Gabriola, BC

Re: Extensive tree removal on Gabriola Legends Development

To: Trustees:

By way of introduction, we are scientists from a US national laboratory, Fermilab, which is a sister laboratory to TRIUMF in Vancouver. Fermilab is a designated National Environmental Research Park, one of only 6 in the US set on 6800 acres with restored wetlands, and prairies including a herd of bison. We work in partnership with climatologists and environmental engineers.

After driving up the west coast through Oregon, California, the Olympic peninsula, and Vancouver Island, we then explored the West Gulf Islands for our next home (John is a Canadian citizen from BC). After visiting Salt Springs and Galiano, we immediately recognized Gabriola as unique with a temperate rainforest ecosystem. In December 2019, just before the borders closed, we purchased a lot on Bonnie View Rd and spent the pandemic years designing an efficient zero-energy house to minimize our carbon and ecosystem footprint, doing our part to preserve the rainforest and uniqueness of Gabriola with the stated expectation and reassurance of forest conservation in surrounding areas. (We recently received an occupancy permit from RDN and have started moving into the house.)

However, since we first purchased the land and on returning post pandemic, we have been shocked at the extensive expanses of trees removed from the development to the south of our property (Legends II) and have started asking questions. We have been unable to discover an approved plan indicating the final lots nor any reference to the already executed cutting done during the pandemic. This is of serious concern as the following conditions require an environmental impact analysis to protect the island community at large, not just the Gabriola ecosystem.

General:

- Temperate rainforests are critical to slowing climate change and are notoriously fragile;
 temperate rainforests are considered as important as preserving the Amazon rainforest. Due to development, Gabriola is less forested percentagewise than other Gulf Islands.
- Complex wetlands are critical habitats to all wildlife on Gabriola and are extremely sensitive to any surrounding disruption; Gabriola has the highest percentage of wetlands of any Gulf Island.
- Extensive removal of tree canopy results in more rapid evaporation of surface water and
 increasingly dry vegetation conditions. Drier soil caused by development places the remaining
 isolated forest stands at risk. Many tree species will disappear from the island under drought
 conditions and the fire risk on Gabriola will increase.

Gabriola-specific:

• Gabriola has very thin and nutrient-poor soil (as does the Amazon). Copses of Douglas Fir/Arbutus trees hold Gabriola's thin topsoil in place above the underlying bedrock - other trees cannot survive the low soil/low moisture conditions. These Douglas Fir/Arbutus stands are

- classified as ecologically sensitive Woodland habitats and were previously numerous in this development.
- The Gabriola community relies on wells and septic systems. Canopy removal impacts both surface and ground water evaporation occurs rather than diffusion into the aquifers supplying the wells. Water tables are sensitive to the ecosystem and fluctuating levels will affect all neighbouring homesteads and the overall sustainability of local human occupancy.
- There appears to be a request to remove the trees on the steep bluffs between the properties on Bonnie View to South Rd in this development – there is a significant elevation drop. Erosion of topsoil will occur. The risk of damage from a mud or rock slide is much higher than from a tree falling. Homeowners may find that Insurance will require protections such as a steel reinforced netting on the escarpment slopes and a risk evaluation by experts.
- Continued removal of trees will devalue properties turning this scenic area instead into an overlook view of a housing development.
- The destruction of natural habitat on Gabriola is now higher than any other Gulf Island with the
 exception of Mayne in the Islands Trust. Even with hundreds of lots still undeveloped, Gabriola
 has reached the 30% habitat disturbance level, a tipping point at which the sustainability of not
 only the ecosystem but also the local community is jeopardized.

A final question – there is a recent \$0.5B conservation agreement signed between BC, Ottawa, and the First Nations to protect 30% of lands and waters (natural habitat) by 2030 – to protect land, species, and biodiversity, but also to restore biodiversity with \$200M specifically earmarked for land restoration in BC. How does this new agreement affect new development projects and potential access to federal conservation funding for Gabriola – will it supersede existing by-laws, for example.

Sincerely,
Drs. John and Carol Johnstone