



REPORT Forest Certification



J.D. Irving, Limited Woodlands Operations – 2020 SFI® Re-Certification Audit

Between September 21st and October 2nd, 2020, a 3 person audit team from KPMG Performance Registrar Inc. (KPMG PRI) carried out a re-certification audit of J.D. Irving, Limited's (JDI's) woodlands operations against the requirements of the 2015-2019 versions of the Sustainable Forestry Initiative® (SFI®) Forest Management and Fibre Sourcing standards. To provide for a more efficient audit, an ISO 14001:2015 re-certification audit was conducted at the same time. This Certification Summary Report provides an overview of the audit process and KPMG's findings.

Description of J.D. Irving, Limited Woodlands Operations

1. Forest Management Operations

JDI's forestry operations occur on both freehold and Canadian Crown Land and are managed out of JDI's woodlands offices located in New Brunswick (St. Leonard, Chipman, Doaktown, Deersdale, Sussex and St. George), Nova Scotia (Truro) and Maine (Fort Kent). The freehold land is in New Brunswick (728,000 ha), Nova Scotia (50,000 ha) and Maine (512,000 ha). On Canadian Crown Land in New Brunswick, the company is a sub-licensee on Licenses' #9, #3, #5, #1 and #8 and manages License #7 (1,038,000 ha). The present annual sustainable allocation levels established for JDI's Crown Licenses and Freehold lands are noted in the following table.

Crown Licence Volume Allocations (M ³)								
New Brunswick							Nova Scotia	Total Crown
#1	#3	#5	#7	#8	#9	Total NB		
198,555	168,740	827	1,544,946	8,143	400,053	2,321,264	-	2,321,264
Freehold Annual Sustainable Harvest levels (M ³)								
Maine	New Brunswick				Nova Scotia	Total Freehold		
	Northern	Central	Southern	Total NB				
1,086,000	813,000	657,000	348,000	1,818,000	57,000	2,961,000		

All woodlands districts track their annual harvest levels by broad timber type (softwood and hardwood) against these established annual harvest levels, with their respective performance in achieving the levels measured on a sustainable forest management report card. Performance in recent years has been close to the targets, with the annual averages for the actual harvest levels averaging overall slightly below the calculated allowed annual harvest levels for both conifer and hardwood.

Consistent with prior years, sub-licensee operators on License #7 in New Brunswick have operated under the JDI Environmental Management System (EMS) and are included within the scope of JDI's ISO 14001 and SFI certifications.

JDI operates throughout New Brunswick in the Southern and Northern Uplands, the Eastern Lowlands and Highlands and the Continental Lowlands. These areas are, to varying degrees, forested with stands of spruce (red, black and white) and fir (balsam), with smaller areas of white pine dominated forests along with cedar in lower lying areas. There are also intermittent components of red pine, hemlock, tamarack and jack pine. Hardwood stands are stocked most heavily with red maple and sugar maple, with components of yellow and white birch and poplar. Transitional areas often contain stands of mixed hardwood and softwood forest.

Maine woodlands contain largely the same species as in New Brunswick, but with a larger proportion of hardwood stands and a smaller proportion of pine stands.





Woodlands operated by JDI in all jurisdictions are managed for timber production (for both hardwood and softwood), with consideration and protection of unique sites, late successional forests, deer wintering areas and mapped riparian zones. JDI carries out varied silviculture prescriptions, including even aged, uneven aged and shelterwood silviculture regeneration systems, along with pre-commercial thinning and commercial thinning to meet its timber supply/quality and ecological objectives. All even aged, clearcut stands prescribed for planting are planted with trees grown in J.D. Irving’s nurseries from seeds originating from specific, ecologically suited seed zones.

Each woodlands district revises its management plan for the Company’s freehold lands on a 5 year basis. Crown operations follow a planning process prescribed by the New Brunswick Department of Natural Resources and Energy Development (NBDNRED), with the most recent plan submitted in 2020.

Long-term resource analyses are conducted and forest inventories for timber and non-timber values are maintained in support of long-term strategic and ongoing operational planning.

Growth and yield modeling is undertaken internally and cooperatively with NBDNRED to project future forest conditions and associated annual sustainable harvest levels for managed and natural forests.

Strategic planning is supported by a land classification system, soils inventories and depth to water table information. Recent plans have also incorporated refined forest inventory data based on LiDAR technology.

