Tara DeCourcy, Resource Manager
Selkirk Natural Resource District
Kootenay Boundary Region
Ministry of Forests, Lands and Natural Resource Operations

Re: **Boundary TSA Public Discussion Paper (July 2013)**

October 1, 2013

Dear Ms. DeCourcy,

Thank you for the opportunity to respond to the Boundary Timber Supply Analysis Discussion Paper. The Regional District of Kootenay Boundary (RDKB) is leading the development of the Kettle River Watershed Management Plan with the support of a Stakeholder Advisory Group representing interests from across the Boundary region. As we are part way through developing the watershed management plan, the Advisory Group has a keen interest in considering decisions about future land and resource management in the Boundary.

As you know, all aspects of forest management have potential impacts on water flow, quality and aquatic ecosystem health in tributary streams and mainstem rivers. In this response to the TSA Discussion Paper, we discuss issues relating to planning, climate change, and watershed function. Please note that this response summarizes the views of Advisory Group members participating in the review of the Discussion Paper and, while it has been approved for submission by the RDKB Board of Directors, does not presume to reflect the final recommendations developed for the Kettle River Watershed Management Plan (Summer 2014).

**Planning**

Many of the concerns raised by the Advisory Group relate to resource and land use planning issues including biodiversity corridors, mature-forest objectives, and the maintenance of hydrological function. The Kootenay-Boundary Land Use Plan (KBLUP) and the Kootenay-Boundary Higher Level Plan (KBHLP) are more appropriate arenas for discussing these resource land use planning issues.

However, the KBLUP was completed in 1997, and other than incremental variances and GAR Orders, the KBHLP has not been revised since 2002, prior to the Forest and Range Practices Act. The KBHLP was also released, perhaps more significantly, prior to the critical periods of drought and low river flows between 2000 and 2010. During this time, our understanding of climate change and the cumulative effects of multiple resource management, recreational and land

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development activities has become clearer. It is time to revisit resource management objectives in discussion with resource management and watershed stakeholders, and update the KBLUP and KBHLP. Indeed, shifting from managing single industries to managing resources and their cumulative impacts in an integrated manner is a critical development:

> *A cumulative impacts lens challenges us to improve our laws by placing the primary focus of assessment and management on the needs of the land, water and people themselves rather than the resources to be extracted. It requires us to identify what we value, and the attributes of those values that can be measured, managed and maintained over time to ensure the integrity of the environment and human well-being… And in the 21st century this exercise must fully integrate the compounding impacts of climate change.*[1]

To accommodate the intent of integrated, cumulative impacts resource management, the Advisory Group would like FLNR to adopt cumulative effects management involving multiple stakeholders, and to signal this change by considering a change in name from Timber Supply Areas to Resource Management Areas. The resource management priorities for these RMAs must include much greater emphasis on watershed health and function, biodiversity, and ecosystem integrity.

**Climate Change**

The Discussion Paper focuses on forecasting a number of moderate adjustments to current practices and current constraints, with future considerations only relating to mountain pine beetle impacts. However, in the coming decades climate change is nearly certain to have a number of impacts on forestry, including: decrease of winter logging season and shorter access to winter roads; lengthening fire season and increasing fire severity; and increased outbreaks of disease and insects.[2] At the same time, there may be opportunities to facilitate the migration of southerly tree species upslope while supporting biodiversity conservation and hydrological function. The interaction of these and other climate effects on forestry, agriculture, water use and hydrology will likely have major impacts on watershed function:

[1] West Coast Environmental Law. Beyond Pipelines: Managing Cumulative Effects of Resource Development in BC. http://wcel.org/beyond-pipelines

[2] Pacific Climate Impacts Consortium – Plan2Adapt Climate Summary of Climate Change for Kootenay Boundary in the 2080s: http://www.plan2adapt.ca/tools/planners?pr=45&ts=9&toy=16

> *Climate change is one of the most important issues facing resource managers planning for the future. Predicted changes in climate may significantly impact the distribution and productivity of plants, animals, and ecosystems.*[3]

Because the Discussion Paper and Data Package do not take into account these various aspects of climate change and disturbance dynamics, the 'sustainable long-term harvest level' forecast in the base case is not very meaningful. While it is likely not possible to incorporate these impacts into the models at this point, it is important that FLNR assesses the degree of uncertainty that climate change and related disturbances may have on forecasting the volume of timber available for harvesting.

Furthermore, it would be prudent to be conservative in how much timber is cut over the next 10-20 years until we have: a) incorporated climate change and disturbance dynamics in forestry models; and b) formalized cumulative effects management for the region and updated land use and conservation planning objectives.

**Maintaining Watershed Health and Function**

As part of a shift towards cumulative effects management, additional emphasis needs to be placed on key watershed components in resource management planning, including timber supply planning. These considerations include:

- *Riparian management.* Riparian degradation and sedimentation have been identified as key issues by the Kettle River Riparian Working Group and the Stakeholder Advisory Group. Planning and operational measures need to ensure that erosion is controlled and mitigated through proper road and stream crossing maintenance, maintaining the integrity and connectivity of riparian corridors, and science-based thresholds for roads and surface disturbance.
- *Fisheries protection.* Given the variable flows of the Kettle River and tributaries and effects of climate change on water flow and temperature, consideration needs to be given to treating the watershed as 'fisheries-sensitive' in terms of conserving quality, quantity and timing of water flow and preventing cumulative hydrological and water quality effects, including temperature and sediment.
- *Cumulative effects and hydrological response*. Determining the cumulative effects of forest harvest and road development on whole-watershed hydrology, streamflow

[3] BC Ministry of Forests and Range. *Biogeoclimatic classification and climate change.* http://www.for.gov.bc.ca/hfd/pubs/Docs/Bro/Bro89.pdf

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response and sediment dynamics. This should include assessing the role of middle and upper elevation forests on moderating streamflow response.

Thank you for the opportunity to respond to this discussion paper. The Stakeholder Advisory Group looks forward to more discussions about resource management planning in the Boundary.

Regards,

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cc:
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