ADMINISTRATIVE REPORT

TO: Board of Directors

FROM: B. Newell, Chief Administrative Officer

DATE: September 17, 2020

RE: Temporary Use Permit Application – Electoral Area "H"

Administrative Recommendation:

THAT the Board of Directors approve Temporary Use Permit No. H2020.009-TUP

Purpose: To allow for the construction of a radio telescope.

Owners: HML Mining Inc. Agent: Mark Halpern Folio: H-01029.000

Legal: District Lot 1838, SDYD, Except That Part Thereof Outlined Red on Plan B1374 Civic: N/A

OCP: Resource Area (RA) Zoning: Resource Area (RA)

Proposed Development:

This application is seeking to build a radio telescope on portion of the subject property through issuance of a Temporary Use Permit (TUP). In support of this proposal, the applicant has stated that:

We wish to build a radio telescope on the site to aid us in identifying the host galaxies of fast radio bursts which we are studying with CHIME, a larger radio telescope which we have built at the Dominion Radio Astrophysical Observatory in Kaledan, 85 km to the East. Measuring the timing of signals arriving at the two instruments will help us to determine the direction to the source. The proposed radio telescope is safe. It has no moving parts, does not use high voltage and does not emit any radiation. It will not make noise except for an air-conditioner used to keep our electronics from overheating in the summer. We have licensed to use the land for five years, with an option to renew. At the end of our license we will remove the telescope.

Site Context:

The subject property is approximately 115.4 ha in area and is situated approximately 8 km south side from the Town of Princeton accessed by Allenby Road along the east side and bordered by Similkameen River along the west side. It is understood that the parcel is currently used for grazing cattle and is largely vacant land with tributaries from Similkameen River running through the property.

The surrounding pattern of development is generally characterised by largely undeveloped lots with agricultural land along north side and rural land (large holdings) to the east, west and south side.

Background:

The current boundaries of the subject property were created by a Plan of Subdivision deposited with the Land Titles Office in Kamloops on March 24, 1998, while available Regional District records indicate that building permit have not previously been issued for this property.

Under the Electoral Area "H" Official Community Plan (OCP) Bylaw No. 2497, 2012, the subject property is currently designated Resource Area (RA) and is the subject of a Watercourse Development Permit (WDP) designation.

Section 21.3 of Electoral Area "H" OCP Bylaw establishes the following criteria in evaluating a Temporary Use Permit application:

- The use must be clearly temporary or seasonal in nature;
- Compatibility of the proposal with adjacent uses;
- Impact of the proposed uses on the natural environment, including groundwater, wildlife, and all environmentally sensitive areas;
- Intensity of the proposed use;
- Opportunity to conduct the proposed use on land elsewhere in the community; and
- The remedial measures to be carried out to mitigate any damage to the natural environment as result of the temporary use.

Under the Electoral Area "H" Zoning Bylaw No. 2498, 2012, the property is currently zoned Resource Area (RA) under which "Radio Astrophysical Observatory" is not a permitted use.

BC Assessment has classified the property as "Residential" (Class 01).

The subject property is understood to be within Archaeological Predictive Model, which *may* require a permit from Archaeology Branch if land development activities impact an archaeological site.

The subject site is currently being leased by the University of British Columbia (applicant) with the purpose "to build, operate and maintain a radio telescope".

Public Process:

On August 17, 2020, a Public Information Meeting (PIM) was held electronically and was attended by one member of the public (RDOS staff and five members from applicant's team were present).

Due to COVID-19, an Area "H" Advisory Planning Commission (APC) meeting was not held. At the request of Area Director, the application was waived from being reviewed by Area "H" APC members.

Adjacent property owners will have received notification of this application with written comments regarding the proposal being accepted until the commencement of the regular Board meeting. Any comments will be on the agenda as separate item.

All comments received to date in relation to this application are included as a separate item on the Board Agenda.

Analysis:

In considering this proposal, Administration notes that the proposed location appears to be an ideal location to build a radio telescope given the location is relatively flat and the area in vicinity is largely undeveloped.

