



June 18th, 2025

Dear Ms. Forssman and Board,

On behalf of Vancouver Water Watch and our Gabriola members who attended the May 29 Gabriola Freshwater Footprint Workshop (Session 2) and who read the RDN's Groundwater Connections, we are writing to request answers to several important questions about the groundwater that remain unanswered. We welcome and appreciate the information that has been shared so far. However, we are still struggling to fully understand some aspects of the water project, the supporting data, and the implications for land use planning on Gabriola and the proposed Water Budget Study whose design could possibly be used on other islands. We are requesting that you answer our questions.

1. Concerns Raised by GW Solutions Consultants During the session, GW Solutions consultants highlighted the following serious concerns:

- Fractured bedrock aquifers are low-yield and highly vulnerable to contamination, seawater intrusion, and climate change.
- Climate change impacts are increasing risks to water quantity and quality.
- Well deepening is increasing, with significant associated risks.
- Saltwater intrusion is increasing.
- Monitoring is limited or absent in many areas, especially in high well-density zones.
- Water quality threats include aquifer overuse, drought, earlier seasonal drawdown, and septic impacts due to reduced dilution.

Do you agree with these concerns? Will they be reflected in the Gabriola Water Budget?

2. Resident Contributions to Data Gaps:

How can residents, especially long-time landholders, contribute information to help close the data gaps identified during the session? Just as Indigenous knowledge holders are now valued, so too should the lived experience of residents inform our collective understanding of historic changes and the current state of water sustainability. For example, a resident shared that the Lockinvar Village/Triangle area was once well-watered. Their parents had an artesian well that supplied several homes, but now there is little or no groundwater during the dry season. Is such historical knowledge being sought and included in your data gathering? If not, why?

3. Use of Outdated Well Drillers' Reports:

Some residents have expressed concern that the well data from Elanco Enterprises (Dakin) and other drillers, currently used by the RDN and GW Solutions, is outdated and no longer reflective of Gabriola's groundwater availability. Has this concern been investigated? If so, what was determined? If not, why not?

4. Monitoring in High-Demand Areas:

Is it true that there are no records of water level trends from high-demand, high-density areas? If so, how will this critical data gap be addressed?

5. Need for More Monitoring Wells:

It was suggested that Gabriola needs more current data from additional monitoring wells, particularly in areas with high well density. Ms. Barosso, Senior Hydrogeologist, GW Solutions appeared to agree. Do you also agree? If so, is this being recommended and implemented? If not, could you please explain why?

6. Declining Water Levels:

GW Solutions' records show a "persistent decline" in groundwater levels on Gabriola over the years. This decline is made evident by the millions of litres of water trucked to the island by two major water haulers; by the increasing number of cisterns that are being installed; and, the reverse osmosis system set-up in a high-water demand tourist facility. However, the RDN's Groundwater Connections report describes trends as only "variable." Will the "persistent decline" be clearly presented in the reports you are releasing to the public? If not, why? Can you please define the word "variable"?

7. Contamination of the groundwater by septic systems, over-pumping of existing wells (licensed or unlicensed), newly drilled very deep wells draining water away from shallower wells and saltwater Intrusion, these are all issues that Gabriola groundwater users experience. Unfortunately, the BC Government Groundwater policies do not protect the well owners, as the burden of proof is very expensive and as a result deters enforcement. In order to protect the groundwater users. How will the RDN address these problems and protect this important resource?

8. Why is development permitted when water quality and quantity is not required to be proved?

We recognize that significant data has been collected, but we are concerned that key information is still missing. While we are not experts, we believe the concerns outlined above are reasonable and deserve attention. We are trying to become as informed as possible on this critical issue.

Thank you, in advance, for your time and consideration.

