures: Total dollars raised, additional SSC staff capacity

Key partners: Foundations (e.g., Real Estate Foundation BC, Vancouver Foundation, Tides Canada); local, provincial, federal governments; private sector donors

Capacity scale: High

Action B: Explore internal funding opportunities at FBC.

Performance measures: Total dollars contributed to SSC by FBC, number of identified opportunities

Key partners: FBC staff, FBC Board of Directors

Capacity scale: Medium

OBJECTIVE 2: Reduce dependence on grant funding.

Action A: Increase number of sites certified without subsidization.

Performance measures: Total number of sites certified without subsidization, net revenue generated per site

Key partners: Local and provincial governments, urban development industry

Capacity scale: Medium

Action B: Establish firm understanding of costs of certification process to FBC.

Performance measures: Accurate and appropriate estimates of fees for services, centralized and consistent data regarding past projects

Key partners: SSC assessment team

Capacity scale: Medium

OBJECTIVE 3: Expand client and/or funding partner base.

Action A: Pursue meaningful outreach opportunities to representatives from the urban development industry throughout Metro Vancouver.

Performance measures: Number of workshops hosted; number of presentations held; number of sites, developers, designers pursuing accreditation

Key partners: Developers, architecture and landscape architecture firms, Urban Development Institute, UBC, SFU

Capacity scale: Medium

²⁴ See Appendix C: Interview Findings (Salmon-Safe US (Puget Sound)) for more details.

Action B: Increase staff time for SSC to capitalize on existing momentum.

Performance measure: Additional staff time allotted per week or month

Key partners: None

Capacity scale: Medium

Action C: Diversify funding applications.²⁵

Performance measures: Total number of funders, diversity of funders (e.g., governments vs. foundations)

Key partners: Foundations; local, provincial, and federal governments; private sector donors

Capacity scale: Medium

²⁵ See Appendix G: Potential Fundraising Sources for more details.





Salmon-Safe Communities

BUSINESS PLAN

2019-2021

Executive Summary

Salmon-Safe Communities (SSC) is an urban-focused eco-certification program that seeks to protect and restore salmon health and habitat through transformative urban land development practices. The program is administered by the Fraser Basin Council (FBC), a non-profit, non-government organization with expertise in collaboration and widespread connections across public and private sectors. This Business Plan situates SSC within the local eco-certification market context, providing a strategy for the program's growth.

While Vancouver's eco-certification market is mature and well established, SSC benefits from being the only certification to explicitly link land use management to watershed health. Because SSC primarily focuses on site-level and water management, there is potential for SSC to align rather than compete with other eco-certifications.

Declining wild salmon populations has sparked widespread political attention on watershed health and salmon. First Nation, municipal, provincial, and federal governments are pursuing solutions that support wild salmon and address stormwater management. SSC is positioned to leverage this political momentum to form partnerships with governments and benefit from potential funding opportunities.

Raising awareness of the impacts of urban development on the environment is key to program success. SSC is well situated to act as an educator and facilitator in raising brand awareness and building a community of practice within the development industry. With careful strategic and business planning, the program has the potential to re-contextualize urban land management within natural ecosystems.

The first portion of this plan provides an analysis of the eco-certification market at a local, provincial, and national scale. By analyzing current market challenges and opportunities, this plan provides a path by which to realize SSC's aspirations. This information is detailed in the market analysis (**Section 2.0**) and business case (**Section 3.0**) segments.

The latter half of the plan details SSC's current and desired business operations. A detailed marketing and communication plan (**Section 4.0**) and discussion of program governance (**Section 5.0**) is included in this portion. Contained are recommendations for how SSC's governance structure and management team can ensure the program grows in a way consistent with its mission and values.

The final section of this plan (**Section 6.0**) focuses on the program's finances. Included is a review of how SSC can mitigate financial risk to ensure long-term financial sustainability.

1.0 Background and Purpose of the Program

Salmon-Safe originated in the United States in 1996 and was brought to British Columbia (BC) in 2013. Salmon-Safe understands that sustainable water management on agricultural and urban lands influences Pacific salmon habitat and larger watershed ecosystems. Administered by the Fraser Basin Council, Salmon-Safe BC currently operates two sub-programs: Salmon-Safe Agriculture and Salmon-Safe Communities (SSC). Since SSC's launch in 2013, two urban sites have received Salmon-Safe certification: the head office of Mountain Equipment Co-op (MEC) (Vancouver - 2015) and Vancouver International Airport (YVR) (Richmond - 2016). Currently, Salmon-Safe BC is Canada's first and only eco-certification program linking land management practices with watershed protection.

The program aspires to a catalyst for ecologically-sound urban development. To do so, it will promote standards based on the biological needs of salmon and facilitate interdisciplinary capacity-building and collaboration among practitioners. The program understands that all current and potentially certifiable lands in the Lower Mainland are on the unceded territory of First Nations. In recognition of this, SSC will prioritize consultation, collaboration, and dialogue with First Nation governments to ensure the program respects Indigenous rights and title.

Development of the SSC program is nurtured by its vision, mission, and values and is sustained by four goal areas detailed in **Section 1.2**.

1.1 Fraser Basin Council (FBC)

FBC is a charitable, non-profit organization that brings people together to advance sustainability in the Fraser River Basin and throughout BC. Since its inception in 1997, FBC has served as a catalyst and facilitator of multi-interest dialogues and planning processes on sustainability issues. In these roles, FBC encourages participants to think long-term, commit to the social, economic, and environmental dimensions of sustainability, and, collaborate on decision-making.²⁶

1.2 SSC: Vision, Mission, Values, Goals

This Business Plan supports the vision, mission, values and goals contained in the Salmon-Safe Communities: 2019-2021 Strategic Plan. These are as follows:

OUR VISION

Salmon-Safe Communities is a catalyst for the adoption of ecologically sound urban development by promoting standards based on the biological needs of salmon, and facilitating interdisciplinary capacity-building and collaboration among practitioners. Our robust standards are at the forefront of land management best practices and contribute to improving watershed health for the benefit of the environment and society.

OUR MISSION

To protect and restore salmon health and habitat through transformative land management practices.

26 Fraser Basin Council, Strategic Plan 2016-2021, (Canada: Fraser Basin Council, 2016).

OUR VALUES

- **Indigenous Title and Rights:** Salmon-Safe Communities recognizes that Indigenous Nations in BC assert title and rights. The program also acknowledges that its work takes place on the traditional, ancestral, and unceded territories of the Indigenous Nations on what is now known as British Columbia.
- **Multi-disciplinary, Inter-jurisdictional Collaboration:** Salmon-Safe Communities is unique in that it catalyzes change-making conversations and collaborations among building professionals, local governments, and First Nations about how to approach development more holistically and build more resilient communities in the process.
- **Adaptive Approaches:** Salmon-Safe Communities recognizes that adaptive approaches are key to learning and evolution. Plans and activities must adapt as new information is acquired.
- **Mutual Dependence:** Salmon-Safe Communities recognizes that land, water, air, and all living organisms including humans, are integral parts of the ecosystem.
- **Open and Informed Decision-Making:** Salmon-Safe Communities recognizes that informed decision-making relies on the best available data and information.

OUR GOALS

Tell the Story: people know Salmon-Safe Communities and they know why it is important. Salmon-Safe Communities tells a clear story that builds awareness of the impacts of urban land development on watersheds and salmon.

Build Community: Salmon-Safe Communities has the support of a diversity of people and sectors. Embodying Fraser Basin Council's collaborative approach, the program serves as a catalyst for capacity building and community.

Diversify Knowledge and Practice: Salmon-Safe Communities is committed to deepening relations with Indigenous governments. Through collaboration, dialogue, and partnership, the program aims to reflect a diversity and wealth of knowledge (including traditional ecological knowledge) pertaining to sustainable land and water management practices, ecological integrity, and environmental conservation. This work will contribute respectfully towards sustaining our environment and salmon habitats for generations to come.

Achieve Financial Sustainability: Through sound financial and strategic planning, Salmon-Safe Communities intends to achieve long-term financial sustainability. By reducing economic risk, the program will develop a financially sustainable model for growth that is adaptive to changing market circumstances.

2.0 Market Analysis

2.1 Nature of Industry

There is an established and growing market for eco-certifications within the urban land development sector in Vancouver, though there is less existing information regarding the surrounding suburban markets.²⁷ Media and website scans suggest that there are a number of local and international eco-certifications that have established a presence in the regional market (see **Section 2.2** for more information regarding market competition).

Following a growing awareness of the impacts of urban development on the environment, the eco-certification industry began to develop in Canada in the mid-1990s through the mid-2000s.²⁸ BREEAM Canada was established in 1996,²⁹ LEED in 2002,³⁰ and BOMA Best in 2005.³¹

In general, eco-certifications tend to operate using a fee-for-service business model, offering assessment, verification, and marketing services for projects or companies pursuing environmental sustainability. Those focused on real estate are typically overseen by non-profit organizations, industry associations, or government. Over the past decade, the industry has evolved to favour certifications with more robust environmental standards and third party verification.³² Policy incentives, branding, and name recognition appear to be key in setting certifications apart and increasing market share.

27 CBRE and Maastricht University, "International Green Building Adoption Index," www.cbre.ent.box.com, (2018).

28 Marshall Leslie, "History of Green Building Rating Systems in Canada," <https://www.canadianconsultingengineer.com>, (2008).

29 Ibid.

30 Canada Green Building Council, "Why Leed? Canada Green Building Council," <https://www.cagbc.org>, (2018).

31 Bomba Canada, "About Boma Best. Boma Canada," <http://bomacanada.ca>, (2016).

32 See Appendix C: Interview Findings (Ecolabel Index) for more details.



2.2 Market Competition

There are many green building eco-certifications in use in Metro Vancouver. One of the primary challenges facing the successful expansion of SSC is the crowded marketplace. Many other certifications have an established presence and appear to possess higher levels of name recognition. These certifications include:

- [Leadership in Energy and Environmental Design® \(LEED\)](#)'s primary focus is on increased energy efficiency. Originating in the United States, it is a third-party verification program overseen by the Canada Green Building Council.
- [BOMA Best](#) focuses on existing building and requires a self-assessment as well as third-party verification. It is overseen by the Building Owners and Managers Association of Canada (BOMA Canada).
- [BREEAM - Canada](#) is part of an older international certification (originating in 1990). BREEAM looks at numerous sustainability indicators: energy, health and wellbeing, innovation, land use, materials, management, pollution, transport, waste, and water. It is a third-party verification program run by BRE Group and is open to individual buildings, communities, and infrastructure projects.
- [Built Green Canada](#) evaluates energy and the preservation of natural resources, pollution reduction, ventilation and air quality, and home durability. It is a national certification overseen by a non-profit of the same name. Certification recipients also receive the EnerGuide.
- [Energy Star](#) focuses on energy efficiency and is associated with the Government of Canada. To be awarded an energy star label, a development must be built by an Energy Star certified builder. There are many provincial incentives for Energy Star.
- [The Living Building Challenge](#) is an international certification. Originally created by the Cascadia Green Building Council, it is now overseen by the non-profit International Living Future Institute (ILFI). The Living Building Challenge looks at seven performance areas: place, water, energy, health and happiness, materials, equity, and beauty.
- [Passive House Canada](#) is run by a national non-profit organization that is an affiliate of the International Passive House Certification. Certification depends on a review of post-construction documents and is focused solely on performance of the building envelope.

Many of the certifications highlighted above are part of large international organizations. Correspondingly, it appears that many of these certifications are well-resourced in terms of staff and marketing capacity.

Of these certifications, LEED captures a particularly large market share and experiences high-levels of government support and name recognition. As of January 2019, 607 projects were LEED certified and 1,517 projects were registered (declared intent to certify) in BC.³³ The other certifications listed vary greatly in market share, approaches to advancing sustainability, and types of projects eligible for certification (e.g., new construction vs. existing developments). BOMA Best, managed by the Building Owners and Managers Association of Canada, is the largest certification in Canada for existing buildings.³⁴

³³ Canada Green Building Council, "Leed Impact Report Canada 2018," <https://www.cagbc.org>, (2018).

³⁴ Boma Canada, "About Boma Best. Boma Canada," <http://bomacanada.ca>, (2016).

A full gap analysis was undertaken for Salmon-Safe US.³⁵ It provides greater detail on existing certifications and how they contrast with SSC.

2.3 Market Competition: Areas of Alignment

SSC benefits from being the only certification to primarily focus on site-level land and water management. There are two opportunities to align with other certifications which were identified through the research process. Firstly, SSC accreditation counts toward LEED innovation points. This arrangement allows SSC to leverage LEED's strong market presence as an incentive for developers pursuing LEED Gold or Platinum. However, an informant highlighted that this may not be a strong enough incentive for developers, as pursuing an additional certification is not necessarily cost effective.³⁶ The Living Building Challenge offers a model on how a certification can position itself as complementary to LEED.³⁷

Secondly, there is also potential for collaboration with Green Shores, a regional certification program focused on preserving and restoring shoreline habitat and physical processes. Both Green Shores and SSC have expressed interest in collaborating and this partnership should be explored further. Areas of potential collaboration could include: raising public awareness, facilitating industry training,³⁸ and providing resources for municipalities.³⁹

35 Salmon-Safe Inc. Site, Infrastructure and Green Building Rating Systems. (Portland: Salmon Safe, 2018).

36 See Appendix C: Interview Findings (Canada Green Building Council Board Member) for more details.

37 International Living Future Institute, "Living Building Challenge - FAQ," <https://living-future.org/> (2019).

38 Green Shores, "Workshops, Seminars and Training," <https://stewardshipcentrebc.ca>, (2019).

39 Stewardship Centre for British Columbia, "Policy and Regulatory Tools for Local Governments," <https://stewardshipcentrebc.ca>, (2016).



2.3 Government Context

2.3.1 Federal Government

In 2018 the federal government published the Wild Salmon Policy 2018-2022 Implementation Plan.⁴⁰ This plan guides wild Pacific salmon conservation efforts as per the 2005 Wild Salmon Policy and signalled a renewed focus on the success and survival of salmon. In order to “restore and maintain healthy and diverse salmon populations and their habitats for the benefit and enjoyment of the people of Canada in perpetuity,” dictated by the Wild Salmon Policy, the plan centres local partnerships as well as Indigenous Knowledge Systems. Fisheries and Oceans Canada has also highlighted that 2019 will be a focal year for the five-year International Year of the Salmon outreach and research initiative. However, this initiative and the Wild Salmon Policy Implementation Plan could be affected by the 2019 federal election, which could result in a change in government priorities.

2.3.2 Provincial Government

The provincial government of BC is currently developing a Wild Salmon strategy to “support restoring healthy and abundant salmon stocks in BC.”⁴¹ Driven by the Wild Salmon Advisory Council (WSAC), this body recognizes that complex changes to aquatic and terrestrial ecosystems have negatively impacted salmon, and that a systematic strategy is required to address species decline. A key piece of the future strategy, as indicated by WSAC recommendations, will be to promote reconciliation with BC’s Indigenous peoples while supporting community stewardship. To do so, the WSAC has suggested the Province invest technical and financial resources in existing initiatives driven by community and Indigenous organizations. The recent creation of a \$142 million British Columbia Salmon Restoration and Innovation Fund, a joint federal and provincial initiative, should help realize this recommendation.⁴² The fund is open to proposals from Indigenous groups, conservation groups, academic and research organizations, and commercial groups in the fishing industries.

A recent report by Dodge Data and Analytics found that environmental regulation is the second strongest trigger for the green building industry. CleanBC, BC’s new carbon emissions strategy, which seeks to reduce GHGs by 40% by 2020 may help drive industry growth.⁴³ The plan focuses on improving energy efficiency, promoting use of clean energy sources, and preventing waste, which is to be done in part by ensuring every new building constructed in BC is “net-zero energy ready” by 2032.⁴⁴ This means that buildings must be designed to meet all or most of their own energy requirements on-site, a requirement that will be actioned through the BC Building Code. The plan also requires that new public buildings achieve LEED Gold certification or equivalent. To accelerate the availability of high performance solutions to achieve these goals, the Province will launch the Low Carbon Buildings Innovation Program in 2019, meant to leverage the existing green building knowledge base.

40 Fisheries and Oceans Canada, Wild Salmon Policy 2018-2022 Implementation Plan (Canada: Government of Canada, 2018).

41 BC Wild Salmon Advisory Council, Wild Salmon Strategy (Canada: Province of British Columbia, 2018).

42 Simon Little. “B.C. Wild Salmon get \$142M Cash Infusion for Habitat Restoration,” <https://globalnews.ca>, (2019).

43 Juvarya Veltkam. Green Buildings Market Forecast. (Vancouver: Vancouver Economic Commission, 2019).

44 Province of British Columbia. Clean BC. (British Columbia: Province of British Columbia, 2018).



2.3.3 First Nation Governments

First Nation governments in the Lower Mainland and across the province have been active land stewards for thousands of years. For many, strategic actions for improving natural environments are being incorporated into government policy. Recently, the Tsleil-Waututh Nation released the Burrard Inlet Action Plan, which seeks to improve the health of the inlet by 2025. This plan states that characterizing and reducing pollution from stormwater runoff is a priority action. The Squamish Nation are also developing a plan for Howe Sound that will incorporate both marine and freshwater ecosystems. This plan will “provide an opportunity to manage human activities and provide for sustainable uses that are compatible with each other and with the ecosystem.”⁴⁵

A member of Metro Vancouver, Tsawwassen First Nation uses an integrated rainwater management plan (IRMP) to sustainably manage water, while Musqueam Indian Band is in the process of developing an integrated stormwater management plan (ISMP) in partnership with the City of Vancouver.⁴⁶ The Kwikwetlem First Nation have taken on numerous initiatives to protect salmon and are an ongoing funding sponsor and participant in the Coquitlam River Watershed Roundtable. An independent, multi-stakeholder group, the roundtable “works to promote and protect the long-term sustainability of the Coquitlam Watershed.”⁴⁷ Further to these actions, Tsleil-Waututh Nation is also developing a Climate Change Resiliency Plan, while the Tsawwassen First Nation intends to prepare a detailed sustainability plan for its lands that balance economic, environmental, and social objectives.⁴⁸

2.3.4 Municipal Governments

As per Metro Vancouver’s 2001 Liquid Waste Management Plan, all member municipalities are required to complete an ISMP.⁴⁹ Composed of 21 municipalities, populations of these settlements range in size from 643 (Village of Belcarra) to over 600,000 (City of Vancouver) and resources among them differ greatly. In a recent survey of eight member municipalities, many indicated that integration of ISMPs into regulatory policy is key to the promotion of sustainable water management practices.⁵⁰ However, as realized through the policy analysis detailed in **Appendix E**, integration varies greatly between municipalities.

45 Squamish Nation. Squamish Nation Planning for Howe Sound. (Squamish: Squamish Nation, 2016).

46 See Appendix E: Policy Analysis (Musqueam First Nation) for more details.

47 Kwikwetlem First Nation, “Environment and Fisheries,” <http://www.kwikwetlem.com>, (2019).

48 See Appendix E: Policy Analysis for more details.

49 Greater Vancouver Regional District (GVRD). Greater Vancouver Regional District Liquid Waste Management Plan. (Burnaby: GVRD Policy and Planning Department, 2001).

50 See Appendix F: SILG Survey Results for more details.



Appendix F provides a list of municipalities that have a high degree of familiarity with sustainable water management practices as expressed by regulatory documents. Of these municipalities, the City of Vancouver is the most advanced. Elements of their IRMP have been weaved into green building policy, (recognized by the World Green Building Council as the best green building policy of any jurisdiction globally),⁵¹ including the Rezoning Policy for Sustainable Large Developments. The City also understands water holistically. For them, water management and ecosystem improvements are steps toward reconciliation with Indigenous peoples, when done in partnership.⁵² In conversations with a City of Vancouver food systems planner, they indicated that sustainable water management practices could be understood as food assets, a way of integrating culture (i.e., the protection of traditional First Nations food sources) into food policy.⁵³

For smaller cities interested in promoting sustainable water management, Salmon-Safe certification may be attractive when promoted as a pre-packaged set of standards that can achieve the municipality's objectives.⁵⁴ Demonstrating how the certification can do so clearly and succinctly, emphasizing achievement of targets across departments, has been recommended as a way of marketing certification to municipalities.⁵⁵ Promotion should also demonstrate how the certification can help resolve preconceived notions or concerns that cities and towns may have about pursuing green building certification. For example, in our survey of eight municipalities, many were concerned about the maintenance requirements of green infrastructure and their inability to enforce upkeep. Salmon-Safe certification can alleviate this concern by emphasizing the benefits of its annual review process.⁵⁶ Municipalities may also be interested in the financial efficiencies that can be gained by developers pursuing certification.⁵⁷

51 Juvarya Veltkam. Green Buildings Market Forecast. (Vancouver: Vancouver Economic Commission, 2019).

52 See Appendix C: Interview Findings (City of Vancouver (Green Infrastructure)) for more details.

53 See Appendix C: Interview Findings (City of Vancouver (Food Systems) and Food Systems Scholar) for more details.

54 See Appendix C: Interview Findings (Canada Green Building Council Board Member) for more details.

55 See Appendix C: Interview Findings (City of Vancouver (Food Systems) and Food Systems Scholar) for more details.

56 See Appendix F: SILG Survey Results for more details.

57 See Appendix C: Interview Findings (City of North Vancouver)

2.4 Cultural and Social Factors

2.4.1 Importance of Salmon in BC

In BC, salmon are an integral part of natural, cultural, and economic systems.⁵⁸ Many parts of the province are home to industries that rely on salmon sustainability, such as recreation and tourism operations and First Nations, commercial, and recreational fisheries.⁵⁹ In this way, stewardship of salmon, their abundance, and their sustainable harvest are all intricately linked - a connection that municipalities such as the City of Vancouver are beginning to embed in policy. Many Indigenous communities are particularly dependent on wild salmon, incorporating the species into language and ceremony, the fish itself a source of sustenance for body and spirit. For stewardship to be successful, consultation with First Nation governments is essential.

