

To: Claire Dewar

RE: Lil'wat Main Street Development – Zoning Amendment Bylaw 1697-2020 and OCP Amendment Bylaw 1698-2020 – Referral

The PVDD has reviewed the proposed development and has the following comments.

1. The proposed drainage solutions need further refinement. The existing site is clear but has an organic well draining base. Once the development is built the site will likely see higher drainage flows due to hard surfacing and buildings. The high-level drainage solutions in the referral document are not likely to be an effective solution.

Issues with current design (From referral document):



- The proposed roadside drainage does not exist and is not likely to have the slop required to meet flow requirements.
- The proposed roadside ditch will make for poor pedestrian access along this stretch that may be a safety concern
- The proposed roadside ditch would have to cross several driveway accesses which would require culverts. If this is the chosen path forward, there would have to be care and attention taken to culvert elevations and sizes.
 - Ditch path shown in red arrows
 - Driveway crossing shown in green
- It is not clear how the proposed drainage path would be planned, running from the back of the property to the Grandmother Slough.

Grandmother Slough:

The Slough is a natural drainage path that is an old channel of the Lillooet River. Since it was cut off from the river in the late 40's and with major development in the area, the slough lacks water flow. The slough is naturally infilling due to the lack of water flow. More waterflow into the slough would be beneficial provided that the water is clean. Care should be taken to make sure that salt from snow melt and other contaminates do not enter the slough in vast quantities. The slough is a fish bearing stream and an ecosystem that needs to be maintained.

Due to the expansion of development in the area the beaver population is thriving in the slough. With so much human activity the natural predators of the beavers are no longer very active in the area. This is causing the slough to further fill in. Areas up and downstream of a dam have sediment infill issues due the effects of the dam on the water flow. Other issue resulting from the dams are the PVDD's management of the water flow. The PVDD must release water from the dams to keep properties from flooding and septic fields working. This releases sediment downstream and is not desirable. The PVDD has been working to install beaver pipes in the dams and will keep up this practice.

The slough is a source of early flood water from the Birkenhead River due to high flows and any drainage designs should make sure they take this into account. The drainage can work in both directions. This means any gravity drainage should have backflow prevention or valves to shut it off. Also, gravity drainage is not a reliable mode of drainage in Pemberton.



Snow storage:

In the past many developments in the Pemberton have not included for snow clearing or snow storage in the up-front planning.

This continually causes issues in the (Peak/Pioneer, Meadow Lane and others). This issue is also very hard to deal with after the fact. This year when Pemberton saw a large amount of snow fall in the early winter months, many strata's and the VOP itself had to spend a lot of money and resources to move snow. This is because the areas where they traditionally store snow are not well thought out and quickly filled up.

In looking at the plan for this development the parking area is not well suited for snow removal and there is no area dedicated for snow storage. Further to this the proposed highway ditch states, "should not be used for snow storage" The reality is that this area will likely fill up with snow from the clearing of the highway itself and not just from the clearing of snow from the development. This is a problem that should be solved up front.

