



August 20, 2010

The *Guidelines for Aggregating Forest Projects* proposed by the Reserve for adoption on August 31, 2010 would reduce project costs for smaller forest owners in two key areas: *inventory* and *verification*.

Inventory

The Proposed Guidelines would reduce inventory costs for many smaller forest owners by effectively reducing the number of inventory plots required to register each project associated with an aggregate group. This is accomplished by increasing the sampling error allowed before any “confidence deductions” are imposed on estimated carbon stocks. The sliding scale of target sampling errors based on the number of participants in the aggregate is in Table 1 (page 7) of the Proposed Guidelines. A sampling error equal to or below the Reserve target of +/- 5% at the 90% confidence interval is maintained at the level of the aggregate group.

Appendix A of the Proposed Guidelines illustrates the cost savings associated with this approach. Table 4 on page 11 displays modeling results that illustrate the number of inventory plots required for a certain amount of forest acreage when: (a) that acreage is held by one landowner whose inventory meets the “stand alone” project sampling error threshold of +/-5% at the 90% confidence interval; and (b) if the identical forest acreage is held by up to 25 different landowners, each of whom registers a separate stand alone project with an inventory that meets the sampling error threshold of +/- 5% at the 90% confidence interval. As Table 4 indicates, nine landowners would collectively have to pay for 3,223 inventory plots (an average of 358 per landowner) to achieve the same sampling error on nine separate projects that a single landowner (who owns the identical, total acreage and registers a single project) could achieve with 333 inventory plots. This is a 968% increase in total cost, assuming a simple cost per inventory plot.¹

Put another way, these nine landowners, with approximately 2,000 acres each as modeled, would each pay more in inventory costs than would a single landowner who owned all 18,000 acres – and they would each receive significantly fewer CRTs, resulting in a significantly higher cost per CRT than the landowner with the larger landholding.

¹ There are, of course, fixed and variable costs associated with forest inventories, and the 2711% cost increase figure therefore likely underestimates the increase in costs associated with doing twenty-five 358-plot inventories versus one 330-plot inventory. For example, it is only slightly more costly to do a 400-plot inventory than a 300-plot inventory once a forestry crew is in the field, while fielding multiple forestry crews to do three or five 330 plot-inventories on different properties would require significantly more expenditure than the simple three to five-fold increase in the number of plots would indicate.

In contrast, Table 5 on page 12 of the Proposed Guidelines displays modeling results that illustrate the total number of inventory plots required under the proposed sliding scale for target sampling error in an aggregated group of projects. Here, the total number of plots required by the same nine landowners would be 407, only 122% of the 333 required of one landowner with the same acreage, or approximately 45 plots per landowner on average. Each landowner's inventory would achieve a sampling error of +/- 14% at the 90% confidence interval or better, while maintaining a sampling error at the level of the aggregate group of +/- 4.5% at the 90% confidence interval. This compares to 358 plots per landowner if each were to register a separate, stand alone project with an inventory meeting the +/- 5% sampling error at the 90% confidence interval, as noted above.

Thus, the proposed aggregation rules could save these modeled landowners up to 87% (1-(45/358)) as compared to the cost of an inventory for a stand-alone project, again assuming a simple price per inventory plot. In practice the savings would be lower but still significant, as landowners would ensure that inventory sampling errors do not closely approach the sampling error threshold (for risk-management reasons, due to the loss of carbon stocks from confidence deductions per the Reserve rules if the threshold is exceeded) and would thus put in more plots than minimally necessary.

In summary, the proposed aggregation rules enable significant cost savings on forest inventories for smaller forest landowners who associate their projects in an aggregate group, while simultaneously maintaining a statistical confidence in carbon stocks at the aggregate level that equals or exceeds that of a single carbon project on identical acreage.

Verification

The Proposed Guidelines would reduce monitoring and verification costs for smaller forest owners by conducting verification on a sampling basis.

Consider a group of 16 landowners, each with separate stand alone projects. Per Version 3.1 of the Protocol, each landowner would require a third-party verifier to verify their annual report prior to any CRT issuance and would require a site-visit verification at least once every six years. The proposed aggregation guidelines would reduce the frequency of verification for each of these 16 landowners if they qualified for aggregation and associated as an aggregate group. As stated in pages 8-9 of the proposed aggregation guidelines, site-visit verifications would occur at least once every twelve years, while four of the sixteen annual monitoring reports would be selected at random for verification every year.

Thus, by taking a sampling approach to verifying the carbon stocks of the aggregate group of projects, in this example the frequency of site verification would be reduced by 50% and the frequency of desk verification of annual monitoring reports would be decreased by 75% on average and over time. The cash value of these savings would vary over time as verification costs change, but they would remain significant in a relative sense compared to the verification costs of stand-alone projects.

Summary

The Proposed Guidelines for Aggregation would significantly reduce inventory and verification costs for landowners with smaller forest holdings while maintaining statistical confidence in carbon stocks and a robust and accurate third-party verification regime.