Report on Follow-up of Forest Revenue Control Recommendations

Ministry of Forests and Range

Internal Audit & Advisory Services
Office of the Comptroller General
Ministry of Finance
Province of British Columbia

Date of fieldwork completion: January 2008

Table of Contents

Section   Page No.

Abbreviations

BAI	Business Analysis Initiative
BCP	Business Continuity Plan
C&E	Compliance and Enforcement
ECAS	Electronic Commerce Appraisals System
HBS	Harvest Billing System
IAAS	Internal Audit & Advisory Services
IPMs	Internal Performance Measures
RRMP	Revenue Risk Management Plan
the ministry	Ministry of Forests and Range

Introduction

The Ministry of Forests and Range (the ministry) administered between $1.2 and $1.3 billion in revenues for timber harvested in the province between 2004/05 and 2005/06. For 2007/08, the estimate is $1.066 billion. Forest resource revenues represent the government's third largest source of revenue.

The ministry is responsible for ensuring that all Crown timber harvested is identified, and stumpage fees billed and collected. In order to fulfill this responsibility, the ministry has established a system of controls throughout the forest revenue management system located within different branches including the Revenue Branch, Compliance and Enforcement (C&E) Branch, and within regional and district offices.

The last comprehensive review of the ministry's revenue control framework was carried out by Internal Audit & Advisory Service (IAAS) in 2000 which included an evaluation of Office of the Auditor General recommendations made in 1996 and 1997. Since then, there have been several reviews of revenue control activities including the Check Scaling Function Review in 2005, and Harvest Billing Systems (HBS) reviews including a recent post-implementation review completed in 2007. In addition, a review of the Coast Appraisal Process and a review of the Compliance and Enforcement Management of Compliance Activities are currently in progress.

Scope and Approach

The scope of this engagement was to review the effectiveness of key revenue control activities by assessing progress to date against the results of the 2000 Forest Revenue Management Audit, the audit of the Check Scale Function and the Post Implementation Review of the HBS. Specific objectives for this engagement were to determine:

- whether previous IAAS recommendations to mitigate risks to revenues have been effectively implemented;

- whether adequate control has been maintained where changes to the framework have been introduced; and

- where significant risks to forest revenue remain.

The basis of our work in reviewing the progress being made involved mostly enquiry and observation, with limited testing to assure that controls implemented were operating over the time period that ministry staff advised of the controls being in place. We also did not undertake sufficient work to assure that the controls were implemented in all ministry locations over the time period the ministry advised the controls were operational.

Overall Conclusion

Based on our review of the actions taken to date, overall we conclude that the ministry has taken steps to address many of the most significant recommendations from previous audits. This includes significant efforts to implement risk based plans at the region and district office level that can be used to identify and allocate resources towards inspection activities to mitigate revenue risks. It also includes enhancements to Information Technology systems by implementing the HBS and Electronic Commerce Appraisals System (ECAS) and continuing enhancements to HBS to capture appraisal data and scale data at its source and track the data through to billing.

[Information has been severed to protect the financial interests of the Government of BC]. Three risk-based appraisal review pilots intended to strengthen the appraisal process in the interior regions have recently been implemented and will be evaluated in December of this year. As well, the Ministry's Business Analysis Initiative (BAI) provides for an assessment of risk based on capacity within and across critical business areas. The BAI process links risks, budgets and performance with the goal of mitigating risks to revenue.

We also conclude that additional work to address key revenue control requirements remains to be undertaken to lessen the risk of forest revenue loss. The ministry should take steps to formalize accountability and performance management practices and procedures and ensure the accountability cycle is supported by policy.

In this regard, the Revenue Branch should adopt an oversight role to ensure Regional Revenue Risk Management Plans (RRMPs) are aligned with Revenue Branch strategies including monitoring and reporting on results achieved and the provision of timely feedback to regionally-based staff.

[Information has been severed to protect the financial interests of the Government of BC].

As well, the ministry should finalize a provincial framework to support risk based check scale activities including a set of standardized risk criteria for scaler and scale site inspections.

In coming to the above conclusion, we have recognized that changes to revenue systems, as well as the introduction of the Market Based Pricing System and new Interior Log Grades have either reduced the impact of the issue(s) the audit identified or the recommendation(s) is no longer valid.

Going forward, based on this review, the ministry should prioritize the outstanding risks to revenue taking into consideration the current control framework and identify and implement appropriate actions to ensure that timber harvested is recorded accurately and the correct stumpage is billed. This may involve a comprehensive review of the entire revenue control system.

Recommendations

The Revenue Branch should adopt an oversight role to ensure RRMPs are aligned with Revenue Branch strategies including monitoring and reporting on results achieved and the provision of timely feedback to regionally-based staff.

The ministry should prioritize the outstanding risks to revenue and identify and implement appropriate actions to ensure that timber harvested is recorded accurately and the correct stumpage is billed.

