



# REPORT Forest Certification



## J.D. Irving, Limited Woodlands Operations – 2021 SFI® Surveillance Audit

Between September 27<sup>th</sup> and October 8<sup>th</sup>, 2021, 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 2015-2019 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 Licenses and Freehold lands are noted in the following table.

Crown Licence Volume Allocations (M <sup>3</sup> )								
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 <sup>3</sup> )								
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.

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



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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.

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 – i.e., external purchase monitoring is based on an empowerment model whereby the marketing boards do their own monitoring on an 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

### 2021 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	2
New opportunities for improvement	3

#### 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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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 Fiber Sourcing standards and incorporated a limited scope assessment against the SFI program objectives for:

- Protection and maintenance of water resources;
- Management of visual quality and recreational benefits;
- Efficient use of fiber resources;
- Legal and regulatory compliance;
- Community involvement and landowner outreach; 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;
- Adherence to best management practices;
- Legal and regulatory compliance;
- Community involvement and landowner outreach; and
- Management review and continual improvement.

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 hybrid audit process for the JDI 2021 audit. This combined off-site interviews, document and record review with on-site assessment of field activities at JDI operations. 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. 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 (35 roads, 70 cutblocks, 31 silviculture sites and 19 unique, special or visually sensitive sites) to evaluate SFM system implementation and effectiveness.



An example of an active harvest site in Northern Maine inspected during the field audit.



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The SFI portion of the JDI audit took approximately 23.5 auditor days to complete, 16 days of which were spent in the field and 2 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 a recently installed large arched culvert over a brook showing the maintenance of the brook's natural flow.

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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 2021 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 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 2015-2019

Primary sources of evidence assessed to determine conformity with the SFI 2015-2019 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 2021 surveillance audit.
2. Forest Health and Productivity	NA – not selected for assessment during the 2021 surveillance audit.
3. Protection and Maintenance of Water Resources	FMPs, EMS, 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	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, WOs, Company inspection and audit records, Field inspections, Staff and contractor interviews.



Examples of regenerating stands with heavy ericaceous competition were inspected during the audit to confirm that the growth on these stands is consistent with projected growth in the management plan.

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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	NA – not selected for assessment during the 2021 surveillance audit.
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 2021 surveillance audit.
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	NA – not selected for assessment during the 2021 surveillance audit.
11. Training and Education	NA – not selected for assessment during the 2021 surveillance audit.
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	NA – not selected for assessment during the 2021 surveillance audit.
14. Communications and Public Reporting	NA – not selected for assessment during the 2021 surveillance audit.
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 stand that has recently been commercially thinned to provide improved growth conditions for future crop trees



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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	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	NA – not selected for assessment during the 2021 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	NA – not selected for assessment during the 2021 surveillance audit.
6. Training and education	NA – not selected for assessment during the 2021 surveillance audit.
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 2021 surveillance audit.
9. Communications and Public Reporting	NA – not selected for assessment during the 2021 surveillance audit.
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 fiber from outside Canada and the US.



An example of a small brook protected by a buffer that was part of the sample of harvest sites inspected during the BlackBrook Woodlands field visit.

SFI Fiber Sourcing Objective #	Sources of Key Evidence of Conformity
12. Avoidance of Controversial Sources including Illegal Logging	N/A – Company does not source fiber from outside Canada and the US.
13. Avoidance of Controversial Sources including Sources without Effective Social Laws	N/A – Company does not source fiber 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):** The field audit observed good examples of consistent stand density following pre commercial thinning in naturally regenerated stands (Southern New Brunswick).
- **SFI FM Objective 3 (Protection and Maintenance of Water Resources):** The Company is continuing a program to “lift” historic roads that crossed wetlands in order to restore the water balance of the wetlands (Central New Brunswick).
- **SFI FM Objective 3 (Protection and Maintenance of Water Resources):** The Company continues to demonstrate good examples of crossing installation (Central New Brunswick), road upgrades (Southern New Brunswick), road routing (Northern Maine) and deactivation (Central New Brunswick) to minimize impacts on riparian features.
- **SFI FM Objectives 3 (Protection and Maintenance of Water Resources) and 4 (Conservation of Biological Diversity):** Company staff and contractors continue to do a good job in identifying vernal pools and incorporating them into buffers.
- **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 11 (Training and Education):** It was noted that the Company has invested significantly in contractor operator training, providing additional internal and external resources to ensure competency.
- **SFI FM Objective 11 (Training and Education):** It was noted that operators as a whole demonstrated clear competency in the use of the new applications recently implemented across field operations, including paperless work orders and procedures.

