



February 28, 2020

TO: Park Board Chair and Commissioners
FROM: General Manager – Vancouver Board of Parks and Recreation
SUBJECT: Tatlow & Volunteer Parks Creek Daylighting - Conceptual Plan

RECOMMENDATION

THAT the Vancouver Park Board approve the proposed Conceptual Plan of Creek Daylighting through Tatlow and Volunteer parks, as outlined in this report, and shown in Appendix A.

REPORT SUMMARY

An historic creek once flowed through Tatlow and Volunteer parks, which is within the traditional territories of the Musqueam, Squamish, and Tsleil-Waututh Nations and is a culturally significant place. Restoration or “daylighting” of the creek has been proposed by Park Board and City staff, as well local advocacy groups, for many years. In 2014, Point Grey Road, which separated the two parks, was closed to vehicle traffic allowing for Park Board staff to commence design work for the creek restoration. The purpose of this report is to share the findings of the public engagement and First Nations consultation processes, and to seek Board approval of the proposed improvements planned for Tatlow and Volunteer parks (see Appendix A) so that staff can proceed with detailed design.

POLICY

As per the [Vancouver Charter](#), the Park Board has exclusive jurisdiction and control over all areas designated as permanent and temporary parks in the City of Vancouver, including any structures, programs and activities, fees, and improvements or major changes that occur within those parks.

The proposed changes in Tatlow and Volunteer parks are supported by principles outlined within the following guiding documents and strategies:

- [Greenest City Action Plan](#) (2010): Sets two targets to improve access to nature (150,000 trees and 5 min walk to greenspace).
- [Urban Forest Strategy](#) (2014): Policy and operational guidelines to enhance the urban forest on private lands, streets, and parks.
- [Bird Strategy](#) (2015): Celebrates the importance of birds in Vancouver, and provides voluntary landscape guidelines to enhance urban bird habitats.
- [Biodiversity Strategy](#) (2016): Increases the amount and quality of Vancouver’s natural areas to support biodiversity and access to nature.

- [Park Board Reconciliation Strategies](#) (2016): Commitment to move forward on the actions recommended by the Truth and Reconciliation Commission of Canada (2015) that are within Park Board's jurisdiction.
- [People, Parks and Dogs Strategy](#) (2017): Promotes the comfort and safety of all park users by fostering responsible dog ownership and clarifying rules, boundaries and etiquette for dog off-leash activity in parks.
- [VanPlay - 10 Goals to Shape the Next 25 Years](#) (2018): Goals include, adapting to a changing climate (Goal 5), restoring wild spaces (Goal 7) and Seek Truth as a Foundation for Reconciliation (Goal 8). Additional details on how this creek daylighting project aligns with all 10 VanPlay goals are included in Appendix B.
- [Climate Emergency Response](#) (2019): Contains big moves to reduce Vancouver's carbon pollution including a goal to restore forests and coastal ecosystems (Big Move 6).
- [Rain City Strategy](#) (2019): Reimagines and transforms how the city manages rainwater with the goals of improving water quality, resilience, and livability through creating healthy urban ecosystems in partnership across the City of Vancouver.

BACKGROUND

Prior to European contact, a healthy creek (currently referred to as Tatlow or First Creek) once flowed from approximately West 20th Avenue north past Connaught Park, then through Tatlow Park and out to English Bay through Volunteer Park and the adjacent private property to the west (see Appendix C).

These lands are within the traditional territories of the Musqueam, Squamish and Tsleil-Waututh Nations, and the creek is a culturally significant place as it was close to a densely populated coastal village. The BC Site Inventory lists an archaeological site in the area (near the boundaries of Volunteer Park), referred to as Zumzamuls or Sim-sah-muls (Suttle 1998; tool sharpening stone). Additionally, the [Musqueam place names map](#) lists a shoreline site near Volunteer Park and a site farther south along the creek with həŋqəmiŋəŋ names.

The processes of colonization and city development resulted in the majority of streams and creeks being buried or diverted, as was the case for Tatlow Creek. Today, a short section of ravine still exists in Tatlow Park and was, until recently, fed by potable water during the summer. The creek now enters a culvert at Point Grey Road and discharges into English Bay.

