

# Forest UPDATE Certification



## Canadian Forest Products Ltd. 2016 CSA Z809/ISO 14001 Surveillance Audit Public Summary Report

Between January and August 2016 an audit team from KPMG Performance Registrar Inc. (KPMG PRI) carried out a combined CSA Z809/ISO 14001 surveillance audit of Canadian Forest Products Ltd.'s (Canfor's) B.C. and Alberta woodlands operations. This Certification Summary Report provides an overview of the audit process and KPMG's findings.

### Canfor's B.C. and Alberta Woodlands Operations

Canfor's ISO 14001 and CSA Z809 certifications apply to the following defined forest areas (NB: The DFAs listed are based on the gross area under management, and are prorated estimates in the case of some of the volume-based forest tenures):

Defined Forest Areas (Canfor operations only)	DFA Areas (hectares)	Allowable Annual Cut (m <sup>3</sup> )
Radium <sup>1</sup>	392,400	221,005
Vavenby	227,709	546,138
Prince George <sup>2</sup>	2,070,802	3,773,769
Morice	949,820	1,448,455
Mackenzie	2,188,430	1,082,904
Fort Nelson	7,045,416	1,163,716
Chetwynd	528,877	1,196,363
Grande Prairie	<u>644,695</u>	<u>715,000</u>
<b>Total</b>	<b>14,048,149</b>	<b>10,147,350</b>

- The above figures do not include operations in relation to 10,000 m<sup>3</sup>/year of Canfor's AAC in the Cranbrook Timber Supply Area which are certified to the ISO 14001 standard only.
- Canfor manages 3 DFAs within the Prince George Timber Supply Area (TSA). These 3 DFAs include Canfor's operating areas under the Prince George Forest District/TFL 30, Fort St. James and Vanderhoof sustainable forest management (SFM) plans. Operations under these plans are managed or co-managed by Canfor Forest Management Group East and West Operations.

### Audit Scope

The 2016 audit included site visits to all of the DFAs listed above to evaluate the forest management plans and practices carried out by the Company since the completion of the 2015 audit. It included an assessment against all of the requirements of the CSA Z809 standard, including those related to:

- Public participation;
- Maintenance of the sustainable forest management (SFM) plan;
- Monitoring of SFM performance, and;
- Implementation of the various management system components (e.g., rights & regulations, DFA specific performance requirements, operational controls, monitoring and inspections, corrective & preventive actions, internal audits, management review) that are required under the CSA Z809 standard.





Note: Full scope ISO 14001/CSA Z809 site visits were only conducted at 4 DFAs (Radium, Fort St. James, Houston and Grande Prairie), with the remaining DFAs being the subject of limited scope site visits that were used to evaluate those CSA Z809 requirements that are unique at the site level (i.e., DFA level SFM plans, annual monitoring reports and the functioning of the local Public Advisory Group (PAG)). This level of audit sampling exceeds the IAF audit sampling requirements for multi-site certifications.

## The Audit

- **Background** – The CSA Z809 and ISO 14001 standards require annual surveillance audits by an accredited Certification Body to assess the operation’s continuing conformance with the requirements of these standards. In addition, full scope re-certification audits are required once every 3 years.
- **Audit Team** – The audit was conducted by a 6 person audit team comprising Dave Bebb, RPF, EP(EMSLA) – Lead Auditor, Yurgen Menninga, RPF, EP(EMSLA), Branden Beatty, RPBio, Neil MacEachern, RPF, Dennis Lozinsky, RPF, EP (EMSLA) and Bodo von Schilling, RPF, EP(EMSLA). All members of the audit team have considerable experience conducting audits against the requirements of the ISO 14001 and CSA Z809 standards.
- **Document Review** – DFA-specific off-site document reviews were completed prior to the field audit in order to assess forest management system (FMS) documentation (e.g., SFM Plan and associated values, objectives, indicators and targets, documentation pertaining to the Public Advisory Group (PAG) process, etc.) and increase the efficiency of the field portion of the audit.
- **Field Audit** – The on-site field audit included interviews with a large sample (more than 100 Company staff and an equal or greater number of contractors, PAG members and external stakeholders) and examination of forest management system (FMS) and SFM system records, monitoring information and public involvement information. The audit team conducted field assessments of a large number of field sites (68 roads, 60 harvesting blocks, 45 silviculture sites, 6 logging camps and 3 satellite log yards) to assess the Company’s planning, harvesting, silviculture, camps and road construction, maintenance and deactivation practices. The 2016 audit took approximately 75 days to complete, 55 of which were on-site. The balance of audit time was spent preparing the audit plan, conducting off-site document reviews, completing various audit checklists and preparing the main and public summary audit reports.