2.4.2 Green Building in BC

Demand for green buildings continues to grow in BC, both by occupants and employees. Linked to improved indoor air quality, researchers have found that these buildings can increase employee productivity while enhancing employee attraction and retention.⁶⁰ In a 2008 study by Deloitte and Charles Lockwood, which explored why companies choose to undergo green rather than traditional retrofits, many listed “corporate environmental commitment” as their top reason.⁶¹ This commitment is also increasingly important for those between age 18 to 35; for young people, having their professional lives mimic personal sustainable choices can be key to job satisfaction.⁶² Healthier buildings may also help build community, while the aesthetically pleasing nature of green buildings particularly important in Canada.⁶³ Landscape architects have theorized that recovering and absorbing rainwater on-site can make the landscape “come alive.”⁶⁴ These green infrastructure systems, in displaying a function that is often suppressed by conveyance infrastructure, may actually enrich the sensory experience of a neighbourhood’s public space.

A key evolution of the green building industry, highlighted by multiple informants, is a shift in focus to net-zero and Passive House standards driven by the BC Energy Step Code. This may impact Salmon-Safe certification in that Passive House standards are focused solely on the building envelope. Water management may be maligned by new green building policy unless policymakers pointedly include requirements in regulatory documents.⁶⁵ Site-level certifications such as Salmon-Safe may need to target policymakers to emphasize the benefits of joint certification in achieving water and green building objectives. Reaching out to the Canada Green Building Council, which has a direct link to builders and Green Business Certification Inc. (certifier of 10 eco-certifications) can help build SSC’s brand recognition and credibility.

58 Fisheries and Oceans Canada, Wild Salmon Policy 2018-2022 Implementation Plan (Canada: Government of Canada, 2018).

59 BC Wild Salmon Advisory Council, Wild Salmon Strategy (Canada: Province of British Columbia, 2018).

60 World Green Building Council, “The Business Case for Green Building: A Review of the Costs and Benefits for Developers, Investors, and Occupants,” <https://www.worldgbc.org>. (2013).

61 Deloitte and Charles Lockwood. The Dollars and Sense of Green Retrofits. 2008.

62 Ibid.

63 Dodge Data and Analytics. SmartMarket Report: World Green Buildings Trends 2018. (Massachusetts: World Green Building Council, 2018).

64 Fraker, H. (2013). The hidden potential of sustainable neighbourhoods: Lessons from low-carbon communities.

65 See Appendix C: Interview Findings (City of Vancouver (Green Infrastructure) and Canada Green Building Council Board Member) for more details.



2.5 Economic Factors

In Canada, moderate growth in the green building industry is expected in the near future, with institutional and commercial sectors reporting highest demand.⁶⁶ In 2018, the proportion of businesses who built 60% of all projects sustainably increased by 13% in Canada.⁶⁷ As reported in the recent SmartMarket green building trends report, the top triggers for future green building activity include: client demand; environmental regulation; and, environmental values (e.g., doing the right thing).

Market reports indicate that demand for green buildings may be driven by their operating cost savings, short payback periods, and asset value increases from investments in new green buildings and retrofits. Building owners, architects, and contractors have all reported that green buildings significantly decrease operating costs in the first year after construction, with impacts increasing across the first five years of operation.⁶⁸ These efficiencies, when effectively communicated can help stimulate client demand.

In Canada, higher costs (both perceived and actual) and affordability have been cited as barriers to eco-certification industry growth.⁶⁹ Among the industry and public in general, the misconception that sustainability is only suited to high-end projects persists. This factor may be particularly influential in areas like Metro Vancouver where affordability is a pressing concern. Growth of the industry may also be affected by economic downturn in the construction market. However, analysis of the US green building market after the 2008 financial crisis found that even in a small and stagnant market, the proportion dedicated to green building continued to grow.⁷⁰

A key recent shift in the green building industry is that for companies whose projects are majority green, certification may not be a priority. Dodge Data and Analytics predicts that this gap between green building and certification will likely grow from 2018 to 2021.

2.6 General Market Trends

Vancouver is a mature and growing market for green building eco-certifications, with one of the highest certification rates in the world.⁷¹ The drivers of client interest in certification appear to be: value-alignment (“the right thing do”);⁷² policy;⁷³ and, brand trust/marketing.⁷⁴ Office buildings in particular are increasingly likely to possess a green building certification. In urban areas, certifications are used to attract large knowledge-based companies as tenants,⁷⁵ and office buildings with either Energy Star or LEED certification are able to command higher rents.⁷⁶ However, there is less certainty about the demand for office certification in suburban markets.⁷⁷

As highlighted in **Section 2.2**, LEED appears to be the industry standard and is well-supported by municipal legislation and incentives across the Lower Mainland.⁷⁸ Media and website scans suggest that this is unlikely to change in the near future. However, there are examples of certifications positioning themselves as either complementary to LEED or as a local alternative.^{79,80}

66 Dodge Data and Analytics. SmartMarket Report: World Green Buildings Trends 2018.

67 Ibid.

68 McGraw Hill Construction. Canada Green Building Trends: Canada Green Building Trends Report. (Ottawa: Canada Green Building Council, 2015).

69 Dodge Data and Analytics. SmartMarket Report: World Green Buildings Trends 2018.

70 McGraw Hill Construction. Canada Green Building Trends: Canada Green Building Trends Report.

71 CBRE and Maastricht University, “International Green Building Adoption Index.”

72 See Appendix C: Interview Findings (Quadreal), (MEC), (YVR) for more details.

73 See Appendix C: Interview Findings (Canada Lands Company) for more details.

74 See Appendix C: Interview Findings (Quadreal), (MEC), (YVR) for more details.

75 See Appendix C: Interview Findings (Quadreal) for more details.

76 Eichholtz, Piet; Kok, Nils; Quigley, John M, “Doing Well by Doing Good? Green Office Buildings.” American Economic Review (2010).

77 See Appendix C: Interview Findings (Quadreal) for more details.

78 See Appendix E: Policy Analysis for more details

79 International Living Future Institute, “Living Building Challenge - FAQ,” <https://living-future.org/> (2019).

80 Zou, Yonghua. “Certifying green buildings in China: LEED vs. 3-star,” Journal of Cleaner Production, focus on China (2018).

2.7 Market Segment

SSC aspires to be the “go-to” site-level certification for urban development in BC and beyond. It does not seek to compete with building certifications such as LEED, but to act in aligned pursuit of sustainability goals. Grounded in feedback from interviews with existing clients and industry representatives, SSC will target developers and designers with an existing sustainability mandate. As SSC cannot at present demonstrate a strong financial return, it is likely to garner greater success with developers that already share SSC’s dedication to sustainability. SSC will initially seek out clients already working on sustainable water management, where certification would be primarily viewed as an opportunity to showcase and build upon existing work, not adopt many additional standards.

Based on media scans of past award recipients, corporate websites, and other green building certification sites, SSC should reach out to the following developers:

- Adera
- Brenhill
- Concert Properties
- Infinity Properties
- MOSAIC
- Natural Balance Premium Home Builders
- Oxford Properties
- PCI Developments
- Trilium (Construction Company)
- Wesgroup Properties

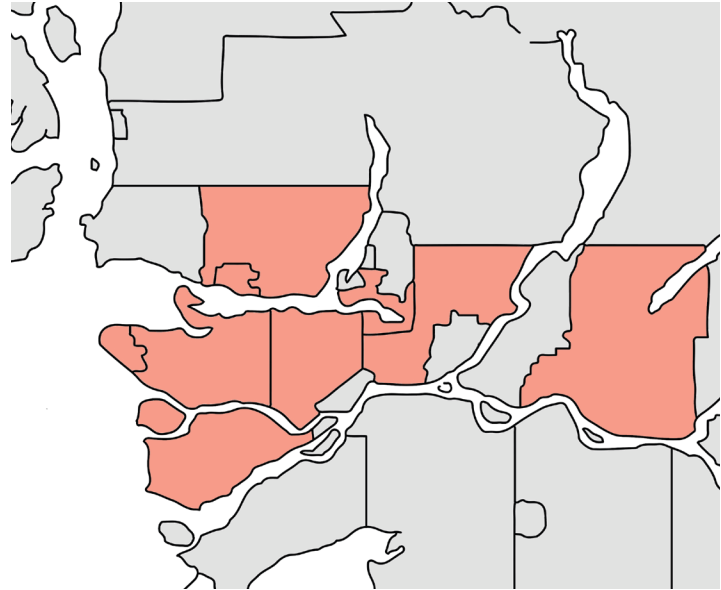
Alternatively, an informant suggested that SSC pursue relationships with developers working on large master planned communities. A few examples include:

- Onni
- Shape Properties
- Polygon Homes



SSC will also focus on leveraging FBC's reputation and relationship with policymakers to increase its presence in this market segment. SSC will form partnerships with municipalities to establish formal incentives, and attain high-visibility demonstration projects. **Appendix E** details which municipalities are most likely to support SSC. They are highlighted in **Figure 1** and include:

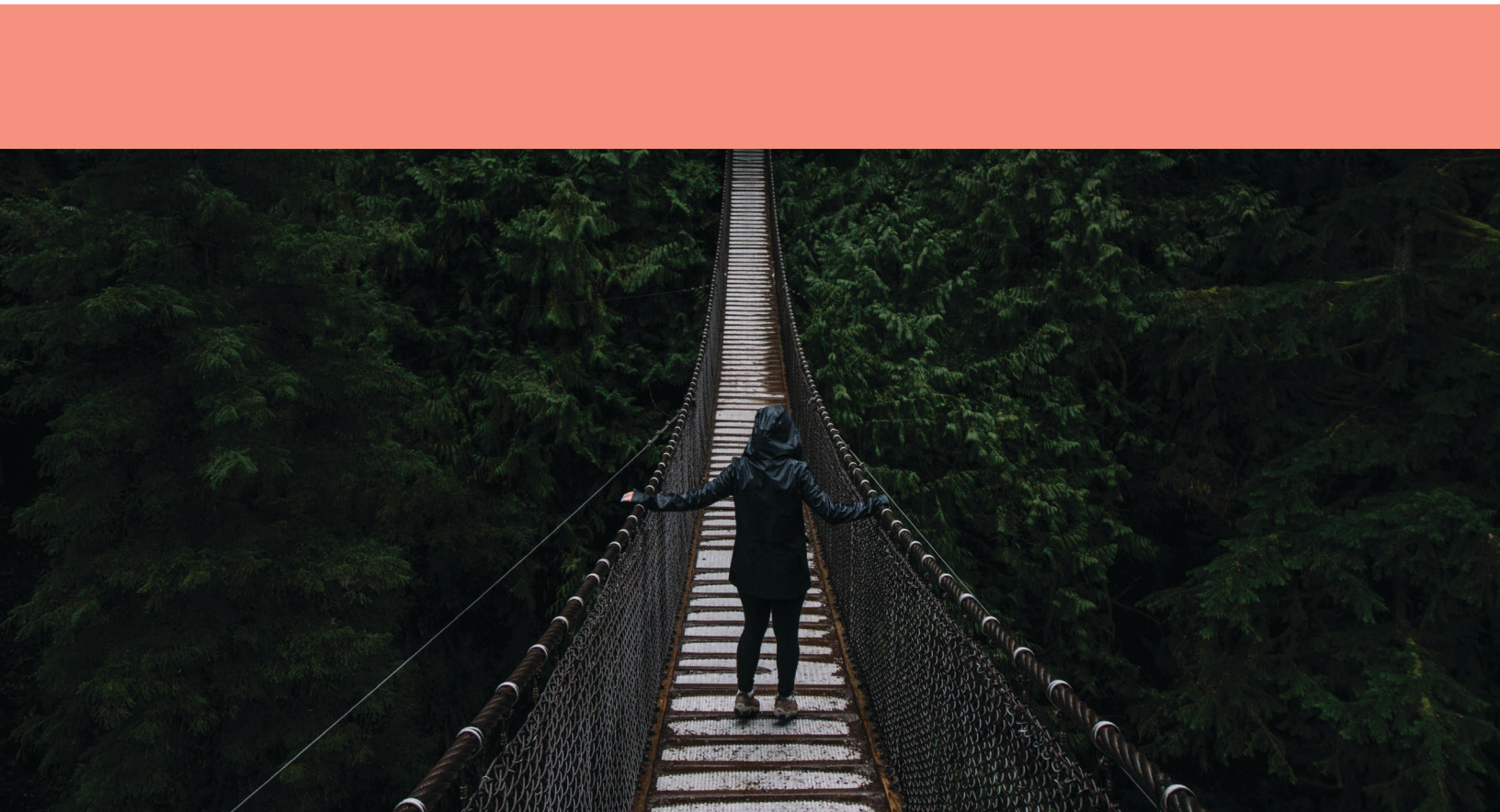
- Burnaby (City)
- Coquitlam (City)
- Maple Ridge (City)
- North Vancouver (City)
- North Vancouver (District)
- Port Moody (City)
- Richmond (City)
- Vancouver (City)
- Metro Vancouver Regional District



Public sector institutions also represent a unique market opportunity for SSC. UBC and SFU have strong potential for alignment with SSC, and partnerships with each should be explored. An informant from UBC noted that the university is currently looking at campus-level initiatives pertaining to water. This person also suggested SSC leverage UBC's educational identity to connect with emerging green building professionals.⁸¹

Figure 1: Municipalities with High Potential to Partner with SSC

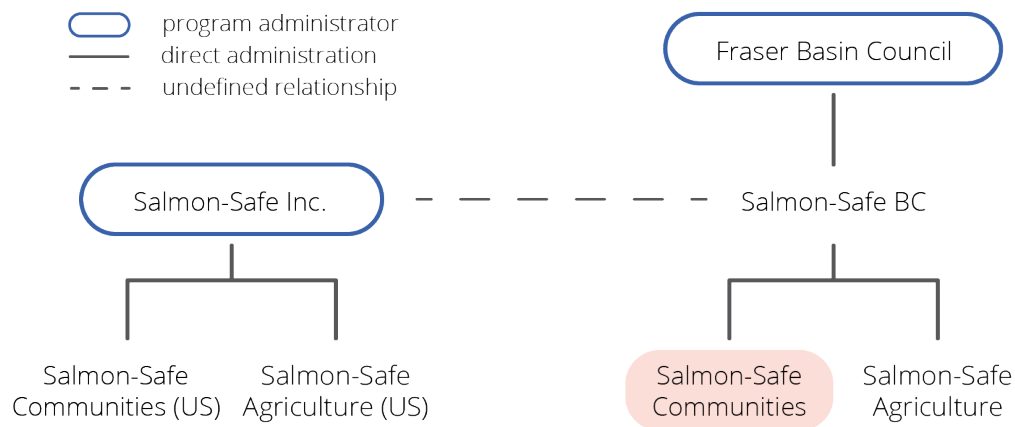
81 See Appendix C: Interview Findings (UBC) for more details.



3.0 Business Case

3.1 SSC and Salmon-Safe US

As previously noted, SSC is administered by FBC and is nested within this organization. The relationship between SSC and Salmon-Safe US, the program originator, is currently undefined. However, Salmon-Safe BC is in a favourable position to build off the success of Salmon-Safe US. While Salmon-Safe BC is a relatively young program, there is strong institutional knowledge from over 20 years of program history in the US. Additionally, examples of Salmon-Safe US milestones, such as certification of the City of Portland’s parks system, Vulcan Real Estate’s accreditation, and the recent completion of the multi-stakeholder Aurora Bridge project, offer strong business cases for potential clients in BC. Integrating this information into SSC marketing and communication materials, including reposting Salmon-Safe US blog content, could help provide the program credibility while making use of existing communication assets.



SSC can also learn from tactics used by Salmon-Safe US to acquire new clients. Chief among these is selecting flagship sites and subsidizing certification, a method currently used by SSC. Salmon-Safe US (Puget Sound) has also been able to work within targeted sectors, principally technology sectors, leveraging the networks of those who believe in Salmon-Safe’s mandate to raise project capital.⁸² SSC may consider this approach by targeting dominant sectors in the Lower Mainland such as technology and activewear. Like their Salmon-Safe US counterparts, SSC should use municipal contacts to encourage integration of Salmon-Safe certification into policy. Using policy examples, such as the City of Shoreline’s Deep Green Incentive Program, may help municipalities visualize how Salmon-Safe could be incorporated into regulatory regimes.⁸³

There are also benefits to FBC’s recent acquisition of Salmon-Safe Agriculture from Pacific Salmon Foundation. Managing both programs enables FBC to realize potential synergies between programs and maximize efficiencies. The agricultural program has the potential to raise brand awareness by marketing certification on assets like wine and produce labels. Both programs will also benefit from sharing staff costs, social media attention, marketing materials, and funding. As indicated by Salmon-Safe US, cross-promotion through agricultural and urban programs is beneficial even if it is difficult to measure.⁸⁴

82 See Appendix C: Interview Findings (Salmon-Safe US (Puget Sound)) for more details.

83 See Appendix E: Policy Analysis (City of Shoreline) for more details.

84 See Appendix C: Interview Findings (Salmon-Safe US (Oregon)) for more details.

3.2 SSC Strengths, Opportunities, Aspirations, and Results

A strengths, opportunities, aspirations, and results (SOAR) analysis of the SSC program is detailed in **Table 1** on the following page. The SOAR analysis was developed through a visioning session and supplemented by research findings. Chief among the program's strengths is its stable delivery agent, FBC. As an organization with a history of successful fundraising and a reputation as a trusted facilitator, FBC is well positioned to guide SSC as it strives for sustainability. A key opportunity for SSC is to leverage this institutional experience by hosting educational workshops that build community knowledge of sustainable water management.

The program also benefits from the success of Salmon-Safe US, an established program with 20 years of certification experience. Leveraging projects completed in Washington and Oregon to help build SSC's brand identity represents another opportunity. Projects certified in the US also offer compelling business cases that SSC can highlight to potential partners. SSC can also learn from the way Salmon-Safe US has established itself in the market. Informants from Salmon-Safe US clearly outline their growth trajectory in **Appendix C** and SSC can put into practice lessons learned.

Building relationships with Lower Mainland First Nations, especially the Musqueam, Squamish, and Tsleil-Waututh, is important for the development of the SSC program. By working in partnership with these nations and integrating traditional ecological knowledge into the program's standards, SSC can begin to decolonize its practice. An informant from YVR specifically recommended that SSC explore such partnerships, while informants from the City of Vancouver indicated that if the program is to help the City achieve its reconciliation goals, it will need the support of these three nations.⁸⁵

As SSC moves towards achieving its aspirations, tangible outcomes should remain top of mind. Tracking the split between grants and fee-for-service will provide insight into the program's financial sustainability. To understand its position in the market, SSC should track not just the number of certified projects but the sectoral diversity of certification as well. Finally, as nearly all informants stressed the importance of the program's brand identity in driving growth, many of its initiatives will revolve around communication. Tracking related metrics such as page hits, downloads, and social media engagements will be key to understanding audience reach.

85 See Appendix C: Interview Findings (YVR) and (City of Vancouver (Food Systems) and Food Systems Scholar) for more details.

