FOREST MANAGEMENT AND STUMP-TO-FOREST GATE CHAIN-OF-CUSTODY SURVEILLANCE EVALUATION REPORT

Irving Woodlands, LLC (IWLLC)

J.D. Irving Northern Maine Woodlands Forestry Division

Maine, USA

SCS-FM/COC-00121N

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CERTIFIED	EXPIRATION
08 December 2014	07 December 2019

DATE OF FIELD AUDIT
18-20 October 2016
DATE OF LAST UPDATE
12 December 2016

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Foreword

Cycle in annual surveillance audits			
☐ 1st annual audit	☒ 2nd annual audit	☐ 3rd annual audit	☐ 4th annual audit
Name of Forest Management Enterprise (FME) and abbreviation used in this report:			
Irving Woodlands, LLC (JDI, IW or FME)			

All certificates issued by SCS under the aegis of the Forest Stewardship Council (FSC) require annual audits to ascertain ongoing conformance with the requirements and standards of certification. A public summary of the initial evaluation is available on the FSC Certificate Database http://info.fsc.org/.

Pursuant to FSC and SCS guidelines, annual / surveillance audits are not intended to comprehensively examine the full scope of the certified forest operations, as the cost of a full-scope audit would be prohibitive and it is not mandated by FSC audit protocols. Rather, annual audits are comprised of three main components:

- A focused assessment of the status of any outstanding conditions or Corrective Action Requests (CARs; see discussion in section 4.0 for those CARs and their disposition as a result of this annual audit);
- Follow-up inquiry into any issues that may have arisen since the award of certification or prior to this audit; and
- As necessary given the breadth of coverage associated with the first two components, an additional focus on selected topics or issues, the selection of which is not known to the certificate holder prior to the audit.

Organization of the Report

This report of the results of our evaluation is divided into two sections. Section A provides the public summary and background information that is required by the Forest Stewardship Council. This section is made available to the general public and is intended to provide an overview of the evaluation process, the management programs and policies applied to the forest, and the results of the evaluation. Section A will be posted on the FSC Certificate Database (http://info.fsc.org/) no less than 90 days after completion of the on-site audit. Section B contains more detailed results and information for the use by the FME.

Table of Contents

SECTION A – PUBLIC SUMMARY 4

1. GENERAL INFORMATION 4
   1.1 Annual Audit Team 4
   1.2 Total Time Spent on Evaluation 4
   1.3 Standards Employed 4

2 ANNUAL AUDIT DATES AND ACTIVITIES 5
   2.1 Annual Audit Itinerary and Activities 5
   2.2 Evaluation of Management Systems 8

3. CHANGES IN MANAGEMENT PRACTICES 9

4. RESULTS OF THE EVALUATION 9
   4.1 Existing Corrective Action Requests and Observations 9
   4.2 New Corrective Action Requests and Observations 13

5. STAKEHOLDER COMMENTS 15
   5.1 Stakeholder Groups Consulted 15
   5.2 Summary of Stakeholder Comments and Responses from the Team, Where Applicable 16

6. CERTIFICATION DECISION 16

7. CHANGES IN CERTIFICATION SCOPE 16

8. ANNUAL DATA UPDATE 21
   8.1 Social Information 21
   8.2 Annual Summary of Pesticide and Other Chemical Use 21

SECTION A – PUBLIC SUMMARY

1. General Information

1.1 Annual Audit Team

Auditor Name:	Kyle Meister	**Auditor role**:	Lead Auditor
Qualifications:	Kyle Meister is a Senior Certification Forester with SCS Global Services. He has been with SCS since 2008 and has conducted FSC FM pre-assessments, evaluations, and surveillance audits in Brazil, Panama, Mexico, Costa Rica, Bolivia, Indonesia, India, Japan, New Zealand, Spain, and all major forest-producing regions of North America. He has conducted COC assessments in multiple regions of the USA and Latin America. Mr. Meister has successfully completed CAR Lead Verifier, ISO 9001:2008 Lead Auditor, and SA8000 Social Systems Introduction and Basic Auditor Training Courses. He holds a B.S. in Natural Resource Ecology and Management and a B.A. in Spanish from the University of Michigan; and a Master of Forestry from the Yale School of Forestry and Environmental Studies.		
Auditor Name:	Michael Thompson	**Auditor role**:	Auditor
Qualifications:	Mr. Thompson is the President of Penobscot Environmental Consulting, Inc., and a Certified Wildlife Biologist. He has worked as a subcontractor to SCS for over 20 years, conducting certification evaluations to the Forest Stewardship Council's (FSC) forest management and chain-of-custody standards. Mr. Thompson has also conducted audits to the Sustainable Forestry Initiative (SFI) forest management standards. He received his B.Sc. degree in wildlife from the University of Idaho and his M.Sc. degree in wildlife from the University of Maine. He is currently enrolled as a PhD student in the University of Maine's School of Forest Resources. Mr. Thompson has over 30 years of experience in ecology, wildlife management, wetland science, and rare species conservation.		

