
Bees on Roof of City Hall – Inquiry Councillor D. Hill

Recommendation

That the report of the Acting General Manager, Community Services Department, dated March 11, 2019, be received as information.

Topic and Purpose

The purpose of this report is to provide information regarding the University Saskatchewan's experience with rooftop beekeeping and how to potentially make it feasible at Saskatoon's civic facilities, including City Hall.

Report Highlights

1. An update from the University of Saskatchewan (U of S) indicates their rooftop beekeeping project has not been approved.
2. Currently, the City of Saskatoon (City) supports beekeeping in a variety of ways, and there are alternatives to rooftop beekeeping that can support urban food production, as well as protection of bee habitat.
3. To make rooftop beekeeping feasible at Saskatoon's civic facilities, including City Hall, there are several considerations that would have to be addressed.

Strategic Goal

This report supports the long-term strategy to improve access to ecological systems and spaces, both natural and naturalized, under the Strategic Goal of Environmental Leadership.

Background

At its August 14, 2017 meeting, the Standing Policy Committee on Planning, Development and Community Services, considered a previous report, dated March 22, 2010, which responded to an inquiry from Councillor D. Hill, and resolved, in part:

"That the Administration initiate a discussion with the University of Saskatchewan on rooftop beekeeping and how to make it feasible."

Report

University of Saskatchewan Rooftop Beekeeping

The U of S proposal for rooftop beekeeping recommended the placement of hives on the roof of Kirk Hall. The purpose of the proposal was to provide education for students and to promote urban food production. The proposal was ultimately rejected by the U of S for the following reasons:

- There is no external access to the roof of Kirk Hall. This would require the beekeeper, and bees, to travel through the building to access the roof, which would put staff and students into potential contact with bees;

- Access to water for the bees would be limited; and
- The rooftop of Kirk Hall was not designed for human access (i.e. there are no guard rails or parapets of sufficient height to provide fall protection); this is a liability issue.

Bees in Saskatoon

Currently, Saskatoon residents are allowed to keep honey bees on their property if they comply with the Animal Control Bylaw No. 7860 and *The Saskatchewan Apiaries Act*. Beekeeping in Saskatoon is supported by the Saskatchewan Ministry of Agriculture, Saskatchewan Beekeepers Development Commission, and the Saskatoon Bee Club. Beekeepers are required to register their hives with the Ministry of Agriculture.

Honey bees are not native to Saskatchewan. Most wild bees are solitary, nesting in plant stems, wood cavities, organic debris, or in the ground. These bees pollinate crops and native plants; providing safe habitat for these bees is important to urban food production and protection of native plant species. Currently, the Sustainability Division promotes biodiversity and habitat for all pollinators via the Healthy Yards education campaign. The Green Strategy is also examining ways to support urban food production as well as protection of native bee habitat.

Additionally, the Naturalized Parks program has been planting wildflower ribbons for several years in parks such as Gabriel Dumont, Lakewood, Heritage, Donna Birkmaier, and Hyde. The purpose is to introduce native flower species into the parks for both aesthetic pleasure and to provide habitat for pollinators. Ultimately, the vision is to have large tracts of naturalized space providing a significant source of pollen and nectar, which serve as a protein and energy source for pollinators. Dandelions in turf grass areas also constitute a significant source of nectar and pollen for bees early in the season.

Feasibility of Civic Facility Rooftop Beekeeping in Saskatoon

The table below summarizes the main challenges and feasibility requirements for rooftop beekeeping on Saskatoon's civic facilities, including City Hall.

Category	Consideration	Feasibility Requirement
Hive weight	Hives, that would be most appropriate for the City Hall roof top, are heavy with the hive boxes, bees, honey, and wax, during periods of peak honey production; the ability of existing rooftops to support this additional weight (of up to 500 pounds) is unknown.	A qualified structural engineer would assess the load bearing capacity of the roof and provide recommendations for hive placement.
Beekeeper safety	Most civic rooftops have not been designed for frequent access; safety is a concern.	A qualified OH&S consultant would assess rooftop safety and provide recommendations for fall prevention and other safety issues.

Bees on Roof of City Hall – Inquiry Councillor D. Hill

Roof Access	Many civic rooftops have not been designed for exterior access; to maintain hives bees and beekeepers would have to access the roof on an annual basis via the building interior, which may increase the risk of bee stings to staff and the public.	Placement of bee sting kits throughout the building for allergic individuals and create a response protocol for bee stings. Select City Hall staff would need training in administering medication in cases of severe sting reactions.
Hive survival	Rooftops are exposed locations, especially in Saskatoon winters; there is a risk of hive death.	Additional shelter could be constructed on the roof. Hives could be insulated or moved to a more sheltered location in winter.
Swarming	If the bee colony does not have sufficient space, the bees may swarm to establish a new hive. Smaller hive spaces have high swarm potential and are not recommended for rooftop beekeeping. Swarms may land on or inside nearby buildings causing significant disruption or damage.	Position hives away from air intakes and exhaust systems, and consider structural modifications, such as screening for intakes. Beekeeper may be required to manage the hive to prevent swarming. Note that even with management, it would be impossible to eliminate the risk of swarming entirely. To further mitigate risk, create a response protocol for swarming.
Water Source	Bees require a fresh water source; which is not readily available on rooftops.	Place several automatic vacuum sealed waterers near the hive. The beekeeper would need access to a water source inside the building.
Resource Considerations	Currently, no resources (staff or financial) to implement a rooftop bee keeping program.	Allocation of funding for initial set up and ongoing operating would be required.

Other Considerations/Implications

There are no options, policy, financial, environmental, Privacy, or CPTED implications or considerations; a communication plan is not required at this time.

Due Date for Follow-Up and/or Project Completion

There is no due date for follow-up and/or project completion.

Public Notice

Public notice, pursuant to Section 3 of Policy No. C01-021, Public Notice Policy, is not required.

Report Approval:

Written by: Jessie Best, Environmental Coordinator, Sustainability, Utilities & Environment
Reviewed by: Twyla Yobb, Watershed Protection Manager, Sustainability, Utilities & Environment
Jeff Boone, Entomologist, Parks Division, Community Services
Darren Crilly, Director of Parks, Community Services
Approved by: Lynne Lacroix, Acting General Manager, Community Services Department

Bees on Roof of City Hall – Inquiry Councillor D. Hill.docx/kb