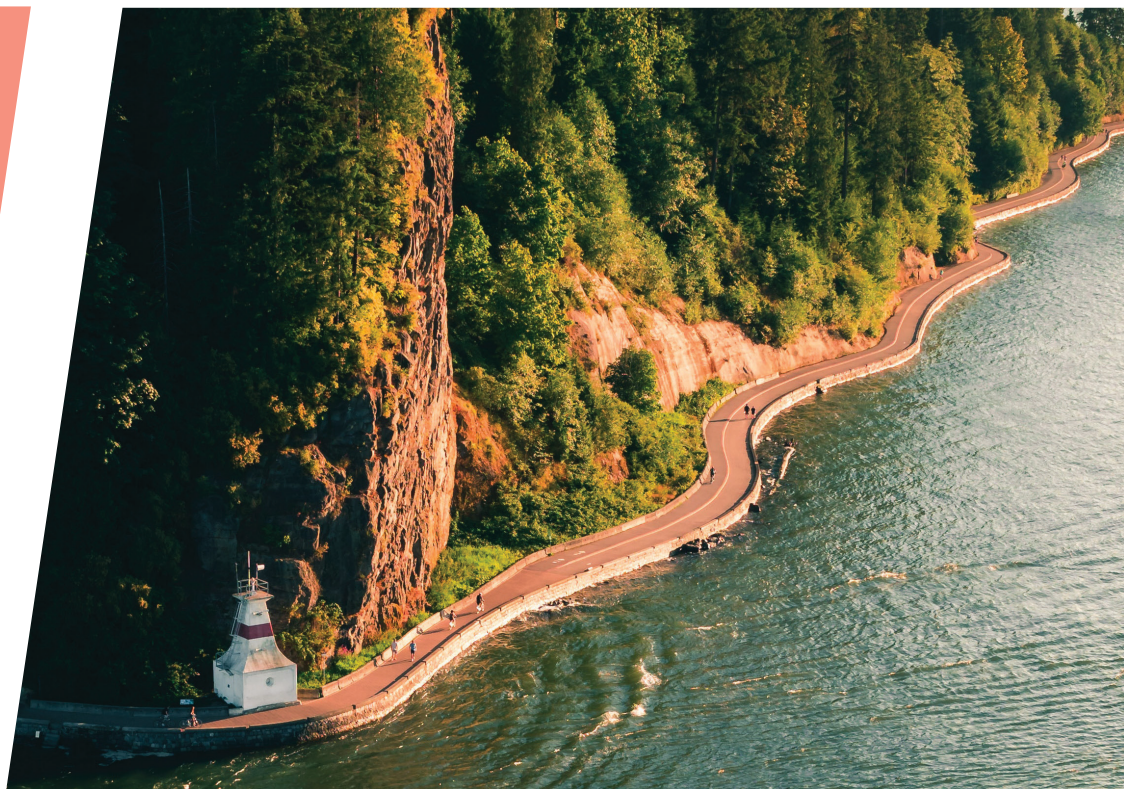


Table 1: SSC SOAR Analysis

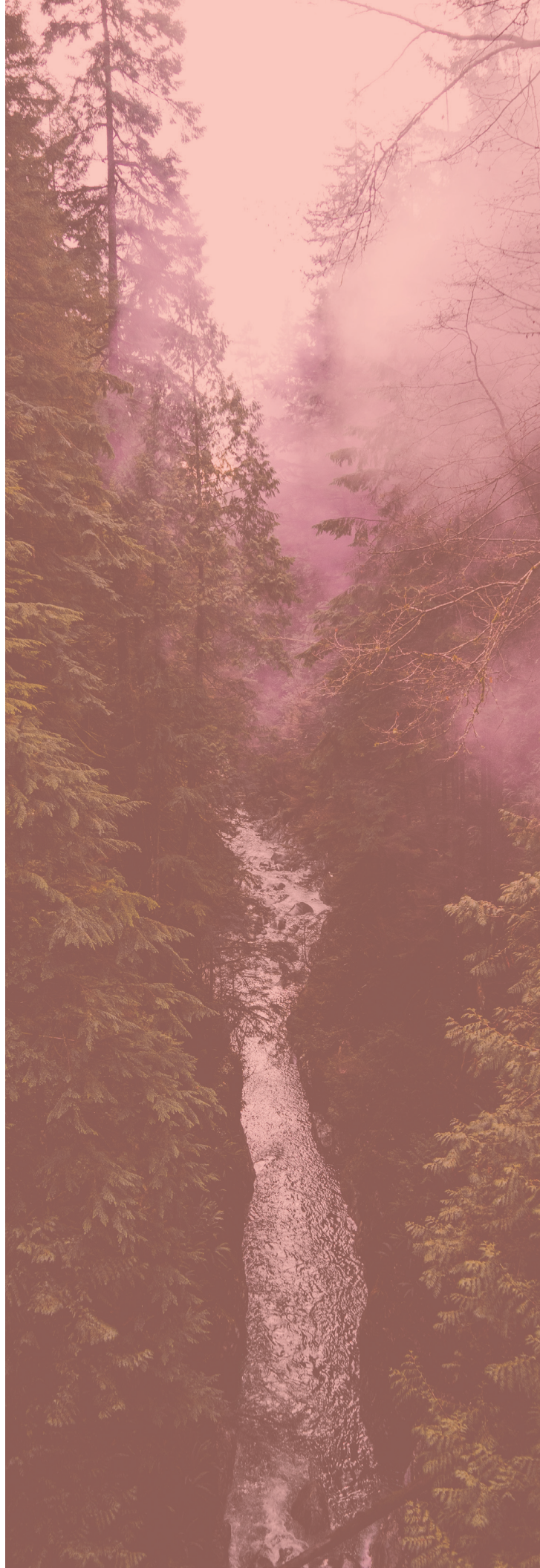
<p>STRENGTHS</p> <p><i>What the program does well</i></p>	<ul style="list-style-type: none"> • FBC, the program’s delivery agent, has fundraising capabilities and possesses a large and diverse network • FBC has a strong reputation among policy makers • SSC is a rigorous certification and trusted/well-connected certification team • The program takes a systematic approach to watershed health, looking beyond individual site certification and towards wide-scale change • The program can leverage successes in Washington and Oregon, highlighting business cases in pitches to new clients
<p>OPPORTUNITIES</p> <p><i>Circumstances that could be leveraged for success</i></p>	<ul style="list-style-type: none"> • SSC can integrate traditional ecological knowledge in partnership with First Nation governments • SSC can leverage program successes in Washington and Oregon, featuring projects on their website and developing information sessions that utilize this experience • YVR and MEC can be leveraged as business cases and encouraged to share their experience with others • Alignment in provincial and federal priorities around supporting salmon could result in funding, pilot projects, and/or policy support • SSC can facilitate educational and training opportunities to build industry capacity and community • SSC can develop cohesive marketing materials for the use of future clients • The plight of orcas has raised public awareness of the importance of salmon in marine ecosystems • SSC can explore opportunities for clients to engage with the program at different levels (See Appendix C: Interview Findings for more details) • SSC can help municipalities meet sustainability goals by providing a pre-packaged set of standards
<p>ASPIRATIONS</p> <p><i>What the program wants to achieve in the future</i></p>	<ul style="list-style-type: none"> • Raise public awareness around the connection between development and ecosystem health • Explore program relationship-building with Coast Salish Nations • Build a narrative that inspires the urban land development industry and leverage local champions to do so • Certify one developer and have them speak to the people, planet, profit benefits of SSC • Build business cases for potential clients that demonstrates the benefits and impact of certification • Raise industry standards so that development contributes to restoration • (Internal) Fund 1 full FTE program manager, a support coordinator and a support communication specialist • (Internal) Transform SSC into a program that attracts talent to FBC • (Internal) Hire an external communication contractor to facilitate a redesign of salmonsafe.ca and prepare a branded package for certified developments and clients
<p>RESULTS</p> <p><i>Tangible outcomes and measures that demonstrate success</i></p>	<ul style="list-style-type: none"> • Split between fee for service and grants • Number of certified sites, developers, designers • SSC success demonstrated by support of diverse sectors at different scales • Web metrics: site hits, likes, retweets, shares • Program outreach metrics: number of events, attendance • Feedback from clients

4.0 Marketing and Communication Plan

What is SSC and why is it important? Creating an easily digestible narrative that answers this question will be key to the program's success. By speaking to how SSC can influence people, planet, and profit, the program can engage diverse audiences and secure new clients. This preliminary communication plan highlights communication priorities for SSC and methods for industry partners to engage with the program and showcase certification.

Section 4.1 of this plan prioritizes communication initiatives in order of importance. **Sections 4.2** through **4.4** highlight key marketing and communication strategies for SSC target audiences: the general public, urban land developers, and policymakers. Addressing the current lack of brand awareness and program understanding by targetting these groups will positively impact market demand.

Among informants, the program's perceived lack of brand identity was often noted. This plan, grounded in market research, interview feedback, and analysis of SSC branding and marketing materials, seeks to remedy this perception. This plan was crafted to focus resources and attention on actions that will deliver the highest cost-benefit ratio to SSC's efforts.



4.1 Communication Priorities

To achieve the objectives described in **Sections 4.2** through **4.4**, the following initiatives should be prioritized:

- 1. Development of creative brand elements:** Salmon-Safe BC benefits from a strong vision and message. However, the organization lacks a coherent visual vocabulary and should prioritize developing a package that contains approved fonts and colours, that complement the Salmon-Safe BC logo and provide the organization an attractive and uniform style. This should be reflected by salmonsafe.ca, the organization's social media channels, and all communication materials. *External resources required.*
- 2. Website redesign:** In a web audit of salmonsafe.ca, many of the landing page elements failed to load and the majority of homepage links were broken. This lack of maintenance may lead visitors to assume the organization is dormant. The website should be redesigned to improve functionality and ease of use, consistent with the organization's visual vocabulary. The renewed website should be connected to Salmon-Safe BC's social media channels and contain educational information on the link between people, planet, and profit (connected by salmon health) as well as information about certification standards. It should also highlight past project successes, testimonials, and latest program news, reposting existing blog content from Salmon-Safe US. *External resources required.*
- 3. Creation of branded package for certified developments and clients:** (see **Section 4.2** for details) *External resources required.*
- 4. Creation of a social media editorial calendar that delineates between content targeted towards the general public, urban land developers, and policy makers:** Doing so will ensure content is consistent, current, and satisfies social media objectives. *Internal resources sufficient.*
- 5. Remove mention of Pacific Salmon Foundation partnership from all Salmon-Safe materials:** This reflects the recent transfer of Salmon-Safe Agriculture to FBC. *Internal resources sufficient.*

It is recommended that branding of Salmon-Safe BC (including the website redesign) be completed by an outside contractor. While this could be a professional graphic and/or web design contractor, it could alternatively be a graphic design and/or web design co-op student to reduce costs.



4.2 Audience: General Public

Communication objectives:

- Create the link between watershed health, salmon, urban development, and certification
- Counter the misconception that development must be streamside to impact watershed health
- Promote the success of Salmon-Safe BC and US and its diverse client and partner base
- Boost public awareness of the Salmon-Safe label and encourage consumer choice of Salmon-Safe certified products

Desired communication outcomes:

- General public understands how urban and agricultural development influence salmon and that what's safe for salmon is safe for everyone
- Demand for projects and products that prioritize salmon health and sustainable water management grows
- General awareness of SSC grows

Channels:

- **Social media (Facebook, Twitter, Instagram, LinkedIn):** Useful for engaging with the general public, save for LinkedIn which is accessed by a more professional audience. Leveraging connections with other organizations to cross-promote material is crucial. Social media posts should respond to relevant stories and key moments, such as salmon runs and strongly correlated community events, while continuously showcasing Salmon-Safe projects and certified developers and designers. High resolution imagery should be heavily integrated into posts.
- **Salmonsafe.ca:** Primary education platform for Salmon-Safe BC. Website should contain general educational materials linking urban development to watershed health, information on Salmon-Safe BC standards, and key project successes.
- **Community events:** Build partnerships by co-hosting community events around salmon and stream stewardship. Promote event photos on social media.

Potential initiatives:

- Redesign website to increase functionality
- Partner with local film company to create an educational video that explains connections between urban development, watershed health, and salmon
- Organize a tweetstorm that leverages the success of a high profile project to demonstrate how it impacts salmon, highlighting the benefits of low impact development
- Co-host community events during seasonal salmon moments or partner with the Wild Salmon Caravan project

Caution: Avoid using technical language in communication to the general public. Terms such as "keystone species" and "watershed health" may not be easily understood by those unfamiliar with the function of natural systems.

4.3 Audience: Urban Land Developers

Communication objectives:

- Clearly communicate how pursuit of people and planet can positively influence profit
- Motivate interest in Salmon-Safe certification

Desired communication outcomes:

- SSC client base grows in a diversity of urban land development sub-sectors

Channels:

- **Social media:** Showcase successful Salmon-Safe accredited projects, developers, and designers.
- **Salmonsafe.ca:** (see Section 4.2)
- **Knowledge sharing events and webinars:** Provides a forum for accredited urban land developers to discuss experience with Salmon-Safe and the benefits of certification.
- **Conference presentations:** Use presentations at industry conferences to directly reach urban land developers.
- **Presentations and meetings** between Salmon-Safe BC program manager and potential clients (including targeted outreach to flagship sites and potential clients)
- **Select paid promotion to industry media** (e.g., Planning West magazine)

Potential initiatives:

- Use videos and blog posts to showcase testimonials and encourage cross-promotion by featured organizations
- Creation of educational materials that link people, planet, and profit (these can take the form of videos, infographics, and one-page briefing notes)
- Creation of well-designed project examples (case studies) of successful Salmon-Safe projects, hosted on salmonsafe.ca
- Creation of branded package for certified developments and clients. This package should include a social media toolkit, web-ready logos, signage, posters, key non-technical talking points, and trademark policy and branding guidelines. Guidelines should include tips for how to market Salmon-Safe certified projects and how to properly reference Salmon-Safe BC in marketing materials.
- A recent Dodge Data and Analytics report found that for green builders, industry associations are key sources of information about sustainable practices.⁸⁶ In Canada, developers report a higher than global average reliance on these associations. The SSC project manager should consider outreach specifically to these organizations through targeted presentations, event promotion, and creating featured content where possible.

86 Dodge Data and Analytics. SmartMarket Report: World Green Buildings Trends 2018.



4.4 Audience: Policymakers

Communication objectives:

- Clearly communicate how Salmon-Safe BC can help policymakers achieve goals and targets across discipline areas
- Communicate efficiencies gained through partnership with Salmon-Safe BC and the different forms partnership can take
- Leverage BC and US successes to demonstrate the program's sustainability and stability

Desired communication outcomes:

- Salmon-Safe BC forms formalized partnerships with one or more Lower Mainland municipalities
- Salmon-Safe BC forms formalized partnerships with the provincial and/or federal government
- Salmon-Safe BC forms formalized partnerships with First Nations governments

Channels:

- **Social media:** (see Section 4.2)
- **Salmonsafe.ca:** (see Section 4.2)
- **Conference and group facilitated presentations:** Use presentations at events such as the annual Planning Institute of BC conference or the Union of BC Municipalities to directly reach policymakers. Leverage connections with Metro Vancouver to speak to bodies such as the Stormwater Interagency Liaison Group to target key decision-makers.
- **Presentations and meetings** between Salmon-Safe BC program manager and potential clients (including targeted outreach to flagship sites and potential clients)

Potential initiatives:

- Illustrate how Salmon-Safe certification can achieve objectives across a range of policy initiatives in targeted municipal outreach

5.0 Program Governance

SSC has the benefit of being administered by FBC, a well-established and financially sound non-profit organization. FBC boasts an expansive network of partners across four orders of government, and private and non-profit sectors. Their mission of “social well-being supported by a vibrant economy and sustained by a healthy environment” guides the organization’s work as a sustainability collaborator.

A successful SSC program has far reaching implications for future land management practices and ultimately the health of salmon. As the program continues to grow in scale, the transformative impact of SSC will help fulfill FBC’s broader mission. By situating the program’s objectives within that of FBC, SSC can capitalize on future FBC funding opportunities and those provided by its network.

5.1 Management Team and Management Team Objectives

As of April 2019, the SSC program has been managed by Theresa Fresco, FBC’s Regional Manager for the Greater Vancouver Sea to Sky Region (GVSS). Theresa has extensive experience collaborating with diverse stakeholders, as demonstrated by her involvement with the [Nechako Watershed Roundtable](#). Theresa is supported by a SSC Communication Coordinator.

The management team believes in a future where urban development practices can restore salmon habitat and watershed health. The team also intends to achieve financial sustainability, which will require striking a balance between grant funding and fee-for service revenue.

Currently, the Program Manager allocates 1.5 to 2 days per week to the program and the Communication Coordinator dedicates 1 day per week. While this arrangement is adequate for the program’s existing operations, increased capacity is required to grow SSC and achieve the program’s strategic goals (see **Section 1.2**). Ideally, the Program Manager will eventually be able to dedicate 3 to 4 days per week to SSC, and the Communication Coordinator 2 days per week.⁹² This increase will provide the Program Manager more time to establish SSC as a fully operational and financially sustainable program.

92 See Appendix C: Interview Findings (Salmon-Safe US (Oregon) and Salmon-Safe US (Puget Sound)) for more details.



5.2 External Operations

To date, SSC has received funding from several key grant providers such as the Sitka Foundation, the Real Estate Foundation of BC, and the Royal Bank of Canada. Given the growing political and social attention on salmon and water sustainability (see **Section 2.2** and **2.3**), SSC will likely be able to secure resources from these funders in the future.

Many grants require matched funding, which FBC provides. The SSC Program Manager is well-positioned to leverage FBC matching funds through her position as the GVSS Regional Manager.

5.3 SSC Program Monitoring and Evaluation

An annual evaluation of the SSC program should be conducted by the management team. The performance measures provided in the SSC Strategic Plan will guide this process. These measures help quantify program success and their satisfaction will move SSC in the desired direction. The first year of evaluation will serve as the baseline for the following two years.

As more sites undergo certification, project costs, will become more consistent and predictable. This consistency will allow FBC to conduct a more thorough financial evaluation of SSC. We anticipate that as partnerships with local First Nation governments evolve, new criteria for program success may emerge.

6.0 Financial Plan

6.1 Current Project Status

SSC's business model is a blend of fee-for-service (an administration fee for the certification) and grant funding. In 2019, grants comprise the majority of the program's revenue. The two primary funders are:

- Royal Bank of Canada (RBC) Foundation (\$20,000)
- The Fraser Basin Council (\$10,500)

These grants will run until 2020. FBC contributed \$10,500 in order to access RBC funding. The current funding levels cover basic administrative expenses and enable a program manager to dedicate 2 days per week to the program, while funding the Communications Coordinator.

6.2 Anticipated Growth

Two sites will receive certification in 2019 and each will contribute a small administrative fee to the program's budget. Both sites were part of a design competition hosted by FBC, and correspondingly received a \$6,000 subsidy. These sites include:

- MEC flagship store (\$2,600 administrative fee)
- Nature's Path headquarters (\$3,400 administrative fee)

In 2019, the budget will increase to \$36,500.00 (84% funding and 16% fee-for-service). FBC’s aim is to reach a total budget of \$100,000 over the course of three years (60% fee-for-service and 40% grants). This would allow FBC to cover expenses, increase the Program Manager’s capacity to 3 days per week, and hire a program coordinator for 2 days per week.

It is anticipated that initial growth will be characterized by an intensive fundraising effort in Year 1 to build capacity and support increased fee-for-service certification. The anticipated fundraising revenue for Year 1 is \$50,000.

The full certification cost is between \$18,000 to \$25,000. If FBC receives a standard administrative fee of 30%, projected per project revenue will be between \$5,400 to \$7,500 per site. It is anticipated that FBC will be able to certify two unsubsidized sites in Year 1. If this is done, fee-for-service revenue will rise to \$12,900 (**Table 2**). In sum, anticipated Year 1 growth is expected to result in \$62,900 of total revenue (79% grants and 21% fee-for-service).

Year 2 and Year 3 will be characterized by a transition towards increased fee-for-service revenue. If FBC is successful in certifying six sites in Year 3, it will be able to reach its ideal budget and make progress towards its objective balance of fee-for-service and grants.

Table 2: Projected Revenue Overview

	Fee-for-service	Grants	Gross Revenue
Year 1	\$12,900.00 (based on 2 sites)	\$60,000.00	\$72,900.00
Year 2	\$25,800.00 (based on 4 sites)	\$60,000.00	\$85,800.00
Year 3	\$38,700.00 (based on 6 sites)	\$60,000.00	\$98,700.00

6.3 Market Variables

As outlined in **Section 2.0**, several variables could impact program growth:

- Municipal policy and/or support
- Funder priorities
- Health of the real estate industry
- Industry interest

6.4 Financial Risk Analysis

SSC benefits from FBC’s overarching financial stability and ability to leverage funds. The primary financial risk is that the program will remain under resourced and that staff will not be able to grow SSC to the point of sustainability. Another key risk is that industry uptake in the certification will be lower than anticipated. Given FBC’s strong fundraising track record, the program is likely to secure sufficient grant funding.

In regard to operations, it should be noted that all grants will require funds to be spent on specific deliverables and that all fee-for-service revenues will likely be used in their entirety in year 1 - 3 given the demands for the program. Correspondingly, an operating budget for the program was not included.

6.5 Operating Budget

In regard to operations, all grants will require that funds be spent on specific deliverables. It is also anticipated that in Years 1 to Year 3, fee-for-service revenues will likely be used in their entirety given the demands for the program. Given these considerations, a complete operating budget was not included. However, a template overview budget has been included in its place (**Table 3**). The template assumes that the cost of individual assessment processes is covered by the fee-for-service, and focuses solely on the costs of running the program to FBC.

Table 3: Template Operating Budget

	General admin (supplies & services)	Staff Time	Gross Expenditures	Fee-for-service	Grants	Gross Revenue	Net Revenue
Year 1				\$12,900.00	\$60,000.00	\$72,900.00	
Year 2				\$25,800.00	\$60,000.00	\$85,800.00	
Year 3				\$38,700.00	\$60,000.00	\$98,700.00	



APPENDIX A: FOUNDATIONAL RESEARCH

APPENDIX A

Foundational Research

A.1 Eco-certifications

In researching eco-certifications, we intended to identify the market context surrounding eco-certifications.¹ Academic research on eco-certifications is relatively limited and existing research tends to focus on well-established certifications (e.g. LEED) and their environmental efficacy. To supplement this lack of information, we reviewed industry reports and online materials. **Table 2.1** provides a snapshot of some of the key lessons learned.

Table A.1 Key Lessons: Eco-certification

<i>General Trends</i>	
LEED vs. other eco-certifications	LEED is the global leader in eco-certifications, with over 80,000 certified buildings. ² Often, certifications demonstrate popularity in their country or region of origin. LEED differs in that it is commonly preferred by developers on an international scale.
Marketing Materials	Certification programs often provide clients with marketing toolkits that help them to promote their certification. Examples of means used for promoting certification include plaques, posters, and varieties digital marketing materials.
Pricing	The way that certifications communicate pricing is varied. Public facing tables are used to display varying price options depending on size, type, and membership status of the organization or business seeking the certification. Alternatively, some certifications prefer to use web forms where potential clients can enter their details and will receive a quote.
<i>Market for Eco-Certifications</i>	
Canadian Market	Both Toronto and Vancouver are considered well established markets for green building certifications. Canada possesses the second highest number of LEED certified buildings in the world. ³ BOMA BEST, a Canadian based eco-certification focused on commercial developments, is another national industry leader.
Vancouver Market	Vancouver is considered a mature market for green buildings, with one of the highest certification rates in the world. By 2016, 52% of new office buildings were either certified by BOMA BEST or LEED (up from 25% at the end of 2005). ⁴

1 Salmon-Safe Inc. Site, Infrastructure and Green Building Rating Systems. (Portland: Salmon Safe, 2018).

2 U.S. Green Building Council, <https://new.usgbc.org/>, (2019)

3 CBRE and Maastricht University, "International Green Building Adoption Index," www.cbre.ent.box.com, (2018)..

4 Ibid.

5 Piet Eichholtz; Nils Kok; John Quigley, "Doing Well by Doing Good? Green Office Buildings." *American Economic Review* (2010).