1.2 Total Time Spent on Evaluation

A. Number of days spent on-site assessing the applicant:	3
B. Number of auditors participating in on-site evaluation:	2
C. Additional days spent on preparation, stakeholder consultation, and post-site follow-up, including drafting of the certification audit report:	3
D. Total number of person days used in evaluation:	**9**

1.3 Standards Employed

1.3.1. Applicable FSC-Accredited Standards

Title	Version	Date of Finalization
FSC-US Forest Management Standard	1-0	08 July 2010
All standards employed are available on the websites of FSC International (www.fsc.org), the FSC-US (www.fscus.org) or the SCS Standards page (www.scsglobalservices.com/certification-standards-and-program-documents). Standards are also available, upon request, from SCS Global Services (www.SCSglobalServices.com).		

1.3.2. SCS Interim FSC Standards

Title	Version	Date of Finalization
SCS COC indicators for FMEs	5-1	December 2012
This SCS Interim Standard was developed by modifying SCS' Generic Interim Standard to reflect forest management in the region and by incorporating relevant components of the Draft Regional / National Standard and comments from stakeholders. More than one month prior to the start of the field evaluation, the SCS Draft Interim Standard for the country / region was sent out for comment to stakeholders identified by FSC International, SCS, the forest managers under evaluation, and the National Initiative. A copy of the standard is available at www.scsglobalservices.com/certification-standards-and-program-documents or upon request from SCS Global Services (www.SCSglobalServices.com).		

2 Annual Audit Dates and Activities

2.1 Annual Audit Itinerary and Activities

18 October 2016	
FMU/Location/ sites visited	**Activities/ notes**
FME office, Fort Kent, Maine	Opening Meeting: Introductions, client update (cut-to-length performance, use of new inventory techniques, relationship to mill in Ashland, ME and current challenges, spruce budworm outbreak, etc.), review audit scope, audit plan, intro/update to FSC and SCS standards and protocols, review of open CARs/OBS, final site selection
Fort Kent/ Northwoods Region	1. Block 6017: multi-entry/ single-tree selection harvest of northern hardwoods with riparian area and buffer. Discussion on riparian management zone (RMZ) widths and management restrictions. 2. Block 6017: clearcut of intolerant hardwoods and beech affected by beech bark disease (BBD). Will be replanted with spruce-fir. Discussion on even-aged management retention policies (1/2 acre/ 25 acres) and operations. 3. Block 6017: Northern red oak (*Quercus rubra*) island for late successional retention and due to species being at edge of its natural range. 4. Block MH002: site being evaluated for potential old growth/ late successional designation. Discussion with foresters and botanist on classification process, data sources, and stakeholder consultation. Site identified by harvest supervisor that initiated discussions with other team members. 5. Block 6017: combination multi-entry/ single-tree selection and seed-tree harvest of gradient of northern to intolerant hardwoods with high beech component. Objective to regenerate northern hardwoods except for beech and control established beech due to BBD. Use of feller-buncher to knock beech back and allow other species to reach the overstory. 6. Block 6017: spruce site planted in 1994, with multiple herbicide treatments conducted in the past. In 2015 it was pre-commercially thinned. Discussion on changes to replanting and retention policies since 1994. 7. Block 6018: observation of example of brushing technique in RMZ of a clearcut. Brushing is used to avoid rutting during cut-to-length operations and create filter-strips within small openings in the RMZ. Objective is to

	release remaining conifers from competition and allow some hardwood regeneration within RMZ for diversity and stream habitat. 8. Block MH06097B: observation of 2016 aerial herbicide treatment used to release spruce-fir planted in 2015. Observation of retention islands of established conifer regeneration. Discussion on site preparation and herbicide treatments and how monitoring is being conducted to see if the number of herbicide treatments can be reduced. Application with rodeo, arsenal and oust. 9. Main office: document and record review, and daily wrap-up.
19 October 2016	
FMU/Location/ sites visited	**Activities/ notes**
Ashland Region (Meister)	1. Block 7292: Commercial thinning of spruce-fir stand; interview with contractor and inspection of equipment, confirmed contractor training and safety equipment up-to-date (e.g., first aid, spill kit, fire extinguisher, communications such as cell phone booster, satellite phone, radio, etc.); inspection of site for spacing, residual stand damage and retention (white pine, hardwoods, snags). Discussion on ensuring quality of residual stand and harvested products. 2. Block 7301: Commercial thinning of spruce-fir stand; interview with contractor and inspection of equipment, confirmed contractor training and safety equipment up-to-date (e.g., first aid, spill kit, fire extinguisher, communications such as cell phone booster, satellite phone, radio, etc.); inspection of site for spacing, residual stand damage and retention (white pine, hardwoods, snags). 3. Block 7301: interview with employee of contractor, confirmed training and safety equipment up-to-date (e.g., first aid, spill kit, fire extinguisher, communications such as cell phone booster, satellite phone, radio, etc.). 4. Block 7293: Commercial thinning of spruce-fir stand; interview with contractor and inspection of equipment, confirmed contractor training and safety equipment up-to-date (e.g., first aid, spill kit, fire extinguisher, communications such as cell phone booster, satellite phone, radio, etc.); inspection of site for spacing, residual stand damage and retention (white pine, hardwoods, snags). 5. Lane Brook Road: inspection of road close-out using new guidelines. Discussion of lessons learned and how to reduce costs while being effective. 6. Block 7292: Overstory removal using tracked-harvester to release established spruce-fir regeneration. Well-formed hardwoods >9” retained for future value. Interview with contractor and inspection of equipment, confirmed contractor training and safety equipment up-to-date (e.g., first aid, spill kit, fire extinguisher, communications such as cell phone booster, satellite phone, radio, etc.); inspection of site for spacing, residual stand damage, and RMZ. RMZ inspected was to specifications through use of GPS boundaries. Discussion on harvest and extraction operational efficiency through sorting and placement in the field, and use of woody debris placement in stream restoration projects under modified state laws. 7. Block 7386: culvert replacement inspection at Duck Pond Road due to blow-out. Observation of broad-based dips, diversions and up-slope smaller