Detailed observations have been discussed with the ministry.

Review of the Check Scaling Function

Scaling plays a very important role in determining the volume of timber harvested and the quality of that timber. Scaling data is used to invoice the forest industry for stumpage and to administer the annual allowable cut.

The check scale function is critical to providing the ministry assurance over the accuracy and completeness of harvested volumes.

Ministry Check Scalers ensure that scaler accountability at the scale site is in place and serves as a control to ensure timber is scaled accurately. There is both a legal and administrative framework for scaling in British Columbia and check scalers are highly trained staff supported by policy and practice manuals and software.

The audit of the Check Scaling Function was completed in October 2005, with the finalization of the report and action plans completed in early 2006. Some progress has been achieved with respect to the implementation of recommendations made as part of this review, most notably around the integration of regional and district planning and monitoring activities.

However, many of the recommendations from the audit remain outstanding. Key issues that the ministry should focus on include:

- Develop and implement scaling policy for key issues including the formal adoption of a risk-based approach to conducting inspections resulting in the identification of high risk scale sites and scalers based on criteria such as compliance history, scaling experience, remoteness of scale site, volume and value.

- Ensure valid stratum sampling plans are in place and are functioning consistently. Where the number of samples required by the sampling plan is not attained, the statistical validity of the sampling process is compromised and the risk that information provided to the ministry for billing and stumpage determination is inaccurate increases substantially.

- Modify internal performance measures (IPMs) to reflect the risk based approach and to focus more on value to the crown and less on coverage of scalers.

- Address scaling skills training and development needs by bolstering key competencies related to the practical application of scaling legislation, regulations, policies and procedures.

- Address the bucking of timber below five metres which results in revenue loss to the crown. The practice increases the risk that green logs (or pieces of green logs) will be classified as dry logs causing a revenue loss, and removes the ability of the ministry to identify the parent log which can result in an increased number of saw logs scaled as grade 4 – lumber reject (undersized). Grade 4 classifications result in a $0.25/m^3 minimum stumpage assessment.

- *[Information has been severed to protect the financial interests of the Government of BC]* thereby reducing risk to the confidentiality and integrity of sample plan information.

- Increase the level of off hour inspections of scale sites and check scales as a means of ensuring industry compliance with legislation, regulations and policy.

Forest Revenue Management Audit

The management of forest revenue is made up of a complex system of internal controls in place to manage risks and provide reasonable assurance that revenues are complete. The core functions for revenue management include timber pricing, timber grading, appraisal, scaling, data collection and invoicing. The responsibility for the collection of forest revenue is with the Forest Revenue Branch of the Ministry of Small Business and Revenue.

The Forest Revenue Management system has a high level of inherent risk owing to the complex operating environment, the nature of forestry activities on crown land, and a heavy reliance on the integrity of industry stakeholders. The system requires significant resources to establish and implement effective and efficient controls to adequately mitigate this risk.

The Forest Revenue Management Audit was conducted in 2000. As noted in the overall conclusion, the ministry has made significant progress in implementing frameworks that assess identify risks to allow inspection resources to be allocated effectively.

Other key recommendations that the ministry has addressed from this audit include:

- Implementation of ECAS to replace the paper driven process of submitting appraisal data and controls that assure the integrity of appraisal data submissions.

- Implementation of the HBS that facilitate revenue controls checks and edits. HBS enables the ministry to receive detailed scale data and allows the ministry to focus its resources on data quality management and to improve revenue management.

- Development of new policies that strengthen the revenue control framework, which include having the C&E function allocate 50% of their inspection resources towards high risk revenue inspection activities including scaling, harvest sites and appraisal data.

Areas where the ministry could take further action to address key recommendations include:

- Ensure existing performance management systems are used to assess actual progress on the number and effectiveness of revenue inspections conducted.

Verify the completeness of scale data by analysing cut-to-cruise comparisons, which contrast the estimated harvest volume determined by a timber cruise to the amount of timber actually harvested and scaled on that cutting permit, and examine the effectiveness of the current *[Information has been severed to protect the financial interests of the Government of BC]*.

- threshold for variance which can result in a loss of revenue.

- Enhance the accuracy and integrity of appraisal data, consisting of timber cruise information and logging costs which are both used as the basis for calculating revenues, by reducing the threshold level used to trigger re-appraisals (currently a 15% threshold level).

- Re-examine the take or pay policy to ensure risks to appraisal processes are effectively managed. Take or Pay requires payments of stumpage for timber removed and waste assessments for standing or cut timber left behind.

- Consider increased use of enforcement actions versus use of warnings or administrative options as a means of increasing industry compliance with legislation and regulations.