All plans are developed and evaluated using the Woodstock forest management model, with at least the first 5 years of harvest blocks spatially identified. This provides a significant level of control over the implementation of management plan commitments.

Each plan addresses non-timber values, particularly with respect to biodiversity conservation and water protection. Non-timber values addressed in the strategic planning process include such delineated special management zones as deer wintering areas, areas set aside under the Company’s Unique Areas Program and riparian zones and incorporation of the Company’s targets for old and very old late successional forests.

Other resource values identified during pre-screening, layout and operational planning are reflected in the GIS database for operational planning purposes (including buffers or modified harvesting boundaries, protect high conservation value forests, rare/endangered plant sites, areas with animal species of concern, raptor/heron stick nests, visually sensitive areas, historic sites and geologic values. Site level operational plans incorporate specific operational approaches and silviculture strategies for addressing regulatory requirements and Company practices and commitments for identifying, managing and protecting specific timber and non-timber resource values.

2. Fibre Sourcing Operations

JDI manages fibre sourcing operations in New Brunswick, Nova Scotia, Prince Edward Island, Quebec and Maine and provides fibre for the Irving Paper Limited and Irving Pulp and Paper Limited mills in Saint John, NB, the Lake Utopia Paper corrugated medium mill in St. George, NB, the Grand River Pellets plant in Saint-Leonard, NB and 10 sawmills (7 in New Brunswick, 1 in Nova Scotia and 2 in Maine). Fibre sourcing operations for all of the sawmills, pulp, paper and corrugated medium mills are included within the scope of JDI’s SFI fibre sourcing certification. JDI’s procurement program is an important component of meeting each mill’s fibre requirements.

Purchased stumpage is carried out under JDI’s environmental management system and is subject to similar levels of planning and monitoring to JDI’s freehold lands.

In New Brunswick, reliance is placed on marketing board monitoring processes established through the SFI Implementation Committee (SIC) to address the SFI BMP monitoring requirements for non-stumpage fibre purchases – i.e., external purchase monitoring is based on an empowerment model whereby the marketing boards do their own monitoring on an

2020 JD Irving, Ltd.

Audit Findings

Minor nonconformities from previous audits that remain open	0
New major nonconformities	0
New minor nonconformities	0
New opportunities for improvement	9

Types of audit findings

Major nonconformities:

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

Minor nonconformities:

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 nonconformities must be fully implemented by the operation within 3 months or certification cannot be achieved / maintained. Corrective action plans to address minor nonconformities must be fully implemented within 12 months.

Opportunities for Improvement:

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

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agreed upon sample basis, the results of which are reported to the SIC which in turn drives the selection of activities, including training, that the SIC supports. In Maine, BMP monitoring of non-stumpage purchases is based on the monitoring process established under the Certified Logging Professional (CLP) program, whereby CLP certified loggers are inspected and their performance evaluated against a number of BMP criteria. JDI purchase wood managers use summarized monitoring data for CLP certified loggers that supply logs to assess their performance level. In Nova Scotia and PEI, the monitoring process is based on supplier audits carried out by the JDI purchase wood manager. The results of each of these BMP monitoring processes feed into the SIC meetings and are used as an input to determine training strategies for the subsequent year.

Audit Scope

The audit was conducted against the requirements of the 2015-2019 SFI Forest Management and Fibre Sourcing standards and incorporated a limited scope assessment against the SFI program objectives for:

- Forest management planning;
- Forest health and productivity;
- Protection and maintenance of water resources;
- Conservation of biological diversity;
- Management of visual quality and recreational benefits;
- Protection of special sites;
- Efficient use of fibre resources;
- Recognize and respect Indigenous Peoples' rights;
- Legal and regulatory compliance;
- Forestry research, science and technology;
- Training and education;
- Community involvement and landowner outreach;
- Public land management responsibilities;
- Communications and public reporting; and
- Management review and continual improvement.

In addition, all applicable SFI Fibre Sourcing standard objectives were assessed with respect to the Company's fibre sourcing program, as follows:

- Biodiversity in fibre sourcing;
- Adherence to best management practices;
- Use of qualified resource and qualified logging professionals;
- Legal and regulatory compliance;
- Forestry research, science and technology;
- Training and education;
- Community involvement and landowner outreach;
- Public land management responsibilities;
- Communications and public reporting; and
- Management review and continual improvement.