Historically, the creek conveyed groundwater and rainwater through a densely vegetated channel within the local coastal rainforest environment teeming with life. As the freshwater creek reached the salt waters of English Bay, the tidal patterns would have facilitated nutrient exchange creating a fertile and abundant aquatic habitat and providing sustenance for the wildlife and people that inhabited this area.

Daylighting

Daylighting is the term for restoration of an originally open-air watercourse, which was at some point diverted below ground, back into an above-ground channel. Daylighting the creek in Tatlow and Volunteer parks has been suggested by Park Board staff, City staff, and community members for more than two decades and has strong support from advocacy groups.

Daylighting the creek has also been the focus of at least two UBC master's thesis projects, and highlighted in multiple local publications.

Park Connectivity across Point Grey Road

Volunteer Park and Tatlow Park are bisected by Point Grey Road (see project site map in Appendix D). In 2014, work was completed to convert Point Grey Road to a local street by closing it to vehicular through-traffic at Macdonald Street, and building the Seaside Greenway to support a continuous walking and cycling route between the Burrard Street Bridge and Jericho Beach Park. Daylighting the creek through Tatlow and Volunteer parks will require cutting across Point Grey Road and the limitations to vehicle traffic allows for greater flexibility in the creek design and overall connectivity between the two parks.

Partnerships & Funding

The creek daylighting project in Volunteer and Tatlow Parks was identified as a priority in the 2015 - 2018 Capital Plan. In 2016, the Vancouver Park Board signed a donation agreement with the Riley Foundation to provide financial contributions towards the project. Additional funding to complete this project has been allocated in the 2019 - 2022 Capital Plan.

Design Process

Staff have been working on the design of the restored creek and associated improvements in the parks since 2016. Park Board staff are also working with City Engineering staff on the crossing at Point Grey Road and to coordinate water supply for the creek from the City's separated storm system. The design goals leading this project are to:

- Connect the existing stream in Tatlow Park to English Bay through Volunteer Park;
- Implement sustainable storm-water management strategies;
- Improve the quality of water entering English Bay;
- Improve accessible shoreline access to the beach;
- Increase biodiversity through the planting of native plants;
- Create habitat for bird, aquatic and pollinator species;
- Restore and enhance riparian shoreline;
- Provide educational opportunities for the community; and
- Improve amenities including landscaping, pathways and seating.

DISCUSSION

Public Engagement Process

Public engagement for the creek daylighting sought feedback on all proposed changes in both parks as outlined below. The process included three public open houses, two public questionnaires, and review with stakeholder groups.

Open House #1

The first public open house was held in Volunteer Park on March 8, 2017, to gather feedback on initial concepts for the project. A link to the [March 2017 open house information displays](#) is provided on the [project webpage](#).

Members of the public were asked to provide feedback on:

- biodiversity initiatives and educational opportunities;
- pedestrian circulation;
- new park amenities such as seating; and
- overall layout of the creek and associated materials.

A total of 218 respondents completed the questionnaire, providing an overall positive response to the project. Some of the concerns identified included:

- the need to maintain passive space in the park for general public use;
- potential conflicts with frequent but informal dog off-leash use of Volunteer Park; and
- deterioration to the narrow beach caused by improved accessibility to the shoreline.

Feedback from the first open house provided guidance to the revised conceptual plans that were considered at the third open house.

Open House #2

The second public open house was held in Volunteer Park on September 9, 2017. The purpose of this event was solely educational and was an opportunity for the public to learn about how storm-water from the surrounding neighbourhood would reach the creek.

Information regarding actions that individuals could take to improve water quality was also provided and outcomes of the initial engineering study were shared. A link to the [September 2017 open house boards](#) is provided on the [project webpage](#).

Open House #3

The third public open house was held at the Vancouver Public Library, Kitsilano Branch on January 27, 2018. A link to the [January 2018 open house information display](#) is provided on the [project webpage](#).

Members of the public were asked to provide feedback on:

- the proposed concept plan;
- the associated amenities preferred for the parks; and
- whether the project might change personal behaviours related to the park and/or local environment.