6 Yonghua Zou, "Certifying green buildings win China: LEED vs. 3-star," *Journal of Cleaner Production, focus on China* (2018).

A.2 Low Impact Development

In researching low impact development (LID), we sought to understand the progression of urban water management practices, barriers to LID adoption, and methods for overcoming these barriers. A summary of key lessons are outlined in **Table 2.2** (for more detail, see **Appendix C**). These solutions will inform strategies for encouraging Salmon-Safe certification uptake.

Table A.2 Key Lessons: Barriers and Solutions to LID Adoption

<i>Barriers</i>	<i>Explanation</i>	<i>Solutions</i>
Fear of the unknown ⁷	Municipalities, developers, and designers can be reluctant to use green infrastructure due to a lack of technical understanding.	Education ⁸ Narrative development Demonstration projects ⁹
Miseducation ¹⁰	Several common misconceptions about LID have been cited in the literature. These include notions that LID practices do not work in sites with poorly draining soils, in cold weather, or in hot and arid climates.	Education Demonstration projects
Delayed permit approval ¹¹	Permitting authorities may take longer to approve landscaping and building that integrates LID practices.	Education Local land use and code mapping ¹²
Site-specific development ¹³	As LID is site-specific, the design and installation of required features must be understood in the context of individual sites. This may incur added upfront costs to development.	Cost-benefit analysis ¹⁴
Cost	Delayed permitting and site-specific design, engineering, and construction can result in added up-front costs to development. In housing markets where the cost of land is already high, this may discourage uptake of LID practices.	Cost-benefit analysis Mapping funding opportunities
Risk Management ¹⁵	LID can be seen as risky due to a lack of precedents in development, which may raise concerns around professional liability.	Education Demonstration projects

7 Michael Clar, Robert Traver, Shirley Clark, Shannon Lucas, Keith Lichten, Michael Ports, Aaron Poretzky. *Low Impact Development Technology: Implementation and Economics*, (Reston, American Society of Civil Engineers, 2015).

8 Jun-Hyun Kim, Hwan Yong Kim, Fabiana Demarie. "Facilitators and Barriers of Applying Low Impact Development Practices in Urban Development." *Water Resources Management* 31 no.12 (2017): 3795.

9 Allison Roy, Seth Wenger, Tim Fletcher, Christopher Walsh, Anthony Ladson, William Shuster, Hale Thurston, Rebekah Brown. "Impediments and solutions to sustainable, watershed-scale urban stormwater management." *Environmental Management*, 42 no.2 (2008): 344-359.

10 Michael Clar, Robert Traver, Shirley Clark, Shannon Lucas, Keith Lichten, Michael Ports, Aaron Poretzky. *Low Impact Development Technology: Implementation and Economics*, (Reston, American Society of Civil Engineers, 2015).

11 Ibid.

12 Ibid.

13 Jun-Hyun Kim, Hwan Yong Kim, Fabiana Demarie. "Facilitators and Barriers of Applying Low Impact Development Practices in Urban Development." *Water Resources Management*, 31 no.12 (2017): 3795.

14 Landscape Architecture UBC. *An Economic Rationale for Integrated Stormwater Management*. (Vancouver:Ministry of Water, Land and Air Protection, 2000)..

15 Ana Barbosa, Joao Fernandes, Luis David. "Key Issues for Sustainable Urban Stormwater Management." *Water Research*, 46 no.20 (2012): 6787- 6798.

A.3 Salmon-Safe Inc.

By researching Salmon-Safe Inc., the organization that manages Salmon-Safe certification in the United States, we sought to build an understanding of its development as a business. To do so, we examined the program's evolution, including its expansion to BC, which will inform our growth projections for SSC.

Founded in 1997 by Pacific Rivers Council, an Oregon-based not-for-profit, the evolution of Salmon-Safe over the past 20 years has been marked by the following significant events:

- 1997** Salmon-Safe founded by Oregon-based Pacific Rivers Council
- 2004** Stewardship Partners create alliance with Salmon-Safe to implement agricultural program

Portland Parks and Recreation parks system (10,000 acres) becomes the first and only parks organization to be Salmon-Safe certified
- 2010** Pacific Salmon Foundation launch Salmon-Safe agricultural pilot project in BC
- 2013** Real Estate Foundation grants Fraser Basin Council \$35,000 to launch Salmon-Safe Communities pilot project
- 2015** Mountain Equipment Co-op headquarters becomes first Salmon-Safe urban site in BC
- 2016** YVR becomes first Salmon-Safe airport
- 2017** Vulcan Real Estate becomes first accredited Salmon-Safe developer

We also sought to understand how Salmon-Safe qualifies its partner relationships and why organizations pursue certification. Analysis of the latter also provided insight into how organizations market their Salmon-Safe status to broader audiences. Key findings are included in **Table 2.3** below.

Table A.3 Key Lessons: Salmon-Safe Inc.

Area of Interest	Key Findings								
Relationship with partners	<p>Salmon-Safe considers certification an ongoing relationship rather than a one-time transaction and highlights the work of partners not only for their application of LID practices, but also:</p> <ul style="list-style-type: none"> • Inter-organizational coordination • Relationship-building • Commitment to ongoing improvements • Ambitious goal-setting • Leadership in innovative practices^{16,17,18} 								
Rationale for certification	<p>Most partners cite a commitment to environmental stewardship as the motivation for pursuing certification. The Oregon Convention Centre (certified in 2004), also indicated that Salmon-Safe certification provides added value and helps them attract sustainability events. This has contributed to increased profits.¹⁹</p>								
Marketing Platforms used by partners	<p>Marketing platforms used by partner organizations to publicize Salmon-Safe certification include:</p> <table border="0"> <tr> <td>YouTube</td> <td>Twitter</td> </tr> <tr> <td>Blog posts</td> <td>Magazines</td> </tr> <tr> <td>Websites</td> <td>On-site banners</td> </tr> <tr> <td>Product Labels</td> <td>Facebook</td> </tr> </table>	YouTube	Twitter	Blog posts	Magazines	Websites	On-site banners	Product Labels	Facebook
YouTube	Twitter								
Blog posts	Magazines								
Websites	On-site banners								
Product Labels	Facebook								
Marketing Strategies	<p>In general, Salmon-Safe is not highly visible on the websites of certified or accredited urban land developers. Vulcan Real Estate and YVR are exceptions to this as both use various marketing materials, including webpages, on-site banners, and videos to promote certification.</p> <p>Using Salmon-Safe certification as a marketing tool is more commonly used by businesses in the agricultural sector. Media attention surrounding certification typically highlights key milestones such as dates when certification and recertification is granted.</p>								

16 Salmon-Safe Inc. *Report of the Science Team Regarding Salmon-Safe Certification of the City of Portland's Bureau of Environmental Services, Bureau of Transportation, Water Bureau, Office Management and Finance, and Portland Fire and Rescue.* (Portland: Salmon-Safe Inc, 2016).

17 Hoskins, D. Media Release: MEC headquarters certified as BC's first Salmon-Safe urban site. (2015, October 23).

18 Vancouver Airport Authority. YVR the first airport in the world to be Salmon-Safe certified. (2016, June 8).

19 Lemann, M. Oregon CC is 'Salmon Safe'. Meeting News. (2007, September 24).

APPENDIX B: STAKEHOLDER ENGAGEMENT PLAN



STAKEHOLDER ENGAGEMENT PLAN

Salmon-Safe Communities: Strategic Plan Development

Date: October 31, 2018

Updated: December 3, 2018

Prepared for: Fraser Basin Council

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1.0 Introduction

This plan provides an overview of our approach to stakeholder engagement for the Salmon-Safe Communities (SSC) studio project. Stakeholder engagement will take place in two rounds: November 2018 (Round 1), and January to February 2019 (Round 2). The information gathered will inform the business and strategic plans that will be submitted in March 2019.

We recognize that this engagement plan possesses additional strategic value for the expansion of SSC, as our interviews will involve meeting with potential government and industry partners. Correspondingly, part of the intention of this plan is to elicit feedback as to Fraser Basin Council's (FBC) desired involvement in managing new relationships.

This plan includes an engagement framework that details interview protocol. The framework is followed by a draft engagement timeline, a list of key stakeholders and interviewees, and interview guides. The project team anticipates that all of these components will evolve according to feedback from FBC.

2.0 Stakeholder Engagement Framework

2.1 General Introductions and Meeting Attendance

Suggested protocol for Round 1 and Round 2 interviews is listed below. There are 'introductions' and 'attendance' columns found in our interview lists where the FBC Project Manager may indicate if she would like to make the introduction for or attend specific interviews (please see [Appendix 1](#) for the list of key stakeholders). If FBC has any prior established relationships with our list of interviewees, it would be helpful if they could share this with us and provide guidance in fostering these relationships.

Our team will accept any opportunity to attend workshops or any broader industry presentations that FBC hosts or partakes in.

2.2 Engaging with First Nations

We appreciate FBC's dedication to relationship building, and this will be highly valued when we begin engaging with First Nations stakeholders. Our preference is for the FBC Project Manager to attend meetings with First Nations stakeholders. Where this is not possible, we ask that the FBC Project Manager facilitate the initial introduction.

2.3 Round 1 (November 2018)

The first round of interviews will focus on stakeholders already involved with the Salmon-Safe initiative. As relationships with these partners have already been established, we will not include the FBC Project Manager in email correspondence or an in-person meeting unless requested.

2.4 Round 2 (January 2019 to February 2019)

The second round of interviews will focus on stakeholders from a variety of development sectors and levels of government, with the aim of cultivating further research and exploring potential partnerships. In order to cultivate government and/or industry partners, we will include the FBC Project Manager in email correspondence so they can elect to join meetings. In the event that the FBC Project Manager does not have the capacity to attend a meeting, the project team will alert FBC to any expressions of interest.

In meetings where the FBC Project Manager is not present, the project team will not directly suggest establishing a professional partnership or pursuing Salmon-Safe certification. However, we will allow space for the conversation to evolve if a stakeholder vocalizes interest in further involvement.

2.5 Interview Parameters

Interviews will be conducted in person by at least two of our project team members and will last 30-60 minutes. Depending on the availability and location of interviewees, some interviews may be conducted over the phone.

The project team will inform individuals and organizations that their names will not be referenced directly in the final business and strategic plans. Interviewees may choose at any point to end the interview or exclude specific information. We will request to record interviews.

Notes from individual interviews will be shared with FBC through the shared Google Drive folder on a continual basis. A summary of results from Round 1 will be shared at the December 4 interim project meeting. Results from Round 2 will be integrated into the draft business and strategic plans.

2.6 Preamble

The project team will take care to properly situate our role and the project throughout both rounds of interviews. Our suggested content for the preamble is as follows:

We are graduate students with the School of Community and Regional Planning at UBC, and we have partnered with Fraser Basin Council to research the expansion of the Salmon-Safe Communities program and Salmon-Safe certification in BC.

Salmon-Safe, an eco-certification label that promotes sustainable water management, originated in USA. Over 500 sites have become Salmon-Safe certified. Since coming to Canada, the certification program has been adopted by farms, ranches, wineries, and two urban sites. Fraser Basin Council and Pacific Salmon Foundation administer Salmon-Safe in BC.

Our project focuses on Salmon-Safe Communities, a branch of Salmon Safe certification that is specific to urban land use development. We aim to identify key opportunities, constraints, and challenges facing the development of the program in BC. We believe that your expertise will be valuable for informing our research.

2.7 Stakeholder List

The stakeholder list found in [Appendix 1](#) is not meant to be all-encompassing. We intend to supplement this list with a ‘snowball sampling’ approach and pursue recommended contacts.

We do not intend to interview each stakeholder listed. Our objective is to interview up to 30 stakeholders. We aim to speak to a mixture of individuals and organizations that reflect different scales, and levels of interest in eco-certification within each sector.

3.0 Engagement Timeline

The project team will seek interviews with the following organizations in Round 1 (November 2018):

- Salmon-Safe US
- Pacific Salmon Foundation
- Mountain Equipment Co-op
- Vancouver International Airport (YVR)

The remaining interviews with government, industry and non-profit organizations will take place in Round 2 (January to mid-February 2019) and will be driven by stakeholder availability.

4.0 Stakeholders

The following section outlines our rationale for choosing stakeholders and the information we intend to gather by area of interest. For Round 1, we identify specific key stakeholders and for Round 2 we categorize stakeholders by sector.

4.1 Round 1

Vancouver International Airport (YVR) & Mountain Equipment Co-op (MEC)

As early adopters of SSC certification, YVR and MEC will offer valuable insight into their decision-making process, business operations, marketing strategies and their ongoing relationship with SSC.

Areas of interest:

- Motivation(s) and incentive(s) for becoming Salmon-Safe certified
- Relationship between the organization and SSC since the initiation of their partnership
- SSC alignment with brand, land use, and environmental/sustainability planning

The interview guides for these organizations are provided in [Appendix 2](#).

Salmon-Safe US

The project team will seek to understand Salmon-Safe US' growth trajectory, as well as key successes and challenges experienced through expansion. We will explore the ways that the program has strategically targeted industry partners and marketed their eco-certification program.

Areas of interest:

- Growth trajectory of Salmon-Safe US and business model responsiveness
- Key program successes, challenges and strategies for financial sustainability
- Information on engaging with government and land use sectors

The interview guide for this organization is provided in [Appendix 2](#).

Pacific Salmon Foundation

As Salmon-Safe's counterpart in British Columbia, information from the Pacific Salmon Foundation will be key to understanding how the program operates in a Canadian context.

The interview guide for this organization is provided in [Appendix 2](#).

Areas of interest:

- Long-term vision for Salmon-Safe BC within the agricultural sector
- Growth trajectory within the provincial regulatory context and agricultural sector
- Strategies for financial sustainability, marketing, and sectoral engagement

4.2 Round 2

Eco-Certification Programs

Existing eco-certification programs can provide our project with a wealth of information. We aim to gather insight into strong business models, and the successes and challenges experienced in program expansion.

Areas of interest:

- Growth trajectory and business model responsiveness
- Promotional techniques used to engage land developers, public institutions, and government
- Pros and cons of different funding models
- Potential areas of integration with existing eco-certification programs

Developers and Architects

Both developers and architects play unique roles in shaping urban design, land use, and development processes and outcomes. Our interviews include diverse scales of organizations, and reflect the residential, commercial, industrial, and greenfield development sectors. Our interview guides will differ for developers and architects.

Areas of interest:

- Perceived incentives and disincentives in pursuing eco-certification
- Ways to increase interest and entice organizations to advocate for, and pursue eco-certification

Federal and Provincial Government

Various levels of government have an interest in promoting green infrastructure and programs that support salmon sustainability. They also provide funding in support of community groups and non-profit organizations.

Areas of interest:

- Policy and program alignment and the promotion of shared goals through certification, demonstration projects, and public support
- Potential funding opportunities and community partners involved in the Salmonoid Enhancement Program, Community Involvement and Resource Restoration Program, and Wild Salmon Advisory Council

Regional Governments and Municipalities

Municipal and regional governments in the Lower Mainland have been active in promoting the adoption of green infrastructure and salmon sustainability, and can offer insight into the successes and challenges of promoting low impact development practices. These levels of government are also potential SSC clients and partners, and may offer opportunities to promote certification across municipalities and regions.

Areas of interest:

- Policy and program alignment with SSC
- Opportunities to promote sustainable water management through Salmon-Safe certified demonstration projects, funding, integration of certification in procurement, and public support
- Successful engagement strategies with the land development sector to promote green infrastructure adoption

First Nations

There is potential for Salmon-Safe certification to align with environmental stewardship and land use planning and development goals of First Nations communities. More broadly, our interviews will examine the Salmon-Safe certification process as a potential tool for reconciliation and relationship building.

Areas of interest:

- Perceptions, interest, barriers/challenges, incentives, and disincentives regarding Salmon-Safe Certification and other land use eco-certification processes
- Potential SSC integration into reconciliation frameworks
- Possible SSC adaptation into local cultural frameworks related to Indigenous land use planning and development practices

Non-Profit Organizations

These organizations have experience in sustainable water management and share a commitment to water sustainability. The development of SSC will become more holistic by incorporating their visions, values, and market knowledge.

Areas of interest:

- Existing programs and partnerships geared towards water sustainability
- Funding landscape and opportunities for sustainable water management initiatives
- Other eco-certification programs and reasons for success or failure

Public Institutions

Public institutions can be sustainability leaders by setting a precedent for incorporating low impact development practices in future or existing projects. Our primary focus will be on colleges and universities.

Areas of interest:

- Incentives, outcomes and lessons learned from Salmon-Safe certified institutions
- Existing water sustainability, adaptation, and reconciliation goals and potential align with SSC
- Incentives and disincentives for potential SSC participants
- Opportunities to align Salmon-Safe certification with professional education

5.0 Conclusion

This plan outlines the project team's approach to stakeholder engagement for the SCC studio project. It is intended to function as a 'living document,' and provide a baseline for the Fraser Basin Council to provide feedback. We are happy to make any adjustments throughout the engagement process if any preferences, needs, or concerns emerge.

The project team is excited by the opportunity to engage with such a diverse range of stakeholders. We are confident that the stakeholder engagement process will yield a lot of valuable information to inform the business and stakeholder plans. We are very much looking forward to working with Fraser Basin Council on this project phase.

Appendix 1:

List of key stakeholders

Organization Name	Contact Name and Title	Interview Rationale	Relation to Project Objectives	Interview Occurrence	FBC Introduction Preference	FBC Attendance Preference
Eco-certification						
Salmon-Safe US	Theresa to recommend	American administrator of Salmon-Safe certification	Objective 4	Round 1		
Pacific Salmon Foundation	Theresa to recommend	FBC Salmon-Safe BC partner	Objective 4	Round 1		
Canada Green Building Council	Pending inquiry	LEED Certification in Canada administered through CaGBC	Objective 4	Round 2		
BC Hydro (Energy Step Code)	Robyn Wark, Team Lead & Senior Relationship Manager, Sustainable Communities	Actively engages municipalities and land development sector in Energy Step Code adoption in BC	Objective 4	Round 2		
LEED US	Pending inquiry	Highly successful international eco-certification program	Objective 4	Round 2		
BREEAM	Pending inquiry	Highly successful international eco-certification program	Objective 4	Round 2		
Energy Star	Pending inquiry	Highly successful eco-certification program	Objective 4	Round 2		
Green Shores (Stewardship Centre of BC)	Pending inquiry	BC-based eco-certification program	Objective 4	Round 2		
Built Green	Pending inquiry	Successful Canadian eco-certification program with potential for Salmon-Safe integration	Objective 4	Round 2		
Developers						
Concord Pacific Development Corporation (Vancouver)	Pending inquiry	They are focused on green energy and green development touching on solar, wind, and hydro.	Objective 1 & 5	Round 2		
InHaus Development Ltd (Vancouver)	Dave deBruyn, Principal	Pride themselves on homes and developments that minimize ecological impact, and incorporate a long term vision for sustainable infill development and smart densification.	Objective 1 & 5	Round 2		

Organization Name	Contact Name and Title	Interview Rationale	Relation to Project Objectives	Interview Occurrence	FBC Introduction Preference	FBC Attendance Preference
Onni Development Group	Duncan Wlodarczak, Chief of Staff	Part of their corporate responsibility ethic is to reduce their environmental impacts.	Objective 1 & 5	Round 2		
Harbourview Projects Corporation (North Vancouver)	Pending inquiry	They are a small developer team, that approaches development with sensitivity to key environmental issues and the existing natural environments that developments are situated on.	Objective 1 & 5	Round 2		
Appia Developments (Burnaby)	Pending inquiry	They have a number of green policies that they operate off of, and a strong commitment to sustainability.	Objective 1 & 5	Round 2		
SFU Community Trust (Burnaby)	Pending inquiry	They are strongly committed to green, sustainable developments.	Objective 1 & 5	Round 2		
Vulcan Real Estate	Theresa to provide	Referred to us by Theresa. They had a speaker at a SSC webinar. They are based out of Seattle and are SS certified.	Objective 1 & 5	Round 2		
QuadReal	Theresa to provide	Referred to us by Theresa. They are in the process of rebranding themselves	Objective 1 & 5	Round 2		
Century Group	Theresa to provide	Referred to us by Theresa. They are involved in the Southlands development in Tsawwassen.	Objective 1 & 5	Round 2		
Dialog	Theresa to provide	Referred to us by Theresa. Have expressed interest in SS certification in the past.	Objective 1 & 5	Round 2		
Architects						
FWC Architecture and Urban Design Inc.	Pending inquiry	Works globally. Interested in architecture built on varied topographical conditions.	Objective 1	Round 2		
Patkau Architects	Pending inquiry	Involved in varied project developments.	Objective 1	Round 2		
Perkins + Will	Virendra Kallianpur, Urban Design Specialist	Architecture is focused on sustainability, resilience, health and wellness, and mobility.	Objective 1	Round 2		

