

1. Bear Creek Park Improvements Project

That Council:

1. Receive the Bear Creek Park Improvements Project report dated November 9, 2023, for information; and
2. Endorse the proposed improvements recommended from the “Bear Creek Park Improvement Project (Sub-Committee to ECCC)”, as discussed in this report.

Present:

Councillor M. Bose, Vice-Chair
D. Jack
M. Lamont
D. Smith
S. Sajda

Absent:

Mayor Locke, Chairperson
K. Purton

Staff Present:

Y. Yohannes, Manager, Utilities
N. Aven, Director, Parks
V. Jhingan, Director, Design and Construction
R. Villarreal, Director, Transportation
D. Harkness, Manager, Parking Services
L. Ayach, Environment Technologist
A. Sodha, Administrative Assistant

Councillor Bose assumed the role of the Chair.

A. ADOPTIONS**1. Adoption of the Agenda**

It was Moved by S. Sajda
Seconded by D. Jack
That the agenda of the Environment and
Climate Change Committee meeting of November 15, 2023, be adopted.
Carried

2. Adoption of the Minutes**(a) Environment and Climate Change Committee – October 11, 2023**

It was Moved by S. Sajda
Seconded by M. Lamont
That the minutes of the Environment and
Climate Change Committee meeting held on October 11, 2023, be adopted.
Carried

(b) Bear Creek Improvement Project Sub-Committee – October 26, 2023

It was Moved by D. Jack
Seconded by S. Sajda
That:

1. The minutes of the October 26, 2023, Bear Creek Improvement Project Sub-Committee be amended by adding the following sentence:

The Sub-Committee unanimously requested that staff ascertain how the southlands can be included in the protection of Bear Creek Park by including these lands in "Surrey Parks Dedication By-law, 1073, No. 4100", which was adopted in 1973 and included the affirmative vote of the citizens.

2. The minutes be adopted as amended.

Carried

B. STAFF PRESENTATIONS

1. The Future of Sustainable Transportation in Surrey Part 1: Supporting Electric Vehicles

The Director of Transportation provided a PowerPoint presentation on the future of sustainable transportation in Surrey, highlighting the following information:

Surrey's comprehensive sustainable transportation plan encompasses various facets, beginning with a focus on electric vehicles (EVs) in Part 1. Aligned with the Climate Change Action Strategy, Surrey envisions a city with environmentally friendly transportation options by 2050. Prioritizing safety, walk and bike networks, rapid transit, and increased investments in sustainability, the plan sets ambitious 2050 targets, including zero serious injuries, a 50% non-car mode share, and net zero greenhouse gas emissions from transportation. The discussion on supporting EVs delves into market trends, with 10.5% of Canadian vehicle sales now being EVs and notable adoption rates in BC and Quebec. Surrey's EV charging network, developed over a decade, boasts significant growth, contributing to reduced greenhouse gas emissions. The plan is supported by ongoing updates to commercial and residential EV infrastructure requirements, policy initiatives, and corporate partnerships, including revenue generation from user fees and carbon credits. Future steps involve potential updates to installation requirements and exploration of residential charger installations. The series continues with upcoming parts on walking, cycling, and transit.

2. Surrey's Natural Areas Partnership (SNAP)

The Director of Parks provided a PowerPoint presentation on the overview of SNAP, highlighting the following information:

Established in 2001, Surrey's Natural Areas Partnership (SNAP) is a collaboration between three local non-profit societies—the Green Timbers Heritage Society, Sunnyside Acres Heritage Society, and White Rock and Surrey Naturalists—working in conjunction with the City of Surrey Parks Division. SNAP's mission revolves around the restoration and enhancement of Surrey's urban forest, promoting environmental stewardship, and empowering youth for leadership roles in environmental conservation. Funding comes from the City of Surrey, along with grants from sources like Canada Summer Jobs, Young Canada Works, TD Friends of the Environment, and Nature Canada. SNAP's youth empowerment initiatives provide practical career experience in environmental education and conservation. The organization operates two teams: the Field Team, focusing on habitat restoration and biodiversity monitoring, and the Urban Forest Outreach Team, engaging in community awareness and events. Over its 23-year span, SNAP has made significant achievements, with participating students contributing to the removal of invasive plants, planting native trees and shrubs, and addressing yard waste and litter. The visual impact is substantial, equating to colossal volumes, such as a swimming pool or over 1.5 million milkshakes. Community engagement is a cornerstone, with participation in numerous events, interactions

with thousands of community members on social media, and partnerships with organizations like the Salmon Habitat Restoration Program and BioBlitz events. Educational initiatives include scientific observations using iNaturalist, BioBlitz events, and community engagement, showcasing SNAP's commitment to environmental education and community involvement.