A total of 171 respondents completed the questionnaire with high overall support provided for the project. Notably, many respondents indicated the project was likely to increase the frequency of their visits to the park in all seasons and would likely influence their personal behaviours at home and in the neighbourhood where the health of storm-water was concerned. In addition to comments on the proposed improvements, other feedback was received including:

- interest in renewal of the playground in Tatlow Park;
- concerns both in support of and opposed to ongoing off-leash dog use of Volunteer Park; and

- concerns regarding the safety of pedestrians crossing between Volunteer and Tatlow parks, and the need for cycling calming measures.

These factors were evaluated and will be addressed in the future, as described below and in the considerations section of this report.

First Nations Consultation

At the outset of this project in 2016, staff sent referral forms to each of the representative governments of Musqueam, Squamish and Tsleil-Waututh Nations. Tsleil-Waututh and Squamish Nations confirmed their support to proceed with the project; no response was received from the Musqueam Indian Band at that time.

In 2018, subsequent to the public engagement process, staff were contacted by the Musqueam Indian Band with a request for deeper involvement on this project. Accordingly, the project schedule was modified to accommodate an internal consultation process between the Musqueam Indian Band and Park Board staff. To date, three meetings have been conducted. Key learnings from this process so far are:

- the Musqueam people know this creek well and hold a long history of knowledge about it;
- opportunities for educational interpretive elements should be included;
- exploring a potential official indigenous name of the creek;
- ecological health should be prioritized above all else for this project;
- dogs should be limited from the restoration area to support the establishment of other sensitive species.

A draft work plan for opportunities to deliver the project with the Musqueam Indian Band has been developed, and further consultation is being sought from the Squamish and Tsleil-Waututh band offices. This project approach aligns directly with the Park Board's [Reconciliation Strategies](#) and VanPlay Goal 8: Seek Truth as a Foundation for Reconciliation.

Archaeology

Due to the significance of the Zumzamuls or Sim-sah-muls site described above, an Archaeological Impact Assessment (AIA) will be conducted to understand the potential impacts of the proposed creek alignment and subsequent excavation. Archaeologists from Musqueam, Squamish and Tsleil-Waututh Nations are collaborating on a shared AIA process for this project.

Creek Design and Associated Improvements

The proposed concept plan for the creek daylighting project in Tatlow and Volunteer parks is illustrated in Appendix A. Storm-water will enter Tatlow Park through a new storm-pipe on Macdonald Street. The creek will follow the current riparian channel alignment in Tatlow Park, with the addition of a new wetland feature in the north end of the park at Point Grey Road. The creek will then cross the road as an open-course channel with a pedestrian bridge over top. On the other side of Point Grey Road, the creek will meander down the west side of Volunteer Park before making a final outfall to English Bay over a naturalized boulder embankment.

The proposed concept includes the following additional features:

- creek channel lined with native riparian plantings and intermittent rock, boulder and log features;
- crushed gravel path providing access to the restoration areas and separating between the open lawn area;
- wild grass meadow on the west side of the creek to increase planting diversity and increase bird and pollinator habitat;
- twenty+ new trees;
- wooden bridge lookout at the creek outfall;
- accessible pedestrian access to the shore and gathering areas;
- picnic and bench seating;
- new bike racks;
- rain gardens on Point Grey Road and Macdonald Street;
- wave breakers and restoration work on the foreshore; and
- interpretive/educational elements.

Water Quality & Volume

Water for the creek will primarily come from the City's underground separated storm system and be directed to the creek for further natural filtering processes of aeration and sedimentation. Improving the water quality that flows into English Bay contributes to long-term goals to re-open closed shellfish beds and re-enable First Nations traditional cultural practices in parts of Burrard Inlet.

Water volume in the creek will mimic local weather patterns. The highest flows can be expected to occur in the fall and winter months when Vancouver receives the most rainfall. In the summer months when there is very little rain, there may be little to no flow in the creek.