Post Implementation Review of the Harvest Billing System

The HBS is a scale data management and invoicing system. Scaling data is submitted by the Forest Industry to the ministry electronically or through online entry in HBS. Scaling data is validated and stumpage invoices or volume statements are calculated, issued and delivered to clients.

The HBS Review was completed in 2007. The ministry has made significant progress in addressing many of the recommendations of the Post Implementation Review. A remaining area of concern is that the Revenue Branch should be aware of specific disaster recovery process and procedures available to them in the occurrence of a wide area event. As a result, recovery strategies for key HBS business processes may not be effective. To address this, the Revenue Branch should become aware of disaster recovery procedures.

We wish to express our appreciation to ministry staff for their cooperation and assistance during the course of this review.

Stuart Newton
Executive Director
Audit & Technical Services
Internal Audit & Advisory Services

Detailed Action Plan – Follow-up of Forest Revenue Control Recommendations

Recommendations	Management Comments to be Included in Report (Action Planned or Taken)	Assigned To	Target Date
Review of the Check Scaling Function			
1. Address scaling skills training and development needs by bolstering key competencies related to the practical application of scaling legislation, regulations, policies and procedures.	A Provincial Scaling training position has been created in Timber Pricing Branch. Timber Pricing Branch conducts ministry check scaling training which includes scaling legislation, regulations, policies and procedures. This training was held at 5 central locations across the province in 2009.	Timber Pricing Branch (Scaling Manager)	Mar 2009 complete Ongoing training annually
2. Develop and implement scaling policy for key issues including the formal adoption of a risk-based approach to conducting inspections resulting in the identification of high risk scale sites and scalers based on criteria such as compliance history, scaling experience, remoteness of scale site, volume and value.	Check Scale and Scale Site inspection Risk Rating which included these factors was built into the Scaling Administration Control System (SCS) and implemented in 2009. Policy work to support the systems changes was completed. Districts are currently applying the risk based criteria.	Timber Pricing Branch (Scaling Manager)	Complete Sept 2009 Ongoing risk assessments
3. Carry out adequate control, review and testing of third party software that the ministry relies upon for scale information, thereby reducing risk to the confidentiality and integrity of sample plan information.	Timber Pricing Branch developed a framework to review scale site software. Three scale sites have been reviewed on the Coast and 9 scale sites were reviewed in the Interior in 2009. All existing scaling software has been updated and reapproved by Forests, Mines and Lands.	Timber Pricing Branch (Scaling Manager)	Complete
4. Consider increased use of enforcement actions versus use of warnings or administrative options as a means of increasing industry compliance with legislation and regulations.	Timber Pricing Branch delivered a compliance and enforcement module as part of the 2009 scaling training. Ministry check scalers have been trained in basic law and application of a progressive compliance regime.	Timber Pricing Branch (Scaling Manager)	Complete Mar 2009 Ongoing training annually

Recommendations	Management Comments to be Included in Report (Action Planned or Taken)	Assigned To	Target Date
5. The Revenue Branch should adopt an oversight role to ensure Regional Revenue Risk Management Plans (RRMPs) are aligned with Revenue Branch strategies including monitoring and reporting on results achieved and the provision of timely feedback to regionally-based staff. The ministry should prioritize the outstanding risks to Revenue Branch and identify and implement appropriate actions to ensure that timber harvested is recorded accurately and the correct stumpage is billed.	Timber Pricing Branch 2009/2010 Revenue Risk Management Plan was prepared and forwarded to Regions and Compliance and Enforcement Branch. All three Regions produced Revenue Risk Management Plans in 2009. RRMPs are being updated. Timber Pricing Branch regularly reports unbilled scale and cut to cruise comparisons to Regions. Provincial Revenue Business Area Leadership Team which includes Branch and Region representation has been established to ensure communications and responsiveness to emerging issues. Revenue Oversight Team established to ensure effective and efficient revenue quality assurance at the field level in the Interior.	Timber Pricing Branch Timber Pricing Branch & Regions Revenue Provincial Business Area Leadership Team Regions	Complete Complete Complete Team established Fall 2010
6. Ensure valid stratum sampling plans are in place and are functioning consistently. Where the number of samples required by the sampling plan is not attained, the statistical validity of the sampling process is compromised and the risk that information provided to the ministry for billing and stumpage determination is inaccurate increases substantially.	Regions or Districts approve and monitor valid stratum sampling plans and desired outcomes. Licensee past performance is considered by the Ministry in decisions on future sampling plan approvals.	Regions (Regional Scaling Managers)	Complete Ongoing assessments

