



## **Board Bulletin, Volume 13 The Need to Manage Cumulative Effects**

February 2013

*This bulletin describes the need to manage the cumulative effects of natural resource development in British Columbia. It is one of a series of five Forest Practices Board bulletins describing important issues for forest management identified in recent Board work.*

*The other bulletins in the series deal with the need for better public involvement in forest management decisions, the need for individual land managers with responsibility for an appropriately-sized landbase, the issue of professional reliance as a possible distraction from needed reforms, and the benefits to the BC public of having the Forest Practices Board provide independent oversight of forest and range practices. These bulletins are intended to foster discussion and encourage progress toward improved stewardship of public forest and range resources.*

British Columbia's economy benefits significantly from the development of natural resources. Every year, the province of BC issues thousands of permits to use Crown land—permits to log, draw water from streams, build roads and pipelines, drill for oil, mine coal, or carry out a myriad of other activities. Currently, there are more than 250 000 active permits (including licences, leases, authorizations, etc.) in the province.

Individually, these permits may have minimal effect on the landbase. Collectively, however, their effect can be significant. In a report published in 2009, [Biodiversity Conservation during Salvage Logging in the Central Interior of BC](#), the Board found that individually-authorized forestry cutblocks from the previous 30 years had merged into very large harvested areas, some covering more than 10 000 hectares. This occurred through a series of separate decisions rather than a coordinated effort in which the risks and benefits were understood.

Yet BC does not have a framework for managing cumulative effects and so the cumulative effect of natural resource development remains largely unknown and unmanaged. One of the most important tasks facing natural resource managers in the near future will be to find a way to manage these effects. This will be essential if we are to make sure that the resource landbase continues to provide sustainable benefits for British Columbians.

This issue was the subject of [Cumulative Effects: From Assessment Towards Management](#), a Board report published in 2011, and it continues to be an issue to this day.<sup>i</sup>

## A recent example in northeast BC

In its audits and investigations, the Board continues to see examples of the need to manage cumulative effects. While auditing forest practices on a tree farm licence (TFL) in the summer of 2012, Board auditors observed that roads recently deactivated by the TFL holder had been reactivated in an improvised manner for the purpose of exploring for coal. Auditors also observed that numerous short spur roads and drill sites were built on top of existing cutblocks, increasing the level of permanent disturbance and decreasing the area that was reforested. In some instances, these cutblocks had already

