



January 10, 2022

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Fernie Snow Valley Community Association
Attn: Jay Zammit
c/o PO Box 6048
5322 Highline Dr
Fernie, BC V0B 1M6

Via email: zammit@burstall.com

Re: Review of “Galloway Lands – Application for Land Use Amendment”

Dear Mr. Zammit,

Further to your request, this letter has been prepared to provide a review of the hydrological considerations of the document entitled “Galloway Lands – Application for Land Use Amendment”, submitted to the Regional District of East Kootenay by Handshake Holdings Inc. and CH Nelson Holdings Ltd.

The Galloway Lands refers to an approximately 185 ha property with a development proposal for a residential subdivision located at the base of the Lizard Range just outside Fernie, BC within the Regional District of East Kootenay (RDEK) and the traditional territory of the Ktunaxa Nation. The property is located immediately north of the Fernie Alpine Resort, south of Mt Fernie Provincial Park and the Cedars community, and with Lizard Creek and the Elk River along the eastern boundary. Historically, the Galloway Lands were a privately managed forest, with forestry activities undertaken from the 1960s to 1980s. The lands are currently used for recreational purposes, predominantly with nordic skiing, mountain biking and walking trails throughout.

The conceptual development plan for the Galloway Lands includes up to 75 homesites ranging in size from 1.0 to 1.6 ha and conservation lands. The conservation lands not planned for development will be located within riparian areas, alluvial fans, steep slopes and to provide a buffer to Crown land and the Mt Fernie Provincial Park. A domestic use water well and septic field is proposed for each residential property. The proposed domestic water wells do not require provincial review or approval under the *Water Sustainability Act*.

A groundwater feasibility assessment for the project was undertaken by Western Water Associates Ltd. This assessment was completed as a desktop exercise and was based on existing information available for the area surrounding the Galloway Lands, as there are no existing wells on the property. The assessment concluded that the majority of the subject property is not underlain by a mapped aquifer but is likely underlain by one of the known aquifers in the vicinity of the property, likely fractured bedrock Aquifer 534 or a similar type of aquifer. Based on driller-reported

well yield data within Aquifer 534 (not on the Galloway Lands), well yields in the area appear to be above the required 0.42 US gpm. The report also provides guidance on minimum well depths and the required distance between domestic water wells and septic systems.

The groundwater assessment completed to support the development of the Galloway Lands does not include site-specific hydrogeologic information. To support the proposed development plan prior to approval by the RDEK, it would be prudent for the proponent to undertake a drilling program within the area of the proposed residential properties to confirm:

- aquifer information;
- sustainable well yields;
- connectivity to surface waterbodies; and
- percolation characteristics for septic systems.

A cumulative assessment of the proposed water wells and septic systems for the full build-out of the development should also be undertaken to assess the potential environmental impacts to surface waterbodies, particularly fish-bearing watercourses such as Lizard Creek and its tributaries. Lizard Creek is known habitat for Westslope Cutthroat Trout, which is listed as "Special Concern" under the federal *Species at Risk Act*. This assessment should also take into account environmental flow needs requirements and climate change predictions for the region to verify the long-term sustainability of the proposed groundwater source for the development of the Galloway Lands.

As part of the cumulative assessment, a groundwater and surface water monitoring program should be developed and implemented to monitor changes to water levels and water quality in the area through construction and after full build-out. It is also important to ensure that, prior to the start of construction, a thorough stormwater management plan is developed to address changes in stormwater volumes and quality that could impact local watercourses.

I trust this letter meets your current requirements. If you have questions or concerns, please do not hesitate to contact me.

Yours truly,

SweetTech Engineering Consultants

Prepared by:



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