	culverts to remove water off the road so it can drain over vegetation. All measures help prevent future blow-outs of larger culvert. 8. Block 7344/ Bull Ridge 4 Mile: Concrete bridge installation over stream crossing; similar broad-based dips installed at approaches to bridge to prevent excessive water on road and blow-out. Drainage features are sized to the size of the watershed and slope so that they can handle extreme flood events. Discussion of watershed and water quality research in New Brunswick and in Maine through a partnership with the University of Maine. 9. Block 7344/ Twin Brook Rd: observation of new culvert installation. Similar construction to other sites, but with use of native seed mix on exposed mineral soils. 10. EB51: observation of decommissioned road and bridge removal near beaver pond. Project conducted in cooperation with state agency to maintain water levels for fisheries and wetland habitat. 11. EB51: observation of 55 acre clearcut of spruce-fir with completed site preparation using anchor chains. Site was replanted with white pine and Norway spruce after preparation in 2016 and may be herbicide treated due to herbaceous competition in 2017. Retention area was 1.5 acres to meet minimum guidelines that included a bog and stream. 12. Block 7344: clearcut of spruce-fir and beech in 2016 using feller-buncher and whole-tree skid followed by disk-trenching site preparation. Will be replanted in 2016. Discussion on types of site preparation, planting techniques, monitoring of each, and future plans to test sites using no preparation or partial preparation.
Fort Kent/ Northwoods Region (Thompson)	1. Unique Area 20030: Proposed harvest adjacent to and partially within a Unique Area, known as the Allagash Ledges, that provides habitat for the rare Pygmy Snaketail (*Ophiogomphus howei*) odonate. The species is listed as S2 in Maine, but is currently ranked as Least Concern on the IUCN Red List of Threatened Species. Aquatic life stages occur in the adjacent Allagash River and adults briefly live in the forest canopy adjacent to riverine habitats. IWLLC provided copies of consultation with the Maine Department of Inland Fisheries and Wildlife (MDIFW) regarding a planned partial harvest of the area. 2. Planned harvest in a Deer Wintering Area (DWA) adjacent to Unique Area 20030. Generally a proposed salvage harvest of dead and declining balsam fir. IWLLC provided evidence of consultation with MDIFW regarding the proposed harvest. 3. Block 6260: Extensive 2015 harvest block within the Allagash Wilderness Waterway (AWW), where consultation and permitting are required in areas that might be viewed by recreational users on the Allagash River. Evidence of consultation and approvals provided by IWLLC. IWLLC foresters explained how the harvest was modified, in consultation with the AWW, as it progressed to minimize visual impacts. IWLLC is working on a viewshed model using LiDAR that will improve delineation or recreational user viewsheds. 4. Block 6776: Active harvest operation. Primary prescription in this hardwood stand was the overstory removal stage in a shelterwood system. Discussion of island retention procedures in overstory removal harvests. IWLLC is now

	using LiDAR to screen for potential islands. Discussion of how IWLLC is advancing the schedule for treating fir-dominated stands in response to anticipated spruce budworm outbreak. 5. Block 6776: Private interview with independent logging contractor. 6. Block 6776: Private interview with IWLLC female forester. 7. Block 6892: Recent harvest that included full-tree chipping operation with chipping equipment owned and operated by IWLLC. Prescriptions included thinning in riparian areas, seed tree, overstory removal, and clearcut. 8. Block 6892: Active harvest operation to observe the "mechanical processor in a box (MPB)" system. Disease-free beech retained.
20 October 2016	
FMU/Location/ sites visited	**Activities/ notes**
Ashland Office (Meister)	Document and record review, including for sites visited over previous two days, monitoring, chemical use, FSC sales, management plans, etc.; interviews with staff
Ashland Region (Thompson)	1. Block 6611: Just completed logging on steep slopes. Main harvest trails constructed with an excavator and then logging done using self-leveling mechanical harvesting equipment. Secondary trails generally retain organic soils and are partially covered with logging slash, eliminating the need for waterbars. This approach to erosion and sedimentation control was discussed with state agencies. Waterbars will be constructed on main trails using excavators.
Ashland Office	Closing Meeting Preparation: Auditor(s) take time to consolidate notes and confirm audit findings
	Closing Meeting and Review of Findings: Convene with all relevant staff to summarize audit findings, potential non-conformities and next steps

2.2 Evaluation of Management Systems

SCS deploys interdisciplinary teams with expertise in forestry, social sciences, natural resource economics, and other relevant fields to assess an FME's conformance to FSC standards and policies. Evaluation methods include document and record review, implementing sampling strategies to visit a broad number of forest cover and harvest prescription types, observation of implementation of management plans and policies in the field, and stakeholder analysis. When there is more than one team member, team members may review parts of the standards based on their background and expertise. On the final day of an evaluation, team members convene to deliberate the findings of the assessment jointly. This involves an analysis of all relevant field observations, stakeholder comments, and reviewed documents and records. Where consensus between team members cannot be achieved due to lack of evidence, conflicting evidence or differences of interpretation of the standards, the team is instructed to report these in the certification decision section and/or in observations.