## Audit Objectives

The objective(s) of the audit was to evaluate the sustainable forest management (SFM) system at Canadian Forest Products Ltd. to:

- Determine its conformance with the requirements of the ISO 14001 and CSA Z809 standards;
- Evaluate the ability of the SFM system to ensure that Canfor meets applicable regulatory requirements;
- Evaluate the effectiveness of the system in ensuring that the Company meets its specified SFM objectives, and;
- Where applicable, identify opportunities for improvement.

### Canfor 2016 CSA Z809/ISO 14001 Surveillance Audit Findings

Open non-conformities from previous audits	1
New minor non-conformities	3
Systemic opportunities for improvement	4

### Types of audit findings

**Major non-conformities:**

Are pervasive or critical to the achievement of the SFM Objectives.

**Minor non-conformities:**

Are isolated incidents that are non-critical to the achievement of SFM Objectives.

All non-conformities require the development of a corrective action plan within 30 days of the audit. Corrective action plans to address major non-conformities must be fully implemented by the operation within 3 months or certification cannot be achieved / maintained. Corrective action plans to address minor non-conformities must be fully implemented within 12 months.

**Opportunities for Improvement:**

Are not non-conformities but are comments on specific areas of the SFM System where improvements can be made.

## Audit Conclusions

The audit found that the Company's SFM system:

- Was in conformance with the ISO 14001 and CSA Z809 requirements included within the scope of the audit, except where noted otherwise in this report;
- Continues to be effectively implemented, and;
- Is sufficient to systematically meet the commitments included in the Company's SFM Plans, provided that it continues to be implemented and maintained as required.

As a result, a decision has been reached that Canfor's B.C. and Alberta woodlands continue to be registered to the ISO 14001 and CSA Z809 standards.

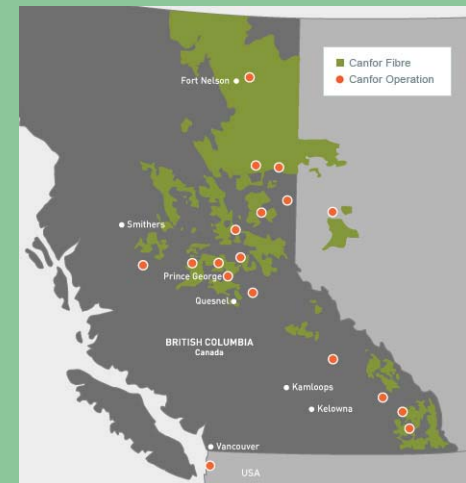
## Good Practices

A number of good practices were noted during the 2016 audit. The following list highlights some of the examples noted:

- ISO 14001 element 4.4.6/CSA Z809 element 7.4.6: The Houston Division along with other divisions in the West Region Fibre Forest Management Group has initiated a pilot project to test drone technology in various aspects of forest management. Houston has taken the lead in the utilization of drone and high definition photography to collect site elevation data to determine preferred road location in difficult terrain. (Houston)
- ISO 14001 element 4.4.6/CSA Z809 element 7.4.6: The audit found that the tracking of temporary bridges was well managed through the use of a tailor-made Excel spreadsheet enabling multiple supervisors to access information regarding bridge locations, history of the structure and required and completed inspections. (Fort St. James)
- ISO 14001 element 4.4.6/CSA Z809 element 7.4.6: The Company has instituted the use of FMS Alerts as a means to help increase staff and contractor awareness regarding recent FMS incidents and their root cause(s). (Corporate)
- ISO 14001 element 4.4.6/CSA Z809 element 7.4.6: The Company has recently developed and started to implement a comprehensive standard work procedure (SWP) that is intended to help reduce the incidental take of migratory birds as a result of forest operations. (Corporate)
- ISO 14001 element 4.4.6/CSA Z809 element 7.4.6: The Radium operation is using LiDAR (Light Detection and Ranging) information in a number of innovative ways (e.g., running deflection lines for cable harvesting, etc.) as a means to drive improvements in the forest management planning process (Radium)
- CSA Z809-08: Element 7.4.6: Review of 2015 Forest Management Agreement (FMA) performance survey results found that Canfor is exceeding the 5 year rolling average MAI (mean and increment) targets for both coniferous and deciduous stands. (Grande Prairie)
- ISO 14001 Element 4.5.1/CSA Z809-08 Element 7.5.1: Canfor has recently developed a fuel tank registry for tracking contractor Transportation of Dangerous Goods (TDG) fuel tanks > 450 litres. The registry tracks contractor TDG requirements for testing every 5 years at a Transport Canada approved facility and is monitored by Canfor staff. (Corporate)



