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The Honourable Doug Donaldson  
Minister of Forests, Lands, Natural Resource Operations and Rural Development  
Room 248, Parliament Buildings  
Victoria, British Columbia V8V 1X4

Dear: Minister Donaldson,

**Re: Private Managed Forest Land – Review with Regard to Drinking Water**

**Context**

The Comox Lake Watershed supplies drinking water to approximately 45,000 users in the Comox Valley. While one third of the watershed falls within Strathcona Park, the source water originates largely on Private Managed Forest Land. The Comox Valley Regional District (CVRD), as authorized and regulated through Island Health, is responsible for delivering clean, safe water to the Comox Valley and surrounding communities. In order to achieve this, the CVRD is currently investing \$126 M in a water filtration plant. The annual maintenance and operating cost of this plant is expected to be \$1.5 M per year and is directly dependent on the water quality input from the surrounding Private Managed Forest Lands.

The CVRD, working together with a diverse stakeholder group which included the private forest land owners, developed a Watershed Protection Plan (WPP) in 2016 aimed at protecting the source of its drinking water<sup>1</sup>. The vision statement for this plan recognized the need for cooperative management as well as the importance of ecosystem function to the provision of high-quality drinking water that can be sustained through time: “Working through the watershed advisory group, the CVRD will ensure that water resources and ecosystem function within the Comox Lake Watershed are protected in order to provide a high quality, sustainable drinking water supply.” The WPP identified 29 risks and made 54 recommendations, several of which were related to forestry operations and regulation.

The WPP was created by a watershed advisory group, which included representatives from TimberWest and Island Timberlands (now operating together as Mosaic Forest Management) and Hancock Forest Management – all private landowners who conduct forestry operations in the Comox Lake watershed. In addition to representatives from all the major landowners, the WAG also maintains representation from the K’ómoks First Nation, local, provincial and federal government representatives, as well as BC Hydro, Island Health, and local environmental stewardship groups. The WPP process was successful in developing strong working relationships between all representatives, and participation by all was respectful and cooperative, with all representatives in support of the finalized WPP. The successful collaboration from such broad representation has led to strong community acceptance and support for implementation of the WPP. Implementation of WPP has been greatly facilitated by both Mosaic and Hancock, particularly in terms of access to their properties for water quality monitoring and support of various studies and research in the Comox Lake watershed, as well as support for public outreach and education.

While a higher standard of forestry is common practice in the Comox Lake Watershed, the CVRD recommends that the regulations governing Private Managed Forest Land need to change to ensure that these practices are not voluntary. Current working relationships between the CVRD and the PMFL landowners are strong, but there is a need for forestry standards to be consistent over time and through changes in ownership or management. Key issues of concern regarding drinking water supply that relate to the *Private Managed Forest Land Act (PMFLA)* and associated regulations (hereafter collectively called the “regulations”) are noted below:

### **Perspective of the Regulations**

The Private Managed Forest Land Program has two goals: 1) to encourage private landowners to manage their lands for long-term forest production and 2) to encourage sustainable forest management practices, including the protection of key public environmental values.

The five legislated management objectives of the *PMFL Regulation* intended for managing public resources overlapping private land (soil conservation, water quality, fish habitat, critical wildlife habitat, and reforestation) fall short of protecting the key public landscape-level values identified and readily accepted for managing public resource values on Crown land under the *Forest and Range Practices Act (FRPA)* (Biodiversity, Cultural Heritage, Fish / Riparian, Forage & Associated Plant Communities, Recreation, Resource Features, Soils, Timber, Visual Quality, Water Quality, Wildlife). These differences in legislation clearly demonstrate that there is a greater emphasis on protecting public resources on Crown land compared to large private forest estates. The private regulations also emphasize production of merchantable timber rather than an ecologically diverse forest stand; for example, Section 16 of the *PMFLA* promotes prompt regeneration of a “healthy commercially valuable stand of trees that is not impeded by competition from plants or shrubs.”

In the past, land management covenants between the land owner and the Province were placed on Private Managed Forest Land parcels owned by large corporations. While some parcels still have these covenants, the owner of many of the large parcels has, over time, worked to remove the covenants, allowing for fewer forest harvesting restrictions, and reducing commitments to water purveyors in community watersheds. For example, the majority of the private forest land in the CVRD drinking water supply area was once covenanted, but those covenants have progressively been removed along riparian and foreshore zones as recently as June 2003. These land management covenants explicitly stated the owner had obligations to establish a formal working relationship with the local water purveyor, employ a hydrologist to regularly monitor forest practices to ensure forest practices did not negatively impact water quality, and other obligations. **As part of the PMFL legislation review, these covenants must also be reviewed on a parcel-by-parcel basis with an emphasis on forest hydrology, climate change/adaptation, and managing public resources overlapping private forest lands.**