3. Changes in Management Practices

The Outcome Based Forestry agreement with the Maine Forest Service was amended in 2016 to address size limit exemptions and regeneration requirements in even-aged management units, and regular notification of townships in which harvests take place. Records of notification were verified during the 2016 audit. No issues were noted with meeting even-aged management restrictions.

4. Results of the Evaluation

4.1 Existing Corrective Action Requests and Observations

	Finding Number: 2014.5
Select one: ☐ **Major CAR** ☐ **Minor CAR** ☒ **Observation**	
FMU CAR/OBS issued to (when more than one FMU):	
Deadline	☐ Pre-condition to certification ☐ 3 months from Issuance of Final Report ☒ Next audit (surveillance or re-evaluation) ☐ Other deadline (specify):
FSC Indicator:	FSC US Forest Management Standard, V1-0, 6.9.b
Issue: IWLLC presented research results that describe the non-invasive character of Norway spruce; however, evidence from a University of Maine project suggests that Norway spruce can naturally regenerate beyond the planted block (capstone undergraduate research paper by one of B. Seymour's students discussed during closing meeting; *Thompson, N. Norway Spruce (*Picea abies*) Regeneration in Central and Northern Maine*). IWLLC should consider repeating this monitoring effort.	
Observation: IWLLC should periodically monitor the establishment and abundance of Norway spruce seedlings outside the planted footprint.	
FME Response 2015 *(submitted after the 2014 audit but prior to issuance of the 2014 audit report)*	A survey was completed to monitor the establishment of Norway Spruce outside the planted footprint on a 100 year old Norway Spruce planted stand in southern New Brunswick. Softwood trees were counted in 120 plots outside the planted stand. There were 638 softwood trees of which 2 were Norway Spruce. We concluded that Norway Spruce is not invasive.
SCS Review 2015	The 2015 audit team takes positive note of the additional study that Irving undertook in southern New Brunswick which provides an additional data point supporting a conclusion that Norway spruce is not invasive. But since this was a one-time study and not conducted in Maine and because Norway spruce remains a topic of discussion in the professional forestry community, the 2015 audit team concludes that it would be beneficial for this Observation to be kept open for another year so as to encourage IWLLC managers and field personnel to continue to monitor natural regeneration of Norway spruce.
FME Response 2016	Using the Quebec protocol, two older Norway spruce planted areas on Irving LLC land in Maine were surveyed for NS found outside the planted stand boundary.

SCS Review 2016	FME demonstrated records of its Norway spruce monitoring transects. Two Norway spruce seedlings were found on the edge of one of the transects near some road scarification. Three planted areas rather than two were checked and two transects were measured on each block using the protocol established by Mottet *et al*. 2010 in an off-site regeneration study of Norway spruce in Quebec. The study found that off-site regeneration decreased with increasing distance from planted areas and concluded that Norway spruce does not exhibit invasive qualities. The fact that off-site regeneration was detected at a lower percentage than found in the study indicates that Norway spruce likely does not exhibit invasive qualities in this region of Maine either.
Status of CAR:	☒ Closed ☐ Upgraded to Major ☐ Other decision

	Finding Number: 2015.1
Select one: ☐ **Major CAR** ☐ **Minor CAR** ☒ **Observation**	
FMU CAR/OBS issued to (when more than one FMU): N/A	
Deadline	☐ Pre-condition to certification ☐ 3 months from Issuance of Final Report ☒ Next audit (surveillance or re-evaluation) ☐ Other deadline (specify):
FSC Indicator:	FSC US Forest Management Standard, V1-0, Indicator 4.1.c
Issue: The FSC-US National Standard, Indicator 4.1.c., requires that forest workers are provided with fair wages. "Forest workers" include both employees and independent contractors who work on Irving's Maine timberlands.	
Observation: IWLLC's conformity to Indicator 4.1.c. will be maintained and enhanced through an ongoing commitment to its Principles for Partnership, particularly within the context of the company's pro forma that is used in establishing contractor rates for forest workers. The effectiveness of the Principles for Partnership process in establishing and maintaining fair wages for contracted forest workers could be made more effective through an annual, documented analysis of actual wage rates in relation to logging industry norms, cost of living, and inflation rates in the region.	
FME Response *(including any evidence submitted)*	An annual analysis was completed to compare IWLLC *pro forma* wage rates to logging wage rates in the region as documented by the Maine Department of Labor. Cost of living increase percentages were compared to *pro forma* increases. IWLLC wage rates are above average for the region.