All SFI objectives are subject to audit at the time of the re-certification audit (conducted this year) and at least once during each cycle of surveillance audits with the frequency based on audit risks considering factors such as activity levels, prior year findings, changes in regulations and areas of public concern.



An example of a 2 phase harvest treatment undertaken to maintain log quality with white pine retained through the initial phase of operations and removed later by a separate crew.

The Audit

- Audit Team** – The SFI and ISO 14001 audits were conducted by Chris Ridley-Thomas, RPBio(BC), EP(EMSLA), Orrin Quinn RPF(BC) and Craig Roessler, RPF(BC), EP(EMSLA), CF(SAF). Chris Ridley-Thomas, who was the lead auditor on the engagement, is president of KPMG PRI and has conducted numerous forest management audits against a variety of standards, including SFI, CSA Z809, FSC and ISO 14001. The remainder of the audit team all have considerable experience conducting SFM audits against a variety of standards.
- SFI Re-Certification Audit Approach** – As a result of the emergence of COVID-19 in mid-March 2020 and the attendant travel restrictions, KPMG PRI implemented a modified audit process for the JDI 2020 audit, consistent with existing extraordinary events guidance. A hybrid audit approach was used, combining on-site and off-site assessments of JDI operations. Site visits were made to JDI's Northern New Brunswick (Black Brook), Central New Brunswick (Chipman and Doaktown) and Southern New Brunswick (Sussex and St. George) woodlands operations (focused predominantly on Crown land operations) and remote audits were conducted at the Deersdale (part of Central New Brunswick), Northern Maine and Nova Scotia woodlands operations. This sample size is consistent with IAF requirements regarding audit sampling for multi-site certifications. The 2020 audit involved on-site and remote assessments of the Company's sustainable forest management system against all objectives of the SFI 2015-2019 Forest Management standard. In addition, the 2020 audit remotely assessed JDI's fibre sourcing program in Northern Maine, New Brunswick and Nova Scotia against all applicable objectives of the SFI 2015-2019 Fibre Sourcing standard. The audit also focused on assessing Company actions taken with respect to addressing the opportunities for improvement identified during previous KPMG PRI audits. The audit involved a review of selected SFI and EMS records, interviews with a sample of staff, contractors and regulatory agency personnel and audits of a sample of field sites (both directly through site visits (38 roads, 46 cutblocks, 18 silviculture sites and 9 unique or special sites) and remotely through the review of site plans and associated supporting SFM and EMS records combined with interviews (11 roads, 22 cutblocks, 6 silviculture sites and 30 unique or special sites) to evaluate SFM system implementation and effectiveness. The SFI portion of the JDI audit took approximately 28 auditor days to complete, 10 days of which were spent in the field and 8 days of which were conducted remotely. The balance of audit time was spent preparing the audit plan, conducting an off-site review of selected Company documents, completing various audit checklists and preparing the main and public summary audit reports.
- J.D. Irving, Limited's SFI Program Representative** – Scott MacDougall served as J.D. Irving, Limited's SFI program representative during the audit.

Use of Substitute Indicators

One indicator included in the SFIS has been substituted for the purpose of this certification as follows:

Performance Measure 2.1 Indicator #1 in the SFI Forest Management Standard was substituted with the following indicator:

Clear criteria to judge adequate regeneration and appropriate actions to correct understocked areas and achieve acceptable species composition and stocking rates for planting, direct seeding and natural regeneration, that include:

- Documented reforestation plans, including designation of all harvest areas for either natural, planted or direct seeded regeneration and prompt reforestation, unless delayed for site-specific environmental or forest health considerations or legal requirements, through planting within two years or two planting seasons.*
- Growth of plantings, precommercial thinnings, and commercial thinnings relative to performance expectations (volume, piece size and species composition) consistent with the forest management plan.*



An example of an environmental upgrade undertaken on an old road crossing a wetland. The drainage has been improved to allow for improved water movement across the wetland.

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- C. Average growth rates on planted and naturally regenerated areas are on track to providing the product expectations set forth in the forest management plan.
- D. Reforestation strategies are designed to maintain or increase current growing stock.

The rationale for the substitution was to address reforestation requirements at the landscape level rather than the cutblock level to better align with management plan objectives for regenerating stands.