### **Professional Reliance and Accountability**

At present, the regulations do not require that Forest Stewardship Plans be prepared, nor do they require forestry planning or prescriptions to be signed off by a professional, whereas forestry activities on Crown land must be signed off. In the case of Stewardship Plans and some other documents, approval by government is required to ensure public resources are managed in a manner that supersedes short-term private business monetary benefit. Professional sign-off is needed to ensure that there is accountability and all decisions place the management of the public resource above the priorities of the owner, employer or shareholders. Ensuring that forestry plans are a) required and b) signed off by professionals on Private Managed Forest Land would engage the requirement for professional foresters, engineers and biologists to meet their ethical obligations of stewardship. For example, under the *Foresters Act*, professional foresters are

required to uphold seven principles of stewardship of forests which include: ecological integrity, information and understanding, and social foundation. A requirement to engage professionals would also engage the oversight of the new Office of the Superintendent of Professional Governance. Currently, forest estate planning, rate of harvest, visual impact assessment, road planning and deactivation, reforestation planning and commitment, riparian management, climate change/adaptation, and other critical land management documents are not required to be completed or signed off by qualified professionals.

Forest professionals are at the front line of climate change and adaptation decision-making at landscape-level forest management. Professional governing bodies for resource management professionals such as the ABCFP and EGBC have mandated their practicing professionals to consider and implement actions to address climate adaptations established by Provincial and Federal governments. Other professions such as accounting and law and are disconnected in their mandate to directly implement climate adaptation actions; however, the decision-making authority of these professionals supersedes the decision-making authority of resource management professionals at large corporations. **Changing regulations to explicitly require forest professionals to sign and seal land management documents will help shift culture in large organisations to facilitate the implementation of actions to address climate adaptation mandates being implemented by government, such as Clean BC.**

### Scale of Disturbance

The regulations appear to be geared toward small holdings, and do not reflect the industrial scale of forestry activities practiced in the Comox Lake Watershed. The regulations should reflect the scale of the managed forest area, similar to the way in which large industrial users are regulated more stringently on Crown land under the *Forest Planning Practice Regulation (FPPR)* than small woodlot owners are under the *Woodlot Licence Planning and Practices Regulation (WLPPR)*, to reflect differences in potential impacts and in resources available to mitigate them.

While small-scale land owners may have insignificant influence on these landscape-level values, the majority of the private forest land holdings are large landscape-level units comprised of several entire watersheds. The recent merger of TimberWest and Island Timberlands emphasized the need to regulate large landscape-level private land holdings separately from small parcels of private forest land. **Increased land holdings by one organisation must come with increased responsibility to manage public values over the landscapes.** The regulations should be significantly strengthened to mandate the best practices that many industrial-scale forestry companies are already implementing and bring them in line with practices on Crown land.

The regulations do not recognize community watersheds, as is done in the *Forest and Range Practices Act*<sup>ii</sup>. The regulations relate primarily to drinking water intakes and do not consider the surrounding watershed as part of the water supply and delivery system (*i.e.* do not recognize the value of ecosystem services as municipal assets). The designation of Community Watershed should apply to all lands in drinking watersheds, as defined in *FRPA*, regardless of their ownership, Crown or private. **Forestry activities in Community Watersheds should be held to a higher standard than on lands outside community watersheds.**

As opposed to Crown land, where annual allowable cut is established by forest region, there appears to be no limit to the rate of cut on private forest lands. **The rate of cut should be managed cohesively across the forest land base and include Private Managed Forest Lands.**

## Water Quantity

The regulations do not address water quantity or timing of flows. These are critical elements to the delivery of drinking water and are made ever more vital by the observed and predicted changes to weather patterns.

There is no mention of cumulative effects, hydrological or otherwise, in the regulations. The Comox Lake WPP acknowledges the need for intact, functional ecosystems to the health of streams and those that rely on the water for drinking. This is especially critical in systems such as the Comox Lake Watershed which have a history of logging that stretches back over a century. Historical harvesting targeted the riparian zone, and current “large” trees (> 30 cm dia.) are only a fraction of the size of those historically present (>1 m dia.) and a fraction of the size needed to adequately stabilize the stream banks under high stream flow events. Given the observed and predicted increasing intensity and frequency of large storms, due to a changing climate, riparian protection is critical to protection of drinking water quality and quantity.

## Riparian Protection

The riparian protection components of the regulation are predicated on fish presence and channel width and have little connection to riparian function, stream ecology or maintenance of water quality and quantity. As noted above, small streams less than 1.5 m in width have no protection at all from harvesting right to the edge of the stream, by any method, including machine.