Organization Name	Contact Name and Title	Interview Rationale	Relation to Project Objectives	Interview Occurrence	FBC Introduction Preference	FBC Attendance Preference
Revery	Pending inquiry	Specializes in performing arts and cultural facilities, educational institutions, libraries and civic community centres, as well as residential/mixed-use projects.	Objective 1	Round 2		
Chernoff Thompson	Pending inquiry	Are members of the Canada Green Building Council; design for LEED criteria.	Objective 1	Round 2		
Kasian	Pending inquiry	Community minded architecture.	Objective 1	Round 2		
Acton Ostry Architects Inc	Christine Mettler, Communications & Special Projects Lead	Architecture responds to historical, social and environmental concerns.	Objective 1	Round 2		
Broadway Architects	Pending inquiry	Boutique architectural firm focusing on sustainable environmental design: green buildings and low impact communities.	Objective 1	Round 2		
B + H Architects	Pending inquiry	Use evidence-based design to customize sustainable solutions.	Objective 1	Round 2		
Government						
(Federal) Salmonoid Enhancement Program (SEP)	Sandie Hollick-Kenyon, Burrard Inlet, Indian Arm, Vancouver community advisor	SEP aims to rebuild vulnerable salmon stocks, provide harvest opportunities, improve fish habitat to sustain salmon populations, support Indigenous and coastal communities in economic development, and engage British Columbians in salmon rebuilding and stewardship activities	Objective 2	Round 2		
(Provincial) Wild Salmon Advisory Council	Wild Salmon Secretariat	The Province of British Columbia is in the process of developing a made-in-BC wild salmon strategy that will support restoring healthy and abundant wild salmon stocks in BC	Objective 2	Round 2		
(Regional) Metro Vancouver	Josephine Clark, Regional Planner	Metro Vancouver promotes adoption of green infrastructure across the Lower Mainland	Objective 2	Round 2		

Organization Name	Contact Name and Title	Interview Rationale	Relation to Project Objectives	Interview Occurrence	FBC Introduction Preference	FBC Attendance Preference
(Municipal) City of Vancouver	Melina Scholefield, Manager, Green Infrastructure	City of Vancouver currently developing a Rain City Strategy in support of program goals	Objective 2	Round 2		
(Municipal) City of Vancouver	Sarah Carten, Social Planner	City of Vancouver exploring ways to protect salmon as a mode of reconciliation. SSC may be able to integrate with this	Objective 2 and 3	Round 2		
(Municipal) City of North Vancouver	David Matsubara, Hydrotechnical Engineer	Purveyor of green infrastructure and sustainable water management policies	Objective 2	Round 2		
(Municipal) City of Surrey	Carrier Baron, Drainage Manager	Purveyor of green infrastructure and sustainable water management policies	Objective 2	Round 2		
(Municipal) District of North Vancouver	Pending inquiry	Purveyor of green infrastructure and sustainable water management policies	Objective 2	Round 2		
Non-profit Organizations						
Real Estate Foundation	Leanne Sexsmith , Grants Program Manager	Funds sustainable land use initiatives.	Objective 5	Round 2		
Urban Land Institute	Sergio Custodio, ULI BC Chair	A platform for dialogue between developers, planners and architects.	Objective 1	Round 2		
Vancity Credit Union	Kira Gerwing, Manager Community Investment	Supports projects that result in affordability and green buildings.	Objective 1 and 5	Round 2		
The Partnership for Water Sustainability in BC	Pending inquiry	Responsible for delivering the Water Sustainability Action Plan.	Objective 2	Round 2		
The Vancouver Foundation	Nicole Jeschelnik, Manager Donor Services	Established the Water Sustainability Endowment Fund.	Objective 5	Round 2		
Sierra Club BC	Hannah Askew, Executive Director	Strong educational programming and presence,	Objective 2 and 4	Round 2		
Canadian Freshwater Alliance	Christine Mettler, Communications & Special Projects Lead	Supports organizations that fund watershed protection efforts. Attended FBC Webinar.	Objective 2	Round 2		
Fraser Valley Watersheds Coalition	Rachel Drennan, Field Operations manager	Facilitates action towards healthy watersheds. Attended FBC webinar.	Objective 2	Round 2		

Organization Name	Contact Name and Title	Interview Rationale	Relation to Project Objectives	Interview Occurrence	FBC Introduction Preference	FBC Attendance Preference
Hoy-Scott Watershed Society	Robbin Whachell, President	Conducts a salmon enhancement program with the City of Coquitlam and DFO. Attended FBC Webinar.	Objective 2	Round 2		
Public Institutions						
UBC Campus + Community Planning	John Madden, Sustainability and Engineering Director	Opportunities to align SSC with Green Building Action Plan 2018 and the UBC Vancouver Campus Plan	Objective 1	Round 2		
University of Washington (UW)	Anne Eskridge, Salmon-Safe certification Project Manager	UW was the first campus to be certified in Washington and now has 3 certified campuses.	Objective 1	Round 2		
University of Washington (UW)	Anna Huttel, Salmon-Safe certification Manager	UW was the first campus to be certified in Washington and now has 3 certified campuses.	Objective 1	Round 2		
Simon Fraser University (SFU)	Erica Lay, Sustainability Office Director	Committed to sustainability and administers its own sustainable certification on campus.	Objective 1	Round 2		
British Columbia Institute of Technology (BCIT)	Jennie Moore, Institute Sustainability Director	Institutional goal to become 'Water Balanced'	Objective 1	Round 2		
Capilano University	William Demopoulos, Sustainability Facilities Services Manager	Aims to be a model for environmentally responsible institutions	Objective 1	Round 2		

Appendix 2:

Round 1 Interview Guides

Salmon-Safe US

1. Can you tell us a little bit about how the idea of Salmon-Safe certification was developed?
2. What land-use sectors did the certification first target and why?

Prompts:

- How did you reach decision-makers in these sectors?
- How did you market the program to key groups in these sectors?
- Did you use incentives to reach these groups?
- Did you use demonstration projects?

3. Can you describe the evolution of the program, specifically how it decided to target additional land-use sectors?

Prompt:

- Strategy

4. How has the Salmon-Safe business model evolved since its inception?

Prompts:

- Funding
- Staffing (including number of assessment teams and people per team; full time versus part time)
- Geographic reach

5. What has been key to the program's success?

Prompts:

- Partnerships (non-profit organizations, governments, professional organizations)
- Integration with other eco-certification programs (LEED)
- Incentives
- Policy alignment
- Demonstration projects
- Educational initiatives

6. What type of educational resources does the program offer to various sectors?

Prompts:

- Targeting municipalities
- Targeting developers

7. What challenges has the program faced?

Prompts:

- Funding
- Policy
- Lack of education

8. What is the program's relationship to government (national, state, municipal)?

Prompts:

- Is Salmon-Safe integrated into sustainable procurement at all?
- Has Salmon-Safe affected policy change?
- Discuss further the Mayor's Salmon-Safe Challenge city-wide assessment)

9. Do you offer subsidized assessment / program fees for non-market housing developers or those who find that cost is a barrier?

Specific Certification Areas

10. With respect to the parks and natural areas certification, how did the process of certification work with parks providers in Eugene and Portland?

Prompts:

- Did these municipalities approach Salmon-Safe and vice versa?
- What was the rationale for the municipalities in pursuing certification?

11. How did Salmon-Safe approach profit-oriented urban land developers (such as Vulcan)? In your opinion, what benefits does certification provide to developers?

Prompts:

- The most persuasive arguments
- How was this marketed to developers for initial engagement?
- How do development projects market certification?
- Discuss the joint venture between Vulcan and Seattle Public Utilities for the "Swale on Yale"

12. Has the program had success engaging design firms in becoming certified?

13. How did Salmon-Safe approach public institutions? In your opinion, what benefits does certification provide to public institutions, such as universities?

Lessons Learned

14. Reflecting on the history of the program, what are the biggest lessons you've learned in terms of strategizing its growth?

15. What is your ultimate vision for the program?

Pacific Salmon Foundation

1. Since starting the program in 2010, how has the program been received by the agricultural community?

2. Can you describe the program's growth trajectory?

Prompts:

- Did you begin by targeting a particular type of agricultural use?
- Did you begin by targeting a specific geography?

3. How has the business model evolved between 2010 and now?

Prompts:

- Funding
- Staffing (including number of assessment teams and people per team; full time versus part time)
- Geographic reach

4. What has been key to the program's success?

Prompts:

- Partnerships (non-profit organizations, governments, professional organizations)
- Incentives
- Marketing (both to farmers, and ways that farmers can market certification)
- Policy alignment
- Demonstration projects
- Educational initiatives

5. What type of educational resources does the program offer to various sectors?

Prompts:

- Targeting municipalities
- Targeting developers

6. What challenges has the program faced?

Prompts:

- Funding
- Policy
- Lack of education

7. What is the program's relationship to government (federal, provincial, municipal, Agricultural Land Commission)?

Prompts:

- Has Salmon-Safe affected policy change?

8. In your opinion, why are farmers driven to seek Salmon-Safe certification?

Lessons Learned

9. Reflecting on the history of the program, what are the biggest lessons you've learned in terms of strategizing its growth?

10. What is your ultimate vision for the program?

MEC and YVR

1. What motivated you to partner with SSC and/or to seek eco-certification?

Prompts:

- Incentives (branding, funding, corporate social responsibility)
- Organizational identity
- Environmental concern

Follow-up:

2. Do you think your participation in the program has set a precedent for other [large organizations or airports]?

3. Has becoming Salmon-Safe certified supported your organization's overall identity?

4. Can you please tell us about any positive effects of becoming Salmon-Safe certified?

Follow-up:

- Any negative effects?

5. Has your participation in the SSC program contributed to successful branding of your organization?

Prompts:

- Highlighting sustainability efforts
- Corporate social responsibility

Pursuing Accreditation

6. Prior to achieving Salmon-Safe certification, had your organization pursued other eco-certification? [not applicable to MEC]

7. [MEC / If yes] What was your experience in pursuing accreditation?

Prompts:

- Assessment process
 - Tailoring assessment to fit your organization
 - Customer service
 - Overall value in relation to services procured
8. [MEC / If yes] How did this compare with your experience of becoming Salmon-Safe certified?

Prompts:

- Assessment process
 - Tailoring assessment to fit your organization
 - Customer service
 - Overall value in relation to services procured
9. Prior to pursuing Salmon-Safe certification, did you face any organizational barriers?

Prompts:

- Lack of education or awareness on the benefits of green infrastructure

Follow-up:

- What tactics did you use to overcome these barriers?
10. How do you feel the cost of becoming Salmon-Safe certified compares with the value of participating in the program?
11. How have you evaluated the effectiveness of Salmon-Safe certification in relation to your organizational goals and/or weighed the value of your participation in SSC?
12. Do you have any ideas for improving the SSC program and the Salmon-Safe certification process?

Prompts:

- Customer service
- General organization
- Improved process
- Pricing

Green Infrastructure

13. Have you noticed any cost savings that have resulted from your use of green infrastructure?
14. Do you think your use of green infrastructure has made [the certified site] more resilient to climate change?

First Nations

15. Has attaining Salmon-Safe certification affected your relationships with local First Nations such as Musqueam? (positive or negative)
16. Has attaining Salmon-Safe certification affected your organization's reconciliation goals with First Nations?

APPENDIX C: INTERVIEW FINDINGS

APPENDIX C

Interview Findings

Summary of Interview Results

The studio team interviewed 18 key informants from government and the urban land development industry, including municipal officials, developers, architects, and those versed in eco-certification. This was done in accordance with our Stakeholder Engagement Plan and First Nations Consultation Plan and interim findings were presented to FBC in December 2018 and February 2019. The majority of interviews (17) were conducted by phone while 1 was conducted in person and 1 conducted via email. Interviews spanned between 20 to 60 minutes. The studio team chooses to refer to informants by the organization with which they are employed, though their views do not in all instances represent the views of that body.

Table C1 below provides an overview of interviewees delineated by sector. Summaries of interviews are provided in the following sections.

Table C1: Informants organized by sector:

Sector	Informant
Developers	Canada Lands Corporation Quadreal Vulcan Real Estate
Non-Profit Organizations	Pacific Salmon Foundation Salmon Safe US Salmon-Safe US (Puget Sound)
Policymakers	City of North Vancouver City of Port Moody City of Vancouver (Food Systems) City of Vancouver (Green Infrastructure) Metro Vancouver
Other	Canada Green Building Council Board Member (CaGBC) Ecolabel Index Food Systems Scholar Former SSC Program Manager Mountain Equipment Co-op (MEC) University of British Columbia (UBC) Vancouver International Airport (YVR)

Key Themes

Table C2 contains key themes elicited through conversations with informants. The most commonly discussed themes include:

- The importance of narrative building and branding
- Benefits of building a partnership network and identifying industry champions
- Benefits of forming municipal partnerships
- The importance of consultation and collaboration with First Nations

For SSC to gain a stronger visibility and reputation within the eco-certification market, it will be important for the program to distinguish itself among market competitors. Strategic branding and marketing will help to build understanding of the impact and significance of the program, while allowing SSC to emphasize its attractive sustainability value components. Partnerships and industry champions are key encouraging interest and uptake of SSC certification; personal connections and relationships through FBC have been important in developing the client base that SS currently has. Moving forward, interviewees identified the need to foster municipal partnerships in order to integrate SSC further into regulatory policy and planning. Lastly, ongoing consultation and partnership with local First Nations will be integral to developing SSC as a program that is reflective of diverse knowledge practice and responsive to local context.

These themes have been integrated into goals, objectives, actions, and performance measures included in the strategic plan, and into the business plan.

Table C2 **Key Themes**

Key Theme	Informant
The importance of narrative building and branding	Ecolabel Index Pacific Salmon Foundation MEC Vulcan Salmon-Safe US City of North Vancouver Salmon-Safe US (Puget Sound) CaGBC
Robust/sustainable financial model (including revenue diversification)	Ecolabel Index Salmon-Safe US Salmon-Safe US (Puget Sound) CaGBC
Benefits of a core assessment team	Pacific Salmon Foundation Salmon-Safe US
Flagship projects	Ecolabel Index YVR Salmon-Safe US Salmon-Safe US (Puget Sound)
Partnerships with municipalities	Ecolabel Index Metro Vancouver Salmon-Safe US City of Vancouver (Food Systems) City of Vancouver (Green Infrastructure) Salmon-Safe US (Puget Sound) CaGBC

Key Theme	Informant
Build network and partnership with industry and municipal champions	Pacific Salmon Foundation MEC YVR Vulcan Salmon-Safe US City of Vancouver (Food Systems) City of Vancouver (Green Infrastructure) Salmon-Safe US (Puget Sound) CaGBC
Suggestion: Build Regulatory Context/ Foster Political Will	CLC Port Moody CaGBC
First Nations	YVR CLC (value alignments) City of Vancouver (Food Systems) Food Systems Scholar City of Vancouver (Green Infrastructure)
Long term maintenance of certification/ changes in ownership	Vulcan CLC
Maintain robust standards	Salmon-Safe US Salmon-Safe US (Puget Sound) Vulcan
Demonstrate link to existing policies	City of Vancouver (Food Systems) City of Vancouver (Green Infrastructure) City of North Vancouver CaGBC
Incrementally build Salmon-Safe BC partnerships (e.g., start with large developers, allow options for those who don't immediately want to pursue certification but who want to transition their processes)	Food Systems Scholar City of Vancouver (Green Infrastructure)
Engage support of other agencies (non- profits, researchers, Indigenous leaders)	Food Systems Scholar
Demonstrate benefits to developers	City of North Vancouver CaGBC

Developers

Canada Lands Company

Canada Lands Company (CLC) is a “self-financing, federal Crown corporation that specializes in real estate, development and attractions management (cite website).” Our CLC informant spoke to the potential challenge of overseeing a certified development if it sells or changes ownership. This concern triggered questions about how to transfer the value of Salmon-Safe, but also the responsibilities linked with long term management of the certification. The issue of certification upkeep and transfer was prominently noted as a logistical obligation was a deterrent for CLC’s decision to pursue SSC.

In terms of encouraging the private sector to adopt eco-certifications, CLC noted that the regulatory environment plays a pivotal role in forcing private sector developments to adopt best practices regarding sustainable environmental building practices. However, this regulatory environment also means that there is less incentive to voluntarily pursue certifications that go above and beyond what is required. Lastly, the informant noted that certifications are not appealing in terms of revenue cost-benefits, and are therefore instead seen more so as a personal choice to demonstrate a company’s exemplary value commitment.

Quadreal

The Quadreal informant articulated that they have an overarching sustainability mandate and are committed to the Paris Climate Accord. They perceive eco-certifications as part of this effort in that they allow Quadreal to review operational practices and introduce changes based on findings. However, they also identified several challenges presented by eco-certifications. These challenges include: a lack of clarity regarding what is expected, prohibitive costs, and difficulty assessing the value of the certification and whether it will improve the value of the real estate asset long-term.

The informant understands that customers increasingly care about sustainability and the interest of developers in certifications depends on the market. In big cities the interest is growing. However, in the suburban markets it has yet to be established. This is because urban centers have more sophisticated tenants (e.g., knowledge-based companies). She recommends FBC hold training sessions and develop good business cases to provide a “snapshot” of what is involved.

Vulcan Real Estate

Vulcan Real Estate (Vulcan) is the world’s first Salmon-Safe accredited developer, which means that all development contractors used by Vulcan must become certified under SS. The informant described the synergy between the development company’s values and Salmon-Safe and noted that the founder of Vulcan, Paul Allen, had a strong philanthropic outlook and interest in sustainability.

Our informant highlighted the difficulty of maintaining Salmon-Safe certification, and their reluctance to certify sites where the ownership may change. The informant recalled their development project with Amazon and how they went about getting sites conditionally certified in order to mitigate concerns.

Vulcan has adopted the Salmon-Safe brand successfully and marketed themselves broadly as a certified developer. In effect, our informant wondered if the close incorporation of the SS brand as a part of their developer identity had a deterrent effect on other developers who have considered pursuing it-- it was implied that there is potentially a sense of Vulcan domain over SS brand. Part of their branding success can be attributed to marketing and communications strategies such as making SS highly visible on their sites (such as through wrapping construction fencing with the SS brand), discussing SS at conferences and events, and by documenting their experiences with SS through written platforms and website promotion. Lastly, the informant touched on the rigorous and scientist-led assessment process as a strong asset to the SS certification.

Non-Profit Organizations

Pacific Salmon Foundation

The Salmon-Safe agricultural program has experienced fluctuating levels of success since the program launched in 2011. Program success is largely accredited to building a strong network of champions who continue to support and advocate for Salmon-Safe. Shifting attention to more strategic markets, such as wineries and breweries instead of farms, also enabled the program to expand its reach.

Establishing financial stability and raising consumer awareness are the program's biggest challenges. Transitioning to a fee-for-service model is necessary to add value to certification but has proved challenging to retain existing clientele and attract new farmers who have limited capital surplus. A new approach to certification includes a tiered fee system based on tonnage.

Opportunities for program growth include exploring partnerships with distributors in niche markets, collaborating with other certifications to reduce costs, building a strong narrative, and connecting with provincial agricultural programs for funding.

Salmon-Safe US (Oregon)

Salmon-Safe US was founded by Pacific Rivers in the mid-1990s and certification was originally targeted towards agricultural producers. After spinning off from Pacific Rivers, the program expanded to include urban sites. Salmon-Safe US initially partnered with municipalities such as the City of Portland and Seattle Parks before expanding into the private sector. To do so, Salmon-Safe US strategically subsidized accreditation of pilot projects led by industry leaders, (e.g., MEC, Nike), an approach they still follow in emerging sectors. Throughout expansion, our interviewees stressed that maintaining a singular focus on watershed health has been critical to the organization's success.

Salmon-Safe US currently receives 80% of funds from fee-based service and 20% from foundation and government grants, though the organization's goal is to achieve a 65% / 35% split. Our interviewees stressed that revenue diversification has been helpful in achieving stability and that as a market-based initiative, Salmon-Safe should survive in the marketplace. The organization currently employs two full-time staff and two part-time staff (0.8 FTE and 0.5 FTE). Their urban assessment team is made up of between four to five assessors, though they also retain four to five others that they occasionally rely on.

Salmon-Safe US (Puget Sound)

Our Salmon-Safe US informant in Puget Sound explained that initially, the program relied largely on the informant's green building network. In 2013, through their connection to King County and the City of Redmond, they recommended and saw through integration of Salmon-Safe certification into government policy. This provided the program credibility, which they then demonstrated to other policymakers such as the City of Shoreline and City of Bellevue. Various municipalities now provide development incentives to Salmon-Safe accredited applicants, including extra floor area ratio (City of Redmond), 50-75% reduced permitting costs (City of Shoreline), and expedited permitting (City of Bellevue). The informant also recommended pursuing capital project partnerships with governments.

In 2016, the informant led a \$400,000 fundraising effort that allowed them to increase their capacity (from 20 to 32 hours per week). This provided the informant time to develop connections beyond their own network and increase the program's client base. The funding also allowed the informant to buy advertising, produce events, and increase the rigor of the program's standards.

The informant recommended prioritizing certification of a developer or multiple developers with a combined capacity similar to Vulcan (with whom they've completed 13 unsubsidized projects). They also recommended making certification costs as affordable as possible to promote initial uptake, but cautioned against losing sight of the goal of financial sustainability. Throughout the process, the program should tell the story of people, planet and profit that resonates with current environmental stories.

Policymakers

City of North Vancouver

Our informant at the City of North Vancouver explained that though the City's approach to rainwater management has not changed in recent years, it has been formalized. The City takes a regulatory approach to source control, though they have been flexible in allowing developers to deliver source controls on public right-of-ways and off-site. For those built on public land, the City retains ownership and commits to long-term maintenance, while the developer is responsible for light duty. At the moment, the City does not offer development incentives. However, they are exploring creating a two-tiered drainage levy that would reduce the utility fee for developments that manage water on-site.

The informant stated that to explore use of Salmon-Safe certification, the program would have to build brand identity and demonstrate that it makes developments more marketable and/or reduces their cost. From the City's perspective, if the program could show that it provides a framework that can accomplish the City's goals without requiring heavy lifting from municipal employees, that would inspire further probing. The informant noted that the current political environment is open to pursuing initiatives that satisfy these prerequisites.

City of Port Moody

Our informant from the City of Port Moody discussed stormwater management planning and the levels of policy backing it receives from bodies such as Metro Vancouver and the Province, which addresses stormwater management through the Riparian Regulation Regulation (RAR). Regarding

the local Dallas Creek development, the informant noted there had been dialogue with Salmon-Safe BC around stormwater management, however they were unsure of the final outcome of these conversations. The City's motivation to engage Salmon Safe stemmed from a need to satisfy their own stream protection bylaw regulations.