Audit Objectives

The objectives of the 2020 audit were to evaluate the sustainable forest management and environmental management systems at J.D. Irving, Limited to:

- Determine their conformance with the requirements of the ISO 14001:2015 and 2015-2019 SFI Forest Management and Fibre Sourcing standards within the scope of the audit;
- Evaluate the ability of the systems to ensure that J.D. Irving, Limited meets applicable regulatory requirements;
- Evaluate the effectiveness of the systems in ensuring that J.D. Irving, Limited meets its specified objectives; and
- Where applicable, identify opportunities for improvement.

These objectives were met.

Evidence of Conformity with SFI 2015-2019

Primary sources of evidence assessed to determine conformity with the SFI 2015-2019 Forest Management and Fibre Sourcing standards are presented in the following table.

SFI Forest Management Objective #	Sources of Key Evidence of Conformity
1. Forest Management Planning	Forest Management Plans (FMPs), Geographical Information System (GIS) data base/map layers, inventory data, Environmental Management System (EMS), Standard Operating Procedures (SOPs) and policies, Sustainable Forest Management (SFM) report card, Work Orders (WOs), Field inspections, Planning staff interviews, internal audits.
2. Forest Health and Productivity	FMPs, EMS, SOPs and policies, SFM report card, herbicide application records, WO, Best Management Practices (BMPs) for road building, 2019 SFI Progress Report, Company inspection and audit records, Silviculture records, Research records, Field inspections, Staff and contractor interviews.
3. Protection and Maintenance of Water Resources	FMPs, EMS, SOPs and policies, SFM report card, WO, BMP for road building, Soft ground BMP, Company inspection and audit records, District road and bridge maintenance inspection records and lists, field inspections, staff and contractor interviews.
4. Conservation of Biological Diversity	FMPs, EMS, SOPs and policies (including in regards to rare plant pre-screening, maintaining vertical structure (islands), legacy trees, vernal pools, protection of raptor and heron stick nests and late successional forests), Company forest species of concern manual, District rare or endangered plants manuals, Unique Areas GIS database/map layer, SFM report card, WO, Company inspection and audit records, Field inspections, Staff and contractor interviews.



A bridge crossing of a small brook showing maintenance of natural flow patterns.



The audit included assessment of planted stands. In this example, the stand has been recently “cleaned” to reduce density and allow for improved growth.

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SFI Forest Management Objective #	Sources of Key Evidence of Conformity
5. Management of Visual Quality and Recreational Benefits	FMPs, EMS, SOPs, WOs, unique areas, GIS database/map layer, Field inspections, staff and contractor interviews.
6. Protection of Special Sites	FMPs, EMS, SOPs, WOs, Unique Areas GIS database/map layer, Field inspections, staff and contractor interviews.
7. Efficient Use of Fibre Resources	Waste analyses, Utilization specifications, Biomass and residue utilization policy, EMS, SOPs, WOs, Field inspections, Staff and contractor interviews.
8. Recognize and Respect Indigenous Peoples' Rights	JD. Irving Ltd.'s Public Advisory Committee Process document, Company and DNR stakeholder engagement process/records, FMPs, EMS, SOPs, WOs, Unique Areas GIS database/map layer, Field inspections, Staff and contractor interviews.
9. Legal and Regulatory Compliance	EMS, Company inspection, monitoring, audit, nonconformity, non-compliance, incident, and action plan records, Company's Code of Business Conduct, Company inspection and audit records, field inspections, interviews with key staff.
10. Forestry Research, Science & Technology	Research records, FMPs, JDI Nursery EMS, 2019 SFI Progress Report, Interviews with key staff.
11. Training and Education	EMS, Environmental policy, Responsible wood purchasing policy, Company training program and records, SIC training resources/materials, Interviews with key staff and contractors.
12. Community Involvement and Landowner Outreach	EMS, WOs, BMP manuals/handbooks distributed to landowners, SIC training resources/ materials/ websites, Regional stakeholder committee meeting minutes, Company records respecting community and stakeholder outreach, Staff interviews.
13. Public Land Management Responsibilities	FMP, WOs, Company and DNR stakeholder engagement process/records, Staff interviews.
14. Communications and Public Reporting	KPMG PRI SFI public summary report, 2019 SFI Progress Report and supporting records, Past SFI progress reports and supporting records.
15. Management Review and Continual Improvement	EMS, corporate and district management review records, SFM report card, Internal audit records, district inspection, monitoring and audit records.



An example of a buffered vernal pool protected under the Company's Unique Areas Program (Sussex).



An example of another buffered vernal pool, in this case also containing a rare plant, *Viola labradorica* (Black Brook).

