



REPORT Forest Certification



J.D. Irving, Limited Woodlands Operations – 2023 SFI® Surveillance Audit

Between September 25th and October 6th, 2023, a 3 person audit team from KPMG Performance Registrar Inc. (KPMG PRI) carried out a surveillance audit of J.D. Irving, Limited’s (JDI’s) woodlands operations against the requirements of the 2022 versions of the Sustainable Forestry Initiative® (SFI®) Forest Management and Fiber Sourcing standards. To provide for a more efficient audit, an ISO 14001:2015 surveillance 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 Licences 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	1,549,946	8,143	400,053	2,326,264	-	2,326,264
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	116,000	3,020,000		

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 overall annual average harvest levels 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.



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WOODLANDS
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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. Fiber Sourcing Operations

JDI manages fiber sourcing operations in New Brunswick, Nova Scotia, Prince Edward Island, Quebec and Maine and provides fiber 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). Fiber sourcing operations for all of the sawmills, pulp, paper and corrugated medium mills are included within the scope of JDI’s SFI fiber sourcing certification. JDI’s procurement program is an important component of meeting each mill’s fiber requirements.

2023 JD Irving, Ltd.

Audit Findings

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

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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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 fiber purchases, 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.

Forests with Exceptional Conservation Value (i.e. those forests with Critically imperiled (G1) and imperiled (G2) species and ecological communities) have been assessed and documented. The assessment covered New Brunswick, Nova Scotia, Maine, PEI and Quebec and identified 5 vascular plants, 1 mammal, 1 lichen and 2 ecological communities potentially associated with the purchase wood area. Descriptions of the habitat and range of each of these have been made available to suppliers through the Irving Woodlands purchase wood website.

Audit Scope

The audit was conducted against the requirements of the 2022 SFI Forest Management and Fiber Sourcing standards and incorporated a limited scope assessment against the SFI program objectives for:

- Forest health and productivity;
- Protection and maintenance of water resources;
- Management of visual quality and recreation benefits;
- Efficient use of fiber resources;
- Legal and regulatory compliance;
- Forest 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 Fiber Sourcing standard objectives were assessed with respect to the Company’s fiber sourcing program, as follows:

- Biodiversity in fiber sourcing;
- Legal and regulatory compliance;
- Forest research, science and technology;
- Training and education;
- Community involvement and landowner outreach;
- Communications and public reporting;
- Management review and continual improvement; and



Field inspections included interviews with contractors and checks on emergency and fire response equipment and preparedness.

- Avoidance of controversial sources.

All SFI objectives are subject to audit at the time of the re-certification audit (conducted in 2020) 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.

The Audit

- **Audit Team** – The SFI and ISO 14001 audits were conducted by Chris Ridley-Thomas, RPBio(BC), EP(EMSLA), Craig Roessler, RPF(BC), EP(EMSLA), CF(SAF) and Michael Buell RPF(BC). The team has considerable experience in conducting audits against a variety of standards, including SFI, CSA Z809, FSC and ISO 14001 standards.
- **SFI Surveillance Audit Approach** – KPMG PRI implemented a standard field based audit process for the JDI 2023 audit. Site visits were made to each of JDI’s Northern New Brunswick, Central New Brunswick, Southern New Brunswick, Nova Scotia and Northern Maine woodlands operations. Fiber sourcing site visits were conducted in Northern Maine, Nova Scotia, and Southern and Central New Brunswick. This sample size is consistent with IAF requirements regarding audit sampling for multi-site certifications.

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 (31 roads, 66 cutblocks, 23 silviculture sites and 20 unique, special or visually sensitive sites) to evaluate SFM system implementation and effectiveness.

The SFI portion of the JDI audit took approximately 23.auditor days to complete, 16 days of which were spent in the field . 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.*
- Average growth rates on planted and naturally regenerated areas are on track to providing the product expectations set forth in the forest management plan.*



Examples of protected features and areas. The stick nest was identified during block layout, harvest timing was altered, with several trees protected. The wildlife viewing platform was identified through community involvement and the area was added to a riparian corridor.

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 2023 audit were to evaluate the sustainable forest management and environmental management systems at J.D. Irving, Limited to:

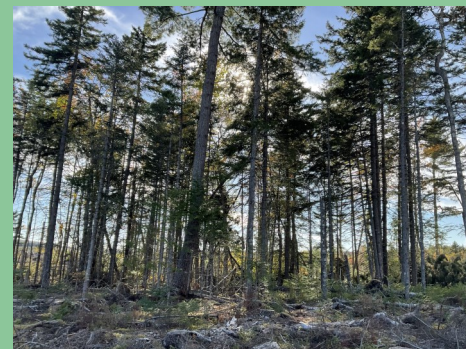
- Determine their conformance with the requirements of the ISO 14001:2015 and the 2022 SFI Forest Management and Fiber Sourcing standards within the scope of the audit;
- Evaluate the ability of the systems to ensure that J.D. Irving, Limited meets applicable regulatory requirements;
- Evaluate the effectiveness 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 2022

Primary sources of evidence assessed to determine conformity with the SFI 2022 Forest Management and Fiber Sourcing standards are presented in the following table.

SFI Forest Management Objective #	Sources of Key Evidence of Conformity
1. Forest Management Planning	NA – not selected for assessment during the 2023 surveillance audit.
2. Forest Health and Productivity	Forest Management Plans (FMP), Environmental Management System (EMS), Standard Operating Procedures (SOP) and Policies, Sustainable Forest Management (SFM) report card, Work Orders (WO), Best Management Practices (BMP) for Road Building, 2022 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 Manual, SOPs and Policies, SFM, report card, WOs, 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	NA – not selected for assessment during the 2023 surveillance audit.
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	NA – not selected for assessment during the 2023 surveillance audit.