Recommendations	Management Comments to be Included in Report (Action Planned or Taken)	Assigned To	Target Date
7. Address the bucking of timber below five metres which results in revenue loss to the crown. The practice increases the risk that green logs (or pieces of green logs) will be classified as dry logs causing a revenue loss, and removes the ability of the ministry to identify the parent log which can result in an increased number of saw logs scaled as grade 4 – lumber reject (undersized). Grade 4 classifications result in a $0.25/m^3 minimum stumpage assessment.	The change to the Interior log grades in 2006 eliminated the dead and dry log grade thereby significantly reducing the risk related to misclassifying dry logs. The Scaling Manual was amended in 2007 to ensure that the grading conventions for logs under 5 metres were accurately applied. Scaling training conducted in March 2009 has reinforced this criteria.	Timber Pricing Branch (Scaling Manager) Regional Scaling Managers	Complete Ongoing monitoring to assess risk
8. Increase the level of off hour inspections of scale sites and check scales as a means of ensuring industry compliance with legislation, regulations and policy.	Reductions in harvest levels and increase in cruise based billing has reduced the level of after hour Industry scaling activity and therefore reduced the risk. The Ministry conducts some off hour inspections based on Industry activity and levels of risk. Finalize policy on off hour inspections and consider a new performance measure. Implement a tracking system and effectiveness evaluation for off hour inspections	Regional Scaling Manager & Regional Compliance Leaders Timber Pricing Branch (Scaling Manager) Regional Revenue Managers	On going Policy complete Ongoing
9. Re-examine the take or pay policy to ensure risks to appraisal processes are effectively managed. Take or Pay requires payments of stumpage for timber removed and waste assessments for standing or cut timber left behind.	Further guidance on the take or pay controls will be provided as risks are identified. The increase in cruise based billing (CBB has reduced risks with take or pay as waste assessments are not required under CBB.	Timber Pricing Branch (Manager Timber Pricing)	Ongoing

	Recommendations	Management Comments to be Included in Report (Action Planned or Taken)	Assigned To	Target Date
10.	Modify internal performance measures (IPMs) to reflect the risk based approach and to focus more on value to the Crown and less on coverage of scalers	Districts apply a risk based inspection regime. Scaling Control System was completed in the Fall of 2009 and will greatly assist in the application of a consistent risk based check scale and scale site inspection regime and tracking system.	Regional Revenue Managers	Complete
		Risk based policy on check scaling to support SCS is implem	Timber Pricing Branch (Scaling Manager)	Complete
Forest Revenue Management Audit				
11.	Ensure existing performance management systems are used to assess actual progress on the number and effectiveness of revenue inspections conducted.	Regions track performance through various systems. The Scale Control System provides a provincial framework for tracking and reporting scaling inspections. Technical reviews of District revenue functions provide quality assurance and the feedback loop.	Regional Revenue Managers	December 2009
		Provincial Revenue Business Area Team is re-established and will update and improve performance measures.	Timber Pricing Branch to assist Regions	Ongoing
		Provincial Revenue oversight team was established to ensure revenue controls are being implemented in the most effective and efficient manner.	Prov.Rev. Business Leadership Team	Team established 2010

Confidential: Prepared for the advice to Treasury Board and Cabinet only.

Recommendations	Management Comments to be Included in Report (Action Planned or Taken)	Assigned To	Target Date
12. Enhance the accuracy and integrity of appraisal data, consisting of timber cruise information and logging costs which are both used as the basis for calculating revenues, by reducing the threshold level used to trigger re-appraisals (currently a 15 percent threshold level).	A new changed circumstance threshold of 5% area change was implemented for cruise based billing in the Interior. If the changed circumstance threshold is set too low there will be extensive reappraisals and associated workload due to frequent minor variances between estimates and actual. The Crown can reappraise for changes below the 15 percent threshold under *Forest Act* s. 105.2 if the licensees data submission was inaccurate. The Ministry continues to assess the appropriateness of these thresholds.	Timber Pricing Branch (Manager, Timber Pricing)	Dec 2010 Ongoing
13. Verify the completeness of scale data by analysing cut-to-cruise comparisons, which contrast the estimated harvest volume determined by a timber cruise to the amount of timber actually harvested and scaled on that cutting permit, and examine the effectiveness of the current 25 percent threshold for variance which can result in a loss of revenue.	Timber Pricing Branch publishes a monthly cut to cruise variance report for Regions and Districts. These reports flag variances for District and C&E staff to follow up on. Compliance and Enforcement Branch to define the cut to cruise process and assess effectiveness of 25 percent threshold with assistance from Timber Pricing Branch New report that measures non saw log % cut to cruise for the Coast is also produced monthly	Timber Pricing Branch C&E Branch Timber Pricing Branch	Complete 2009 Spring 2011 Complete Mar 2010
Post Implementation Review of the Harvest Billing System			
14. The Revenue Branch should be aware of the specific disaster recovery process and procedures available to them in the occurrence of a wide area event.	Timber Pricing Branch Business Continuity Plan which identifies essential business processes, recovery objectives and key contacts has been completed.	Timber Pricing Branch (Manager Systems)	Complete Mar 2010