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SFI Fibre Sourcing Objective #	Sources of Key Evidence of Conformity
1. Biodiversity in Fibre Sourcing	FMPs, EMS, Responsible wood purchasing policy, BMP manuals/handbooks distributed to landowners, Company records respecting landowner outreach, Staff and logger interviews.
2. Adherence to Best Management Practices	EMS, Responsible Wood Purchasing Policy, BMP outreach manuals/handbooks distributed to landowners, Certified and qualified logger lists/websites, Company records respecting the use of qualified resource and logging professionals, Company, Marketing Board (New Brunswick) and Certified Logging Professional (Maine) inspection and audit records, Staff and logger interviews.
3. Use of Qualified Resource and Logging Professionals	EMS, Responsible wood purchasing policy, District tracking of percentages of delivered purchased logs originating from blocks harvested by certified logging professionals (CLPs) and/or qualified logging professionals (QLPs), Marketing Board (New Brunswick) and CLP (Maine) inspection records/results, Staff and logger interviews.
4. Legal and Regulatory Compliance	EMS, Company inspection, monitoring, audit, nonconformity, non-compliance, incident, and action plan records, Company inspection and audit records, Company's Code of Business Conduct, Interviews with key staff.
5. Forestry Research, Science & Technology	Research records, FMPs, JDI Nursery EMS, 2019 SFI Progress Report, Interviews with key staff.
6. Training and education	EMS, Environmental policy, Responsible wood purchasing policy, Company training program and records, SIC training resources/materials, Interviews with key staff and contractors.
7. Community Involvement and Landowner Outreach	EMS, WOs, BMP outreach manuals/handbooks distributed to landowners, SIC training resources/materials/websites, Regional stakeholder committee meeting minutes, Company records respecting community and stakeholder outreach, Staff interviews.
8. Public Land Management Responsibilities	FMP, WOs, Company and DNR stakeholder engagement process/records, Staff interviews.
9. Communications and Public Reporting	KPMG PRI SFI public summary report, SFI Progress Report and supporting records, Past SFI progress reports and supporting records.
10. Management Review and Continual Improvement	EMS, corporate and district management review records, SFM report card, Internal audit records, District inspection, monitoring and audit records.
11. Promote Conservation of Biological Diversity, Biodiversity Hotspots and High-Biodiversity Wilderness Areas	N/A – Company does not source fibre from outside Canada and the US.



Two examples of legacy trees identified and protected under the Company's Unique Areas Program (Black Brook and Sussex).

SFI Fibre Sourcing Objective #	Sources of Key Evidence of Conformity
12. Avoidance of Controversial Sources including Illegal Logging	N/A – Company does not source fibre from outside Canada and the US.
13. Avoidance of Controversial Sources including Sources without Effective Social Laws	N/A – Company does not source fibre from outside Canada and the US.

Good Practices

The following are examples of some of the good practices noted during the audit:

- **SFI FM Objective 2 (Forest Health and Productivity):** Low levels of soil disturbance were observed during the field audit of commercial thinning and select harvesting blocks as a result of placement of branches and tips in skid trails and layout designed to avoid wet areas (Black Brook, Central New Brunswick (CNB), Sussex).
- **SFI FM Objective 2 (Forest Health and Productivity):** Noteworthy practices were being implemented in Deersdale’s commercial thinning operations that are yielding benefits — i.e., piling of logs on trails as opposed to creating clearings adjacent to the road for piling, which has reduced the risk of blowdown, and the ribboning of trails, which has increased productivity, reduced damage to retained trees and increased the achievement of target densities as a result of straightened trails and improved spacing (Deersdale).
- **SFI FM Objective 2 (Forest Health and Productivity):** The field audit observed examples of well executed regeneration prescriptions that protected and promoted natural regeneration (CNB).
- **SFI FM Objective 2 (Forest Health and Productivity):** The field audit noted good selection of crop trees and spacing on prescribed cleaning blocks (Sussex).
- **SFI FM Objectives’ 3 (Protection and Maintenance of Water Resources) and 4 (Conservation of Biological Diversity):** A number of examples of identified and protected vernal pools were found during the audit, including in northern Maine (where the proposed location of a new road was re-located to avoid and protect a previously unidentified vernal pool) and Sussex (where the operation incorporated vernal pools identified during layout into increased buffers on two different blocks).
- **SFI FM Objective 4 (Conservation of Biological Diversity):** The audit reviewed several examples of well thought out deer yard prescriptions, which were designed to regenerate future conforming cover, stimulate winter browse and link with travel corridors (Northern Maine).
- **SFI FM Objective 4 (Conservation of Biological Diversity):** A number of examples of identified and protected nests were noted during the audit, including heron nests and a hawk nest observed in the field (in St. George) and a Heron rookery, where an expanded timbered buffer was placed around the rookery in order to facilitate heightened windfirmness of the buffer and associated protection of the nest trees (in Deersdale).