It is also noted that the subject location was strategically chosen by scientist(s) at Canadian Hydrogen Intensity Mapping Experiment (CHIME) team, to provide significant but appropriate separation from the telescope located at Dominion Radio Astrophysical Observatory (DRAO) and acts as a catalyst in the study to determine more accurate location of host galaxies in outer space.

Although the radio telescope will aid in studies already being undertaken at DRAO, unlike DRAO, no shielding from radio frequency interference (RFI) associated with human use is required as it does not emit any radiation. Hence, no further zoning regulations relating to RFI are necessitated with the use of the radio telescope.

The radio telescope will be maintained by science team at CHIME, who also maintains radio telescope at DRAO, and anticipates one visit per month for maintenance purposes. No additional building or structures are proposed to be constructed to operate the radio telescope.

To delineate the radio telescope from other activities occurring on site (cattle grazing), the land immediately near the telescope will be fenced off and the area outside the fence will not be interfered with the presence of the radio telescope.

No new driveways are proposed to be built for the radio telescope. Subject site will be accessed by Allenby Road followed with a gravel pathway on site that leads to proposed construction location.

Given that the area is largely secluded with three (3) existing residential dwellings within 1000 meters' radius of the radio telescope, additional noise attenuation measures are not deemed necessary. However, Electoral Area 'H' does have a noise bylaw to ensure that persons in the vicinity will not be disturbed by noise that may be caused from the proposed use of site.

Further, the proposed location of radio telescope is outside of the Environmentally Sensitive Development Permit Area and Watercourse Development Permit area as identified in Schedule 'G' and 'H' of the OCP Bylaw 2497, 2012 respectively, as such no environmental reports were required.

Conversely, Administration recognises that subject site has number of tributaries originating from Similkameen River which are ecologically important and may act as source of food for valuable fish habitat.

However, any works within 30 meters from the high water mark of these tributaries would require a Watercourse Development Permit at which stage a Qualified Professional will be required to undertake an assessment to identify impact to fish habitat in the area.

In summary, given the nature of development and anticipated least impact on the neighbouring residential dwellings and environment, Administration is in support of subject Temporary Use Permit.

Alternatives:

- 1. THAT the Board of Directors deny Temporary Use Permit No. H2020.009-TUP; or
- 2. THAT the Board of Directors defer consideration of Temporary Use Permit No. H2020.009-TUP and it be referred to the Electoral Area "H" Advisory Planning Commission.

Respectfully submitted: **Endorsed By:** Attachments:

Rushi Gadoya No. 1 – Agency Referral List C. Garrish, Planning Manager R. Gadoya, Planning Technician

No. 2 – Applicant's Site Plan

Attachment No. 1 – Agency Referral List

Referrals have been sent to the following agencies as highlighted with a \square , prior to Board consideration of TUP No. H2020.009-TUP

	Agricultural Land Commission (ALC)		Fortis
	Interior Health Authority (IHA)		City of Penticton
	Ministry of Agriculture		District of Summerland
	Ministry of Energy, Mines & Petroleum Resources		Town of Oliver
	Ministry of Municipal Affairs & Housing		Town of Osoyoos
V	Ministry of Environment & Climate Change Strategy	Ø	Town of Princeton
V	Ministry of Forest, Lands, Natural Resource Operations & Rural Development (Archaeology Branch)		Village of Keremeos
	Ministry of Jobs, Trade & Technology		Okanagan Nation Alliance (ONA)
	Ministry of Transportation and Infrastructure		Penticton Indian Band (PIB)
	Integrated Land Management Bureau		Osoyoos Indian Band (OIB)
	BC Parks		Upper Similkameen Indian Band (USIB)
	School District #53 (Areas A, B, C, D & G)		Lower Similkameen Indian Band (LSIB)
	School District #58 (Area H)		Environment Canada
	School District #67 (Areas D, E, F, I)		Fisheries and Oceans Canada
	Central Okanagan Regional District		Canadian Wildlife Services
	Kootenay Boundary Regional District		OK Falls Irrigation District
	Thompson Nicola Regional District		Kaleden Irrigation District
	Fraser Valley Regional District		Irrigation District / improvement Districts / etc.
	Naramata Volunteer Fire Department		

Attachment No. 2 – Applicant's Site Plan