SCS Review	FME used Maine Department of Labor (MEDOL) average weekly wages for harvest operators for 2013-2016 and compared it to their *pro forma* wage rates for the same period. FME found that in all years it pays more than the state average wages and has consistent annual increases. FME ensured that its wage rates were extracted from its rate model to ensure that only wages were compared to each other. The model includes a cost of living factor that reflects inflation rates and other factors. FME's legal team advised it against seeking wage information from other managers in the region due to anti-trust concerns, thus only state data was used. SCS requested that the FME attempt to seek median wage data from the MEDOL, but none was found. The analysis likely will be revised annually as a part of the annual updates to the *pro forma* calculations, as confirmed in interviews with staff. Refer to **OBS 2016.2.**
Status of CAR:	☒ Closed ☐ Upgraded to Major ☐ *Other decision (refer to description above)*

	Finding Number: 2015.2
Select one: ☐ **Major CAR** ☐ **Minor CAR** ☒ **Observation**	
FMU CAR/OBS issued to (when more than one FMU): N/A	
Deadline	☐ Pre-condition to certification ☐ 3 months from Issuance of Final Report ☒ Next audit (surveillance or re-evaluation) ☐ Other deadline (specify):
FSC Indicator:	FSC US Forest Management Standard, V1-0, Indicator 5.4.b
Issue: The FSC-US National Standard, Indicator 5.4.b., requires that the forest owner or manager strives to diversify the economic use of the forest so as to enhance contributions to the local/regional economy.	
Observation: IWLLC should explore the potentials for developing forest carbon offset projects on its Maine timberlands, as an opportunity to diversify the economic use of its land base.	
FME Response *(including any evidence submitted)*	A document was created that described the efforts JDI has taken to explore carbon offset projects in Maine. JDI completed a survey for the Keeping Maine's Forests Carbon Credit Program Study, which further describes the efforts made and JDI's position on carbon offset projects in Maine.
SCS Review	FME provided a summary of its analysis and possible course of action. FME is also a part of Maine's forest carbon working group ("Keeping Maine's Forest Carbon Credit Program Study"). As FME is actively investigating this opportunity on multiple levels, SCS concludes that this OBS has been met.
Status of CAR:	☒ Closed ☐ Upgraded to Major ☐ *Other decision (refer to description above)*

	Finding Number: 2015.3
Select one: ☐ **Major CAR** ☐ **Minor CAR** ☒ **Observation**	
FMU CAR/OBS issued to (when more than one FMU): N/A	
Deadline	☐ Pre-condition to certification ☐ 3 months from Issuance of Final Report ☒ Next audit (surveillance or re-evaluation) ☐ Other deadline (specify):
FSC Indicator:	FSC US Forest Management Standard, V1-0, Indicator 6.5.d
Issue: The FSC-US National Standard, Indicator 6.5.d., requires that temporary haul roads and skid trails (or forwarder trails) are designed, constructed, maintained an/or reconstructed to reduce short and long-term environmental impacts.	
Observation: During the course of the 2015 audit, a few instances of rutting and compaction associated with forwarder and harvester trails, particularly on the margins of wet sites, was observed. While the length of the observed ruts did not meet the company's definition of rutting, IWLLC should continue to be focused on avoiding rutting in the location/layout of haul trails on wet/sensitive sites across which is run heavy equipment.	
FME Response *(including any evidence submitted)*	A Soft Ground BMP for Cut to Length Operations was created to guide harvesters and forwarders when working on wet ground. A training video was created to assist with operator training on the BMP.
SCS Review	FME demonstrated its BMP which includes a recommendation to brush trails, which includes diagrams and illustrations. The new BMP was included in a packet provided to loggers and covered in spring training, as verified in records and interviews with contractors.
Status of CAR:	☒ Closed ☐ Upgraded to Major ☐ *Other decision (refer to description above)*

	Finding Number: 2015.4
Select one: ☐ **Major CAR** ☐ **Minor CAR** ☒ **Observation**	
FMU CAR/OBS issued to (when more than one FMU): N/A	
Deadline	☐ Pre-condition to certification ☐ 3 months from Issuance of Final Report ☒ Next audit (surveillance or re-evaluation) ☐ Other deadline (specify):
FSC Indicator:	FSC US Forest Management Standard, V1-0, Indicator 6.5.d
Issue: The FSC-US National Standard, Indicator 6.5.d., requires that to reduce short and long-term environmental impacts, unneeded roads are closed and rehabilitated.	
Observation: There are opportunities for IWLLC to better demonstrate conformances with this Indicator, as evidenced by the management approach that was taken with respect to the new mainline off-highway haul road entering from the St. Francis Checkpoint of North Maine Woods in which the old, more meandering road segments were blocked off and stream culverts removed but otherwise not obliterated/rehabilitated and returned to forest cover.	

FME Response *(including any evidence submitted)*	Road Abandonment Guidelines were created that contain three objectives to consider during abandonment to ensure that roads are closed out in a responsible manner. The objectives are safety, environmental, and revegetation to forest cover.
SCS Review	FME demonstrated that the new guidelines have been implemented in the field. They are currently documented as a part of the general response to 2015 findings, but will be placed into another document. Refer to **OBS 2016.2.**
Status of CAR:	☒ Closed ☐ Upgraded to Major ☐ *Other decision (refer to description above)*

4.2 New Corrective Action Requests and Observations

	Finding Number: 2016.1
Select one: ☐ **Major CAR** ☐ **Minor CAR** ☒ **Observation**	
FMU CAR/OBS issued to (when more than one FMU):	
Deadline	☐ Pre-condition to certification ☐ 3 months from Issuance of Final Report ☐ Next audit (surveillance or re-evaluation) ☒ Other deadline (specify):
FSC Indicator:	FSC-US indicator 7.1.i.
Non-Conformity *(or Background/ Justification in the case of Observations)*: FME is considering the use of Bt (*Bacillus thuringensis*) an as option to control spruce budworm. If this is used, the FMP should include a description of how its use conforms to C6.8.	
Corrective Action Request *(or Observation)*: If biological controls are used, the FMP should describe what is being used, applications, and how the management system conforms to Criterion 6.8.	
FME response *(including any evidence submitted)*	Use of biological controls to protect the forest from spruce budworm will not begin until 2018, at the earliest. IWLLC will be updating its management plan in 2017 and will include a section that describes what biological controls will be used, application methods and how the management system conforms to Criterion 6.8.
SCS review	Any actions implemented will be evaluated at the 2017 annual audit.
Status of CAR:	☐ Closed ☐ Upgraded to Major ☐ *Other decision (refer to description above)*