An example of branches and tops being well placed in trails on a commercial thinning block to protect the soils from equipment disturbance (Sussex).

- SFI FM Objective 5 (Management of Visual Quality and Recreational Benefits):** Deersdale was found to be effectively planning its operations on and along a road heavily used by recreationists in order to reduce the overall impact on the recreational experience in the area (e.g., through reduced right-of-way clearing widths on specific sensitive segments and visual buffering along the road).
- SFI FM Objective 7 (Efficient Use of Fibre Resources):** The field audit observed harvest waste being utilized as biomass for the Lake Utopia mill in multiple blocks (St. George).
- SFI FM Objective 9 (Legal and Regulatory Compliance):** The field audit observed a number of implemented operational controls which have helped to reduce the risk of diesel spills, including the use of a quick connect release on a fuel tank on a trailer and of an automatic shutoff sensor on a harvester (Black Brook).
- SFI FM Objective 9 (Legal and Regulatory Compliance):** A review of the EMS non-conformance and recordable incident database (CSW) found that there was overall timely implementation of action plans and closure of nonconformities and public complaints (identified in Nova Scotia).

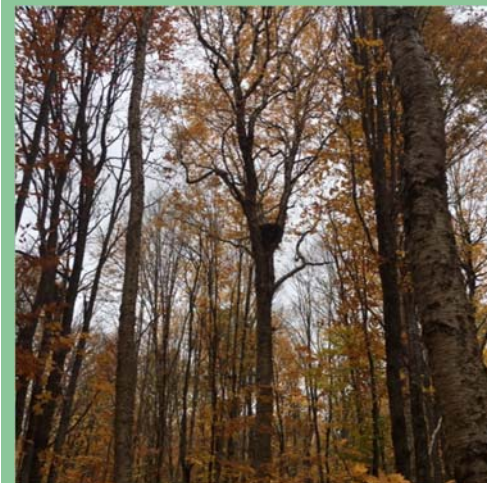
Areas of Nonconformity

No major or minor nonconformities were identified during the 2020 SFI / ISO 14001 audits.

Opportunities for Improvement

The 2020 audit identified the following opportunities for improvement with respect to the SFI 2015-2019 Forest Management and Fibre Sourcing standards:

- SFI FM Objective 1 (Forest Management Planning) and ISO 14001 @ 6.2.2, 7.5.1 and 8.1:** Isolated weaknesses were identified in the clarity and content of work orders and operating plan maps developed for harvest stands, as follows:
 - 1 work order had an incorrect trail width specified (9m as opposed to the correct prescription of 8m) (Black Brook).
 - The operating plan was not updated to reflect a small adjustment to the harvest area in one harvest block field reviewed (CNB)
 - Riparian buffer guidance information appended to one work order incorrectly indicated a 37m buffer (CNB).
 - The work order and operating plan map for one harvest block incorrectly indicated a trail spacing of >6m (CNB).
- SFI FM Objective 2 (Forest Health and Productivity) and ISO 14001 @ 8.1:** Isolated weaknesses were noted during the field audit in the implementation of procedures related to the maintenance of site productivity, as follows:
 - Isolated instances of seedling mortality were noted during the audit of a recently planted block as a result of planting into duff (CNB).
 - Disc trenching was found to have not been very effective in creating plantable microsites on hard pan soils on one site (i.e., overturned soil comprised of duff with air spaces), which has resulted in mortality in some planted seedlings (Sussex).



The field audit observed a number of examples of protected nests, including in this case a Goshawk nest (Black Brook).