3. Salmon Habitat Restoration Program (SHaRP)

The Environmental Technologist provided a PowerPoint presentation on the overview of SHaRP, highlighting the following information:

In its 2023 Year in Review, the Salmon Habitat Restoration Program (SHaRP), initiated by the City of Surrey, showcased notable achievements in fulfilling its mission of safeguarding and enhancing stream habitats amid urban expansion. Since its establishment in 1996, SHaRP has focused on Watershed Enhancement, Agricultural Stewardship, Industrial Education, Media and Public Relations, and Community Education. The program has been pivotal in providing career-oriented experiences to over 723 local high school and university students. In 2023, the Summer SHaRP initiative, led by 8 university students and supported by 10 high school crew members, logged 2,605 field hours across 30 sites, enhancing 135,750 square meters of habitat and engaging nearly 4,000 people through 669 outreach hours. The Fall SHaRP continued its efforts with 2 university student leaders, conducting salmon spawner surveys, fish passage support, and various outreach activities, including participating in a tree lighting festival and school classes. Noteworthy accomplishments included the installation of North America's largest "Flexi-baffle" project in Bon Accord Creek and extensive riparian work involving the removal of invasive plants and debris. The program also made strides in community outreach and media, launching an Instagram account, posting educational content, and hosting outreach booths in public parks and community events. SHaRP's commitment to fostering capacity building was evident in its support for volunteer groups, landowners, and the development of young professionals through experiential learning. Collaborations with organizations like Watershed Watch Society, Resilient Waters, DFO Pacific Science Enterprise Centre, Spartina sp. mapping, Ducks Unlimited, and SNAP forage fish assessments showcased SHaRP's active engagement in broader environmental initiatives.

4. Bear Creek Park Improvements Project

The Director of Parks provided a PowerPoint presentation on the summary of the ECCC Sub-Committee work and recommendations from the Sub-Committee, highlighting the following information:

The Bear Creek Park Improvements Project, led by the Sub-Committee to the Environment & Climate Change Committee (ECCC), was established with the objective of reviewing and discussing potential enhancements to Bear Creek Park, presenting recommendations to the ECCC. The sub-committee, consisting of ECCC members, Friends of Bear Creek Park, and staff, conducted three meetings to refine improvement ideas. The core value identified was to protect the natural environment and maximize ecological value. Key recommendations arising from these discussions include the construction of a wetland and rearing pond, prioritizing environmental and biodiversity enhancements, serving as a rearing

facility for juvenile fish. The second priority involves riparian enhancements and natural restoration, focusing on removing invasive plants and planting native species. The third priority is the implementation of wildlife exclusion fencing along the 84 Avenue Road corridor, directing terrestrial wildlife to culverts and bridges for safe passage under the roadway. The proposed schedule outlines endorsement dates, regulatory processes, and construction phases, with the ECCC and Council approvals critical to the project's progression. The Sub-Committee emphasizes the importance of prioritizing wetland and rearing pond creation, followed by riparian enhancements, pending endorsements from the ECCC and Council. The next steps hinge on these endorsements, demonstrating the commitment to environmental preservation and enhancement of Bear Creek Park.

Note: Dates and details are subject to change based on approvals and regulatory processes.

C. NEW BUSINESS

1. Bear Creek Park Improvements Project

The Director of Parks and Director of Design and Construction provided a report on Bear Creek Park Improvements Project. The following information was highlighted:

- **Funding Considerations:** Exploring funding sources, including potential support from BC Hydro.
- **Compensation and Mitigation:** Emphasizing that this project is compensation and mitigation for environmental impacts. Rename to “Bear Creek Park Restoration Project”
- **Continued Subcommittee Engagement:** Subcommittee expresses interest in ongoing involvement and collaboration.

1. Original Contract and Invasive Removal:

- Lack of visibility into the original contract terms, especially regarding provisions for invasive removal and other aspects.
- Observations about increased activity, including the use of heavy machinery, raising questions about whether certain tasks are part of the budget or still pending.