Canfor holds a multi-site certificate to the CSA Z809-08 standard issued by KPMG PRI. The certificate covers a total of 10 Defined Forest Areas in B.C. and Alberta and is valid until September 20, 2018.



- CSA Z809 Element 7.3.3: Canfor Grande Prairie staff participated in a recent Aseniwuche Winewak Nation (AWN) culture camp as a means to obtain FN cultural awareness training. (Grande Prairie)
- CSA Z809 Element 7.3.5: The Radium operation has recently developed a new SFM Plan that combines both CSA Z809 and FSC-BC performance targets into a single plan. (Radium)

## Follow-up on Findings from Previous Audits

At the time of this assessment there were a total of 5 open minor non-conformities from previous external audits, all of which related to ISO 14001 and/or CSA Z809 requirements. The audit team reviewed the implementation of the action plans developed by Canfor to address these issues, and found that they: (1) had been implemented as required in the large majority of instances, and (2) were in most cases effective in addressing the root cause(s) of these findings. As a result, 3 out of the 5 of the open minor non-conformities identified during previous audits have now been closed, one non-conformity (which relates to a weakness in the reporting of harvest method data in the Chetwynd SFM Plan Annual Report) remains open, and one non-conformity (which relates to weaknesses in the implementation of Canfor's Fuel Management Guidelines) has been downgraded to an opportunity for improvement. The Company's continued progress towards addressing the remaining findings will be revisited during the 2017 audit.

## New Areas of Nonconformity

A total of 3 new minor non-conformities were identified during the 2016 ISO 14001/ CSA Z809 audit, as follows:

- ISO 14001 element 4.4.5 and CSA Z809 element 7.4.5 require the organization to ensure that relevant versions of applicable documents are available at points of use. This requirement is addressed in Forest Management System (FMS) Manual section 9 and a number of related procedures (e.g., the Contract Worker SWP, etc.). The audit found that the Company's document control procedures had been implemented as required in the majority of instances. However, the following weaknesses in the implementation of these procedures were noted during the 2016 audit:
  - A number of logging and silviculture contractors working on active sites at the Canfor Houston operation did not have all of the required FMS documentation on-site (e.g., missing fuel tank checklist on 1 silviculture site, lack of pre-work documentation, Emergency Preparedness and Response Plan (EPRP)s and/or site plans on 3 active roads/harvest blocks). (Houston)
  - The Radium site visit noted missing fuel tank checklists on 2 active sites. In addition, 2 processor operators working on these sites did not have a copy of the required block map in their machines. (Radium)
- ISO 14001 element 4.4.6 and CSA Z809-08 element 7.4.6 require the organization to develop and implement operational controls to ensure that operations are carried out under specified conditions and SFM requirements are met. The Company has addressed this requirement by developing a series of standard work procedures (SWPs) and guidelines (e.g., Canfor Fuel Management Guidelines) that give direction to both staff and contractors regarding the implementation of various components of the FMS. The audit found that these operational controls had been implemented as required in the majority of instances. However, inspection of a sample of active and recently completed



The audit team conducted field assessments of a large number of field sites (68 roads, 60 harvesting blocks, 45 silviculture sites, 6 logging camps and 3 satellite log yards) to assess the Company's planning, harvesting, silviculture, camps and road construction, maintenance and deactivation practices.



sites during the audit identified the following weaknesses in the implementation of operational controls:

- Inspection of the roads in a recent harvest block found that although the roads had been reclaimed, 4 log fill stream crossings had not been removed by the contractor as required. (Grande Prairie)
  - Inspection of an active site at the Houston operation found that: (1) the contractor had parked a fuel truck within the riparian management area (RMA) of an S6 stream, and (2) a large gravel pit had been excavated within that same RMA in contravention of Forest Planning and Practices Regulation (FPPR) section 50.3. (Houston)
  - Site plan riparian prescriptions at the Houston operation sometimes include specifications for wind firming retained trees by reducing the density of merchantable stems within RMAs. However, the audit noted 2 examples where these prescriptions had not been implemented as required. (Houston)
  - The Chetwynd audit identified a road located in the RMA of a class S2 stream in apparent non-compliance with FPPR section 50.1, and a portion of the associated riparian reserve zone that had been harvested in apparent non-compliance with FPPR section 51.1. Approximately 150 metres of the road was located 35-50 metres from the creek, and a full right of way width was cleared resulting in the cutting of trees within the RRZ. Further, there was a practicable alternative road location that if used may have avoided some or all of the non-compliance scenario. (Chetwynd)
- CSA Z809 element 6.1 requires the organization to work with the public advisory group (PAG) to: (1) establish performance requirements in relation to all of the SFM elements and associated core indicators included in the standard. Chetwynd SFM Plan Indicator 36 addresses the CSA Z809 “harvest method” core indicator. The target associated with this indicator must be met jointly by Canfor and BCTS to ensure that full timber profile which supports the TFL 48 AAC is harvested. According to the current Chetwynd SFM Plan, there was a target of a maximum of 84% conventional ground-based harvest. This target was also in place for the past 4 years of the current cut control period. SFM Plan Indicator 36 states that in order to fully harvest the timber profile (including consideration of merchantable stands on steep slopes) cable harvest systems must represent at least 16% of the harvest area. The 2014/15 SFM Annual Report, as well as several previous reports, indicate that this indicator had not been met considering the performance of all licensees harvesting on TFL 48. In addition, when just Canfor’s performance is calculated, Canfor has not met the indicator even though the Company has been cable harvesting at least approximately 100,000 m<sup>3</sup>/year for several years. Further, the target associated with Indicator 36 was adjusted as of April 2016 to require a maximum of 93% of coniferous harvesting to be completed with conventional harvest methods, balanced over each 5 year cut control period, and this new target takes into account a recent volume uplift for TFL 48. As such, it is not certain that the indicator and target are still monitoring whether or not the full timber profile is being harvested on the TFL.

Note: This indicator is currently not “partitioned” to include individual targets for Canfor and BCTS. The signed MoU between BCTS and Canfor specifies that Canfor must provide BCTS with blocks that are representative of the timber profile. However, neither BCTS nor Canfor are meeting the target and individually and/or collectively must implement plans to harvest the representative portion of steep slope merchantable stands of the timber supply analysis in order to meet the intent of the indicator. (Chetwynd)



Douglas-fir is at the northern limit of its geographic distribution in a number of Canfor’s B.C. woodlands operating areas. Where encountered in these areas Douglas-fir trees are typically excluded from harvesting so they can act as a seed source.

## Systemic Opportunities for Improvement

A total of 4 new systemic opportunities for improvement was identified during the 2016 ISO 14001/CSA Z809 audit, as follows:

