

Staff Report

Community Services Department



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REPORT TO: Community and Infrastructure Services Committee

DATE OF MEETING: March 25, 2024

SUBMITTED BY: Bu Lam, Director, Sanitary and Stormwater Utilities, 519-741-2600 x4212

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WARD(S) INVOLVED: Ward 9

DATE OF REPORT: March 8, 2024

REPORT NO.: INS-2024-129

SUBJECT: Schneider and Shoemaker Creek Naturalization – Municipal Class ‘C’ Environmental Assessment (EA)

RECOMMENDATION:

That Council approve the Environmental Study Report: Schneider and Shoemaker Creeks Naturalization Schedule ‘C’ Municipal Class Environmental Assessment prepared by Stantec Consulting Ltd. and dated March 8, 2024 together with the recommended approaches; and

That staff be directed to file the report for the 30-day public review period as required by the Environmental Assessment Act; and further

That upon formal completion of the Environmental Assessment, staff be directed to proceed with the detailed design and implementation of Stage 1 of the recommendations.

REPORT HIGHLIGHTS:

- The purpose of this report is to seek endorsement of the recommendations in the Environmental Study Report (ESR) to implement naturalization of sections of Schneider and Shoemaker Creeks and the preferred alignment of the Iron Horse Trail.
- Naturalizing these sections of the creeks will increase creek capacity, mitigate flood risks to private properties, and create resilience to future climate change impacts.
- Mitigating flood risks in this section of Schneider and Shoemaker Creeks will create a two-zone flood policy regulated by the Grand River Conservation Authority.
- This is the largest element of the Disaster Mitigation and Adaptation Fund (DMAF) project with an estimated cost of \$50M - \$70M.

- Community engagement included three public information centres, Kitchener Engage page updates, multiple update letters to surrounding property owners (within a 1km radius of the study area), and multiple meetings with Indigenous Rights Holders – Six Nations of the Grand River and Mississaugas of the Credit First Nation and the Active Transportation and Trails Advisory Committee.
- This report supports the delivery of core services.

EXECUTIVE SUMMARY:

The naturalization of Schneider and Shoemaker creeks as described in the attached Environmental Study Report (ESR) has been contemplated as part of the City's Integrated Stormwater Management Master Plan since 2016, and subsequently included as part of Kitchener's Federal Disaster Mitigation and Adaptation Fund (DMAF) program application in 2019. The project has been advancing through public engagement and an environmental assessment (EA) process over the last 2 years, with several alternatives considered as part of the ESR contained in Appendix A.

This section of Schneider and Shoemaker creeks is located in the upper Schneider Creek subwatershed, which has been identified in Kitchener's Stormwater Management Master Plan as the highest priority subwatershed in Kitchener requiring attention due to a combination of issues related to water quantity, quality, erosion control, infrastructure and overall sustainability.

The planned scope of work captured in the ESR is the removal of the aging concrete channel and replacement with a naturalized watercourse which will improve stormwater management and overall environmental objectives to the surrounding and downstream environments. Further, this work will produce several ancillary benefits, including the creation of green space in an area that falls short of Kitchener's green space standards, as well as the reduction of the floodplain, which will create a new regulated flood policy area that can enhance the potential for new housing development near a major transit corridor (Borden ION station).

The ESR outlines four alternatives considered for the naturalization of the creeks, ranging from "do nothing" to full naturalization of approximately 1,248 meters of creek (total for Stage 1 and 2). Subsequently, four alternatives were considered for the adjacent Iron Horse Trail (IHT) to reintegrate this trail into the modified creek. Based on feedback from the public and other parties, First Nations, and the project team, Preferred Alternative 4 – Natural Channel and Valley and IHT Alternative 2b - Naturalized Creeks with Multi-Use Trail along a Combination of the North and South side of Schneider Creek with Trail Amenity Features (Up to Three) and Trail West side of Shoemaker Creek were selected.

The EA and the entire design and construction, inclusive of the required land acquisition and demolition of buildings, are scheduled to be completed by 2027.

BACKGROUND:

In 2016, the city completed its first Integrated Stormwater Management Master Plan. The Master Plan looked at 26 subwatersheds in the city and prioritized them based on evaluation criteria including water quantity (flooding), water quality, erosion control, natural

environment, water resource sustainability, infrastructure and other relevant strategies, policies and legislation. Based on this exercise the Upper Schneider Creek subwatershed was identified as the highest priority subwatershed in Kitchener requiring attention. The project that is the subject of this current Environmental Study Report (ESR) is contained within the Upper Schneider Creek subwatershed and upon project completion will address several of the identified needs in the Master Plan for this subwatershed.

The area where Schneider Creek and Shoemaker Creek meet has undersized concrete-lined channels offering limited benefits for flood prevention and natural habitat. Naturalized infrastructure (i.e., green infrastructure approaches) have been shown to be effective options for stormwater management and in many cases lead to further social, economic and environmental co-benefits.

In 2020, the city secured federal funding through the DMAF program, leveraging funds to implement large-scale infrastructure projects across the City, which would support the mitigation of risks related to climate change. The naturalization of Schneider and Shoemaker Creeks is part of the DMAF program, and this component of the program is expected to be completed by 2027. The full design process and construction work for this project follows a Schedule “C” Environmental Assessment (EA).

This work also links to other past studies that have been conducted in the area, including Kitchener’s Planning Around Rapid Transit Stations (PARTS), aimed to create complete communities along the light rail transit corridor. The Rockway area, as part of the PARTS Rockway Secondary Plan, was identified as a top priority for redevelopment and flood improvements. Further, a 2016 study/report from MMM Group titled “Update of Schneider Creek Floodplain Mapping & Two-Zone Policies” outlined the possibility of updating the existing floodplain in the area with improvements to stormwater management, removing properties from the highest risks areas within the floodplain and creating a flood fridge that has the potential for redevelopment.

