



Governance & Services Committee

TO: Governance and Services Committee
FROM: Murray Kopp, Director of Parks Services
DATE: November 4, 2019
SUBJECT: Proposal to Identify Johns Family Nature Conservancy Regional Park as a Dark Sky Preserve

Purpose: To provide the Governance and Services Committee with information about the Dark-Sky Site Designation program of the Royal Astronomical Society of Canada (RASC) and a rationale for nominating Johns Family Nature Conservancy Regional Park as a Dark-Sky Preserve.

Executive Summary:

The Province of British Columbia currently boasts only two Dark-Sky Parks, which promote the reduction of light pollution, demonstrate low-impact lighting practices, improve the nocturnal environment for plants and wildlife, and protect and expand dark observing sites for astronomy. Johns Family Nature Conservancy Regional Park encompasses 405.8 hectares (1002.7 acres) within the South Slopes of the RDCO. In 2012, the RDCO signed a long-term (99 year) agreement with Central Okanagan Land Trust (COLT) to lease the land and establish a Management Plan (2014). With its large size, conservancy status, location adjacent to parcels of Crown land and provincial park, and minimal lighting and infrastructure, the park is perfectly poised to become the province's third dark sky preserve. Not only would the designation, if approved, be relatively simple to implement with our existing resources, but the designation would showcase a commitment to conservation in our quickly developing region and offers an opportunity for meaningful partnership with our provincial, NGO, Indigenous, and public partners as well as showing Central Okanagan residents that dark skies matter.

RECOMMENDATION:

THAT the Governance and Services Committee recommends the Regional Board support RDCO staff submitting an application through the Royal Astronomical Society of Canada for the nomination of Johns Family Nature Conservancy Regional Park as a Dark Sky Preserve;

AND FURTHER THAT the Governance and Services Committee recommends that the Regional Board approve the establishment of a Dark-Sky Preserve at Johns Family Nature Conservancy Regional Park with the receipt of confirmation of a successful application from the RASC.

Respectfully Submitted:

A handwritten signature in black ink, appearing to read "Murray Kopp".

Murray Kopp, Director – Parks Services

Approved for Committee's Consideration

A handwritten signature in black ink, appearing to read "Marilyn Rilko".

Marilyn Rilko, Deputy CAO

Prepared by: Isabella Hodson, Supervisor of Community Relations and Visitor Services

Implications of Recommendation:

- Strategic Plan:** The delivery of Visitor Services programming and events is part of the overall Parks Services being delivered to our residents and meets the strategic priorities of the Board, particularly through the sustainable communities and environment identified priorities. In addition, Regional Parks and the services provided support the other two priorities of transportation and mobility and economic development by making our region more liveable and attractive to outside business and through the provision of park amenities to support these priorities.
- General:** The provision of Visitor Services programming as part of the Regional Parks service provides an avenue for engaging citizens to be more active and connect to nature; including scotobiology within our program purview provides a new and exciting avenue with which to engage our residents and visitors.
- Financial:** There are no financial implications. The delivery of the Visitor Services portion of Regional Parks is accounted for within the RDCO 5-Year Financial Plans approved by the Regional Board each spring. Lighting is included within our Park Operations budget; dark sky designation will have only minimal if any impact on this budget.
- Legal/Statutory Authority:** The delivery of the Regional Parks service and associated programming and services follows the Letters Patent for the Regional District.
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Background:

Dark-Sky Preserves, which include 3 separate designations in Canada (Dark-Sky Preserves, Urban Star Parks, and Nocturnal Preserves) each with their own set of requirements, create awareness of the importance of dark skies and provide accessible locations for amateur and professional ecologists and the general public to experience the naturally dark night sky. With its considerable size and conservation park status, along with RDCO's management plan (2014) that shows our commitment with Central Okanagan Land Trust (COLT) to not develop the park with infrastructure or lighting, Johns Family Nature Conservancy Regional Park is perfectly poised to become a Dark-Sky Preserve.

Dark-Sky preserves are a growing trend internationally. In addition to the Dark-Sky sites in Canada, countries all across the globe are making the decision to conserve our night skies. Dark-Sky sites can be found everywhere from the Tomintoul and Glenlivet – Cairngorms International Dark Sky Park in the Scottish Highlands, to Yeongyang Firefly Eco Park in South Korea, to Grand Canyon National Park in the United States. The Royal Astronomical Society of Canada (RASC) manages our country's Dark-Sky program. In order to receive RASC approval, a location must demonstrate control of local lighting, establish outreach programs aimed at the general public and neighbouring municipalities, and adopt good nighttime lighting practices. Johns Family Nature Conservancy Regional Park already adheres to the lighting guidelines in that it only has the original home site of Alfred and Nancy Johns which projects minimal ambient light from these buildings, nor are there plans to develop park infrastructure requiring lighting. The existing lighting at the home site can be readily changed to conform to RASC lighting standards with minimal effort and cost.