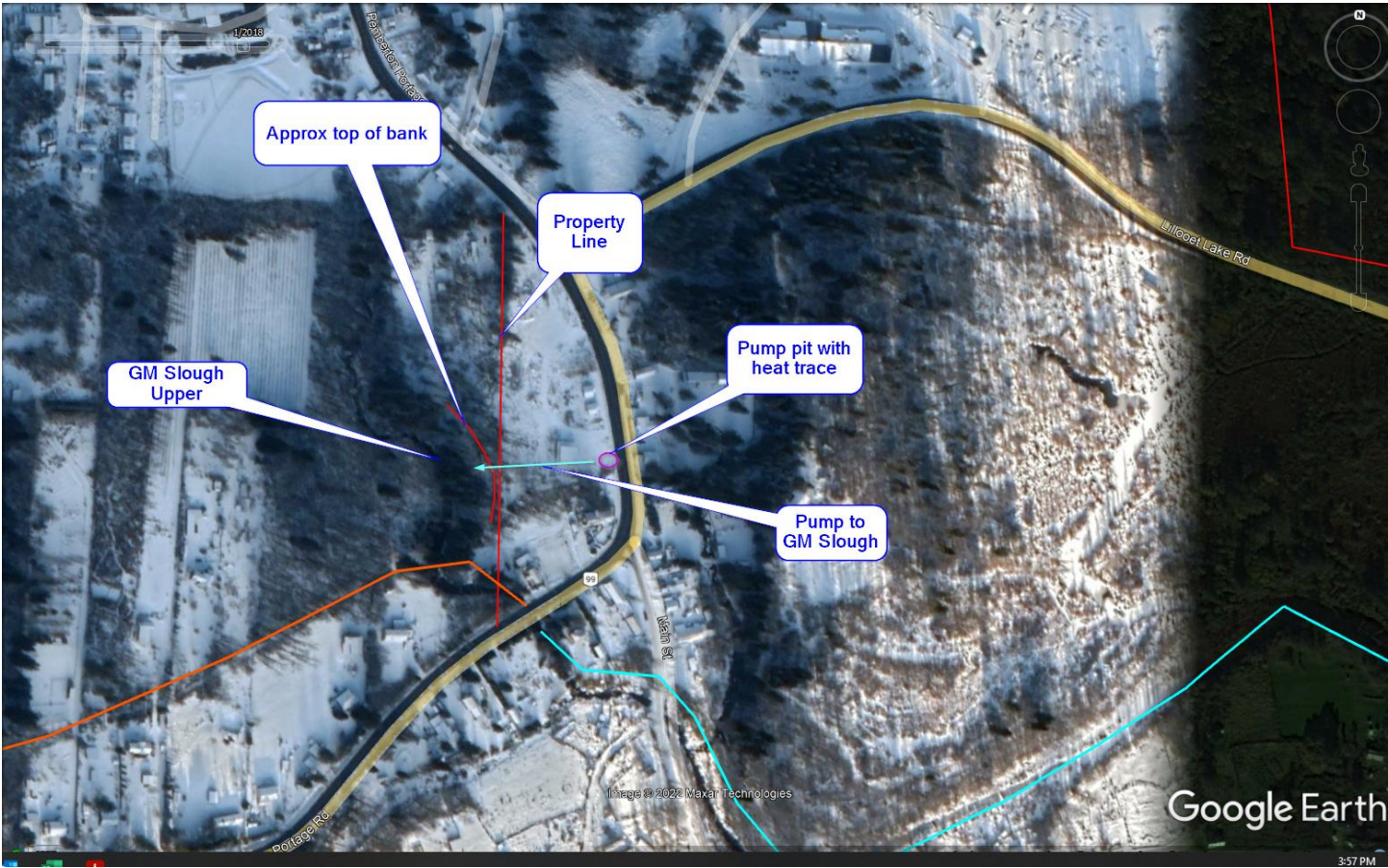
Emergency Preparedness and Parking:

Areas of refuge during highwater events are few and far between in Pemberton. Going forward it would be a huge benefit if the developments ensured that there is adequate elevated parking (Above 200-year FCL) to avoid the need to move vehicles and possibly store excess vehicles and other valuables from the surrounding areas during a high-water event.

Also having capacity to house evacuees in an area like this would be a benefit but not mandatory as we cannot evaluate the financial capacity of a development such as this to be able to accommodate this.

Possible solutions for discussion:

The PVDD went out and walked the area. Although we could not locate any property pins to definitively comment of property lines, we have an option that may be worth exploring. The West side of the development should be able to gravity drain as long as a well maintained drainage path to top of bank is maintained.





The PVDD is available to help and add any input as required for this project. We are committed to working with development to ensure long term sustainable growth. This development fills a much-needed gap in this area and would appear to be very beneficial.

Thank you for the opportunity to comment.

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