	Finding Number: 2016.2
Select one: ☐ **Major CAR** ☐ **Minor CAR** ☒ **Observation**	
FMU CAR/OBS issued to (when more than one FMU):	

Deadline	☐ Pre-condition to certification ☐ 3 months from Issuance of Final Report ☐ Next audit (surveillance or re-evaluation) ☒ Other deadline (specify): none
FSC Indicator:	FSC-US indicator 7.2.a.
Non-Conformity *(or Background/ Justification in the case of Observations)*: FME has not fully decided where its responses to OBS 2015.1 and 2015.4 will be incorporated into the FMP and/or its components, such as SOPs.	
Corrective Action Request *(or Observation)*: The FMP should be updated to incorporate the changes made to the management system in response to observations from 2015.	
FME response *(including any evidence submitted)*	OBS 2015.1 - The analysis of comparing IWLLC wage rates to logging wage rates in the region, as documented by the Maine Department of labour, will be completed annually as part of the annual pro forma review. OBS 2015.4 - The IWLLC Road Abandonment Guidelines have been formalized and posted on the corporate website as part of the management plan documents.
SCS review	Any actions implemented will be evaluated at the 2017 annual audit. For example, while the document was provided, its location on the FME's intranet will have to be verified.
Status of CAR:	☒ Closed ☐ Upgraded to Major ☐ *Other decision (refer to description above)*

	Finding Number: 2016.3
Select one: ☐ **Major CAR** ☐ **Minor CAR** ☒ **Observation**	
FMU CAR/OBS issued to (when more than one FMU):	
Deadline	☐ Pre-condition to certification ☐ 3 months from Issuance of Final Report ☐ Next audit (surveillance or re-evaluation) ☒ Other deadline (specify): none
FSC Indicator:	SCS COC indicators for FMEs, V5.1, indicator 2.3
Non-Conformity *(or Background/ Justification in the case of Observations)*: Examined supplemental letter to Woodland Pulp, LLC (5/9/16), which includes FSC certificate code and claim. However, claim is incorrect (FSC Pure). For other sales, FME provides a copy of its stump-to-gate procedures to its customers in addition to the load slips. While the FSC claim in communicated in procedures, they do not contain the FSC certificate code. While none of this evidence constitutes a violation to FSC-US COC requirements under C8.3, it would result in the FME's COC-certified buyers receiving a non-conformity to 4.1.1 of FSC-STD-40-004, V2-1.	
Corrective Action Request *(or Observation)*: FME should ensure that all sales documents issued for outputs sold with FSC claims include its FSC Forest Management (FM/COC) code and the FSC claim "FSC 100%".	

FME response *(including any evidence submitted)*	The FSC certification code has been added to the stump to gate chain of custody procedures. The supplier letter to Woodland Pulp now has the correct FSC claim - "FSC 100%".
SCS review	SCS reviewed the two documents provided and both were found to contain the correct FSC claim and code for customers to use to supplement other information provided as part of sales of certified material.
Status of CAR:	☒ Closed ☐ Upgraded to Major ☐ *Other decision (refer to description above)*

5. Stakeholder Comments

In accordance with SCS protocols, consultation with key stakeholders is an integral component of the evaluation process. Stakeholder consultation takes place prior to, concurrent with, and following field evaluations. Distinct purposes of such consultation include:

- To solicit input from affected parties as to the strengths and weaknesses of the FME's management, relative to the standard, and the nature of the interaction between the company and the surrounding communities.
- To solicit input on whether the forest management operation has consulted with stakeholders regarding identifying any high conservation value forests (HCVFs).

Principal stakeholder groups are identified based upon results from past evaluations, lists of stakeholders from the FME under evaluation, and additional stakeholder contacts from other sources (e.g., chair of the regional FSC working group). The following types of groups and individuals were determined to be principal stakeholders in this evaluation:

5.1 Stakeholder Groups Consulted

Maine Forest Service	Harvesting contractors
Outcome Based Forestry Panel members	IWLLC employees

Stakeholder consultation activities are organized to give participants the opportunity to provide comments according to general categories of interest based on the three FSC chambers, as well as the SCS Interim Standard, if one was used (in this audit, an Interim Standard was not used). The table below summarizes the major comments received from stakeholders and the assessment team's response. Where a stakeholder comment has triggered a subsequent investigation during the evaluation, the corresponding follow-up action and conclusions from SCS are noted below.

5.2 Summary of Stakeholder Comments and Responses from the Team, Where Applicable

☐ *FME has not received any stakeholder comments from interested parties as a result of stakeholder outreach activities during this annual audit.*	
Stakeholder comments	**SCS Response**
Economic Concerns	
All contractors interviewed stated that payment for services was fair and that work is more consistent on the FME's lands in comparison to other forests where they could work. FME-sponsored training and the bonus system were also touted as benefits.	SCS confirmed that FME has a system in place to evaluate and ensure that contractors are receiving fair pay. The system takes into account terrain, equipment type, haul distance, species, depreciation, and several other factors. FME has improved this system since the last audit by finding a way to compare it to average state wages for logging contractors. For the time period demonstrated, 2013-16, contractor pay exceeded the state average each year.
Social Concerns	
None received.	
Environmental Concerns	
None received.	