Over the last two years, the city has undertaken the Municipal Class EA process for the Schneider and Shoemaker Creek Naturalization project. The attached ESR document outlines the journey through the four phases of the Class EA, from establishing the project's necessity to evaluating alternative solutions and proposing a preferred design. In Phase 2 of the Class EA, we assessed four Alternative Solutions, ultimately selecting full naturalization as the preferred option. Phase 3 of the EA then explored four Alternative Design Concepts, with the chosen concept aligning with the naturalization approach supported by consultation feedback. This preferred design integrates the Iron Horse Trail (IHT) and promises to enhance flood risk management, biodiversity, and recreational opportunities. Public involvement was pivotal throughout, with three in-person Public Information Centres facilitating discussions on design, impacts, and timing. Feedback received has been carefully considered and will be integrated into the detailed design phase. With the ESR now complete, it will undergo a mandatory 30-day public review period before potential implementation, pending the resolution of any remaining concerns from stakeholders, agencies, First Nations rights holders, and the community.

REPORT:

During Phase 3 of the EA, four preliminary alternatives were evaluated:

- Alternative 1 – Do Nothing

- a. Maintains the existing concrete-lined channels.
 - b. Flood risk to the Study Area and beyond remain unchanged, opportunities to improve the biophysical nature, aesthetics and integrating other city initiatives would be missed.
- Alternative 2 – Concrete Channel with Naturalized Valley Bottom
 - a. Removes a portion of the existing concrete channel to provide a naturalized, widened valley bottom on one side of the channel.
 - b. The concrete channel will remain as the creek bed.
- Alternative 3 – Natural Channel with Retaining Structure at One or Both Valley Walls
 - a. Provides a naturalized channel and valley bottom.
 - b. Introduces retaining structures along one or both sides of the channel to reduce overall property impacts.
- Alternative 4 – Natural Channel and Valley
 - a. Removes the concrete channel and replaces it with a naturalized low-flow channel and valley corridor.
 - b. The corridor will be naturalized by planting native vegetation along the valley wall and bottom.
 - c. The low flow channel will meander within the bottom of the valley and will be constructed to mimic the form of natural watercourses.

Through internal and external stakeholder feedback, Alternative 4 – Natural Channel and Valley was selected as the preferred alternative and the basis for the next phase of alternatives for this preferred solution.

The following design concepts were developed with consideration for the alignment of the IHT and additional amenity features (e.g., seating areas, garbage containers, signage, lookouts, etc. to create interest in the location and attract members of the public) to enhance recreational value of the IHT:

- Alternative 1a – Naturalized Creeks with Multi-Use Trail along the South side of Schneider Creek and East side of Shoemaker Creek
- Alternative 1b – Naturalized Creeks with Multi-Use Trail along the South side of Schneider Creek with Trail Amenity Features (Up to Three) and Trail East side of Shoemaker Creek
- Alternative 2a – Naturalized Creeks with Multi-Use Trail along a Combination of the North and South side of Schneider Creek and Trail West side of Shoemaker Creek
- Alternative 2b – Naturalized Creeks with Multi-Use Trail along a Combination of the North and South side of Schneider Creek with Trail Amenity Features (Up to Three) and Trail West side of Shoemaker Creek

The alternative design concepts have been evaluated against environmental factors and specific criteria to recommend a preferred design concept as was conducted in Phase 2 of the EA.

The full evaluation of alternative solutions undertaken is included in the *Municipal Class Environmental Assessment – Phase 3: Evaluation of Alternative Design Concepts* in Appendix H in the ESR.

The recommended preferred design concept was Alternative 2b which includes locating the IHT along a combination of the north and south side of Schneider Creek, up to three amenities, and a connecting trail on the west side of Shoemaker Creek. This design concept reduces these creeks' flood risk while enhancing the IHT's recreational value.

STRATEGIC PLAN ALIGNMENT:

This report supports the delivery of core services.

FINANCIAL IMPLICATIONS:

The Schneider and Shoemaker Creeks Naturalization is the largest element of the projects included in the Federal DMAF program. The estimated costs including land acquisition, planning, design, environmental remediation and construction is approximately \$50M - \$70M, with final costs dependent on property acquisition and environmental remediation. These costs are fully funded through the DMAF cost share agreement.

COMMUNITY ENGAGEMENT:

INFORM – Multiple methods were used to engage with the public, review agencies and First Nations rights holders:

- Three PICs were held to share information and solicit feedback from the public, agencies, Indigenous Nations and other stakeholders on the study background, evaluation criteria, alternative and recommended design concepts.
- The project engage website was used to provide background information, notifications, updates, and links to consultation content.
- The Notice of Commencement and Notice of Public Information Centres were mailed to residents within a 1 km radius of the site and additional interested parties who signed up to the contact list on the engage website.
- Multiple meetings with the Active Transportation and Trails Advisory Committee were also held to provide project updates.

CONSULT – Ongoing in-person meetings were held with the Six Nations of the Grand River and the Mississaugas of the Credit First Nation to foster a growing relationship with the city, and gain feedback and design ideas on how to incorporate Indigenous Knowledge. These will continue through project completion.

PREVIOUS REPORTS/AUTHORITIES:

- CSD-17-100 Planning Around Rapid Transit Station Areas, PARTS Rockway Plan

APPROVED BY:

Denise McGoldrick, General Manager, Infrastructure Services

ATTACHMENTS:

Attachment A – Environmental Study Report: Schneider and Shoemaker Creeks
Naturalization – Municipal Class Environmental Assessment Phase 4