The informant identified the need for “informed political will from upper management,” as an institutional and leadership element for motivating eco-certification uptake. The informant referenced the City of Vancouver sustainability team who now have both the capacity and budget to lobby and fund action for enforcing green development regulation. The informant recommended Salmon-Safe develop a high level checklist that can highlight the certification benefits of SS to developers, while also verifying whether developments are already on the path to achieving SS.

City of Vancouver (Food Systems) and Food Systems Scholar

Our City of Vancouver informant (Informant A) stated that the Rezoning Policy for Sustainable Large Developments offers an opportunity to integrate certification into existing policy. They noted that certification could potentially qualify as a food asset, one of three that developers are required to provide, which would signal recognition of the cultural aspect of food and Indigenous foodways. However, to pursue policy integration, Informant A would need confirmation that it has the support of neighbouring First Nations. They would also need to know how much Salmon-Safe certification goes above and beyond what developers are required to deliver in terms of on-site water management and other policies the City has in place. Informant B (food systems scholar) recommended demonstrating how Salmon-Safe certification can achieve targets across a range of policy documents and departments.

Informant B also stressed the importance of having other agencies (university researchers, non-profit organizations, Indigenous leaders) put their voices behind the program and share it out broadly. They also noted that certification can be a scary word for many. Offering a consulting service that allows urban land developers to slowly transition their operations without fully achieving certification can be a good way to engage the industry and support change.

City of Vancouver (Green Infrastructure)

Our informant from the City of Vancouver's green infrastructure team noted that their approach to managing stormwater has changed dramatically over the past two years. Policy implications have been incremental, beginning first with enforcement of new on-site water management standards for large site developments before moving on to all new rezonings. This has allowed the green infrastructure team to grow internal capacity while allowing larger developers time to adapt, learn, and build industry capacity. Our informant noted that certifications such as LEED have demonstrated the same ability to build capacity incrementally. Currently, there is a lack of capacity with regard to rainwater management knowledge in the urban land development industry.

For the City to explore integrating Salmon-Safe certification into policy, they would first need to understand how Salmon-Safe performance objectives compare with the City's Integrated Rainwater Management Plan. This includes understanding where objectives are aligned and where they differ. From there, the City could explore partnering with Salmon-Safe on a demonstration project and integrating certification into the Rezoning Policy for Sustainable Large Developments.

Our informant also noted that the City's move away from LEED and toward requiring passive house efficiency created a gap with regard to on-site water management. This has been rectified by the City, which includes management requirements in their green building policy, though it may be representative of current trends in municipal policy.

Metro Vancouver

While stormwater management is predominantly the responsibility of municipalities, Metro Vancouver plays a facilitation and coordination role through the Stormwater Interagency Liaison Group (SILG).

The main avenue to promote sustainable water management practices would be through SILG. SILG is a very receptive group and member municipalities benefit from Metro Vancouver's technical advice and tools that would otherwise require a considerable financial investment. The group also serves as a forum for information exchange between municipalities.

It seems unlikely that Metro Vancouver would officially incorporate SSC into its recommendations for municipalities, but this should be explored further with Metro Vancouver's Regional Parks Bylaws and Policies department.

First Nations

Tsleil-Waututh First Nation

Tsleil-Waututh is in the midst of exploring opportunities to participate on the Salmon Safe Assessment Panel as part of a pilot project. Tsleil-Waututh has a long historical connection to salmon which, along with other species such as crabs and shellfish, has played an important role in the Tsleil-Waututh way-of-life- and economy. Salmon has traditionally provided the vast majority of the protein requirements to the Tsleil- Waututh community. Today, while habitat degradation, urbanization, overfishing and pollution have placed these species at risk, salmon continue to serve as a vital food and cultural resource for the Tsleil- Waututh people.

The Nation has a sacred obligation, as was passed down from their ancestors, to manage their lands and resources in a respectful and sustainable manner. The Nation practices extensive environmental stewardship which is expressed through varying initiatives and documents such as their Burrard Inlet Action Plan, their TWN Stewardship Policy, and TWN Land Use Plan. The Nation consistently reviews referrals on proposed land and resource policies, planning initiatives, and proposed development projects within its Consultation Area in accordance with the TWN Stewardship Policy. Tsleil-Waututh's referrals team reviews an estimated 300-500 development and/or planning project referrals each year. The Nation's Lands Water and Environment team has extensive skills and experience with environmental monitoring, as well as habitat restoration and enhancement work.

Tsleil-Waututh is currently in the process of reviewing the Salmon Safe guiding document and principles, and will continue to work with FBC to inform the development of SSC.

Other

Canada Green Building Council Board Member

LEED began in the early 1990s when there were few green building certification programs. The program evolved with the help of motivated professionals in the field who wanted to define the green building work they were already doing by developing a common language and standard metrics. LEED's focus on advocacy, education and engagement with champions in the field contributed to its early successes. Rather than focus heavily on rigid standards, LEED found advocates to pilot the program and let it grow organically and evolve. Another key to LEED's success is having a low bar to entry with its tiered system. Bronze certification requires minimal effort but nonetheless signifies a commitment. The tiered system and menu approach also accommodates the diversity of projects and market conditions.

Our informant suspects that LEED's success with municipalities is because LEED serves as a pre-packaged set of standards that can achieve the municipality's outcomes. This can be especially helpful for smaller municipalities where capacity and resources to develop bylaws are limited.

Our informant identified areas of opportunity for SSC growth. They emphasized the value in using existing clients as advocates for the program considering that they will benefit from program growth. SSC can also simplify the process for clients already pursuing other certifications, such as LEED, and capitalize on areas of overlap.

Ecolabel Index

Over the past decade, eco-certifications have become more transparent about who and what they are, and standards have become more sophisticated and robust. SSC's existing operations are well-suited to fit this market trend. Areas where SSC should direct attention include: telling a compelling story and developing a sustainable financial model.

To achieve 'product market fit' in an over-crowded eco-certification market, SSC must communicate why certification is the solution to improving watershed health. This story must resonate with the target audience and can increase credibility. Doing so requires a strong product launch and active management.

All certifications need a certain scale and a robust financial model to operate. At this early stage, SSC should set boundaries around what it is and who it is for to clarify its place in the market. Developing a sustainable financial model involves understanding where the program fits in the market and knowing what is achievable given the available resources.

Former SSC Program Manager

The former SSC program manager provided insight into her experiences with the program and provided recommendations as to its future growth. She spoke to the challenges of communicating the program to non-technical audiences, and stressed the importance of developing coherent messaging. She also stressed the limitations of a "community champions" approach, and recommendation pursuing strategic partnerships with municipalities. The former SSC program manager also mentioned the need to understand SSC's place within FBC and to think critically about where the program is going and what it is trying to achieve. She also articulated the need to get more data to be able to demonstrate to funders and developers the program's positive environmental impacts.

Mountain Equipment Co-op (MEC)

MEC's head office in Vancouver adopted SSC certification in 2014. Our interview with MEC informants reinforced the value of having had a strongly pre-established relationship with FBC, and furthermore an FBC representative who both introduced MEC to the SSC program and then encouraged its uptake by the organization. This interview made clear the importance of having project champions who can promote the SSC program and foster sectoral awareness.

MEC also noted the strong alignment of the Salmon- Safe program with their brand identity; becoming SSC certified contributed positively in reinforcing "brand trust" – in other words, pursuing certification reflected consumers' environmental expectations, generated by the company's sustainable image.

University of British Columbia (UBC)

UBC's approach to stormwater management is focused on green infrastructure and a plant-based approach. UBC has a provincial directive to pursue LEED certification, and the SITE certification has recently been employed to address areas not covered by LEED. The University also has an implementation guide for LEED which includes additional criteria green building criteria as well as REAP, an in-house certification for residential buildings. UBC is currently exploring campus level water management initiatives (ex. augmenting streams). UBC Campus and Community Planning appear receptive to learning more about Salmon-Safe Communities.

Opportunities for partnership include leveraging UBC, and the Centre for Interactive Research on Sustainability (CIRS) in particular, to connect with green building professionals through workshops and webinars.

Vancouver International Airport (YVR)

The Vancouver international airport (YVR) Sea Island site was certified in 2016 and was the first airport globally to become Salmon- Safe certified. For YVR, SSC appealed as a certification program because it encouraged an interdisciplinary efforts and interdepartmental coordination; prior to SSC, YVR had siloed its approaches to water management practices and ecological sustainability. Salmon Safe's value alignment with YVR's brand identity was an additional motivating factor in encouraging YVR to pursue the SSC program.

The adaptability of the certification assessment process was highlighted as a key asset of the SSC program, especially given the large acreage of the Sea Island site, and the variety of complex ecological factors that inform their environment and management strategies. YVR produced two recommendations for the development of the Salmon Safe program; firstly, that it explore partnerships with local First Nations and secondly, that it extend certification timeframes to allow for larger properties to complete certification actions.

APPENDIX D: FIRST NATIONS CONSULTATION PLAN

APPENDIX D

First Nations Consultations Plan

The Fraser Basin Council (FBC) is committed to working towards the advancement of sustainability through social, economic, and environmental sectors. The FBC honours these commitments through facilitation of collaborative, consensus based decision-making across local, provincial, federal and First Nations governments.

FBC's Charter for Sustainability guidelines articulate respect for the perspectives and contributions of First Nations to the sustainability of the Fraser River Basin. FBC is committed to meaningfully engaging and working with First Nations, and fostering inclusive communications that are integral for developing solutions to sustainability challenges. With regards to our project and Salmon-Safe Communities, consultation with each First Nation will better our understanding of their interest in the program as well as barriers or disincentives.

We appreciate FBC's dedication to relationship building, and this will be highly valued when we begin consulting with First Nations communities. Our preference is for the FBC Project Manager to attend meetings with representatives from. Where this is not possible, we ask that the FBC Project Manager facilitate the initial introduction.

Each First Nation will determine the pace at which consultations occur. Should the consultation timeline exceed that of the project work plan, we will transition the relationship management to FBC with care and consideration.

We intend to reach out to the following First Nations:

First Nation	Contact Name and Title
Tsleil-Waututh Nation	Pending inquiry
Musqueam Indian Band	Norman Point; Public Works Manager and Lands, Capital & Housing GM
Tsawwassen First Nation	Pending inquiry
Matsqui First Nation	Pending inquiry
Kwikwetlem First Nation	Robert Corman: Director of Lands and Resources
Squamish Nation	Lisa Wilcox; Intergovernmental Relations, Natural Resources, and Revenue

APPENDIX E: POLICY ANALYSIS

APPENDIX E

Policy Analysis

Methodology

Our Studio team completed an analysis of urban land development policies from municipalities, regional governments, public boards, post-secondary institutions, and First Nations from across the Lower Mainland. To supplement this analysis, we also examined federal and provincial (BC) land management policies as well as those from other cities in British Columbia and three municipalities in Washington State. Doing so provided us a thorough understanding of sustainable water management policy from across BC as well as that being done by Salmon-Safe Inc.'s municipal partners across the border. This analysis is not representative of broader sustainability commitments, but policy specific to sustainable water management.

After completing this analysis, we ranked Lower Mainland institutions and municipal, regional, provincial and federal governments in terms of potential for integration (via partnerships or client-supplier relationships) with Salmon-Safe Communities. Criteria for these rankings is defined below:

- High potential: Organization demonstrates a substantial interest in promoting sustainable water management by incorporating various methods into existing policy. This organization should be targeted as a potential partner and/or approached to participate in organization-led projects that demonstrate the benefits of certification.
- Medium potential: Organization demonstrates an interest in sustainable water management and incorporates some methods into existing policy.
- Low potential: Organization includes little or no mention of sustainable water management practices in policy.

Municipalities beyond the Lower Mainland were not ranked as these are beyond the scope of the strategic and business plans' geographic focus. The Studio team reviewed these municipalities in order to gain a firmer understanding of different approaches to water management and green building certifications.

First Nation policy is not ranked as a commitment to environmental stewardship has been demonstrated by each of the Nations included in this review for thousands of years. Collaboration with First Nations governments will be driven by relationships and their priorities.

This policy analysis is a product of desktop research. As partnerships are dependant on relationships, further in-person engagement is required to understand potential alignment. These summaries are intended to establish an overview of the current policy landscape and provide direction to the program manager.

Note: We have defined “sustainable water management practices” as those that fall into the below Salmon-Safe Communities’ (SSC) urban standards categories¹:

- Stormwater management
- Water use management
- Erosion prevention and sediment control
- Chemical and pesticide reduction and water quality protection
- Enhancement of urban ecological function
- Instream habitat protection and restoration
- Riparian, wetland and locally significant vegetation protection and restoration

Results Summary

We identified the following high, medium and low potential government and public bodies (**Table A**). Some organizations designated as high priority were included as key partners in the Salmon-Safe Communities: 2018-2021 Strategic Plan following additional research.

Table A Potential for Alignment with SSC

High	Med	Low
Burnaby (City)	Delta (City)	Anmore (Village)
Coquitlam (City)	New Westminster (City)	Belcarra (Village)
Maple Ridge (City)	Port Coquitlam (City)	Bowen Island (Island)
North Vancouver (City)	Squamish (District)	Langley (City)
North Vancouver (District)	West Vancouver (City)	Lions Bay (Village)
Port Moody (City)	White Rock (City)	Pitt Meadows (City)
Richmond (City)	Fraser Valley Regional District	British Columbia Institute of Technology
Vancouver (City)	Kwantlen Polytechnic University	Douglas College
Metro Vancouver Regional District	Surrey (City)	Emily Carr
University of British Columbia	Vancouver Park Board	Langara College
Simon Fraser University	Vancouver School Board	University of the Fraser Valley
		Port of Vancouver

¹ Salmon-Safe Inc. (2018). Salmon-Safe Urban Standards: Version 2.0. Portland, Oregon.

Municipal Governments

Municipalities are located in British Columbia unless noted otherwise.

Lower Mainland Municipal Governments

BURNABY (CITY)

High

Salmon are referenced throughout A Plan For Burnaby's Green Future and there are numerous strategies within this document focused on sustainable water management. The plan also emphasizes initiatives related to sustainable land use and weaves their Integrated Stormwater Management Plans (ISWMPs) into their overall planning approach. Overall, there seems to be a strong value alignment between the City of Burnaby's present work and the Salmon-Safe program.

Documents reviewed:

- [Community Energy and Emissions Plan \(2016\)](#)
- [A Plan For Burnaby's Green Future \(2016\)](#)

COQUITLAM (CITY)

High

The City of Coquitlam promotes sustainable water management in several policy documents. The green building guide contains suggestions for sustainable stormwater management and pursuit of eco-certifications, and its strategic plan emphasizes forming partnerships to accomplish environmental goals. Further to this, the City is actively working to restore salmon habitat. Overall, this municipality seems to offer a high potential for partnership with SSC.

Documents reviewed:

- [Strategic Plan \(2016\)](#)
- [Green Development Guide \(2008\)](#)
- [The Stormwater Policy and Design Manual \(2016\)](#)

MAPLE RIDGE (CITY)

High

The City of Maple Ridge has many sustainable, ecologically-focused policy initiatives that revolve around environmental protection and sustainable water management. The Industrial Area Structure Plan (ASP) encourages the use of eco-industrial development guidelines that incorporate sustainable water management practices and attention to site designs that enhance sensitivity and connection to the local environment.

The City's OCP also contains strategies specific to green building, and watershed and rainwater management. In their Sustainability Action Plan 2013, the City states that they would like to research building rating systems and eventually integrate this research into a municipal building policy. The City also requires buildings within 50 meters of the top of watercourse and wetland embankments obtain a Watercourse Protection Development Permit.

Documents reviewed:

- [Official Community Plan \(2014\)](#)
- [Maple Ridge Watercourse Protection Bylaw No. 6410 \(2006\)](#)
- [Sustainability Action Plan \(2013\)](#)

NORTH VANCOUVER (CITY)

High

The City of North Vancouver (CNV) stresses the benefits of sustainable water management in several key policy documents:

- Official Community Plan (2014)
- Climate Change Adaptation Plan (2013)
- Parks and Greenways Strategic Plan (2002)
- Stormwater Management: Three or More Units (2014)
- Stormwater Management: One or Two Residential Units (2014)
- Streamside Protection and Enhancement Development Permit Guidelines (2006)

The CNV emphasizes throughout its OCP the various benefits of green infrastructure. These include reducing the quantity of non-point source pollution, which will improve the water quality in its surface streams and the Burrard Inlet. This is actioned in the stormwater management regulation for residential units. The CNV also states that it should take a leading role in modeling sustainable practices that improve ecological health. The Climate Change Adaptation Plan and Parks and Greenways Strategic Plan state that the City should utilize green infrastructure in its parks. Its emphasis on community partnerships that can advance green policy goals may suit the municipality to working with SSC.

Documents reviewed:

- [Official Community Plan \(2014\)](#)
- [Climate Change Adaptation Plan \(2013\)](#)
- [Parks and Greenways Strategic Plan \(2002\)](#)
- [Stormwater Management: Three or More Units \(2014\)](#)
- [Stormwater Management: One or Two Residential Units \(2014\)](#)
- [Streamside Protection and Enhancement Development Permit Guidelines \(2006\)](#)
- [Stream and Drainage System Protection Bylaw \(2013\)](#)
- [Corporate and Community Climate Action Summary Report \(2010\)](#)
- [Community Energy and Emissions Plan \(2010\)](#)
- [Climate Change and Impacts for the City of North Vancouver \(2013\)](#)

NORTH VANCOUVER (DISTRICT)

High

The District of North Vancouver (DNV) encourages the use of low impact development (LID) and stormwater management best practices in the following key policy documents:

- Official Community Plan (2018)
- Climate Change Adaptation Strategy (2017)
- Parks and Open Spaces Strategic Plan (2012)

The DNV OCP and Parks and Open Spaces Strategic Plan encourages the use of LID that allows on-site rainwater infiltration in order to reduce runoff volumes, improve water quality and recharge groundwater. The integrity of surface streams is also protected through the Streamside Protection Development Permit Area (DPA). Areas characterized by the Energy and Water Conservation and Reduction of Greenhouse Gas Emissions DPA require an integrated design process that seeks to reduce water consumption and capture and use stormwater. Use of LID practices is also encouraged by the Climate Change Adaptation Strategy to reduce flood risk and decrease use of potable water.

Documents reviewed:

- [Official Community Plan \(2018\)](#)
- [Climate Change Adaptation Strategy \(2017\)](#)
- [Parks and Open Spaces Strategic Plan \(2012\)](#)

- [Green Building Strategy – Single Family Energy Performance Commitment \(2010\)](#)
- [Green Building Policy – Private Sector Developments \(2010\)](#)

PORT MOODY (CITY)

High

The City of Port Moody's OCP emphasizes salmon protection and notes that streamside conservation and enhancement areas are regulated by the Port Moody Zoning Bylaw. As part of their effort to protect salmonids, Port Moody initiated the North East Sector Environmental Stewardship Committee to develop a common regulatory approach to watershed protection. The City also intends to develop a green building policy.

Documents reviewed:

- [Official Community Plan \(2014\)](#)
- [Sustainability Report Card \(2017\)](#)
- [Subdivision and Development Servicing Bylaw \(2010\)](#)

RICHMOND (CITY)

High

The City of Richmond's OCP emphasizes green infrastructure as part of its Ecological Network Strategy, highlighting its importance in more urbanized areas. Nested within the Policies and Guidelines for the Development of City-owned Child Care Facilities document is an overview of the City's Sustainable "High Performance" Building Policy that ensures newly constructed civic buildings are built to LEED Gold standard. The City also has an Integrated Rainwater Resource Management Strategy and Green Roof Policy, which highlights their commitment to sustainable water management.

Documents reviewed:

- [Green Roof Building Bylaw No.8385 \(2008\)](#)
- [Policies and Guidelines for the Development of City-owned Child Care Facilities \(2016\)](#)
- [Corporate Sustainability Framework -- Climate Change Strategic Program \(2010\)](#)
- [Richmond's 2041 Official Community Plan \(2012\)](#)

VANCOUVER (CITY)

High

The City of Vancouver prioritizes sustainable water management in several key policy documents. Most notably these include:

- Greenest City 2020 Action Plan (2012)
- Rain City Integrated Rainwater Management Plan (2016)
- Rezoning Policy for Sustainable Large Developments (amended 2014)
- Climate Change Adaptation Strategy Update (2018)

The Greenest City 2020 Action Plan distills the City's desire for clean water into two main goals: improve water quality and reduce per capita water use. The Rain City Strategy builds on these goals by taking a multi-faceted approach to rainwater management that is cross-disciplinary. For this plan, the long-term focus is on reducing the risks and consequences of pollutants in stormwater runoff, which is actioned in the Rezoning Policy for Sustainable Large Developments. The potential of low impact development to reduce climate change-induced flooding is also recognized in the 2018 Climate Change Adaptation Strategy Update. Taken together, the City has recognized the various benefits of taking a systems-based approach to rainwater management, making it a key potential partner for SSC.

Documents reviewed:

- [Climate Change Adaptation Strategy Update \(2018\)](#)
- [Rezoning Policy for Sustainable Large Developments \(2014\)](#)
- [Rain City Integrated Rainwater Management Plan \(2016\)](#)
- [Greenest City 2020 Action Plan \(2012\)](#)
- [Sea Level Rise Planning Update \(2018\)](#)
- [Vancouver Food Strategy Progress Report and Action Update \(2017\)](#)
- [Zero Emissions Building Plan \(2016\)](#)

DELTA (CITY)

Medium

Water management is interwoven throughout several City of Delta documents. Within the Official Community Plan (OCP), the section on North Delta highlights salmon protection. The Green Growth Index also contains several guidelines pertaining to sustainable water management in new developments. This municipality offers some potential for partnership.