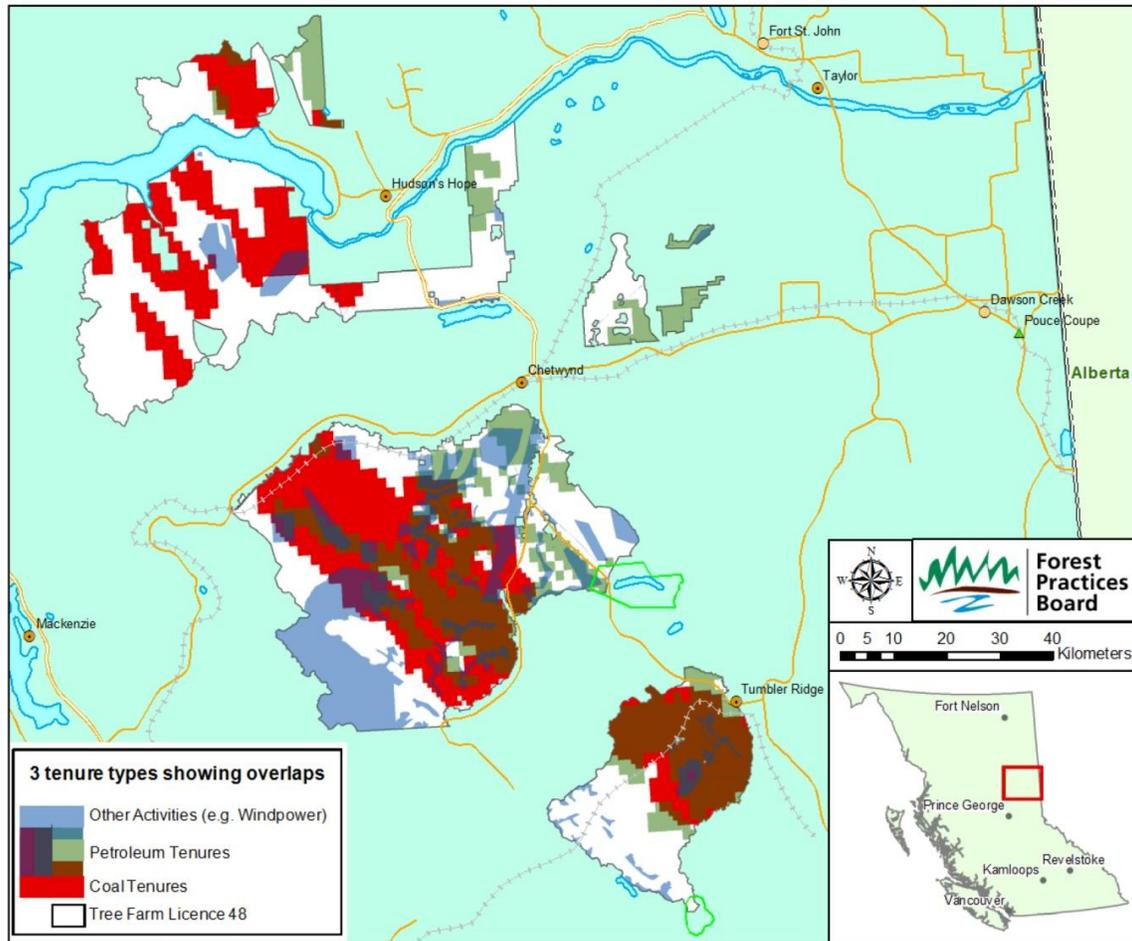


*Gravel pit constructed in a replanted TFL cutblock.*

been planted by the TFL holder. In one example, Board auditors were looking for a previously-harvested cutblock that had been reforested, so they could check on the growth of the young trees. In its place they found a gravel pit developed by a mining company. The TFL holder had not been made aware of these activities, which could affect its legal obligations to reforest the site. On further examination, the Board also found a host of industrial and other activities going on in the TFL, including windfarms, mines, mineral exploration, gravel pits, natural gas wells, compressor stations, pipelines and processing plants, roads and powerlines, traplines and cattle grazing. Authorizations have been issued to at least 13 different companies, not including the holder of the tree farm licence. This mix of developments may have a net positive benefit to society now and in the long term. However, without a framework to assess and manage the cumulative effects of all this activity, we do not know if that is the case.

This is not to suggest that there is *no* coordination of planned activities. Some coordination takes place and improvements are being made. However, there is still work to be done to develop a system where cumulative effects assessment and management are common in resource allocation decisions.

Illustrating the rapid pace of change on the land, the Board previously audited this same tree farm licence in 1998 and observed very limited industrial activity apart from forestry. In the intervening 14 years, the picture changed dramatically.



*A map of the tree farm licence showing some of the other (non-forestry) authorized tenures and activities.*

## The Board's 2011 report: Cumulative Effects: From Assessment Toward Management

The Board noted in its 2011 report that, in BC, there is no framework for managing cumulative effects. The Board was concerned that, to the extent that there is an issue, there is no one to tell—there is no decision maker when it comes to cumulative effects of multiple developments.

The Board called for a land management framework that would include processes for:

1. Articulating strategic direction about society's values for the land and natural resources.
2. Ensuring that decisions are made about the kinds and amounts of human activities that should take place on the land (that is; setting specific and measurable objectives for society's values).
3. Issuing private rights (and responsibilities) to public land and resources within the limits imposed by objectives.
4. Assessing some activities (notably "major projects") to ensure that they will have the minimum negative effect and maximum positive effect on values.
5. Monitoring of activities and effects to ensure that objectives are being met.

The Board believes that progress can be made if cumulative effects assessments methods are embedded in such a land management framework.