### Areas of Nonconformity

No major or minor nonconformities were identified during the 2021 SFI audit.

### Opportunities for Improvement

The 2021 audit assessed the status of opportunities for improvement issued during previous annual audits as well as identifying new opportunities for improvement.



The Company maintains two tree nurseries in New Brunswick that supply trees to their freehold land.



### *Historic Opportunities for Improvement*

The 2021 audit assessed the status of 9 existing opportunities for improvement identified during previous audits and closed 7 of the opportunities for improvement based on evidence that JDI had addressed them. Two opportunities for improvement remain open in relation to:

*SFI FM Objective 2 (Forest Health and Productivity):* Elements of OFI 2020-05 remain open based on recurrence of a failure to record a rutted main trail as an incident and of a basal area target set for a shelterwood that was not met (or achievable).

*SFI FS Objective 1 (Biodiversity in Fiber Sourcing) and 2 (Adherence to Best Management Practices):* OFI 2020-09 relates to lack of marketing board access to existing data on the types of habitat where rare plants are likely to be found. JDI determined that this opportunity would be best addressed through new guidance from the provincial SIC and has raised this topic with the SIC. However, the new guidance is expected to be linked with updates to guidance to also meet the SFI 2022 Fiber Sourcing Standard so has yet to be published and communicated to marketing boards. As a result, the opportunity remains open.

### *New Opportunities for Improvement*

The 2021 audit identified no new opportunities for improvement with respect to the SFI 2015-2019 Fiber Sourcing standard. The following 3 opportunities for improvement were identified with respect to the SFI 2015-2019 Forest Management standard:

- ***SFI FM Objective 15 (Management Review and Continual Improvement):*** While our assessment found processes established for creating records of activities supporting implementation of SFI objectives, we identified opportunities for improvement in the creation and retention of documented information in relation to contractor employee training and, in relation to notification of cabin owners in proximity to herbicide operations .
- ***SFI FM Objective 2 (Forest Health and Productivity):*** New planning tools have been rolled out across operations in 2021. These remain a work in progress but interviews with contractors and operators indicate that they provide significant operational advantages for contractors in monitoring operations and focusing on issues that need their attention. The following opportunities for improvement were noted in relation to the new tools:
  - In one case, the OpsNav application was not synchronized frequently enough by an operator and as a result, the desired prescription was not applied; and,
  - Operations are currently using paperless work orders. This remains a work in progress and it is currently not easy for supervisors to enter additional prescription information (in particular, buffer prescriptions) in a way that is easily identifiable by operators.
- ***SFI FM Objective 3 (Protection and Maintenance of Water Resources):*** While overall performance in relation to management around riparian areas and installation of crossings was strong, isolated opportunities for improvement were noted as follows:
  - In an isolated instance a bottomless culvert was installed on a brook that was undersized, leading to the culvert impinging on the brook bank;
  - In an isolated instance, a round culvert was installed on a brook prior to undertaking whether the brook was fish bearing;



An example of a recent selectively harvested hardwood stand inspected during the field audit.

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- The number of cross-drains on one of the new crossings inspected was less than required by JDI formula and the associated water bar was not pronounced enough to be effective; and,
- It was noted that the operation did not have easy access to the wooded wetland layer for operational purposes. In one case, this led to site preparation activities being laid out with some overlap with a wooded wetland. The resulting site preparation activities were only partially conducted as the operator cut the trails short as the activity was not creating plantable spots.

### 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 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 continue to be recertified to the 2015-2019 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.



An example of a “legacy tree” protected under JDI’s legacy tree program, which rewards employees for identifying legacy trees for protection.

### Contacts:

Chris Ridley-Thomas, RPBio, EP(EMSLA) (604) 691-3088  
 Craig Roessler, RPF, EP(EMSLA) (604) 691-3115

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