2. Planting Scheme Details:

- Request for information on the planting scheme in areas that still need restoration.
- Assurance given that details on the planting scheme can be shared.

3. Continued Subcommittee Involvement:

- Emphasis on the desire of the subcommittee to remain involved and engaged throughout the entire project, expressing openness to future collaboration.

4. Collaborative Approach:

- Recognition of a fruitful and collaborative approach in recent meetings.

- Acknowledgment and appreciation for the efforts of Victor and Neil in facilitating transparency and cooperation.

5. Next Steps:

- Confirmation that the subcommittee will continue working on the project.
- Importance of ensuring that the subcommittee's expectations are clearly reflected in the minutes.

Note from Neal and Victor: Specific details, costs, and considerations are subject to further refinement and development.

It was

Moved by D. Smith

Seconded by D. Jack

That the Environment and Climate Change

Committee recommend that Council:

1. Receive the report for information; and
2. Endorse the proposed improvements recommended from the “Bear Creek Park Improvement Project (Sub-Committee to ECCC)”, as discussed in this report.

Carried

2. 2024 Committee Meeting Schedule

The Committee is requested to review the proposed 2024 meeting schedule. Meetings are proposed to be held in person on the second Wednesday of each month at 5:00pm., except February 2024 where the meeting is scheduled for February 21, 2024. No meetings are scheduled for March, July, August, and December.

If the proposed schedule is in order, the Committee is requested to pass a motion to adopt the 2024 meeting schedule.

The Environment and Climate Change Committee unanimously requested to add a July meeting to its 2024 schedule.

It was

Moved by S. Sajda

Seconded by M. Lamont

That the Environment and Climate Change

Committee adopt the 2024 meeting schedule as amended.

Carried

D. OTHER BUSINESS

1. Delegation Request

- (a) **Steve Gill, Director of Business Development, ENVO**

Requesting to appear before the Committee to provide a presentation on ENVO, a British Columbia based company that specializes in designing, engineering, and manufacturing E-ATVs. Seeking the City of Surrey's interest in testing ENVO E-ATVs, which find applications in various city services such as park and trail management, bylaw enforcement, park and recreation security, event patrol, and more. These E-ATVs offer a green solution to kickstart carbon reduction efforts.

It was

Moved by M. Lamont

Seconded by D. Smith

That Steve Gill, Director of Business

Development, ENVO be heard as a delegation at the next Environment and Climate Change Committee meeting.

Carried

With S. Sajda opposed.

2. Roundtable

An informal sharing of information took place.

E. NEXT MEETING

The next meeting of the Environment and Climate Change Committee is scheduled for 5:00pm on January 10, 2024.

F. ADJOURNMENT

It was

Moved by S. Sajda

Seconded by D. Smith

That the Environment and Climate Change

Committee meeting be adjourned.

Carried

The adjourned at 6:53 p.m.

Jennifer Ficocelli, City Clerk

Councillor Bose, Vice-Chair



Bear Creek Improvement Project ***(Sub-Committee to ECCC)*** ***Minutes***

Works Yard Room 125A
Surrey Operations Centre
6651 – 148 Street
Surrey, B.C.
Thursday, October 26, 2023
Time: 1:30 p.m.

Present:

M. Lamont, Chairperson
K. Purton, Vice-Chair
D. Jack
J. Mah
A. Kaps
E. Zaklan
A. Ivens
K. Kwan

Absent:

Staff Present:

N. Aven, Director, Parks
V. Jhingan, Director, Design and Construction
A. Sodha, Administrative Assistant

A. STAFF UPDATES

The Sub-Committee has expressed a desire to have an ongoing and active role in both the design and implementation phases of the Bear Creek Improvement Project.

1. Sub-Committee Progress and Recommendations

The Director of Design and Construction provided a PowerPoint presentation regarding the Sub-Committee progress and recommendations:

The Sub-Committee focused on identifying core values and potential improvements for Bear Creek Park. The core value that emerged was to protect the natural environment and maximize ecological values lost during development. The Sub-Committee considered several potential improvements, including wildlife mitigation fencing to ensure safe wildlife crossings, wetland creation to enhance the natural environment and provide habitat for fish and wildlife, and pedestrian pathway enhancements that would not intrude into core restoration areas.