Sincerely,

June Ross

Chair – Vancouver Island Water Watch Coalition

Editor – www.vancouverislandwaterwatchcoalition.ca

July 3, 2025

Re: June 18th, 2025 - Letter to Forssman and Board regarding Gabriola Water

Dear Ms. Ross,

Thank you for your letter and questions regarding the state of water monitoring and planning on Gabriola Island (RDN Electoral Area B).

To start, some context for the project that you are referencing in your questions: Island Trust is currently leading a Freshwater Footprints Methodology Project as a component of the Official Community Plan update. This project, while supported by the RDN Drinking Water and Watershed Protection (DWWP) program through project proposal review, data sharing, and participation in public information sessions, is not being coordinated by the RDN and is being led through Islands Trust, the local government authority for land use planning in that jurisdiction. The RDN cannot comment on questions regarding this particular project or land use planning on Gabriola Island.

The RDN, through the DWWP program, coordinates several water sustainability studies and initiatives on Gabriola Island. We are engaged in surface water quality monitoring in partnership with stewardship groups (the Community Watershed Monitoring Network), lead the Volunteer Observation Well Network (VOWN), with currently two monitored wells reporting on Gabriola, and collect water quality data through the Well Water Testing Rebate program. The DWWP program also provides rebates to residents across the region for rainwater harvesting system installation, wellhead upgrades, and irrigation and soil upgrades. Residents are welcome to share their knowledge through the Water Stewardship Network Get Involved platform (www.getinvolved.rdn.ca/watershed-stewardship-network), which can help to track and flag areas for prioritization in further monitoring, restoration, or stewardship actions.

The various monitoring initiatives through the DWWP help to provide data for technical studies that can work to inform land use planning. For example, the ongoing regional Water Budget Project, which included a report focused on Gabriola in 2013, looks at both input and outputs on the system and proposes areas of high stress to highlight for further monitoring, heightened conservation, or water use targets. Well drillers reports that contribute to studies such as these are obtained from the latest provincial database. The Water Sustainability Action (WSA) came into effect in 2016 and as per the WSA, well reports are required to be submitted within 90 days of constructing, altering or decommissioning a well, ensuring the database includes the most up-to-date information. The RDN relies on the WSA and Groundwater Protection Regulations to formulate long-term plans and bylaws for land use planning.

The *Groundwater Connections* publication released this spring referenced the 5 monitoring wells that were reporting at the time of data analysis. The publication characterizes bedrock aquifer 709 as seeing “variable” historic conditions. This is based on the results from the monitoring wells used in the analysis. Applying this term of "variable" is meant to convey the complexity of the groundwater regime on Gabriola Island and not meant to denote that the aquifer is necessarily stable. We agree that more monitoring is needed as bedrock aquifers are difficult to characterize (both their boundaries and overall vulnerability), and monitoring wells only provide a small snapshot of the overall state of an aquifer.

Aquifers across the region are in need and recommended to have more observation wells tracking both water levels (seasonal and trends) as well as water quality. The RDN works to fill in gaps in the Provincial Observation Well Network through the installation and data collection from residential volunteer wells (private domestic, in-use, pumped) and reports out on the measured groundwater levels on these observation wells in an annual Pre-Summer Regional Groundwater Level Analysis, with the most recent annual report published on June 24, 2025 and publicly accessible on the DWWP Reports page (rdn.bc.ca/dwwp-reports). At this time, we are at capacity for supporting more monitoring wells across the region through the VOWN, but can revisit the addition of more monitoring locations in the future if partnerships, capacity, and program direction support the addition of monitoring sites.

The DWWP program will continue to keep residents informed of monitoring results on Gabriola Island through the annual Pre-summer Regional Groundwater Level Analysis and annual Community Watershed Monitoring Network Results (surface water quality). The DWWP program also welcomes opportunities to collaborate with interested parties such as government agencies, First Nations, stewardship groups, and residents to better understand freshwater resources, communicate the results of science-based monitoring, and advocate for policy that protects these essential surface and groundwater resources.

Kind regards,

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