



City of Richmond

Report to Committee

To: General Purposes Committee
From: Chad Paulin M.Sc., P.Ag.
Manager, Environment

Date: September 18, 2019
File: 10-6160-06/2019-Vol
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Re: 2020 Community Pollinator Initiatives

Staff Recommendation

That, as described in the report titled '2020 Pollinator Initiatives' from the Manager, Environment, dated September 18, 2019:

- a. Staff collaborate with Border Free Bees to carry out the Richmond Nectar Trail Pilot Project;
- b. Staff inform Council in 2020 with information on the final route for the Nectar Trail route in Richmond; and
- c. The City of Richmond pursues "Bat-Friendly Community" certification from the Community Bat Programs of BC.

Chad Paulin M.Sc., P.Ag.
Manager, Environment
(604-247-4672)

Att. 1

REPORT CONCURRENCE		
ROUTED TO:	CONCURRENCE	CONCURRENCE OF GENERAL MANAGER
Communications	<input checked="" type="checkbox"/>	
Parks Services	<input checked="" type="checkbox"/>	
REVIEWED BY STAFF REPORT / AGENDA REVIEW SUBCOMMITTEE	INITIALS: 	APPROVED BY CAO

Staff Report

Origin

This report outlines two community initiatives with Border Free Bees and the Community Bat Programs of BC, recommended to support pollinator species in Richmond.

This report supports Council's Strategic Plan 2018-2022 Strategy #1 A Safe and Resilient City:

Enhance and protect the safety and well-being of Richmond.

1.4 Foster a safe, caring and resilient environment.

This report supports Council's Strategic Plan 2018-2022 Strategy #2 A Sustainable and Environmentally Conscious City:

Environmentally conscious decision-making that demonstrates leadership in implementing innovative, sustainable practices and supports the City's unique biodiversity and island ecology.

2.4 Increase opportunities that encourage daily access to nature and open spaces and that allow the community to make more sustainable choices.

Analysis

There is growing evidence that pollinator species such as insects and bats are in decline globally due to the pressures of economic development. Council has long recognized the environmental and economic benefits of pollinators and has endorsed a variety of initiatives aimed at protecting Richmond's biodiversity, community wellness, and economic well-being including the:

- **Ecological Network Management Strategy** – Council adopted the Ecological Network Management Strategy in September 2015 to manage and enhance Richmond's ecological assets.
- **Enhanced Pesticide Management Program** – Council adopted the Enhanced Pesticide Management Program and the *Pesticide Use Control Bylaw No. 8514* in 2009 to reduce the use of traditional pesticides for cosmetic purposes.
- **Bridgeport Industrial Park Pollinator Pasture** – Council endorsed a partnership with Border Free Bees and Emily Carr University of Art and Design in 2015 to convert a 10,500 m² area of industrial land, into an artistic display of wildflowers to support local pollinator species.
- **Terra Nova Public Art Pollinator Meadow** – Council endorsed another partnership with Border Free Bees in 2018 to transform 2,200 m² of underutilized land space at the Terra Nova Rural Park into habitat for pollinators.
- **Riparian Response Strategy** – Council endorsed the Riparian Response Strategy in 2006 to protect local riparian habitat areas in Richmond. Council endorsed additional changes to the City's Riparian Response Strategy in 2018 to promote community stewardship of Riparian Management Areas and to enhance these areas with native riparian species, including a pollinator seed blend.

Additional information regarding the aforementioned initiatives is included in Attachment 1. Staff are seeking Council endorsement for two future initiatives that support local pollinators and promote community education; the 'Richmond Nectar Trail Project' and the 'Bat-Friendly Communities Program'.

Richmond Nectar Trail

Staff is proposing another community initiative with Border Free Bees to pilot the Richmond Nectar Trail Project. The project, if endorsed, would aim to increase habitat availability for native pollinators by connecting 'anchor points' such as the Bridgeport Pasture, Terra Nova Meadow, Garden City Lands and Richmond Nature Park with a series of 'stepping stone' habitats for pollinators to rest and forage while en route between the anchors. Native bees and honeybees have flight ranges of between one and six kilometres. If anchor points are separated by distances larger than this, individuals may not be able to travel effectively between each anchor. Garden City Lands is approximately 5.5 kilometres from the Terra Nova Park while the Bridgeport Pasture is approximately 2 kilometres from Richmond's Nature Park. Stepping stones can bridge the gap between anchors to allow pollinators safe passage, reduce flight stress, and increase pollinator activity along the trail.

The 2020 pilot program will be promoted in the community and will recruit participants along a conceptual flight trail in Richmond that will be developed following Council's endorsement. Staff intend to build upon the success of the City's participation in the Suzuki Foundation's Butterflyway Project. Properties participating along the trail including businesses, institutions and residential homes will plant and maintain a (minimum) one-square metre garden of pollinator-friendly flowers. Residents will be encouraged to maintain each stepping stone with drought-tolerant species that bloom from spring to fall and avoid the use of pesticides pursuant to the City Bylaw No. 8514. Maintenance of privately-owned stepping stones will be the responsibility of the individual resident or organization participating in the program. Richmond Nectar Trail information will be collected and displayed on the Border Free Bees website as an interactive map, similar to the program implemented by Border Free Bees in Kelowna, which has received positive community feedback and enthusiastic enrollment rates.

