Opportunities to Improve Urban Development Practices to Create Salmon-Safe Cities

Highlights of a Research Project

About the Research Study

A joint research study by the Pacific Water Research Center (PWRC) and the Fraser Basin Council (FBC) points to the use of nature-based solutions for protecting salmon and aquatic habitats. The study, *Creating Safe Cities for Salmon: Exploring How Government Policy Aligns with the Salmon-Safe Urban Standards*, funded by Mitacs, identifies salmon friendly urban development policies that will advance progressive land and water management in the Lower Mainland. Salmon face various threats in the Lower Fraser Watershed, including habitat loss due to urban development and toxic stormwater runoff, which is projected to worsen due to climate change-driven extreme rain events.

Driven by an interest in addressing these issues, Andrea McDonald, a student researcher at the School of Resource and Environmental Management at Simon Fraser University (SFU), conducted a review of land and water management policies in the Lower Fraser Watershed. McDonald's research includes a policy comparison that ranks alignment in performance requirements and language between current policies and the seven Salmon-Safe BC urban development standards. These standards focus on rainwater management, pollutant control, habitat restoration and enhancement, and water conservation.

"Different governments regulate a variety of watershed management and water quality protection issues, so it's a complex framework, and development requirements vary community to community"
- Andrea McDonald, SFU Student Researcher

Alignment with the Salmon-Safe Standards

According to McDonald, over 90 percent of her study participants agreed that urban development practices compromise the long-term health of the Lower Fraser watershed and that nature-based solutions play a valuable role in driving sustainability and resilience efforts. The study makes note of policy and regulation gaps and calls for engaging municipal governments and the general public in opportunities to apply nature-based solutions for healthy watersheds and salmon protection.

As a voluntary eco-certification program, Salmon-Safe BC recognizes progressive land and water management practices, including those on urban development sites. The Urban Standards present municipalities with an opportunity to raise the bar, demonstrate leadership and go beyond compliance.

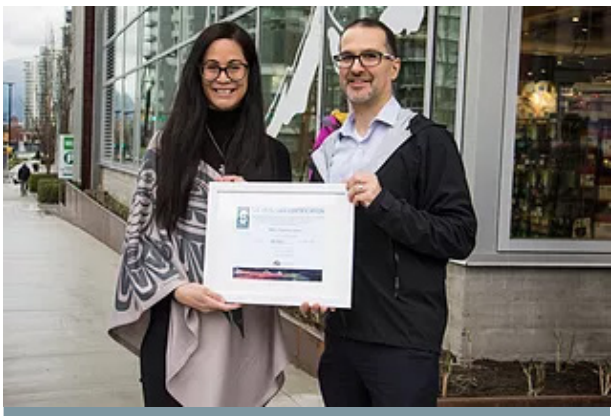

Photo: Theresa Fresco, Salmon-Safe BC Program Manager, at the MEC flagship store in Vancouver, which was Salmon-Safe certified in 2019.

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Opportunities for Moving Forward

McDonald's research findings highlight an exciting opportunity to further advance the uptake of salmon friendly urban development practices, and Salmon-Safe BC invites developers and governments to come forward and collaborate. Existent community practices, such as the District of North Vancouver's Streamside Protection Development Permit Area, City of Surrey's Integrated Stormwater Management Plan, and City of Delta's Green Growth Index for land development applications, are encouraging. The report underscores that municipalities can go beyond compliance and highlights areas to do so. Residential and commercial developers can refer to the Salmon-Safe certification requirements to adopt consistent high standards of care for lands developed and managed.

Many developers have indicated interest in aligning with land and water management best practices across communities. Salmon-Safe BC has already certified three urban sites, including MEC Head Office, YVR Airport and MEC Flagship store and has a growing number of sites in progress. With interest in progressive development practices growing, Salmon-Safe BC invites municipalities and developers to connect with the program to learn more. Salmon-Safe BC strives to improve its standards and will embrace ideas from the report, such as incorporating climate resilience and advancing public stewardship education.

"This snapshot tells us that Lower Mainland municipalities value the health of the environment and that there is considerable alignment with the work we are doing. Five critical challenges for future development in the region are how to best manage stormwater, reduce water use, prevent erosion and control sediments, reduce pesticides and improve overall ecological function."
- Theresa Fresco, Salmon-Safe BC Program Manager.

Access the full report here:
https://www.sfu.ca/pwrc/reports/creating-safe-cities-for-salmon.html

The assessment team at the MEC flagship store in Vancouver, which was Salmon-Safe certified in 2020. The store has a green roof and a blue roof to collect rainwater. and an underground cistern to store and reuse it for non-potable purposes.

About the Researcher

Andrea McDonald is a graduate student in the School of Resources and Environmental Management at Simon Fraser University and a lead investigator in the joint PWRC-FBC Study.

Contact

Fraser Basin Council
(Salmon-Safe BC program inquiries)
Contact: Theresa Fresco,
Program Manager, Salmon-Safe BC
E: tfresco@fraserbasin.bc.ca | T: 604-488-5363

Pacific Water Research Centre
(Research paper inquiries)
Contact: Jenny Koo,
Communications Coordinator
E: jenny_koo@sfu.ca

Zafar Adeel,
Executive Director, Pacific Water Research Centre
E: zafar_adeel@sfu.ca | T: 778-782-4378