The Sub-Committee discussed the cost estimates for these improvements. For the wetland creation, the concept included a vegetated area with cattails and a shallow wetland to act as a natural filter for road runoff. The estimated cost was not provided in the discussion. Wildlife exclusion fencing was identified as a crucial improvement, with an estimated cost of approximately \$200,000 for the fencing material alone, not including installation costs. Restorative plantings as well as invasive removals are identified priorities by the Sub-Committee. Finally, the eastern segment pathway enhancement along 84th Ave was estimated to cost around \$415,000 and was not supported by the Sub-Committee members and requested to come from other sources of funding outside of the restoration budget.

The total estimated cost for all three improvements is over \$1,000,000, however the Sub-Committee members suggest that restoration efforts for a wetland complex, in-stream habitat improvements, invasive removals and plantings are anticipated to

come under budget if the use of volunteers for plantings and invasive removals is explored. These costs are subject to further refinement. The Sub-Committee opened the discussion for feedback and additional considerations.

The discussion laid the groundwork for potential improvements to Bear Creek Park that align with the core value of protecting the natural environment and enhancing the park's ecological value.

B. OTHER BUSINESS

1. Discussion

Wildlife exclusion fencing, habitat restoration, and landscaping:

- Staff clarified about the nature of wildlife exclusion fencing. Staff advised that there is a distinction made between a "hard barrier" and "green walls" or natural vegetation that can serve as exclusion fencing.
- The necessity of a hard barrier that it is essential to direct wildlife to culverts for safe crossing.
- The Sub-Committee discussed the idea of installing a "green wall" where plantings can provide shade and reduce road heating from the sun but was not a priority.
- The Sub-Committee suggested staff to review the planting plans to ensure that taller shrubs with specific BC Hydro requirements are used, particularly on the South side of the project.
- The Sub-Committee discussed the possibility of seeking funding from the British Columbia Salmon Restoration and Innovation Fund (BCSRIF) for a project related to waterways and wetlands and whether the funding could be accessed for waterway and wetland projects.
- The Sub-Committee advised that exploring funding through grant applications and partnerships with NGO's may keep costs in budget.

Pathway Extension:

- The Sub-Committee does not support the southern sidewalk extension with the use of the funds identified for Bear Creek Park improvements.

Environmental and Infrastructure Considerations for the Project; Trash Management, Contaminant Control, and Wildlife Barriers:

- It was suggested that trash bins around the park could address concerns regarding trash within the park. Follow-up comments noted that most trash is coming from passing vehicles and that trash bins would not capture this garbage.
- Concerns about garbage collection and the effectiveness of trash cans, with a suggestion to involve the local community or organizations in an "Adopt A Street" program.

- Concerns were raised about contaminants entering storm drains, with a call for innovative methods to trap these contaminants.
- The drainage system and strategies to capture pollutants was discussed, with an emphasis on preventing pollutants from entering nearby water bodies.
- A small wetland on the north side of the road was mentioned, with consideration of its impact on the project and its potential ecological value.
- The need for a hard visual barrier to prevent wildlife passage is discussed, and the challenge of mesh barriers is noted.
- There is a suggestion to soften the appearance of these barriers with vegetation but also concerns about maintenance.

Water management and drainage:

- Discussion of a water main and its purpose, which is related to water treatment and potentially chlorination. The water main is suggested to be part of a treatment process.
- Concerns are raised about the water main's impact on the flatland area and whether it has diverted water or changed the water flow patterns.
- The need for monitoring the water management system is emphasized, particularly after an atmospheric river event revealed new drainage features.
- A hydro-technical study was conducted for the project, including the installation of clay cofferdams to prevent water from flowing into the road gravel. This was done to protect the road from potential damage.
- Discussion about the forested area near 84th Avenue and the unique wet conditions it presents, which may be impacted by seasonal groundwater fluctuations.
- Speculation about where water from parking lots and other areas flows, potentially into the water table, and the need for proper drainage planning and management.
- Ensuring water capture into wetland features was identified as being a key part of any restoration on site by the Sub-Committee.

Wetlands, drainage, and project planning:

- A valve installation and the potential for it to allow water to converge or facilitate the removal of a particular feature.
- Discussion about the drainage patterns and how water flows in the area, with reference to specific catch basins and their connections.
- Mention of a wetland as a compensation feature related to damage or changes caused by the project, but the plan shifted to avoid damage to existing wetlands and create new ones in different areas.
- The idea of using the wetland creation as a compensation strategy is discussed, with an expectation of support from authorities.