Border Free Bees will provide in-kind services such as professional expertise, communications support, and facilitating the pre-planting training sessions for participants during 2020. The installation and registration of stepping stones in public spaces such as parks and boulevards will be encouraged but is not required. Staff will develop communications in collaboration with Border Free Bees, produce additional resource materials and training sessions, host data on their website, and provide the participation signs at no cost to the City. Staff will assess the program based on community interest during the 2020 pilot to determine whether future engagement opportunities regarding the natural trail should be included into the City's annual outreach programming.

Bat-Friendly Community Program

Staff are also seeking Council endorsement for the 'Bat-Friendly Communities Program' to compliment the Richmond Nectar Trail Project and promote community education regarding bat conservation and safety. Bats provide key ecosystem services including pollinating flowers, controlling insect populations, and cycling nutrients. Two of the ten species of bats found in the Lower Mainland are listed in the federal *Species at Risk Act* as 'at risk' of becoming extirpated, and one of those species, the Little Brown Bat, has been identified at Terra Nova Park. Little Brown Bat populations have been decreasing rapidly in eastern Canada and the United States due to white-nose syndrome. White-nose syndrome is considered one of the worst wildlife diseases in modern times and some experts suggest that the Little Brown Bat will be extirpated from much of eastern North America by 2026. The disease has not yet been reported in BC to date but one case was identified in Washington State in 2016. Bats have generally developed a poor reputation due to their ability to host and transfer the rabies virus. Bats are the only animal in BC that can transmit the virus to humans but less than 0.5% of bats carry the virus and known cases of rabies are extremely rare. Five people have died from rabies transmitted from bats in Canada since 1970. The City has been working with Vancouver Coastal Health and the Community Bat Programs of BC to incorporate bat safety, education, and conservation information into outreach events such as the Public Works Open House, and the Mitchell Island Environmental Stewardship Info session. This has included the creation of Richmond's "Batabase", which has become a popular tool to record local bat sightings.

Community Bat Programs of BC promotes conservation of bats on private and public land, provides a resource to landowners dealing with bat issues, engages citizen scientists to collect data on bat populations and recognizes communities that are leaders in bat conservation and education. Communities must demonstrate continued efforts to promote bat habitat conservation and support community awareness. Staff recommend pursuing "Bat-Friendly Community" certification from the Community Bat Programs of BC. Richmond will be the first community in the Lower Mainland to be recognized as a certified 'Bat-Friendly' Community, if successful.

Next Steps

Community registration and training will begin in spring 2020 with the intention of having the nectar trail activated for the 2020 growing season. An application for Bat-Friendly certification will be prepared in 2020 and staff will continue to incorporate bat education into community outreach events and programming including participating in Bat Week in October 2020.

Financial Impact

None.

Conclusion

Endorsement of the Richmond Nectar Trail Project and the Bat-Friendly Community Program will strengthen Richmond's commitment to protect pollinator habitat and strengthen community awareness about the key ecological services they provide. Staff will implement the next steps for each program as described and update Council in 2020.



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Att. 1: Council Endorsed Pollinator Initiatives

Council Endorsed Pollinator Initiatives

Ecological Network Management Strategy (ENMS)	Council adopted the ENMS in September 2015, which identified local hubs, sites, and corridors that connect green spaces throughout Richmond. Larger areas such as the Richmond Nature Park, Terra Nova Rural Park, Sturgeon Bank and the Northeast Bog are listed as hubs. Smaller, semi-natural areas such as backyards, school yards, and fields are identified as sites and the City's Riparian Management Areas make up corridors that connect the sites and hubs in the network. A goal of the ENMS is to manage and enhance Richmond's ecological assets. Pollinators are considered a critical ecosystem component, due to the services they provide.
Enhanced Pesticide Management Program	Council adopted the Enhanced Pesticide Management Program and the Pesticide Use Control Bylaw No. 8514 in 2009 to reduce the use of traditional pesticides for cosmetic purposes. The program was a leading initiative in BC at that time and continues to provide broad-based educational programming, support and training to the community regarding the benefits of pesticide-free gardening techniques.
Bridgeport Industrial Park Pollinator Pasture	Council endorsed a partnership with Border Free Bees and Emily Carr University of Art and Design in 2015 to convert a 10,500 m ² area of industrial land, into an artistic display of wildflowers to support local pollinator species. Border Free Bees is a long-term public art initiative with the mission to create aesthetically pleasing and scientifically viable pollinator pastures in under-utilized urban areas. An apiary was erected to educate community members about the significance of pollinators locally. The Bridgeport Pollinator Pasture has been nominated for, and won the following awards: <ul style="list-style-type: none"> • The Pollinator Advocate Award was presented to Border Free Bees for increasing awareness of the importance of pollinators in 2017; • The City and Border Free Bees were awarded the BC Recreation and Parks Association Award for Program Excellence in 2018; and • The City received a nomination for a UBCM Community Excellence Award in Sustainability in 2018.
Terra Nova Public Art Pollinator Meadow	Council endorsed another partnership with Border Free Bees in 2018 to transform 2,200 m ² of underutilized land at the Terra Nova Rural Park into habitat for pollinators. The project has created new opportunities for the public and students to learn about pollinators at the Terra Nova Nature School and at local events such as the Works on Wheels Tours.
Riparian Response Strategy	Council endorsed the Riparian Response Strategy in 2006 to protect riparian habitat in Richmond. Riparian Management Area setbacks were assigned on minor (5m) and major (15m) designated watercourses that are wet the majority of the time, have a source of ground and surface water, and flow into and support fish life in the Fraser River Estuary. Council endorsed additional changes to the City's Riparian Response Strategy in 2018 to promote community stewardship of Riparian Management Areas and to enhance these areas with native riparian species, including a pollinator seed blend.