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COUNCIL DATE: May 10, 2021

REGULAR COUNCIL

TO: **Mayor & Council**

DATE: **May 5, 2021**

FROM: **General Manager, Engineering**
General Manager, Parks, Recreation & Culture

FILE: **4821-013**

SUBJECT: **Surrey's 2021 Youth Environmental Programs**

RECOMMENDATION

The Engineering Department and Parks, Recreation & Culture Department recommend that Council:

1. Receive this report for information; and
2. Endorse the Salmon Habitat Restoration Program and Surrey's Natural Areas Partnership for 2021.

INTENT

The purpose of this report is to provide information and highlight objectives for this year's Salmon Habitat Restoration Program ("SHaRP") and Surrey's Natural Areas Partnership ("SNAP") teams.

BACKGROUND

Environmental stewardship has long been a priority for the City. The City championed an open drainage policy early in its development, resulting in the preservation of a vast network of over 1,400 km of open channels and rivers with associated riparian habitats. The City has also protected a diverse network of urban forest assets, with over 1,600 hectares of natural area parkland, and more than 106,000 shade trees along streets and in parks.

The City has also been a leader in helping to foster stewardship within the community, creating many opportunities for residents to learn about and help care for our natural environment. Engaging local youth in environmental stewardship work has long been a top priority for the City. This has been demonstrated by the establishment of the SHaRP and SNAP teams, both of which have employed hundreds of students since their inception. SHaRP focuses on salmon habitat and watershed enhancement, and SNAP focuses on restoring and enhancing our urban forest. Both programs take a hands-on approach as crews remove invasive plants, plant native species and conduct community outreach. The SNAP and SHaRP teams will be actively working throughout the community during the Summer and Fall of 2021.

Salmon Habitat Restoration Program

Since 1996, the City has offered an innovative approach toward watershed management through the development of a student team trained and supported by a recognized environmental consultant team that works in and about streams to restore and enhance high-value salmon habitat. The inaugural year of SHaRP provided summer employment for eight youth and completed habitat restoration projects in two creek systems within the City. From these successful beginnings, the program is now in its 26th consecutive year. The program has grown in scope over the years, has extended works to include summer and fall seasons, and has also evolved into a more integrated approach to watershed sustainability that involves field restoration work, as well as community and industrial awareness campaigns. On an annual basis, the program provides 13-30 youth with technical training and career-orientated experiences to build capacity as they explore opportunities for future careers.

The City's consistent commitment to the program objectives has enabled students to gain valuable experience in habitat restoration and has resulted in revitalization efforts taking place at over 2,625 sites within Surrey. While outreach events were not conducted in 2020 due to the pandemic, over the course of its tenure, the program has delivered over 1,000 community-based events, day camps, library programs and school presentations. Over 9,000 businesses and homeowners have been contacted directly through the program to extend community awareness of the natural assets within Surrey and how to protect them from pollution. These efforts have resulted in over 254,000 dedicated stewardship hours towards watershed sustainability and healthy salmon habitats.

The SHaRP program is recognized as a municipal example of leadership through the 2020 Raincoast Conservation Foundation report release of "Toward a Vision for Salmon Habitat in the Lower Fraser River".

Surrey's Natural Areas Partnership

SNAP was formed in 2001 as an innovative partnership between the City of Surrey and local non-profit organizations the Green Timbers Heritage Society (which administers the program), Sunnyside Acres Heritage Society, and White Rock and Surrey Naturalists Society.

Each summer, SNAP employs secondary and post-secondary students and recent graduates to carry out habitat restoration projects, care for Surrey's street trees, and promote environmental stewardship within the community. The program empowers youth with practical career experience, while achieving the shared goals embraced by the partners. SNAP started with a team of four students carrying out habitat restoration work in Surrey's natural areas, and has since grown to a team of 19 spread over summer and fall seasons, with an expanded scope including shade tree care and community outreach.

DISCUSSION

Projects completed by the SHaRP and SNAP teams achieve enhancement and preservation goals through removing invasive plants, and replanting trees and shrubs in both riparian and natural areas. By employing youth to complete these projects, the programs not only achieve their restoration and outreach goals, but also provide youth with exposure to the dynamic and growing professional sector of environmental protection and management.

2020 Program Highlights

2020 marked the SHaRP team's 25th anniversary and the SNAP team's 20th anniversary. Despite the unprecedented nature of the COVID-19 pandemic, the SHaRP team was able to proceed with a condensed team of 14 students, and the SNAP program with 18 students, further adding to the programs' legacy of having employed almost 900 students in meaningful, summer employment.

Although collectively the 2020 teams were smaller than in past years, they had many notable achievements throughout the course of the Summer and Fall. They participated in multiple partnership projects with stewardship organizations that stressed the importance of collaboration and teamwork to further conservation efforts in the region.

Students in the two programs came together to celebrate their respective milestone years in 2020 by collaborating on joint projects at Hyland Creek Park and Walnut Park, where they collectively removed 10 truckloads of invasive plants and installed over 500 native plants. These collective project efforts were highlighted through informational signage displayed at both locations throughout the enhancement period.

SHaRP's most notable projects were the completion of seven in-stream work sites that provided the team members with direct experience in habitat enhancement techniques.