## The need for action – what is at stake?

Until a few years ago, the topic of cumulative effects management was not formally considered in government circles, outside the Environmental Assessment Office. Now, the need for it is recognized and some work is underway. In mid-2010 an interagency committee was formed to develop methods for assessing cumulative effects over the entire landbase; not just at the scale of individual projects. Pilot projects related to cumulative effects assessment methods are underway and some results of those projects should be available in the near future, perhaps as early as April 2013.

However, the real issues are not about methods of assessment; they are about the development and implementation of a decision-making framework that can be informed by those assessments. That decision-making framework requires community engagement in articulating values, defining objectives for those values, and defining limits for the effects that society is willing to have on the values.

The Board believes that British Columbians want to live within limits that will allow future generations to have a reasonable quality of life. This does not mean that we cannot develop our natural resources today. Rather, what is required of natural resource managers is that they appropriately manage the cumulative effects of activities on the landbase. Failure to manage cumulative effects may lead, in some parts of BC, to serious, possibly irreversible, environmental harm and damage to natural resources. Economic opportunities may be lost or reduced as a result.

Managing cumulative effects will be challenging, not least because it will sometimes be necessary to say no to proposed development. However, there are limits to the overall capacity of an area or region to sustain resource values in the face of all human activities. It follows that there must be limits to the level of industrial development that should be authorized. It is important to know if we are reaching a “tipping point” in some locations and to be able to avoid reaching that point.

The Forest Practices Board believes that adequate management of cumulative effects will be good for long-term sustainability of the economy. This is consistent with The Conference Board of Canada statement that:

There is growing recognition that gross domestic product (GDP) produced at the expense of the global environment, and at the expense of scarce and finite physical resources, overstates the net contribution of that economic growth to our prosperity.

*(The Canada Project Final Report Volume 1: Mission Possible – Stellar Canadian Performance in the Global Economy, 2007)*

An appropriate framework to manage cumulative effects should provide significant benefits by enabling the best decisions concerning the use of natural resources, including decisions about what types of development to encourage.

BC uses a largely *reactive* approach to resource development. This approach may have served us well when there were abundant resource opportunities on the land, and relatively little pressure to develop them. However, on landscapes that now have the effects of several decades of development and increasing interest in developing the remaining resources, a *proactive* approach is needed. The longer we delay, the harder it will be, due to the rapidly increasing allocation of resources.

British Columbia's resource economy is central to the well-being of its citizens, as is the health of its magnificent natural environment. In the Board's view, the need to improve the management of the cumulative effects of all resource development is one of the most pressing issues facing British Columbia today.

Progress on this issue is essential.

We welcome your thoughts on this bulletin. You can send comments to [fpboard@gov.bc.ca](mailto:fpboard@gov.bc.ca), or join the discussion on [Facebook](#) or [Twitter](#).



## Endnotes

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<sup>i</sup> A number of Board reports have identified the issue. See:

[http://www.fpb.gov.bc.ca/irc184\\_aspen\\_logging\\_grazing\\_conflict\\_in\\_the\\_dawson\\_creek\\_tsa.pdf](http://www.fpb.gov.bc.ca/irc184_aspen_logging_grazing_conflict_in_the_dawson_creek_tsa.pdf) ,

[http://www.fpb.gov.bc.ca/irc175\\_forest\\_resources\\_and\\_the\\_toba\\_montrose\\_creek\\_hydroelectric\\_project.pdf](http://www.fpb.gov.bc.ca/irc175_forest_resources_and_the_toba_montrose_creek_hydroelectric_project.pdf) ,

[http://www.fpb.gov.bc.ca/irc179\\_logging\\_and\\_winter\\_streamflow\\_in\\_twinflower\\_creek.pdf](http://www.fpb.gov.bc.ca/irc179_logging_and_winter_streamflow_in_twinflower_creek.pdf) ,

[http://www.fpb.gov.bc.ca/irc185\\_salvage\\_logging\\_and\\_water\\_flows\\_at\\_cooper\\_creek.pdf](http://www.fpb.gov.bc.ca/irc185_salvage_logging_and_water_flows_at_cooper_creek.pdf) ,

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