- The audit found that the Company's staff training procedures had been implemented as required in the large majority of instances. However, the following isolated weaknesses in the implementation of these procedures were noted:
  - The contractor foreman working on an active cutblock was not aware of the emergency response equipment requirements contained in the 2016 Emergency Preparedness and Response Plan. (Houston)
  - An interview with a recently-hired equipment operator found that he lacked awareness of the FMS procedures that apply to his job. In addition, the training records provided by the contractor did not include an entry for the employee. (Radium)
- The audit found the following isolated weaknesses in the implementation of operational controls:
  - Inspection of a recent planting site found that the planting crew had left some waste on-site (i.e., a discarded Silvacool tarp and 5-10 seedling boxes). In addition, although all of the stream crossings had been removed by the logging contractor as required, a few small log fills (which had likely been placed in the stream crossings by the planting contractor to enable quad access) had not been removed prior to the planters leaving the site. (Grande Prairie)
  - The audit found that the equipment operators on an active harvesting site had inconsistent contents in their spill kits despite Canfor's EPRP and Canfor's Fuel Management Guidelines clearly indicating the spill kit requirements. (Houston)
- The audit noted a number of isolated weaknesses in the implementation of the Company's monitoring and measurement procedures:
  - Requirements for inspections of permanent bridges and arch culverts are addressed in the Company's structure management system (SMS). Under these procedures, engineered structures require an inspection at least once every 3 years. However, Genus Resources was observed to have an apparent glitch preventing scheduled inspections for some structures from populating reports which are then used to create inspection plans. (Vanderhoof/Corporate)
  - The 2016 Houston site visit identified weakness in the use of pre-work inspection forms. Based on a sample of completed pre-work forms, the field for the establishment of inspection frequency is not currently utilized at the operation. (Houston)
  - Inspection of a recent cutblock found that while the site plan required that care be taken in dealing with an S4 stream that was directly downstream of four on-block non-classified drainages (NCDs), the road crossings were found to not be adequately cleared of debris, increasing the risk of sedimentation. In addition, the final harvest inspection report that was completed by the Company for this cutblock did not identify this issue. (Houston)

Sustainable Forest Management Plan  
Canfor Kootenay Operations  
Version 4.0  
April 2016



Canadian Forest Products Ltd.  
Kootenay Operations



"Sustainable forest management is the balanced, concurrent sustainability of forestry-related ecological, social and economic values for a defined area over a defined time frame."

The Radium operation has recently developed a new SFM Plan that combines both CSA Z809 and FSC-BC performance targets into a single plan. (Radium)

- Although Harvesting Supervisors document observation/comments on pre-work inspection forms, establishment of inspection frequency and estimated final/interim inspection due dates are not documented as required on the form. (Mackenzie)
- The audit found that bridge and road inspections for the Steamboat, Kledo and Pipeline Bypass areas had not been completed as required under Canfor's Structure Management System. (Fort Nelson)
- Bridge installations legally require a certification statement from a Coordinating Registered Professional (CRP), and this requirement is addressed in the Canfor FMG Structure Management System (SMS). However, the Canfor SMS is not clear on the identification of the CRP when the Professional of Record (POR) is a Professional Engineer, and the procedure does not specify when the assurance statement must be provided. (Chetwynd/Corporate)
- The audit noted the following isolated weaknesses in the content of CSA Z809 Public Advisory Group (PAG) Terms of Reference (ToR) documents:
  - The current Radium PAG ToR (dated May 28, 2014) has yet to be updated to reflect a recent change in the DFA to which the SFM Plan applies (i.e., the DFA for the new Kootenay SFM Plan now includes both CSA Z809 and FSC-certified areas). (Radium)
  - The audit identified an opportunity to improve clarification of requirements for the public participation satisfaction survey requirements in the Morice PAG ToR. (Houston)



Review of 2015 Forest Management Agreement (FMA) performance survey results found that Canfor is exceeding the 5 year rolling average MAI (mean and increment) targets for both coniferous and deciduous stands. (Grande Prairie)

## Isolated Issues

A number of isolated (i.e., non-systemic) weaknesses in the implementation of FMS requirements were also identified during the 2016 audit. These have been reported to the woodlands operations where the issue(s) were noted, and the Company has developed divisional-level action plans to address these issues.

## Corrective Action Plans

Corrective action plans designed to address the root cause(s) of the non-conformities identified during the 2016 audit have been developed by Canfor's woodlands operations and reviewed and approved by KPMG PRI. The 2017 audit will include a follow-up assessment of these issues to confirm that the corrective action plans developed to address them have been implemented as required.

## Focus Areas for the Next Audit

The following issues/topics have been identified as focus areas for the next audit:

- Implementation of the action plans developed by the Company to address the open findings from the 2016 and previous ISO 14001/CSA Z809 audits.
- Canfor Vavenby's ongoing efforts to consult with the Upper Clearwater Referral Group regarding the Company's planned forest operations in the Upper Clearwater Valley. (Vavenby)
- ISO 14001:2004 certificates will no longer be valid as of September 15, 2018, and replacement ISO 14001:2015 certificates cannot be issued until any non-conformities with the new standard have been addressed by the organization and