- Discussions about grant opportunities for funding the enhancements and the possibility of leveraging community members and specialists for cost-effective solutions.

Comments and Concerns from Sub-Committee:

- Planting schedules and potential plantings, likely related to landscaping and gardening within the park.
- Questions about the allocation of funds from land sales in GIN networks and their intended use, which may pertain to the park's budget and financial planning.
- References to pedestrian and car traffic on pathways in the park, indicating concerns or discussions about park accessibility.
- Conversations about possible concerns regarding ramps, suggesting infrastructure or accessibility-related issues.
- The Sub-Committee members stated that priority 3, pathway possibilities along the north and south sides of 84 Ave (eastern segment), in the August 30, 2023 meeting notes below is not a priority of the Sub-Committee.

Final recommendations from Sub-Committee Members to Environment and Climate Change Committee (ECCC) verbally presented by M. Lamont:

Requests in order of preference:

1. The creation of salmon rearing and wintering ponds within the floodplain of King Creek.
 - a. Similar to our concept plans presented during Sub-Committee meetings [and found below] with the objective to keep fill materials on site to cut down on costs and use these fund savings to invest into other restoration efforts on site.
 - b. Request to have Sub-Committee input on development and designs.
 - c. The Sub-Committee's unanimous request of Neal Aven and Victor Jinghan to ascertain how the southlands can be added to the protection of Bear Creek in the Park Dedication By-law #4100 voted by taxpayers in 1973.
2. Creation of ephemeral wetland complex (to prevent run-off of road debris, chemicals, contaminants) to help precipitate out any contaminants harmful to aquatic life.
 - a. This should account for native cattail, iris and reeds that will require wetted feet for most of the year but are known natural wetland filters.
 - b. Request to have Sub-Committee input on development and designs.
3. Native plantings along King Creek, ephemeral wetland and in areas where invasive species have been removed.
4. Request to have Sub-Committee input on development and designs and species selections.

5. Invasive species removal, in particular Broom and Blackberry- consider partnering with BC Hydro under the ROW to support this and other community activities.
6. Addition of large woody debris, tree stumps and soft armouring along any habitat creation to protect during high water events.
7. Directional fencing for wildlife.
 - a. These mitigative efforts should have been considered during initial works as these sorts of efforts are clearly identified in best practice documents, including those developed by the city. These efforts should pursue with any remaining funds but should be completed with funds from other budgets.
8. Improvement of King Creek culvert to allow for terrestrial wildlife passage.
9. Considerations for 200-year flood events.
10. Trails being limited to periphery edges of “preserve” to reduce impacts, garbage.
11. Speed reduction via speedbumps or otherwise *funding drawn from elsewhere*
12. Installation of contaminant catchments in storm drains on 84th connector.

The Sub-Committee unanimously requested that staff ascertain how the southlands can be included in the protection of Bear Creek Park by including these lands in “*Surrey Parks Dedication By-law, 1073, No. 4100*”, which was adopted in 1973 and included the affirmative vote of the citizens.

Summary of August 30, 2023 Sub-Committee Meeting:

In the August Sub-Committee meeting, various items were discussed, and specific action items were identified:

- Request for tree and shrub plantings in the 140 Street parking lot.
- Plantings along the south side of 84 Ave to provide shade for the road.
- Concerns about garbage in the park, with an ongoing action to remove it when spotted.
- Questions about the cleaning frequency of catch basin sumps.
- Cleaning up asphalt piles along road edges.
- Reviewing Parks' plans for lock blocks.
- Investigating raised crosswalks.
- Checking pedestrian crossings at a townhouse complex.
- Reviewing pedestrian crossings at 84 Avenue and 134 Street.
- Exploring the creation of a smaller version of a wetland.
- Reviewing the Adopt-a-Street program for 84 Avenue and determining if adjacent neighbors may want to participate.
- Investigating where the revenue from the South Campbell Heights land sale goes, especially in relation to acquiring Green Infrastructure Networks (GIN) elsewhere.

The top three priorities to explore further were identified as:

1. Constructed wetland (rearing habitat).
2. Exclusion fencing.
3. Pathway possibilities along the north and south sides of 84 Ave (eastern segment).