Documents reviewed:

- [Development Permit Area for Streamside Protection and Enhancement \(2005\)](#)
- [Green Growth Index](#)
- [Official Community Plan \(2016\)](#)

NEW WESTMINSTER (CITY)

Medium

Environmental policy in the City of New Westminster is delineated by the Environmental Strategy and Action Plan (ESAP), a 10-year environmental master plan. This plan includes goals and actions related to sustainable water management and protection and restoration of natural areas and habitat, while its OCP encourages adoption of green infrastructure. The City's Subdivision Development Control Bylaw also encourages better drainage and water management design features for new developments. To protect aquatic life from the negative impacts of land development and construction, they have implemented an Erosion and Sediment Control (ESC) Bylaw 7754. In 2009, the City adopted a LEED Gold policy for new civic buildings.

Documents reviewed:

- [Environmental Strategy and Action Plan \(2018\)](#)
- [ISMP vol. I \(2017\)](#)
- [ISMP vol. II \(2017\)](#)
- [Subdivision Development Control Bylaw \(2007\)](#)
- [Community and Energy and Emissions Plan \(2011\)](#)
- [Erosion and Sediment Control Bylaw 7754 \(2016\)](#)
- [Our City 2041 New Westminster OCP \(2017\)](#)

PORT COQUITLAM (CITY)

Medium

The City of Port Coquitlam has included some policies cohesive with SSC standards. The City prioritizes watercourse protection in designated Watercourse Protection Development Permit Areas, which require developers obtain specific permits for building in these areas. The City intends to develop a policy that would require buildings being constructed, purchased, or leased by the City achieve LEED Silver standards or higher and their Green Guide also endorses LEED green building development standards. Port Coquitlam's Zoning Bylaw endorses green roofing, and notes that density bonuses are available in some zoning areas for developments that have achieved LEED Silver certification (or equivalent).

Documents reviewed:

- [Corporate & Community Climate Action Plan \(2010\)](#)
- [Official Community Plan \(2013\)](#)
- [Density Bonus Policy \(2009\)](#)
- [EnviroPlan \(2011\)](#)

SQUAMISH (DISTRICT)

Medium

The District of Squamish (DoS) stresses the importance of integrated water management throughout their OCP. The OCP ambitions to reduce non-point source pollution and use green infrastructure to manage rainwater resources, protect water and air quality, maintain ecosystem function, provide flood control, and address climate impacts within local watersheds. This policy also considers future amendments to the Zoning Bylaw that require building and site design that minimizes impervious surface area. Partnership and shared stewardship responsibility is emphasized in the OCP and the Marine Action Strategy, making the DoS potentially amenable to a partnership with SSC.

Documents reviewed:

- [Squamish 2040 Official Community Plan \(2018\)](#)
- [Water Conservation Plan \(2015\)](#)
- [Building Bylaw \(2018\)](#)
- [Marine Action Strategy \(2018\)](#)
- [Subdivision and Development Control Bylaw \(2018\)](#)
- [Integrated Flood Management Plan \(2017\)](#)

SURREY (CITY)

Medium

The City of Surrey's Sustainability Charter includes several holistic approaches to watercourse protection. With regard to certifications, the City highlights green building certifications on their website. However, no accompanying incentives are listed.

Documents Reviewed

- [Sustainability Charter 2.0 \(2016\)](#)
- [Biodiversity Conservation Strategy \(2014\)](#)

- [10 Year Servicing Plan \(2018\)](#)
- [Integrated Stormwater Management Plans](#)

WEST VANCOUVER (DISTRICT)

Medium

The District of West Vancouver (DWV) encourages the use of LID practices to “mimic natural conditions,” decrease flood risk, and enhance long-term ecosystem services. The DWV also ambitions to lead by example through actively pursuing energy and water conservation, making it a potential Salmon-Safe partner. This partnership could help the DWV achieve the water conservation goals outlined in its Corporate Energy and Emissions Plan.

Documents reviewed:

- [Official Community Plan \(2018\)](#)
- [Blueprint for Social Responsibility and Change \(2017\)](#)
- [West Vancouver Community Energy and Emissions Plan \(2016\)](#)
- [Community Climate Action Plan \(2010\)](#)
- [Environmental Strategy \(2005\)](#)
- [ISMP for Pipe, Westmount, Cave, Turner and Godman Creeks \(2013\)](#)
- [Parks Master Plan \(2013\)](#)
- [Shoreline Protection Plan 2012-2015](#)
- [ISMP for Vinson, Brothers and Hadden Creeks \(2017\)](#)
- [Corporate Energy and Emissions Plan \(2016\)](#)

WHITE ROCK (CITY)

Medium

The City of White Rock places a strong emphasis on sustainable water use and protecting water resources. “Water” is listed as one of its three strategic priorities in its Environmental Strategic Plan, with “manage stormwater and sanitary waste appropriately” listed as one of three key objectives. In their ISWMP, they suggest having an award for developers that take innovative approaches to water.

Documents Reviewed

- [Environmental Strategic Plan \(2008\)](#)
- [Integrated Stormwater Management Plan \(2010\)](#)

ANMORE (VILLAGE)

Low

Documents reviewed:

- [Official Community Plan \(2014\)](#)
- [Stormwater Master Plan \(2018\)](#)

BELCARRA (VILLAGE)

Low

Documents reviewed:

- [Official Community Plan \(2011\)](#)
- [Drainage Study \(2017\)](#)

BOWEN ISLAND (ISLAND MUNICIPALITY)

Low

Documents reviewed:

- [Community Energy & Emissions Plan \(2016\)](#)
- [BC Climate Action Charter \(2007\)](#)

LANGLEY (CITY)

Low

Documents reviewed:

- [Sustainability Framework \(2010\)](#)
- [Integrated Stormwater Management Plan \(2009\)](#)
- [Brownfield Redevelopment Strategy \(2017\)](#)

LANGLEY (TOWNSHIP)

Low

Documents reviewed:

- [Langley Township: Watershed Catchment Map \(2016\)](#)
- [Sustainability Charter \(2008\)](#)
- [Green Building Rebate Program](#)
- [Integrated Stormwater Management Plans](#)

LIONS BAY (VILLAGE)

Low

Documents reviewed:

- [Official Community Plan \(2018\)](#)
- [Infrastructure Management Plan \(2016\)](#)
- [Land Use Master Plan \(2014\)](#)

PITT MEADOWS (CITY)

Low

Documents reviewed:

- [Pitt Meadows Official Community Plan \(2014\)](#)
- [Subdivision and Development Servicing Bylaw \(2013\)](#)

Municipal Governments Beyond the Lower Mainland

KAMLOOPS (CITY)

N/A

The City of Kamloops' ISWMP provides a comprehensive assessment of their existing stormwater management system and a detailed implementation plan. Included are policy changes, educational programming, financial strategies, demonstration projects, infrastructure upgrades, and policy integration across plans. The City also states that developers play an integral role and engaging with the development community will be necessary to achieve their sustainability objectives.

Documents reviewed:

- [Official Community Plan \(2018\)](#)
- [Sustainable Kamloops Plan \(2010\)](#)
- [Integrated Stormwater Management Plan \(2009\)](#)
- [Design Criteria Manual \(2012\)](#)

PRINCE GEORGE (CITY)

N/A

The City of Prince George OCP includes policies stormwater management policies but the City does not have an ISWMP. In acknowledging the relationship between the natural and built environments, the City's objectives focus on protecting riparian areas and preserving drinking water quality. The City regulates development near groundwater sources through Development Permit Areas and regulates contaminated wastewater discharge through Waste Discharge Permits. There are several educational videos on the City's website regarding the urban water cycle and ways for residents to protect watershed health. The City also tries to decrease water consumption through its Volunteer Residential Metering Program where residents pay per usage rather than a flat consumption rate.

Documents reviewed:

- [Official Community Plan \(2012\)](#)
- [Groundwater Protection Development Permit Areas \(2011\)](#)

QUESNEL (CITY)

N/A

The City of Quesnel intends to develop a comprehensive stormwater management plan and a master drainage plan guide future infrastructure improvements. The City's current water-related policies focus protecting the City's drinking water supply.

Documents reviewed:

- [Official Community Plan \(2007\)](#)

BELLEVUE, WASHINGTON, USA (CITY)

N/A

The City of Bellevue's approach to sustainable water management is dictated by state and federal regulations. Mandated by the Western Washington Phase II Municipal Stormwater Permit (part of the federal Clean Water Act), the City's Storm and Surface Water System Plan outlines strategic initiatives for the City to improve stormwater management. The City's Stormwater Management Guide serves as

a resource to better understand the importance of stormwater management and explains the City's current initiatives. While the City has a strong foundation of sustainable water management policies, it is not actively promoting practices that go beyond that required by state and federal mandates.

Documents reviewed:

- [Stormwater Management Guide \(2012\)](#)
- [Single Family Residential Stormwater Management Guidelines \(2012\)](#)
- [Storm and Surface Water System Plan \(2015\)](#)
- [Water System Plan \(2016\)](#)

REDMOND, WASHINGTON, USA (CITY)

N/A

The City of Redmond actively promotes sustainable stormwater management practices in the public and private sectors through integrated policies and financial incentives. Mandated by the Western Washington Phase II Municipal Stormwater Permit (part of the federal Clean Water Act), the City's comprehensive Stormwater Management Program Plan includes initiatives in the following areas: educational programming, public participation activities, illicit discharge, runoff from development projects, and municipal operations. The plan highlights the City's integrated approach to promoting sustainable stormwater management.

To encourage adoption of LID practices in the private sector, the City offers stormwater utility credits for sites with privately maintained stormwater systems. The City also conducted a business case analysis of stormwater infiltration strategies for densely populated areas that will inform future on-site stormwater management.

Documents reviewed:

- [General Information on Redmond's Stormwater Utility and Stormwater Billing \(2016\)](#)
- [City of Redmond LID Integration: Process Summary \(2017\)](#)
- [On-Site Stormwater Management Business Case Analysis \(2017\)](#)
- [Stormwater Management Program Plan \(2017\)](#)
- [Comprehensive Plan 2030 \(2011\)](#)
- [Final Comprehensive Flood Hazard Management Plan \(2009\)](#)
- [Shoreline Master Program \(2011\)](#)

SHORELINE, WASHINGTON, USA (CITY)

N/A

The City of Shoreline encourages the use of LID practices in its Comprehensive Plan. Mandated by the Western Washington Phase II Municipal Stormwater Permit (part of the federal Clean Water Act), the City's comprehensive Stormwater Management Program Plan includes initiatives in the following areas: educational programming, public participation activities, illicit discharge, runoff from development projects, and municipal operations. One of the City's actions includes revising codes and policies to align more closely with LID practices to make LID the preferred approach.

The City has also installed several natural drainage facilities (demonstration projects) and provides educational resources for residents about these stormwater systems. They also offer a rebate program (Soak it Up) where residents can receive up to \$1,600 in water utility rebates for sustainable landscaping.

Documents reviewed:

- [Stormwater Management Program Plan \(2017\)](#)
- [Surface Water Master Plan \(2018\)\]](#)
- [Comprehensive Plan \(2012\)](#)
- [Greenworks Facilities Operations & Maintenance Guidelines for Residents](#)
- [Soak it Up Rebate Program \(2017\)](#)

WILLIAMS LAKE (CITY)

N/A

The City of Williams Lake indicates their intention to develop a Stormwater Management Plan in their Official Community Plan (2011) but does not provide a clear implementation plan. The City's existing stormwater management policies are limited in scope and capacity and are consistent with conventional practices.

Documents Reviewed

- [Official Community Plan \(2011\)](#)

Regional Governments

METRO VANCOUVER

High

Metro Vancouver (MV) provides regional policy guidance to support green building and development policy within the region. The BuildSmart program intends to develop a common framework for green

buildings using LEED standards. MV also provides information to support green building and LID practices, like the Metro Vancouver Sustainability Framework, the Metro Vancouver Design Guide for Municipal LEED Buildings, and the Green Infrastructure in Metro Vancouver - Facts in Focus policy backgrounder. Metro Vancouver also convenes the Stormwater Interagency Liaison Group for municipalities to share knowledge, while providing guidance on sustainable stormwater management practices.

Documents reviewed:

- [MetroVan Design Guide for Municipal LEED buildings \(2008\)](#)
- [MetroVan Sustainability Framework \(2010\)](#)
- [Stormwater Best Practices Management Guide Part I \(1999\)](#)
- [Stormwater Best Practices Management Guide Part II \(1999\)](#)
- [Stormwater Best Practices Management Guide Part III \(1999\)](#)
- [Green Infrastructure in Metro Vancouver—Facts in Focus \(2015\)](#)
- [Corporate Climate Action plan \(2010\)](#)

FRASER VALLEY REGIONAL DISTRICT

Medium

While the Fraser Valley Regional District discusses water management in their policy documents, there is more opportunity for alignment with the agricultural sub-certification. Within Fraser Valley Adaptation Strategies, both Impact Area 1 (Warmer and Drier Summer Conditions) and Impact Area 2 (Increasing Precipitation and Extreme Precipitation Events) focus on agriculture and sustainable water use.

Documents reviewed:

- [Fraser Valley Adaptation Strategies \(2015\)](#)
- [Strategic Plan 2014-2018](#)

CARIBOO REGIONAL DISTRICT

N/A

The Cariboo Regional District encourages water conservation and provides educational resources for the public. The District also has a Shoreland Management Policy that restricts and manages development within 250 m of lakes.

Documents reviewed:

- [Shoreland Management Policy \(2004\)](#)

Provincial Governments

PROVINCE OF BRITISH COLUMBIA

N/A

The Province of British Columbia is currently developing a Wild Salmon Strategy to support restoring “healthy and abundant salmon stocks in BC.” The Riparian Areas Regulation (RAR), part of the Riparian Areas Protection Act, also “calls on local governments to protect riparian areas during residential, commercial, and industrial development by ensuring that a Qualified Environmental Professional (QEP) conducts a science-based assessment of proposed activities.”

The Province encourages green building policies and practices through the BC Climate Action Charter. They have also created a Stormwater Planning Guidebook, targeted to planners, politicians and developers, to support better sustainable water management.

Documents reviewed:

- [BC Climate Action Charter \(2009\)](#)
- [Riparian Areas Regulation \(2016\)](#)
- [BC Wild Salmon Strategy \(2018\)](#)
- [Develop with Care \(2014\)](#)
- [Stormwater Planning: A Guidebook for British Columbia \(2002\)](#)

AGRICULTURAL LAND COMMISSION/RESERVE

Low

It is difficult to discern based on public facing policies whether or not there is opportunity to align with the Agricultural Land Reserve and the Agricultural Land Commission. Further in-person research is required.

Documents Reviewed:

- [The Canada - British Columbia Environmental Farm Program \(2010\)](#)
- [Letter of Expectations from Minister of Environment \(2017\)](#)
- [Revitalization of the Agricultural Land Reserve \(2018\)](#)

First Nations

SQUAMISH NATION

Squamish Nation's Land Use Plan identifies four different types of land use zones: forest stewardship zones, sensitive areas, restoration areas, and wild spirit places. This document communicates the community's vision for land management, which is heavily grounded in principles of environmental stewardship and sustainability. Within this plan, priorities around fishing, clean drinking water, and the protection and maintenance of healthy rivers and streams mimic SSC's purpose. Squamish Nation has started to work on a plan for Howe Sound.

Documents reviewed:

- [XayTemíxw \(Sacred Land\) Land-Use-Plan](#)
- [Ocean Watch Howe Sound Report \(2017\)](#)

TSAWWASSEN FIRST NATION

Sustainable design policies outlined in the Tsawwassen First Nation's Land Use Plan encourage green construction and building design practices. Tsawwassen promotes building public and commercial buildings LEED standards while also highlighting the importance of water conservation. The Nation also intends to prepare a detailed sustainability plan for their lands "to ensure that development takes place in a manner that balances environmental, economic and social objectives" (Land Use Plan, p. 24). Tsawwassen also uses an Integrated Rainwater Management Plan to sustainably manage water. Tsawwassen annually celebrates a first fish ceremony in honour of the river and their ancestors.

Documents reviewed:

- [Tsawwassen First Nation Land Use Plan \(2009\)](#)
- [Tsawwassen First Nation Supplementary Design Guidelines and Construction Specifications \(2014\)](#)
- [Integrated Rainwater Management Plan \(2013\)](#)

KWIKWETLEM FIRST NATION

The Kwikwetlem First Nation have a deep connection to the lands and waters of the Coquitlam Watershed. Their name, **kwikwəłəm**, or "red fish up the river," refers to "a small red fish—an early sockeye salmon that once ran in great number in the Coquitlam River and spawned in Coquitlam Lake" (Land Use Plan, p.5). The word **Slakəya'nc** means "young sockeye." The Kwikwetlem First Nation is committed to protecting salmon and river sturgeon in their area and have taken on multiple initiatives such as the sturgeon telemetry project, and management of the \$2 million fisheries legacy fund to help conserve and protect fish populations. They are currently in the process of developing their Comprehensive Community Plan (CCP).

Documents reviewed*:

- [Slakəya'nc IR1 Land Use Plan \(2018\)](#)

The land use plan must be accessed through <https://fnbc.info/> using a personal account login.

MUSQUEAM FIRST NATION

Musqueam's CCP, **nəcəmat tə šxwqweləwən** emphasizes protection of the environment and natural resources. Local fish, fish habitats, and water rivers and systems are of great importance to the community and are primarily the purview of the Fisheries Department and Environmental Stewardship Department. Musqueam is collaborating with the City of Vancouver to develop an Integrated Stormwater Management Plan. The Nation is also redeveloping their land code and do not have policies in place related to green building standards.

Documents reviewed:

- [Comprehensive Community Plan \(2018\)](#)
- [Musqueam Land Code \(2012\)](#)

STO:LO NATION

The Stó:lō Nation is a political union of 11 Stó:lō communities. Individually, each community has their own unique relationship to surrounding lands and waters. Together, six Stó:lō communities own the environmental company, Seven Generations Environmental Services Ltd. (SGES). SGES specializes in environmental monitoring services and site restoration. Exploring a partnership between SSC and SGES could provide a step toward the program's reconciliation goals.

Documents reviewed:

- [Seven Generations Environmental Services Limited \(2010\)](#)

TSLEIL-WAUTUTH FIRST NATION

The Tsleil-Waututh First Nation is deeply committed to environmental stewardship. The Burrard Inlet Action Plan: A Tsleil-Waututh Perspective identifies priority issues related to environmental degradation and stewardship. Tsleil-Waututh have not published a community land use plan, green building development guidelines or a comprehensive community plan.

In 2018, Tsleil-Waututh hosted a Climate Summit where they presented plans to develop a Tsleil-Waututh Nation Climate Change Resiliency Plan.

Documents reviewed:

- [The Burrard Inlet Action Plan: A Tsleil-Waututh Perspective \(2017\)](#)
- [TWN Climate Change Resiliency Plan \(in progress\)](#)

Federal Government

GOVERNMENT OF CANADA

N/A

Within its Wild Salmon Policy, the Government of Canada makes clear that land use management is the jurisdiction of municipalities. In regard to green buildings, government incentive programs focus on EnergyStar. However, there are several funding opportunities that may benefit SSC, such as:

- Aboriginal Fund for Species at Risk
- Habitat Stewardship Program for Species at Risk
- EcoAction Call for Proposals

Documents reviewed:

- [Wild Salmon Policy 2018 to 2022 Implementation Plan \(2018\)](#)
- [Government of Canada website](#)

Universities

UNIVERSITY OF BRITISH COLUMBIA (UBC)

High

UBC's Green Building Action Plan stresses that the "design and construction of new buildings, renovations and retrofits" contributes toward the ecological and sustainability goals of the university. All new construction and renewal projects on campus must be LEED Gold certified. Steps to achieve LEED certification are identified in UBC's Technical Guidelines. These guidelines note that alternative certifications align with UBC's policy objectives will be considered. UBC's Point Grey campus also hosts a range of green infrastructure and use of LID practices is common.

Documents reviewed:

- [Green Building Action Plan \(2018\)](#)
- [UBC Sustainability Policy #5 \(2005\)](#)
- [UBC Integrated Stormwater Management Plan \(2017\)](#)
- [Residential Environmental Assessment Program \(REAP\)](#)

SIMON FRASER UNIVERSITY (SFU)

High

SFU's most recent OCP requires that significant watercourses, ecologically sensitive areas, and environmental considerations to be taken into account during development. SFU is in the process of preparing a Watercourse and Storm Water Management Plan that aligns with regulations and policies of the Department of Fisheries and Oceans and the City of Burnaby. Its 5-Year Capital Plan supports visions of sustainable campus renewal that integrate progressive water management practices. Energy and water efficiency are sustainability priorities for SFU, which subscribes to LEED and BOMBA BEST green certification building standards.

Documents reviewed:

- [Official Community Plan \(2002\)](#)
- [Sustainability Policy \(GP 38\) \(2008\)](#)
- [Responsible Investment Policy \(B10.16\) \(2016\)](#)
- [Stormwater Management Strategy Implementation Plan \(2017\)](#)
- [Five-Year Capital Plan 2019-2024 \(2019\)](#)

KWANTLEN POLYTECHNIC UNIVERSITY (KPU)

Medium

KPU requires that all new buildings achieve LEED Gold or higher and that renovations achieve LEED Silver. KPU's sustainability report highlights the achievement of sustainable water management goals through landscaping.

