

Lower Suter Brook Creek Enhancement

Date:	September 9, 2022
Department, GM:	Community Services, Anna Mathewson
Project Manager:	Julie Pavey-Tomlinson
Staff Lead:	Angela Crampton
Project Origin:	<input type="checkbox"/> Council Motion <input checked="" type="checkbox"/> Staff Initiated <input type="checkbox"/> Other:
Priority Area:	<input type="checkbox"/> Exceptional Service <input checked="" type="checkbox"/> Environmental Leadership <input type="checkbox"/> Healthy City <input type="checkbox"/> Economic Prosperity <input type="checkbox"/> Community Evolution
Strategic Alignment	Objective & Action 2.3 - Expand and make the most of our parks and green spaces and design them to create positive and diverse experiences throughout the community
Proposed Priority	<input type="checkbox"/> Priority Level 1 <input type="checkbox"/> Priority Level 2 <input checked="" type="checkbox"/> Priority Level 3

Project Description

Enhancement of Lower Suter Brook Creek to protect and strengthen this high biodiversity area and create balance with current and future uses and infrastructure needs.

Relevant Background

Suter Brook Creek is an almost fully intact and forested watershed flowing from headwaters in Coquitlam and discharging in Burrard Inlet, a rarity in the Lower Mainland. This high sensitivity ESA provides habitat for a range of aquatic and terrestrial species, including salmon. The greenway from Inlet Centre Station/St Johns to Murray Street has been protected and designated park land through development of Suterbrook Village. The portion of the creek from Shoreline Trail to Burrard Inlet is also designated as park land. Lower Suter Brook Creek refers to the reach between Shoreline Trail / CPR and Murray Street. Part of this reach was daylighted in the 1990s. This stretch of creek and adjacent public land is an important component of this fish and wildlife corridor that provides a range of habitat types as well as ecosystem services, especially for stormwater management.

In 2022, opportunities for Lower Suter Brook Creek enhancements were identified by City consultant KWL from a technical assessment of current conditions and limitations in this reach, taking into consideration upstream and downstream conditions.

The proposed works will follow an ecosystem-based approach intended to enhance and connect habitat to benefit a variety of native animal and plant species. Staff and KWL have developed recommendations with climate resiliency in mind to address flow variation and flooding, water quality mitigation through natural infrastructure, and adaptation through selecting appropriate plant and tree species. Works include:

- Invasive plant control
- Enhancement planting
- Instream debris clean-up
- Instream gradient and passage improvements
- Trail renovations (including fencing and boardwalks)
- Replacement and removal of culverts
- Tributary enhancements including pond and wetland features
- Trailside wetland development
- Mainstem erosion protection
- Educational signage and kiosks

Initial work will be needed to complete feasibility assessment and detailed designs.

Project Objectives

- Enhance existing natural assets and processes to improve habitat condition, complexity and connectivity
- Create resiliency to climate change and other impacts in riparian forest, wetland and instream habitats
- Improve trail conditions and trail experience, including through trail construction, environmental education and observation features
- Support co-existence principles identified in Beaver Management Plan
- Coordinate with other City projects to minimize overall impacts to the public, park users, utilities, and adjacent City land
- Determine Class 'A' cost estimate for construction to inform budget planning and phased implementation (if grant is unsuccessful)

Scope

In Scope

- Apply for grant(s)
- Finalize scope of work for multi-phase project and release RFP
- Select contractor for multi-phase work (feasibility, detailed design, implementation) dependent on funding
- Complete feasibility study to validate project concepts
- Undertake stakeholder engagement with civic committees and stewardship groups
- Develop detailed design with 50%, and 95% design review by City:
 - From Murray Street downstream to CPR crossing at Shoreline Trail, within riparian corridor
 - Instream works throughout creek, tributary, pond and wetland
 - Forest health assessment, invasive removal, planting prescriptions

	<ul style="list-style-type: none"> ○ Installation and improvement of stormwater inputs, including base flow and bioswale ○ Trail alignment and renovations, including boardwalk ○ Design park entry improvements at Civic Complex trail head - Determine Class A construction costs, develop construction staging plans - Apply for permitting and approvals as needed from authorities - Implement works
Out of Scope	<ul style="list-style-type: none"> - Public engagement - Improvements to park entry - Tendering and construction of the work is subject to grant applications and funding approvals

Work Plan Overview	
Project start date: September 2022	Project end date: December 2024 (depending on funding)
<i>Deliverable/Milestone:</i>	<i>Date:</i>
Apply for Natural Infrastructure Fund grant	September 2022
Prepare and release multi-year RFP	September/October 2022
Feasibility study	December 2022
Engage stakeholders	March 2023
Detailed design	April 2023
Regulatory approvals	May 2023
Instream works (two seasons)	September 2023/September 2024
Invasive removal and riparian enhancement	November 2024
Trail renovation	November 2024
Grant reporting	December 2024

Budget	
Budget Source:	
Feasibility Study (2022 Capital Plan ES22006)	\$20,000 (consultant)
Detailed Design (2023 Capital Plan request)	\$225,000

Implementation (2024 Capital Plan request)	\$200,000
External Funding (NIF and/or other grant)	Up to \$800,000*

**Note that detailed designs are expected to lower conservative costs estimated in conceptual plan*

Decision Notes (Corporate Planning Advisor use only)		
Date	Meeting	Decision