The SNAP team carried out projects in 19 parks throughout Surrey, removing 150 m³ of invasive plants covering over 4,112 m² and replanting 2,362 native trees and shrubs. They also created tree wells and provided base maintenance to over 500 shade trees in parks and along boulevards. While many of the team's normal outreach programs were not possible due to the COVID-19 pandemic, they were still able to safely interact with almost 4,900 people in Surrey's parks, helping to raise awareness of the importance of our urban forest.

2021 Plans for SNAP and SHaRP

In 2021, in light of ongoing COVID-19 safety protocols, SHaRP will proceed with a team of eight post-secondary student team leaders and six secondary student crew members. SNAP will proceed with nine team leaders and nine team members, all of whom are post-secondary students or recent graduates, spread between Summer and Fall seasons. As in 2020, the team structures have been modified to have a greater ratio of team leaders to crew members, allowing for a more flexible team structure and physical spacing across sites while providing a high level of training, supervision and support.

Collaborative projects with both the SHaRP and SNAP teams will again be planned to reinforce their shared objectives of enhancing the City's biodiversity and increasing community stewardship opportunities. While large work parties and special events will not be possible this year, the two teams will again be connected through cooperative efforts on a joint project. Both programs will also continue to work on partnership projects with local and regional stewardship organizations, such as Ducks Unlimited Canada and Surrey's salmon hatcheries and stewardship groups.

SHaRP's riparian enhancement projects for 2021 have a strong emphasis on enhancing the in-stream habitats of high-value salmon streams, addressing stream bank erosion concerns, and completing riparian restoration works that further commitments associated with capital work sites. By linking the needs of Surrey's capital and operational works with the abilities of the SHaRP team, the City achieves better overall value for completing the work sites while also fostering career development opportunities for youth.

New projects for the SHaRP team in 2021 will be to work alongside the Department of Fisheries and Oceans Canada's ("DFO") Community Advisor and Community Engagement Coordinator to conduct fish presence assessments and set up water quality monitoring stations within several creeks in Surrey. This information will assist DFO staff to better understand the stressors on urban streams and support local stewardship groups to develop enhancement plans for the creeks being assessed. The SHaRP team members will learn about the benefits of citizen science efforts and how assessment programs are developed to collect critical data to make informed decisions. City staff will support this opportunity by teaching SHaRP team members how to collect water quality measurements at their worksites. This will add to the City's current database of information and provide information on smaller stream systems that may be impacted more severely by climate change trends.

The SNAP team will carry out a restoration project at Newton Pond, funded in part by a TD Green Spaces grant, to increase biodiversity in one of Surrey's densest urban neighbourhoods. For this project, the SNAP team will lead and mentor high school-aged volunteers with the Surrey Youth Stewardship Squad ("SYSS") to remove invasive plants, install native trees and shrubs, and carry out wildlife habitat enhancements. SNAP and SYSS participants will be provided with training and skill-building opportunities, including by professional biologists in a BioBlitz activity. Local residents will be invited to participate in citizen science and tree planting opportunities to help foster community connections with greenspace in their neighbourhood.

As an alternative to traditional public education delivery in light of COVID-19 restrictions, SNAP's outreach team will have a greater emphasis on video production and social media this year. They will document and present the work of the SNAP teams, and collaborate with our partner organizations to help raise awareness of stewardship opportunities in the City. By gaining valuable technical training and experience in digital media, they will expand their skillsets as well as the program's reach.

FUNDING

SHaRP program funding includes fish habitat protection/restoration and summer youth employment/training. There is currently \$433,000 available for the 2021 program from City sources including Engineering Capital Projects, Operational Works, Nature Matters and the Drainage Utility.

In 2021, the SNAP team will be funded through \$133,800 from the Canada Summer Jobs program, and \$200,000 contributed by the Parks Division.

SUSTAINABILITY CONSIDERATIONS

The work completed by the SHaRP and SNAP teams supports the City's Sustainability Charter 2.0. In particular, these programs support the Sustainability Charter 2.0 theme of Ecosystems. Specifically, SHaRP and SNAP support the following Desired Outcomes ("DO") and Strategic Direction ("SD"):

- Natural Areas, Biodiversity and Urban Forest DO₂: Surrey actively protects, enhances and restores its natural environments and habitats;
- Natural Areas, Biodiversity and Urban Forest DO₅: Surrey takes pride in its rich biodiversity, including fish bearing streams, marine habitat and natural areas such as forests, meadows and wetlands;
- Green Infrastructure DO₁₂: Surrey protects ecosystem services and manages natural assets in order to build resilience and adapt and thrive in a changing climate; and
- Natural Areas, Biodiversity and Urban Forest SD₃: Aggressively control or eliminate invasive species.

CONCLUSION

The City of Surrey is a model for providing proactive environmental management practices. SNAP and SHaRP are impactful programs that not only directly influence young people to pursue their environmental stewardship goals but also actively instill civic pride for the City's natural assets within the community. The community social benefits emanating from SNAP and SHaRP are far-reaching as the programs foster a stewardship mentality toward the local environment and they are iconic emblems of the City's commitment to fostering youth development.

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