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- A small missed planting area (0.1 ha) observed during the field audit was identified as having been reforested on the final planting submission to New Brunswick Natural Resources and Energy Development (CNB).
- The field audit observed some unplanted areas between the roadside and slash piles (25-50m wide), which has resulted in productive area not being reforested (Sussex).
- **SFI FM Objective 3 (Protection and Maintenance of Water Resources) and ISO 14001 @ 8.1:** Isolated weaknesses were identified during the field audit in the implementation of procedures related to the management of water and avoidance of siltation, as follows:
 - The field audit of a temporary bridge that had been removed observed that mulch/seeding was applied only directly beside the brook rather than 30 meters on either side of brook as prescribed (CNB).
 - The field audit observed a crossing in which the upgrade failed to fix the issues associated with the existing culvert (which had a raised lip impeding the flow of water on the upstream side) (St. George).
 - A road rebuild was observed to have some ditch blocks that contained erodible material and limited rock, limiting their medium term effectiveness (St. George).
- **SFI FM Objective 7 (Efficient Use of Fibre Resources) and ISO 14001 @ 8.1:** Isolated weaknesses were noted during the field audit with respect to the efficiency in the use of timber, as follows:
 - A few high stumps were observed in the low areas of one block harvested in the winter (Black Brook).
 - Some high stumps and missed studs, white pine sawlogs and pulp logs were observed in an operated buffer (Sussex).
 - Ongoing concerns were noted where 9 ft pulp was being produced as opposed to the potential for 8 ft studs that could have been produced (Sussex).
- **SFI FM Objectives' 9 (Legal and Regulatory Compliance) and 15 (Management Review and Continual Improvement) and ISO 14001 @ 9.1 and 10.2:** An opportunity for improvement was identified in the processes for managing the EMS non-conformance and recordable incident database (CSW), as follows:
 - The audit found that some incidents were not being recorded in CSW in a timely manner (CNB).
 - A roadside diesel spill on one road in CNB along with two small oil spills observed on another road in Sussex were not recorded as incidents in CSW.
 - The basal area target for a shelterwood prescription that was not met was not identified as an incident in CSW (St. George).
 - A rut observed on the main trail of a harvest block field reviewed was not recorded in CSW (CNB)
 - The activity description for two CSW entries were found to be mis-typed, which in turn had implications for reported EMS scorecard results (Nova Scotia).
 - Some merchantable logs which were observed to have been left on three blocks were not recorded in CSW (but were on the 'clean-up list') (CNB). No consistent approach is in place for specifying at what point a wood waste incident needs to be included in the organization's CSW.



An example of a recent commercial thinning providing improved growth conditions for future crop trees.

- **SFI FM Objective 12 and FS Objective 7 (Community Involvement and Landowner Outreach) and ISO 14001 @ 7.4.3:** An opportunity exists to assess the need and value of establishing a stakeholder group in Nova Scotia given the increased level of harvesting being conducted by JDI contractors following the closure of the Northern Pulp mill.
- **SFI FM Objective 11 and FS Objective 6 (Training and Education) and ISO 14001 @ 7.2 and 7.3:** The training information currently provided to contractors consists of SOPs and BMPs, with any additional training materials necessary for training contractor operators being the responsibility of the contractors. Given the absence of any consistent set of training materials that contractors can use for their operators, there is an opportunity to improve consistency in delivery of training material by contractors (identified in CNB, SNB and Black Brook).
- **SFI FS Objective 6 (Training and Education):** While the monitoring data from New Brunswick marketing board inspections is collated and used by the SIC, the collated results across marketing boards and the lessons to be learned from them are not formally making their way back to individual marketing boards.
- **SFI FS Objectives' 1 (Biodiversity in Fibre Sourcing) and 2 (Adherence to Best Management Practices):** It was noted that New Brunswick marketing boards do not all have access to existing data on the types of habitat where rare plants are likely to be found, which is important data to gain access to for both harvest planning and monitoring inspections.

Audit Conclusions

The audit found that J.D. Irving, Limited's sustainable forest management and environmental management systems:

- Were in conformance with the requirements of the SFI 2015-2019 Forest Management and Fibre Sourcing standards included within the scope of the audit;
- Continue to be effectively implemented; and
- Are sufficient to systematically meet the commitments included in JDI's environmental policy provided that the systems continue to be implemented and maintained as required.

As no major (or minor) nonconformities were identified during the audit, the audit team recommended that JDI be re-certified to the 2015-2019 version of the SFI Forest Management and Fibre Sourcing standards. JDI's SFI Forest Management and Fibre Sourcing certificates are valid through October 25, 2025.



A temporary crossing used during harvest operations showing protection of stream banks and water quality.

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