6. Certification Decision

The certificate holder has demonstrated continued overall conformance to the applicable Forest Stewardship Council standards. The SCS annual audit team recommends that the certificate be sustained, subject to subsequent annual audits and the FME's response to any open CARs.	**Yes** ☒ **No** ☐
Comments: FME continues to exhibit an exemplary level of performance to all certification requirements.	

7. Changes in Certification Scope

Any changes in the scope of the certification since the previous audit are highlighted in yellow in the tables below.

Name and Contact Information

Organization name	Irving Woodlands, LLC (IWLLC)		
Contact person	Scott MacDougall		
Address	300 Union Street St. John, New Brunswick E2L 4M3, Canada	**Telephone**	506-632-6085
		Fax	506-432-0518
		e-mail	MacDougall.Scott@jdirving.com
		Website	www.jdirving.com

FSC Sales Information

FSC salesperson	Same as above		
Address		**Telephone**	
		Fax	
		e-mail	
		Website	

Scope of Certificate

Certificate Type	☒ Single FMU	☐ Multiple FMU
	☐ Group	
SLIMF (*if applicable)*	☐ Small SLIMF certificate	☐ Low intensity SLIMF certificate
	☐ Group SLIMF certificate	
# Group Members (*if applicable)*		
Number of FMU's in scope of certificate	1	
Geographic location of non-SLIMF FMU(s)	*Latitude & Longitude: 47.221541°, -68.755697°*	
Forest zone	☐ Boreal	☒ Temperate
	☐ Subtropical	☐ Tropical

Total forest area in scope of certificate which is:	**Units: ☐ ha or ☒ ac**
privately managed	1,255,000
state managed	
community managed	

Number of FMUs in scope that are:			
less than 100 ha in area		100 - 1000 ha in area	
1000 - 10 000 ha in area		more than 10 000 ha in area	1

Total forest area in scope of certificate which is included in FMUs that:	**Units: ☐ ha or ☒ ac**
are less than 100 ha in area	0
are between 100 ha and 1000 ha in area	0
meet the eligibility criteria as *low intensity* SLIMF FMUs	0

Division of FMUs into manageable units:

The forestlands have also been grouped geographically into five economic zones that are used to guide transportation and potential silvicultural investments decisions; the zones include Allagash, Blackstone, Estcourt, Oakfield and Rocky Brook.

Production Forests

Timber Forest Products	**Units: ☐ ha or ☒ ac**
Total area of production forest (i.e. forest from which timber may be harvested)	1,185,000
Area of production forest classified as 'plantation'	0
Area of production forest regenerated primarily by replanting or by a combination of replanting and coppicing of the planted stems	70,545 acres 6%
Area of production forest regenerated primarily by natural	1,114,455 acres

regeneration, or by a combination of natural regeneration and coppicing of the naturally regenerated stems	94%
Silvicultural system(s)	**Area under type of management**
Even-aged management	
Clearcut (clearcut size range 5 -249 acres)	16%
Shelterwood	46%
Other:	
Uneven-aged management	
Individual tree selection	38%
Group selection	
Other:	
☐ Other (e.g. nursery, recreation area, windbreak, bamboo, silvo-pastoral system, agro-forestry system, etc.)	
The sustainable rate of harvest (usually Annual Allowable Harvest or AAH where available) of commercial timber (m3 of round wood)	m3 by species/mix Spruce/Fir: 547,000 Hardwood: 558,000 Cedar: 53,000 White Pine: 4,000
Non-timber Forest Products (NTFPs)	
Area of forest protected from commercial harvesting of timber and managed primarily for the production of NTFPs or services	0
Other areas managed for NTFPs or services	0
Approximate annual commercial production of non-timber forest products included in the scope of the certificate, by product type	Unknown, but relatively minor

Explanation of the assumptions and reference to the data source upon which AAH and NTFP harvest rates estimates are based:

There are three major sources of data which are employed to generate yield curves (volume forecast over time). The first one, a digital forest inventory, is compiled from the interpretation of digital aerial photographs taken in 2010. The second source of data comes from the company's Forest Development Survey (FDS) program. These are ground plots used to ground-truth the photo interpretation. FDS plots are established in a large number of stands which serve as a snapshot of the forest structure at a distinct point in time. With the new 2010 digital photography, a major FDS program was undertaken through 2011 and 2012. The third data source is the PSP network that is used to validate and calibrate the growth model. It also provides detailed data on the stand dynamics (growth and mortality) for different components of the forest. Currently, there are 326 Permanent Sample Plots established in the Maine district.