Section 27(1) of the *PMFLCR* requires the retention of at least 30 trees along each bank of a 100 m segment of stream. Preference is given to trees greater than 30 cm in diameter within 10 m of the stream, with a descending preference for trees that are further away and smaller in size. If there are not enough trees present to meet the criteria, under section 27(3) the land owner is exempted from the requirement and is still permitted to cut trees smaller than 20 cm. This practice does not allow for recovery of riparian areas that have been previously logged, burned, or otherwise damaged. **Streams without adequate riparian vegetation must be allowed to recover without harvest.** Under the regulation, non-commercial trees and understory vegetation must be retained within 30 m of large streams and 10 m of streams less than 3 m wide but this is not required if it “will not cause a material adverse effect on fish habitat or water that is diverted by a licensed waterworks intake.” Since “material adverse effect” is not defined, this section is ineffective.

The riparian retention guidelines are inadequate and not in keeping with current research or practice elsewhere in the Cascadia region. Riparian buffers along non-fish bearing streams in Washington and Oregon were implemented in the US Northwest Forest Plan in 1994 and have been intensely monitored since that time. Riparian “no-go” reserves of a minimum 300 feet (~90 m) for fish-bearing streams and 150 feet (~45 m) for non-fish-bearing streams have been in place since that time<sup>iii</sup>. In the area covered by the Northwest Forest Plan, riparian buffer areas are not included in calculations of the timber base.

**At a minimum, riparian reserves equivalent to those under *FRPA* should be mandatory with the provision that riparian reserves must also be applied to small and headwater streams.** As measured by total stream length, first order streams make up the vast majority of streams. They are often spring-fed and sensitive to ground disturbance. At present, there is no requirement under the regulations to protect small streams less than 1.5 m wide and many are cleared to their banks, leaving them vulnerable to drying up. Once the surrounding water table drops, their ability to recover is limited. These headwater streams are essential to a year-round reliable supply of water and are essential transporters of nutrients to downstream reaches, including fish-bearing streams. **Some of the best scientific research on the value of headwater streams has occurred and continues to occur in BC, Washington and Oregon, yet it does not**

appear to be incorporated into current BC government policy or regulation, including on Crown land.

### Water Quality

Section 13 of the *PMFLA* states that the “forest management objective for Private Managed Forest Land with respect to water quality is to protect human drinking water, both during and after harvesting.” Water quality is not defined.

Section 14.1 of the *PMFLCR* was added to the regulation in July 2019. It requires that “primary forest activity must not cause a material adverse effect on the quality of drinking water that may affect human health at the point of diversion of a drinking water intake.” The phrase “point of diversion” is a mechanism that effectively removes the obligation to protect water quality in streams as long as poor-quality water does not reach the intake of a water supply. This is not acceptable, and the phrase should be removed. Sediment, contaminants and pathogens can accumulate in small quantities throughout a large watershed and be mobilized suddenly by large storms with the effect of creating a pulse of material that enters an intake. Since the cause and effect are disconnected in time, it would be virtually impossible to track the contaminants back to their source.

While Section 2 of the *Private Managed Forest Land Council Matters Regulation (PMFLCMR)* authorizes the minister responsible for the *Wildlife Act* to establish water quality objectives upstream of a licensed waterworks intake, it is unclear if such objectives have ever been established or enforced anywhere in the province. Where such objectives are established, they do not come into effect for six months. On Crown land, water quality objectives are enabled under the *Environmental Management Act*, *FRPA* and the *Drinking Water Protection Act* and are established by the Environmental Protection staff of BC Ministry of Environment in cooperation with regional health authorities in community watersheds; it is unclear why this is not the case under the *PMFLCMR* and why the minister responsible for the *Wildlife Act* would be the decision-maker. **The decision-maker on private forest lands should be consistent with the decision-maker for Crown lands, particularly for watersheds where both Crown and private forest land comprise the source water area for a community.**

Section 25 of the *PMFLCR* contains the legal mechanism by which the *PMFLA* is intended to meet its objective to “protect human drinking water”. It places the onus on the waterworks licensee (*i.e.* the CVRD) to first demonstrate that there has been a “reduction in water quality”, though water quality is also undefined in this document, and then to show “reasonable cause” that the source of this reduction is on Private Managed Forest Land. If the waterworks licensee can successfully do this, they are allowed to notify the land owner (the regulation is silent on who adjudicates these subjective requirements, the Council or the land owner). The land owner must then tell the licensee what the problem is and what and when they will do to fix it; however, there is no time frame provided. If the problem is not fixed, the licensee can report the problem to the Council. The Council could fine the land owner, but only up to \$25,000, or dismiss the case. There is no fine for exceeding water quality objectives intended to protect drinking water. Council decisions can be appealed to the Forest Appeals Commission, a government-appointed group of professionals (none of which, as of this writing, appear to have any experience in drinking water) from which appeals tribunals are selected. **There must be accountability for water quality diminishment, which includes timely reporting to the water purveyor of known issues or incidents, and appropriate timelines, enforcement measures, and fines if necessary, to remedy the problem.**

Other provincial regulations, that have a great influence on the cost of clean safe drinking water to communities, have recently changed. Turbidity standards for purveyors have been lowered by Island Health, so effectively any sediment in the water supply is an issue. The financial implications to communities are significant, and the importance of sound forest management is unprecedented.