Examples of in-block clumped and dispersed retention which provide habitat for various ungulate and bird species.

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SFI Forest Management Objective #	Sources of Key Evidence of Conformity
7. Efficient Use of Fiber 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	NA – not selected for assessment during the 2023 surveillance audit.
9. Climate Smart Forestry	NA – not selected for assessment during the 2023 surveillance audit.
10. Fire Resilience and Awareness	NA – not selected for assessment during the 2023 surveillance audit.
11. 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.
12. Forestry Research, Science & Technology	Research records, FMPs, JDI Nursery EMS, 2022 SFI Progress Report, Interviews with key staff.
13. 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.
14. 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.
15. Public Land Management Responsibilities	FMP, WOs, Company and DNR&ED stakeholder engagement process/records, Staff interviews.
16. Communications and Public Reporting	KPMG PRI SFI public summary report, 2022 SFI Progress Report and supporting records, Past SFI progress reports and supporting records.
17. Management Review and Continual Improvement	EMS, corporate and district management review records, SFM report card, Internal audit records, district inspection, monitoring and audit records.



Example of a culvert that was well installed and maintained to ensure the free flow of water.

SFI Fiber Sourcing Objective #	Sources of Key Evidence of Conformity
1. Biodiversity in Fiber 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	NA – not selected for assessment during the 2023 surveillance audit.
3. Use of Qualified Resource and Logging Professionals	NA – not selected for assessment during the 2023 surveillance audit.
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, 2022 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	NA – not selected for assessment during the 2023 surveillance audit.
9. Communications and Public Reporting	KPMG PRI SFI public summary report, 2022 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. Avoid Controversial Sources	DDS for identification of controversial sourcing risk, chain of custody processes related to purchases, data collected on input fiber, processes for addressing concerns and complaints.

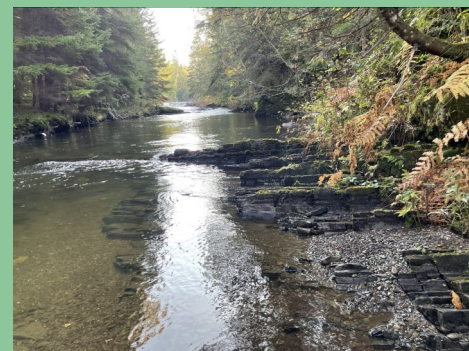


Numerous examples of cavity trees were observed during field inspections.

Good Practices

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

- **SFI FM Objective 2 (Forest Health and Productivity):** The districts are using new operational methods and equipment to enhance operational efficiencies and work quality (e.g., use of tethered forwarder in Blackbrook on License 9; adjustments to trenching patterns in Blackbrook on Freehold; use of mechanical planting in CNB; and use of self steering trenchers for mechanical site preparation in CNB and Deersdale).
- **SFI FM Objective 2 (Forest Health and Productivity):** SNB has developed site specific regeneration prescriptions which delays application of pesticides to gain a better understanding on the type and amount of competitive regeneration; the amount of pesticide used is typically reduced by significant amounts based on the information gained (SNB).
- **SFI FM Objectives 3 (Water), 4 (Biodiversity), 5 (Visual Quality):** The field audit observed notable examples of unique features and areas being identified and protected (e.g., the expansion of a unique area originally established for aesthetic purposes to capture rare plant habitat and provide for deer movement (Blackbrook Freehold); the maintenance of a treed buffer between a vernal pool and riparian zone (Maine); the protection of nest sites / cavity trees (Maine, NS, SNB, Deersdale) and bear dens (CNB)).
- **SFI FM Objective 9 (Climate Smart Forestry):** Several newly installed culverts have been increased in size to deal with future flooding events. Staff have indicated that they are experiencing less issues because of the use of the larger culverts (SNB).
- **SFI FM Objective 12 (Forest Research, Science, and Technology):** Proposed and recently implemented JDI research activities are well focused on important wildlife/biodiversity information needs (Corp).
- **SFI FM Objective 13 (Training and Education):** Equipment operators interviewed during the field audit of active operations were found to be using tablet data to operate the blocks more efficiently (SNB, CNB).
- **SFI FM Objective 14 (Community Involvement and Landowner Outreach):** Districts were found to work with stakeholders to reflect their interests in planning and operational decisions (e.g., altered harvesting timings and protected wildlife viewing areas (SNB); segments of roads being built or upgraded to connect existing ATV trails / networks and a treed buffer maintained to protect snowmobile trails (Maine)).



JDI riparian prescriptions and unique areas program is providing wildlife corridors and plant habitat while enhancing water quality and quantity.

Areas of Nonconformity

No major or minor nonconformities were identified during the 2023 SFI audit.

Opportunities for Improvement

The 2023 audit assessed the status of opportunities for improvement issued during previous annual audits as well as identifying new opportunities for improvement.

Historic Opportunities for Improvement

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The 2023 audit assessed the status of one existing opportunity for improvement identified during previous audits. Assessment of JDI actions and field evidence led to the closure of the previously identified opportunity for improvement.

New Opportunities for Improvement

The 2023 audit identified no new opportunities for improvement with respect to the SFI 2022 Forest Management and 2022 Fiber Sourcing standards.

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 2022 Forest Management and Fiber 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 certified to the 2022 version of the SFI Forest Management and Fiber Sourcing standards. JDI’s SFI Forest Management and Fiber Sourcing certificates are valid through October 25, 2025.



Site visits confirmed the continuation of the unique areas program. The above photo shows a vernal pool identified and protected in Maine while the lower photos shows a bear den in the Doaktown woodlands.

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