



August 3, 2020

MEMO TO : Park Board Commissioners

FROM : Shauna Wilton
Acting General Manager, Vancouver Board of Parks and Recreation

SUBJECT : **Beaver Lake Urban Star Park Designation – Board Briefing Memo**

Dear Commissioners,

This memo is to inform you that staff are pursuing an Urban Star Park designation for Beaver Lake in Stanley Park. Urban Star Park designation is a national designation made by the Royal Astronomical Society of Canada (RASC) for defined areas under the control of management, such as parks, and is intended to increase understanding of the problems of light pollution and the benefits in its reduction.

As the use of nighttime lighting grows in urban areas, viewing the night sky without the interference from stray light and sky-glow is becoming increasingly rare experience for city-dwellers. Observing the night sky on a clear night, in a dark setting, connects all people to the timeless joy, awe, and infinite wonder of the universe, stars, galaxies and other celestial objects.

In 2008, the RASC adopted a Dark-Sky Program that includes Dark-Sky Preserves, Urban Star Parks, and Nocturnal Preserves. These three designations reflect the benefit for outreach programs of readily accessible sites within or near urban areas and more remote dark sites for observing the pristine sky. An Urban Star Park is an area in which artificial lighting is controlled and measures are in place to educate and promote the reduction of light pollution to the public. Sky glow from beyond the borders of the Reserve may be visible to observers within the area, but the skies are still usable for astronomy.

Background

In 2015, Vancouver City Council approved a motion directing City staff to develop an [Outdoor Lighting Strategy](#) that, in part, would “provide for the designation of dark-sky preserves”. The Park Board will also be developing its own outdoor lighting strategy to set standards for park lighting, provide protection to environmentally sensitive areas, focus on energy conservation, and reduce light pollution impacts in city parks and adjacent areas.

The Royal Astronomical Society of Canada (RASC) has two dark-sky preserve designations that are suitable for urban contexts: 1) Urban Star Park, and 2) Nocturnal Preserve:

- an Urban Star Park is less restrictive; requires skies be usable for astronomy;
- a Nocturnal Preserve is more stringent; focuses on protecting the night time environment for ecological benefits;

Early conversations with RASC Light Pollution Abatement staff indicated that Stanley Park may be a good candidate for either designation, with Urban Star Park likely to be the most appropriate category. Beaver Lake was considered an ideal site because it is surrounded by mature coniferous forest which blocks ambient light; is easily accessed by various modes; has



existing viewing platforms; and, is already being used for interpretative programming by the Stanley Park Ecology Society. An initial lighting assessment undertaken in July by external consultants, both during daylight and after dark, confirmed that Beaver Lake is indeed a candidate for designation as an Urban Star Park.

Next Steps

The consultants will complete the lighting assessment and provide a report to staff that includes documentation of day and night sky readings along with a statement of compliance with the Canadian Guidelines for Outdoor Lighting for RASC designation. The consultants will define and describe the limits of the preserve, including its core and buffer; provide an inventory and audit of existing lighting in and adjacent to the preserve; and prepare a lighting plan, if necessary.

It is anticipated that construction of the Capilano 5 water main by Metro Vancouver in Stanley Park, in particular the midline access site adjacent to the service yard just south of Beaver Lake, could potentially have impacts on night sky and wildlife. Assessment prior to construction will allow staff and the Stanley Park Ecology Society to develop a baseline of current conditions to facilitate monitoring of any construction impacts on the park.

The lighting study will also be incorporated into the Stanley Park comprehensive planning process and information about the Urban Star Park designation has been shared with the Musqueam, Squamish, and Tsleil-Waututh governments for feedback. Preliminary discussions have been held with the Stanley Park Intergovernmental Working Group, with no specific concerns raised at this point. The designation is supported by the Vancouver Bird Advisory Committee and both the Stanley Park Ecology Society and the H. R. Macmillan Space Centre have expressed an interest in doing Urban Star Park programming at Beaver Lake.

Once analysis of the lighting assessment data is completed and any feedback received has been reviewed, staff will submit an application to the RASC for Urban Star Park designation of Beaver Lake. The Board will be provided a further update once the outcome of the application is known.

Regards,

A handwritten signature in black ink, appearing to read "Shauna Wilton".

Shauna Wilton
Acting General Manager, Vancouver Board of Parks and Recreation

ad/ct/clc

Copy to: PB Senior Leadership Team
PB Planning, Policy & Environment Project Team
PB SP Comprehensive Plan Team
PB Communications