The RDCO Parks Visitor Services team is well placed to deliver educational programming and events within the park. In terms of astronomy, we already offer a Perseid Meteor Shower event that has run for two years at Kopje Regional Park and is scheduled to run again in 2020. Audience participation grows every year. We also offered a popular Creatures of the Night hike in July and August of 2019 in several park locations. In terms of school programming, we offer a plethora of environmental education programs. Adding a program about astronomy and the impact of light pollution on wildlife in the Okanagan would be well within our scope. Our event roster and staff resources are also able to handle a new event such as an annual Dark Sky

Festival, especially when harnessing the power of partner organizations who would be interested in being a part of the Dark Sky Preserve nomination process. We are also keen to nurture our partnership with Westbank First Nation (WFN), as our Indigenous peoples have their own star stories and mythology that they may wish to share during a dark-sky event or program.

The Dark-Sky preserve nomination of Johns Family Nature Conservancy Regional Park is supported by COLT. Many additional partnership opportunities exist, including WFN and BC Parks, which manages neighbouring Okanagan Mountain Provincial Park – which could itself become part of the Dark-Sky preserve should BC Parks choose. Johns Family Nature Conservancy Regional Park is also surrounded by Crown land, which could potentially be added to the dark-sky preserve in the future. Nearby wineries have also expressed interest in the proposal to COLT, and further work could be done with local businesses, developers, and homeowners to “turn off the lights,” so to speak, at night and model good lighting practices that support dark skies.

In terms of visitor entry, Johns Family Nature Conservancy Regional Park has a public portion with limited trails and also a much larger conservation area that is not accessible to the public without a permit. While the Dark-Sky preserve status would apply to the entire park, public access would not change. The park offers a small parking lot off a gravel road, which would be sufficient for amateur astronomers as well as park visitors. An annual festival or event, if taking place at the park, would require a shuttle bus and further consideration for parking. The park is currently open year-round, with hours ranging from 6:00 am to 11:00 pm in summer and 6:00 am to 6:00 pm in fall and winter. As a dark-sky preserve, the park would need to be accessible to astronomers at night. From a Park Operations perspective, this occasional and likely infrequent traffic could be of benefit to the community as it would discourage other nighttime public behaviours in the park. Access from the parking lot is exclusively on foot, and visitors would be required to remain within the public area of the conservancy, which would not hinder night sky viewing.

Johns Family Nature Conservancy Regional Park is home to a great many native species and provides critical habitat and movement corridors in the swiftly-developing Okanagan region of our province. Designating the park as a dark-sky preserve not only allows for the species to live in their natural habitat during the daytime, but it also conserves the equally important nighttime hours of their lives. Further, our local human residents and visitors can benefit from this designation and commitment to dark skies. Because urban light is now so abundant, an estimated 85 per cent of Canadians are unable to see more than a few stars. Creating a dark-sky preserve in the Okanagan provides an opportunity to change this and allows park visitors to experience of one nature’s great wonders: the scintillating night sky. Night skies are also often at their best during the fall and winter months, a period when our Okanagan tourism season slows down. Having a dark-sky preserve is a wonderful incentive to add to our roster of tourism opportunities outside of our peak summer months and offers a new avenue for local businesses, tourism operators, and government agencies to attract new audiences.

The establishment of a Dark-sky Preserve would be a partnership between RDCO Parks Services, local stargazers and astronomers, and neighbouring municipalities. Nominating Johns Family Nature Conservancy Regional Park as a Dark-sky Preserve would require the active support of all of these agencies and stakeholders. There are four principal requirements for a Preserve: compliance to the guidelines for outdoor lighting provided by RASC, accessibility, quality of the night sky, and, in our case, an active outreach program. We have the resources and commitment to provide both full access and an outreach program. Moving forward with the nomination of Johns Family Nature Conservancy Regional Park as a Dark-sky Preserve under the Canadian RASC program would be an audacious and forward-thinking action that showcases our commitment to preserving our beautiful Central Okanagan, including its magnificent night sky, for generations to come.

External Implications:

For a successful application, RDCO Parks Services would need the Board's support as well as the support of partner agencies and stakeholders, including COLT (already secured), WFN, and RASC. Additional potential partners include BC Parks' Okanagan Mountain Provincial Park and UBCO, as well as our neighbouring communities.

Alternative Recommendation: The Board could elect to simply receive the information and not support the application for the establishment of a Dark-Sky Preserve at Johns Family Nature Conservancy Regional Park.

Considerations not applicable to this report: None.

Attachment(s):

1. Letter of Support from Central Okanagan Land Trust
2. Guidelines for Outdoor Lighting (Low-Impact Lighting) for RASC Dark-Sky Protection Programs
3. RASC Preserve Application Requirements 2018