OTHER CONSIDERATIONS

Playground Renewal

Due to its age and condition, The existing playground in Tatlow Park was identified as a priority for replacement in the 2015 audit of Park Board play-spaces. Staff will explore the potential for renewal of the playground, contingent upon results of the Archaeological Impact Assessment and pending further consultation with the representative governments of Musqueam, Squamish, and Tsleil-Waututh Nations.

Dog Off-Leash Areas

Both Tatlow and Volunteer parks are on-leash parks, however many residents use the parks for off-leash dog exercise (especially Volunteer Park). As per the [Dog Off-leash Service Areas map](#) included in the approved [People, Parks and Dogs Strategy](#), both parks fall within an area of the city that is more than a 15 minute walk from an existing off-leash area. Staff are currently working to locate a new off-leash area in the Kitsilano neighbourhood.

The design recommendations of the People, Parks and Dogs Strategy support limiting off-leash dog areas away from ecologically-sensitive areas, such as stream corridors, which is also in accordance with feedback received from the Musqueam Indian Band. For these reasons, staff

will not be considering either Tatlow or Volunteer parks for an off-leash area. While it is recommended that dog access be limited from the restoration area, a significant portion of both parks will remain open to on-leash dogs and separated through low-level fencing.

NEXT STEPS

Subject to the Board's approval of the recommendations outlined in this report, detail design for the creek daylighting and associated park improvements will commence. Contingent on the results of the Archaeology Impact Assessment and any required environmental permitting, the project would be tendered in early 2021, with construction targeted to commence in summer 2021. Construction of these features is estimated to take eight to ten (8-10) months to complete.

Park Board staff will continue to work with City Engineering staff on the creek crossing at Point Grey Road, ensuring a safe connection for pedestrians between the two parks.

CONCLUSION

Creek daylighting in Tatlow and Volunteer parks has high overall community support, and the project aligns with Park Board and City policy goals to increase access to nature, create new habitat areas, and manage and treat storm water through natural features. The project has support from the representative governments of Musqueam, Squamish and Tsleil-Waututh Nations, and a unique opportunity exists for collaboration on project delivery.

Staff recommend the Vancouver Park Board approve the proposed concept for a restored creek through Tatlow and Volunteer parks so that the project can proceed to detail design of the proposed improvements.

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Creek Daylighting in Tatlow & Volunteer Parks - Proposed Conceptual Plan



Aerial View of Conceptual Plan to Daylight Creek through Tatlow & Volunteer Parks