Documents reviewed:

- [Sustainability at KPU: Where are we Now? \(2014\)](#)

BRITISH COLUMBIA INSTITUTE OF TECHNOLOGY

Low

Documents reviewed:

- [Environmental Protection Policy \(2010\)](#)
- [Strategic Plan 2014-2019](#)

DOUGLAS COLLEGE

Low

Documents reviewed:

- [Douglas College Strategic Plan 2015-2020 \(2015\)](#)

EMILY CARR

Low

Documents reviewed:

- [Eight Commitments to an Emergent Future \(2017\)](#)

LANGARA COLLEGE

Low

Documents reviewed:

- [2020 Strategic Plan \(2016\)](#)
- [Environmental Responsibility \(2001\)](#)

UNIVERSITY OF FRASER VALLEY

Low

Documents reviewed:

- [Letter of Commitment to Sustainability \(2017\)](#)
- [Report on Sustainability \(2017/2018\)](#)

Miscellaneous

VANCOUVER PARK BOARD

Medium

In the Vancouver Park Board's (VPB) Water Conservation Action Plan (2017), the VPB commits to working with the City's Green Infrastructure Implementation team to help Vancouver meet its water reduction goals. It pledges to explore sustainable water management practices and prioritize projects where rain and stormwater can offset potable water use.

Documents reviewed:

- [Water Conservation Action Plan \(2017\)](#)

VANCOUVER SCHOOL BOARD

Medium

There is potential to partner with the Vancouver School Board (VSB) to develop pilot projects. In the Environmental Sustainability Plan, Action 4 endeavors to "make our facility activities learning opportunities." The plan also emphasizes pursuing "big picture" sustainability ideas. Further in person engagement is requirement to understand the practical reality of partnering with the VSB.

Documents reviewed:

- [Long Range Facilities Plan \(2016\)](#)
- [Environmental Sustainability Plan \(2018\)](#)

PORT OF VANCOUVER

Low

Documents reviewed:

- [Port 2050 Scenarios Document \(2015\)](#)
- [Sustainability Highlights \(2017\)](#)

APPENDIX F: STORMWATER INTERAGENCY LIAISON GROUP (SILG) SURVEY RESULTS

APPENDIX F

SILG Survey Results

Distribution

On February 28 the SCARP studio team submitted a 17-question, online survey to the Director of Environmental Management and Quality Control at Metro Vancouver for distribution to the Stormwater Interagency Liaison Group (SILG). A copy of the survey can be found at the end of this section. Facilitated by the region, SILG is made up of member municipalities, the Tsawwassen First Nation, higher orders of government, and researchers. The group provides a forum where policymakers can share knowledge and experience relating to stormwater management, while receiving guidance.

The survey was distributed to 42 individuals and received 10 responses (23.8% response rate). Employees from the following municipalities and departments are represented in the results:

- District of West Vancouver - Environmental Management
- City of Pitt Meadows - Environment
- City of Surrey - Engineering
- City of North Vancouver - Engineering
- City of New Westminster - Planning and Engineering (two survey participants from this municipality completed the survey)
- District of North Vancouver - Permitting and Environmental Protection; Engineering; and Planning (two survey participants from this municipality completed the survey)
- City of Port Moody - Engineering
- City of Delta - Engineering

The purpose of the survey was to gain a broad understanding of current sustainable water management practices among municipalities, as well as their level of familiarity with eco-certifications. Insights from this survey may help gauge community receptiveness to Salmon-Safe certification.

Results

Of participants surveyed, the majority (80%) indicated their municipality encourages private sector use of low impact development (LID) practices including green infrastructure. Two respondents indicated their municipality does this to some degree, with the respondent from the City of Delta indicating that:

“Low impact design is always a priority. Some green infrastructure practices are expected - dependent on feasibility from a cost perspective.”

Of the tools used by municipalities to promote sustainable water management, regulation is the most common (90%) followed by educational resources for urban land developers (40%), and demonstration projects (20%) (**Chart F1**). Development incentives are only used by the District of North Vancouver (**Table F1**).

Chart F1: Tools used by municipalities to encourage adoption of LID practices

Does your municipality align policies with eco-certifications (e.g., LEED, Living Building Certification) or offer incentives to developments that pursue eco-certifications?

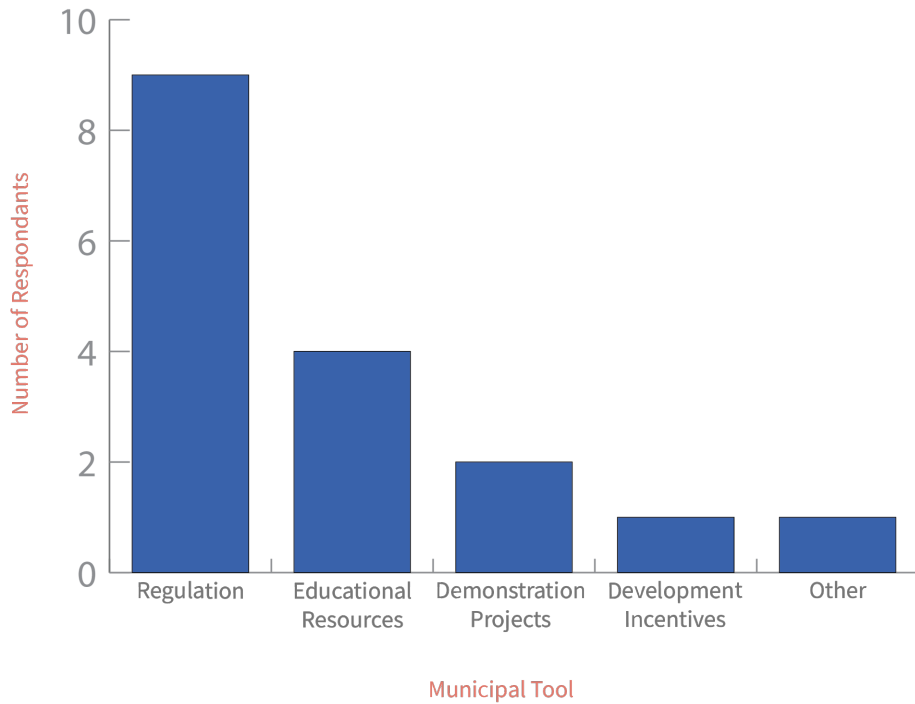


Table F1: Use of tools to encourage LID adoption by municipality

Municipality	Municipal Tool
District of West Vancouver	Regulation
City of Pitt Meadows	Regulation, Educational resources
City of Surrey	Regulation
City of North Vancouver	Regulation, Educational resources
City of New Westminster	Regulation, Educational resources, Demonstration Projects, Other (Development permit guidelines)
District of North Vancouver	Development Incentives, Educational resources, Demonstration Projects
City of Port Moody	Regulation
City of Delta	Regulation

When asked about challenges respondents have encountered when promoting LID practices, concerns about green infrastructure maintenance were most often cited (40%). Respondents from the City of Surrey and City of New Westminster both indicated that their municipalities do not have resources to enforce maintenance standards once the project is completed. For the District of West Vancouver, maintenance concerns have resulted in some staff resistance to green infrastructure.

Respondents also highlighted a lack of industry capacity and/or knowledge as a limiting factor (20%). As noted by the District of North Vancouver, some urban land developers believed that green infrastructure does not perform as well as traditional conveyance infrastructure, while others feared unintended consequences of LID (e.g., land subsidence, slope instability). The City of North Vancouver suggested that “good training resources” for designers and contractors could help build capacity in this sector.

Respondents from the City of Pitt Meadows, City of Surrey, and the District of North Vancouver also indicated that the limited capacity of municipal governments can inhibit efforts. For Pitt Meadows, they do not have resources to review current regulation and recommend adoption of more sustainable water management methods. The participant from this municipality also indicated that there is a lack of political will and public demand for green infrastructure.

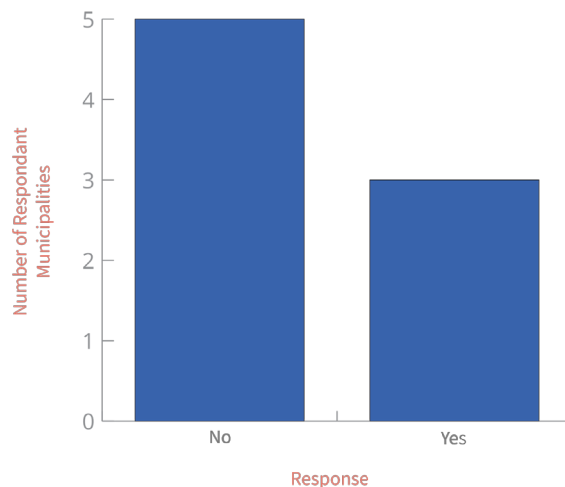
When asked if respondent municipalities use LID practices in the development of public buildings or infrastructure, four municipalities indicated they do so (City of Surrey, City of New Westminster, City of North Vancouver, and City of Port Moody). All other respondents indicated these practices are sometimes used.

Of respondent municipalities, the majority indicated they do not align policies with eco-certifications (**Chart F2**). However, the City of New Westminster, District of North Vancouver, and City of Port Moody stated otherwise. The respondent from the City of Port Moody noted that:

“OCP policies refer to encouraging low carbon energy systems and sustainable building practices for both corporate and community buildings.”

Chart F2: Use of eco-certification tools among municipalities

Does your municipality align policies with eco-certifications (e.g., LEED, Living Building Certification) or offer incentives to developments that pursue eco-certifications?



When asked if the municipality pursues specific eco-certifications in the development of public buildings, only the City of New Westminster indicated they do. The City of Pitt Meadows, City of North Vancouver, District of North Vancouver and City of Delta do sometimes, while the other municipalities represented do not.

Many respondents (60%) indicated they see the benefit of aligning with a site-based certification like Salmon-Safe that promotes sustainable water management practices (**Chart F3**). Only one respondent indicated they do not see any benefit while three (30%) stated they might. These municipalities are listed in **Table F2**. When asked if respondents foresee any challenges in exploring a partnership with a site-based certification like Salmon-Safe, all municipalities apart from the City of Surrey indicated yes. However, none of the respondents detailed these challenges.

Chart F3: Perception of benefits of water management certification alignment by respondents.

Do you see any benefit in aligning with a site-based certification like Salmon-Safe that promotes sustainable water management practices?

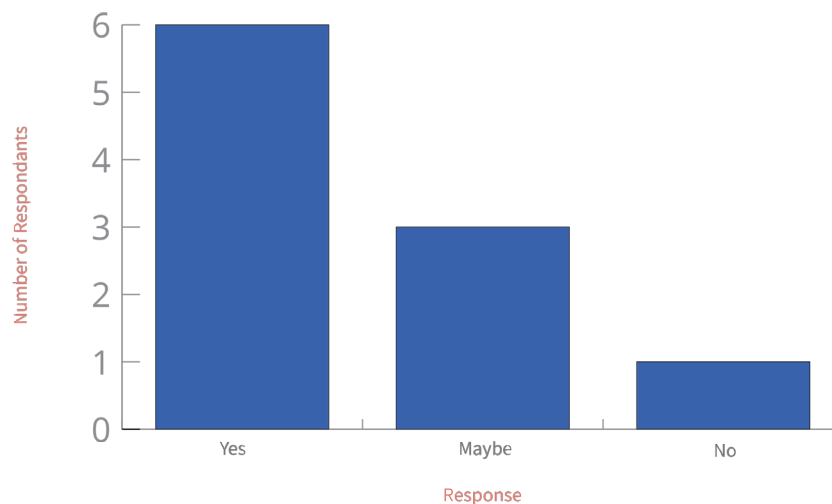


Table F2: Perception of benefits of water management certification alignment by respondents

Do you see any benefit in aligning with a site-based certification like Salmon-Safe that promotes sustainable water management practices?	Respondent
Yes	District of West Vancouver, City of Pitt Meadows, City of North Vancouver, District of North Vancouver (Permitting and Environmental Management), City of Port Moody, City of Delta
Maybe	City of Surrey, City of New Westminster (Engineering), District of North Vancouver (Engineering, Planning, Permitting)
No	City of New Westminster (Planning)

Moving forward, many respondents indicated they will use development of their ISMPs and municipal regulation to promote sustainable water management (70%). The District of West Vancouver intends to use develop stormwater infrastructure regulation in addition to regulating development around riparian areas (an initiative under development by the City of Pitt Meadows). The City of Pitt Meadows indicated that, between 2019 and 2020, sustainable water management will be incorporated into their Official Community Plan review and comprise part of their natural asset inventory and management strategy. Having already developed an ISMP, the City of Port Moody indicated that integrating this into policy will encourage uptake of LID practices.

For municipalities who already use regulatory tools to promote LID and green infrastructure, such as the City of North Vancouver and District of North Vancouver, respondents indicated a focus will be on public outreach and monitoring. The City of Delta noted that municipal initiatives such as their rain gardens program is currently helping them accomplish water management goals and will continue into the future.

Unfortunately none of the respondents indicated whether they had heard of Salmon-Safe certification prior to completing the survey.

Discussion

Responses from this survey illuminate several strategic directions for Salmon-Safe Communities (SSC). Municipalities familiar with eco-certifications who have indicated they foresee a benefit to using a site-based, sustainable water management certification like Salmon-Safe, namely the City of North Vancouver and City of Port Moody, could represent potential partners. As the City of Port Moody integrates their ISMP into regulation, they may welcome the guidance that SSC can provide. Integration of Salmon-Safe certification into policy may help supplement municipal capacity.

Framing certification as a way to build industry capacity, a key concern of survey respondents, may also encourage interest in SSC. Pursuing demonstration projects with municipalities that have highlighted a lack of industry knowledge as a limiting factor in LID uptake (City of North Vancouver and District of North Vancouver), may help grow capacity. In municipalities such as the City of North Vancouver where there are a number of repeat developers engaged in construction, using demonstration projects to assuage concerns and stress the benefits of certification could be strategically smart.

Emphasizing that SSC can supplement limited municipal resources may similarly build program interest. This is particularly true with regard to maintenance concerns. Marketing to municipalities should consider emphasizing that certified sites are reviewed annually and that continuous care of green infrastructure is required to maintain certification. This may be especially attractive to smaller municipalities such as the City of Port Moody and City of Pitt Meadows who have expressed interest in sustainable water management.

Copy of SILG Survey

Welcome to the UBC SCARP Salmon-Safe Communities survey!

We are interested in better understanding municipal approaches to sustainable water management and potential areas of alignment between local governments and the Salmon-Safe Communities program.

Salmon-Safe Communities is the urban land development component of [Salmon-Safe BC](#), Canada's first and only eco-certification program linking land management practices with the protection of watersheds. In Canada, Salmon-Safe BC is administered by the [Fraser Basin Council \(FBC\)](#), a non-profit, non-government organization focused on advancing sustainability throughout BC with a focus on the Fraser River Basin.

This survey should take between 7 to 10 minutes to complete. It is being conducted by students at the School of Community and Regional Planning (University of British Columbia) as a component of a project in partnership with the Fraser Basin Council. Information gathered through this survey will be integrated into a strategic plan and business plan for the Salmon-Safe Communities program.

Your participation in this research is voluntary. You have the right to withdraw at any point during the project, for any reason, and without any prejudice. If you would like to contact the Principal Investigator in the project to discuss this research, please e-mail Wendee Lang at wendee.lang@gmail.com.

- I consent to participate, begin the survey
- I do not consent, I do not wish to participate

1. Please indicate which municipality you currently work for:
2. Please indicate your area of expertise (choose all that apply)
 - a. Engineering
 - b. Planning
 - c. Permitting
 - d. Other:
3. Does your municipality encourage the private sector use of low impact development practices, including use of green infrastructure?
 - a. Yes
 - b. No
 - c. Somewhat (please describe):

4. If yes, please indicate which tools your municipality uses to encourage adoption of low impact development practices, including use of green infrastructure (choose all that apply):
 - a. Development incentives (eg., density bonuses, expedited permitting, reduced permitting fees)
 - b. Regulation (eg., by-law requirements)
 - c. Educational resources for urban developers
 - d. Demonstration projects
 - e. Other (please describe):
5. Please describe any challenges you have encountered when encouraging use of low impact development practices, including green infrastructure.
6. Does your municipality use low impact development practices in the development of public buildings or infrastructure?
 - a. Yes
 - b. No
 - c. Sometimes
7. Does your municipality align policies with eco-certifications (e.g., LEED, Living Building Certification) or offer incentives to developments that pursue eco-certifications?
 - a. Yes
 - b. No
8. If yes, please indicate which certifications your municipality encourages developments pursue:
9. If yes, please describe how policy aligns with this eco-certification and/or the incentive structure used to encourage pursuit of certification.
10. Does your government pursue specific eco-certifications when developing public buildings?
 - a. Yes
 - b. No
 - c. Sometimes

11. Do you see any benefit in aligning with a site-based certification like Salmon-Safe that promotes sustainable water management practices?
 - a. Yes
 - b. No
 - c. Sometimes
12. Do you foresee any challenges in aligning with a site-based certification like Salmon-Safe?
 - a. Yes
 - b. No
13. If yes, please describe these challenges.
14. Thinking about the future, how is your government planning to promote sustainable water management in urban development (if at all)? Please describe.

APPENDIX G: POTENTIAL FUNDRAISING SOURCES

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Potential Fundraising Sources

The following pages outline a list of current funding sources available for Salmon- Safe communities to pursue. These sources were identified through desktop research and a media scan.

Title: British Columbia Salmon Restoration and Innovation Fund

Source: Government of British Columbia

Amount: Total fund is \$142 million. Specific amount available to individual projects is not listed.

Timeline: Expression of interest must be submitted by April 15, 2019.

Description: Funds projects that support the protection and restoration of wild Pacific salmon and other BC fish stocks.

Learn More:

<http://www.dfo-mpo.gc.ca/fm-gp/initiatives/fish-fund-bc-fonds-peche-cb/apply-demande-page04-eng.html>

Title: Capital project: Stormwater quality, community project

Source: Federation of Canadian Municipalities

Amount: Loan of up to \$5 million. Up to 15% may be a grant instead of a loan.

Timeline: Expression of interest must be submitted by August 1, 2019.

Description: The primary applicant has to be a municipality, but a non profit partner is eligible to participate. Funds capital projects that allow a community to remove 60% of total suspended solids (TSS) or a significant amount of other contaminants from its stormwater runoff.

Learn More:

<https://fcm.ca/en/funding/gmf/capital-project-stormwater-quality-community-project>

Title: Coastal Restoration Fund

Source: Government of Canada

Amount: \$100,000.00 to \$500,000.00 per year over three years.

Timeline: Dates not yet announced for 2019.

Description: Funds projects that protect coastal ecosystems.

Learn More:

<http://www.dfo-mpo.gc.ca/oceans/crf-frc/index-eng.html>

Title: Community Gaming Grants

Source: Government of British Columbia

Amount: Up to \$225,000.00.

Timeline: July 1 to August 31 2019.

Description: Funds projects that center on BC's ecosystems and environment.

Learn More:

<https://www2.gov.bc.ca/assets/gov/sports-recreation-arts-and-culture/gambling/grants/guide-cgg.pdf>

Title: Community Partnership Program

Source: Vancity

Amount: Up to \$10,000.00.

Timeline: Rolling applications.

Description: Supports organizations that advance environmental sustainability.

Learn More:

<https://www.vancity.com/AboutVancity/InvestingInCommunities/Grants/CommunityPartnershipProgram/ProgramGuidelinesAndCriteria/>

Title: Community Sustainability Projects

Source: Vancity

Amount: Up to \$10,000.00.

Timeline: Rolling applications.

Description: Funds projects that create opportunities for collective action. It may be a fit for SSC's community of practice objectives.

Learn More:

<https://www.vancity.com/AboutVancity/InvestingInCommunities/Grants/enviroFund/PriorityAreaCommunitySustainabilityProjects/index.jsp>

Title: EcoAction Community Fund

Source: Government of Canada

Amount: \$25,000.00 to \$100,000.00. The sum cannot amount exceed 50% of the project costs.

Timeline: Dates for 2019 not yet announced.

Description: Funds projects that improve and support the restoration of aquatic water habitat.

Learn More:

<https://www.canada.ca/en/environment-climate-change/services/environmental-funding/ecoaction-community-program/call-proposals.html>

Title: NHS Research and Planning Fund

Source: CMHC

Amount: Up to \$250,000.00. Must contribute 25% of total amount requested.

Timeline: Next call for applications opens April 24th, 2019.

Description: Funding to undertake housing related research. Sustainable Housing and Communities is a priority theme area.

Learn More:

<https://www.cmhc-schl.gc.ca/en/nhs/research-and-planning-fund>

Title: Pilot project: Stormwater quality, community project

Source: Federation of Canadian Municipalities

Amount: Up to \$350,000.00. The grant may cover up to 50% of project costs.

Timeline: Applications are accepted year round.

Description: The primary applicant has to be a municipality, but a non profit partner is eligible to participate. Funds pilot projects that allow a community to remove 60% of total suspended solids (TSS) or a significant amount of other contaminants from its stormwater runoff.

Learn More:

<https://fcm.ca/en/funding/gmf/capital-project-stormwater-quality-community-project>

Title: Social Innovation Project Grants

Source: City of Vancouver

Amount: Up to \$100,000.00.

Timeline: Dates for 2019 not yet announced.

Description: Funds projects that apply new learnings to address systems change.

Learn More:

<https://vancouver.ca/people-programs/social-innovation-project-grants.aspx>

Title: System Change Grants

Source: The Vancouver Foundation

Amount: Up to \$100,000.00 for 3 years.

Timeline: The next funding cycle opens July 2, 2019.

Description: Funds projects that tackle the root cause of the issue. There are two relevant funding streams. Test grants allow organizations to measure their impact on the system and see what works. Scale grants allow organizations to extend their existing influence.

Learn More:

<https://vancouver.ca/people-programs/social-innovation-project-grants.aspx>