## Jurisdiction

Under section 21 of the *PMFLA*, local government is excluded from enacting bylaws or issuing permits that would restrict forest management activities. **If local government is not permitted to regulate activities which impact its water supply, then higher order governments should have a duty to protect local government interests by insuring that water quality, quantity, timing of flows, and ecosystem health and function are protected.** Vancouver Island is disproportionately affected by the regulations, due to historical patterns of land grants and settlement. While private forest land represents only 2% of the provincial land base, it accounts for almost 20% of Vancouver Island.

## Oversight

Administration and enforcement of the *PMFLA* is not carried out by the Ministry of Forests, Lands and Resource Operations, who enforce *FRPA* on Crown land, but by the Private Managed Forest Land Council, a self-described “independent provincial agency” comprised of five members: two appointed by the Provincial government, two elected from the Private Managed Forest Land owners, and a chair appointed by the other four. The Council has three or four staff that conduct initial investigations/interviews of complaints and hire specialized consultants to conduct field investigations if deemed necessary. A professional reliance model may be appropriate for small-scale low risk/consequence activities, but it is not appropriate for large-scale forestry in community watersheds where the consequences of poor management impact a large number of people. **Third party oversight is needed.**

## Summary of Recommendations

1. As part of the PMFL legislation review, historic and current land management covenants on private forest land must be reviewed on a parcel-by-parcel basis with an emphasis on forest hydrology, climate change/adaptation, and managing public resources overlapping private forest lands.
2. Changing regulations to explicitly require forest professionals to sign and seal land management documents will help shift culture in large organisations to facilitate the implementation of actions to address climate adaptation mandates being implemented by government, such as Clean BC.
3. Increased land holdings by one organisation must come with increased responsibility to manage public values over the landscapes.
4. The regulations should be significantly strengthened to mandate the best practices that many industrial-scale forestry companies are already implementing and bring them in line with practices on Crown land.
5. The designation of Community Watershed should apply to all lands in drinking watersheds, as defined in *FRPA*, regardless of their ownership, Crown or private. Forestry activities in Community Watersheds should be held to a higher standard than on lands outside community watersheds.

6. The rate of cut should be managed cohesively across the forest land base and include Private Managed Forest Lands.
7. In addition to water quality, protections for water quantity and timing of flows is essential and must be included in the regulations. Cumulative effects must be considered.
8. The riparian retention guidelines are wholly inadequate and not in keeping with current research or practice elsewhere in the Cascadia region. At a minimum, riparian reserves equivalent to those under *FRPA* should be mandatory with the provision that riparian reserves must also be applied to small and headwater streams. Streams without adequate riparian vegetation must be allowed to recover without harvest. Implementation of standards consistent with the US Northwest Forest Plan (riparian “no-go” reserves of minimum 300 feet for fish-bearing streams and 150 feet for non-fish-bearing streams) would be a preferred outcome.
9. The phrase “at the point of diversion” should be removed from Section 14.1 of the *PMFLCR* to emphasize that water quality must be protected throughout the source water watershed. Both “water quality” and “material adverse effect” should be clearly defined in the regulations in consultation with drinking water experts.
10. With respect to water quality objectives, the decision-maker on private forest lands should be consistent with the decision-maker for Crown lands, particularly for watersheds where both Crown and private forest land comprise the source water area for a community.
11. There must be accountability for water quality diminishment, which includes timely reporting to the water purveyor of known issues or incidents, and appropriate timelines, enforcement measures, and fines if necessary, to remedy the problem.
12. If local government is not permitted to regulate activities which impact its water supply, then higher order governments should have a duty to protect local government interests by insuring that water quality, quantity, timing of flows, and ecosystem health and function are protected.
13. A professional reliance model is not appropriate for large-scale forestry in community watersheds where the consequences of poor management impact a large number of people. Third party oversight is needed.

***K. La Rose***

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<sup>i</sup> The WPP can be found on the CVRD website at <https://www.comoxvalleyrd.ca/watershed>. It was accepted by the Water Committee on April 12, 2016.

<sup>ii</sup> The Comox Lake Watershed is not a designated Community Watershed

<sup>iii</sup> Forest Ecosystem Management: An Ecological, Economic and Social Assessment 1993.  
<https://www.fs.fed.us/r6/reo/monitoring/watershed/>