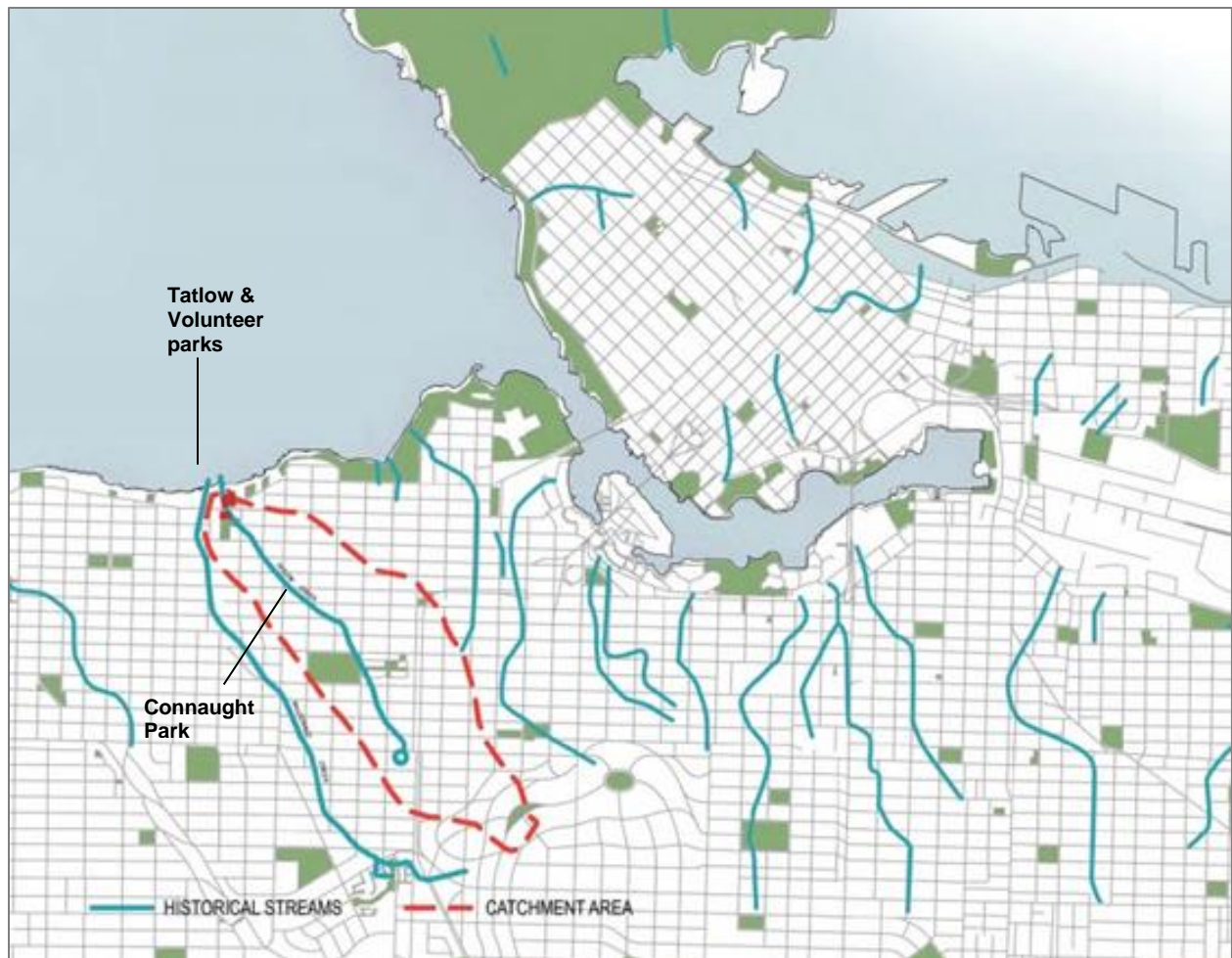


Artistic Rendering of Creek Outfall to English Bay through Volunteer Park

Creek Daylighting Project - Alignment with VanPlay 10 Goals

VanPlay Goals	Project Actions
1. Grow & Renew	<ul style="list-style-type: none"> - Repurpose portion of both parks for creek daylighting and associated improvements
2. Protect Existing Parks	<ul style="list-style-type: none"> - Reinvesting in park infrastructure
3. Prioritize Resource Delivery	<ul style="list-style-type: none"> - Renewal of playground in Tatlow Park as prioritized through 2015 play space audit
4. Focus & Support Partners	<ul style="list-style-type: none"> - Collaboration internally between Engineering and Park Board on creek design and public consultation - Consultation on park changes with stakeholder groups and wider community
5. Adapt to a Changing Climate	<ul style="list-style-type: none"> - Creek will function as rainwater management feature, reducing load on sewer infrastructure during more intense storm events - Outfall of the creek the outlet will be designed for 1.0 m of sea level rise for the year 2100 as per the City of Vancouver – Coastal Flood Risk Assessment
6. Create a Green Network	<ul style="list-style-type: none"> - Creek will span across road to connect both parks - Improved access to shoreline
7. Restore Wild Spaces	<ul style="list-style-type: none"> - Creation of riparian habitat and wetland - Creation of meadow habitat - Foreshore improvements for forage fish
8. Welcoming Spaces For All	<ul style="list-style-type: none"> - Improve overall accessibility of park - Improve pedestrian crossing between parks
9. Seek Truth & Reconciliation	<ul style="list-style-type: none"> - Ongoing consultation on project design, stewardship and interpretive opportunities
10. Secure Adequate Funding	<ul style="list-style-type: none"> - Project is funded through 2019-2022 capital plan - Donation received for portion of project

Historic Creek and Catchment Area



Historic Alignment of Tatlow Creek

Creek Daylighting Project - Site Map



Existing Creek Channel in Tatlow Park