The footprint of harvest and silviculture operations occurring throughout each year are collected digitally in the field and their attributes and spatial configurations are used to continually update the photo-interpreted forest inventory. A continuously up-to-date inventory is the fundamental base for establishing accurate estimates of the forest structure that will provide, among other things, timber volume and wildlife habitat predictions. All growth and yield forecasting activities have been linked back to the forest stands within the digital (GIS) forest inventory

Species in scope of joint FM/COC certificate: *Scientific/ Latin Name* (Common/ Trade Name)

Red spruce, *Picea rubens*
Black spruce, *Picea mariana*

White spruce, *Picea glauca*
Norway spruce, *Picea abies*
Balsam fir, *Abies balsamea*
Hemlock, *Tsuga canadensis*
Northern white cedar, *Thuja occidentalis*
Eastern white pine, *Pinus strobus*
Red pine, *Pinus resinosa*
White ash, *Fraxinus americana*
Black ash, *Fraxinus nigra*
American beech, *Fagus grandifolia*
White birch, *Betula papyrifera*
Yellow birch, *Betula alleghaniensis*
Red maple, *Acer rubrum*
Sugar maples, *Acer saccharum*
Northern red oak, *Quercus rubra*
Big leaf aspen, *Populus grandidentata*
Trembling aspen, *Populus tremuloides*

FSC Product Classification

Timber products		
Product Level 1	**Product Level 2**	**Species**
W1 Rough Wood	W1.1 Roundwood (logs)	All
W3 Wood in chips or particles	W3.1 Wood Chips	All
Non-Timber Forest Products		
Product Level 1	**Product Level 2**	**Product Level 3 and Species**

Conservation Areas

Total area of forest and non-forest land protected from commercial harvesting of timber and managed primarily for conservation objectives	21132 acres

High Conservation Value Forest/ Areas

High Conservation Values present and respective areas: **Units:** ☐ **ha or** ☒ **ac**

	Code	HCV Type	Description & Location	Area
☐	HCV1	Forests or areas containing globally, regionally or nationally significant concentrations of biodiversity values (e.g. endemism, endangered species, refugia).		
☐	HCV2	Forests or areas containing globally, regionally or nationally significant large landscape level forests, contained within, or containing the management unit,		

		where viable populations of most if not all naturally occurring species exist in natural patterns of distribution and abundance.		
☒	HCV3	Forests or areas that are in or contain rare, threatened or endangered ecosystems.	Yankeetuladi St Francis Floodplain Orchard Bog Cross Lake Fen	153 699 534 618
☒	HCV4	Forests or areas that provide basic services of nature in critical situations (e.g. watershed protection, erosion control).	Long Lake Smelt Fishery Long Lake Slopes Chase Lakes	500 431 1283
☐	HCV5	Forests or areas fundamental to meeting basic needs of local communities (e.g. subsistence, health).		
☐	HCV6	Forests or areas critical to local communities' traditional cultural identity (areas of cultural, ecological, economic or religious significance identified in cooperation with such local communities).		
Total Area of forest classified as 'High Conservation Value Forest/ Area'				4218

Areas Outside of the Scope of Certification (Partial Certification and Excision)

☐ N/A – All forestland owned or managed by the applicant is included in the scope.	
☒ Applicant owns and/or manages other FMUs not under evaluation.	
☐ Applicant wishes to excise portions of the FMU(s) under evaluation from the scope of certification.	
Explanation for exclusion of FMUs and/or excision:	The parent company of Irving Woodlands LLC (IWLLC) is J.D. Irving Limited, corporately located in New Brunswick, Canada. J.D. Irving Limited owns 3.4 million acres of forestland in Canada and Maine. In total, these lands are divided into five operating districts, four of which are located in Canada. Only those lands under the control of the JD Irving Maine operating district within the State of Maine are within the scope of this certification evaluation; Canadian lands are outside the scope of this certificate. The rationale for partial certification is due largely to differing regional standards between the Maritime and Northeast regions. The company does not at this time believe that the Maritime standard, which encompasses the balance of its ownership, is an appropriate normative standard for industrial/commercial forest management. J.D. Irving has been actively engaged in the Maritime standards development process and remains committed to re-engaging FSC certification in Canada if the Maritime standard undergoes revision through a multi-stakeholder and transparent process. The balance of the ownership is Canadian lands which are managed under the same system as the

	Maine Woodlands. Because of this common management system, there are no concerns about the forest management of these non-certified lands in Canada.
Control measures to prevent mixing of certified and non-certified product (C8.3):	The other areas that are not within the scope of this Certificate are located in Canada and are geographically separate from these areas located in Maine.

Description of FMUs excluded from or forested area excised from the scope of certification:		
Name of FMU or Stand	**Location (city, state, country)**	**Size (☐ ha or ☒ ac)**
JD Irving Canada	New Brunswick Canada	2.145 million acres

8. Annual Data Update

8.1 Social Information

Number of forest workers (including contractors) working in forest within scope of certificate (differentiated by gender):		
326 male workers	3 female workers	
Number of accidents in forest work since last audit:	**Serious:** 0	**Fatal:** 0

8.2 Annual Summary of Pesticide and Other Chemical Use

☐ *FME does not use pesticides.*

Commercial name of pesticide / herbicide	**Active ingredient**	**Quantity applied annually (kg or lbs)**	**Size of area treated during previous year**	**Reason for use**
Rodeo	Glyphosate	4091.75 gallons	7,913.4	Conifer Release
Arsenal AC	Imazapyr	114.24 gallons	7545.7	Conifer Release, Site Prep
Accord XRT II	Glyphosate	425.25 gallons	516.9	Conifer Release, Site Prep
Oust XP	Sulfometuromethyl	253.82 lbs	3618.8	Conifer Release, Site Prep