

FOREST MANAGEMENT AND STUMP-TO-FOREST GATE CHAIN-OF-CUSTODY CERTIFICATION 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

20-24 October 2014

DATE OF LAST UPDATE

4 February 2015

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Foreword

SCS Global Services (SCS) is a certification body accredited by the Forest Stewardship Council to conduct forest management and chain of custody evaluations. Under the FSC / SCS certification system, forest management enterprises (FMEs) meeting international standards of forest stewardship can be certified as “well managed,” thereby permitting the FME’s use of the FSC endorsement and logo in the marketplace subject to regular FSC / SCS oversight.

SCS deploys interdisciplinary teams of natural resource specialists and other experts in forested regions all over the world to conduct evaluations of forest management. SCS evaluation teams collect and analyze written materials, conduct interviews with FME staff and key stakeholders, and complete field and office audits of subject forest management units (FMUs) as part of certification evaluations. Upon completion of the fact-finding phase of all evaluations, SCS teams determine conformance to the FSC Principles and Criteria.

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 30 days after issue of the certificate. Section B contains more detailed results and information for the use of by the FME.

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SECTION A – PUBLIC SUMMARY

1. General Information

1.1 Certificate Registration Information

1.1.1.a 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

1.1.1.b FSC Sales Information

<input checked="" type="checkbox"/> FSC Sales contact information same as above.			
FSC salesperson			
Address		Telephone	
		Fax	
		e-mail	
		Website	

1.1.2 Scope of Certificate

Certificate Type	<input checked="" type="checkbox"/> Single FMU	<input type="checkbox"/> Multiple FMU
	<input type="checkbox"/> Group	
SLIMF (if applicable)	<input type="checkbox"/> Small SLIMF certificate	<input type="checkbox"/> Low intensity SLIMF certificate
	<input type="checkbox"/> Group SLIMF certificate	
# Group Members (if applicable)		
Number of FMUs in scope of certificate	1	
Geographic location of non-SLIMF FMU(s)	Latitude & Longitude:	
Forest zone	<input type="checkbox"/> Boreal	<input checked="" type="checkbox"/> Temperate
	<input type="checkbox"/> Subtropical	<input type="checkbox"/> Tropical
Total forest area in scope of certificate which is: Units: <input type="checkbox"/> ha or <input checked="" type="checkbox"/> 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: <input type="checkbox"/> ha or <input checked="" type="checkbox"/> ac
are less than 100 ha in area	0		
are between 100 ha and 1000 ha in area	0		
meet the eligibility criteria as <i>low intensity</i> 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.			

1.2 FSC Data Request

1.2.1 Production Forests

Timber Forest Products	Units: <input type="checkbox"/> ha or <input checked="" type="checkbox"/> 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 6.0%
Area of production forest regenerated primarily by natural regeneration, or by a combination of natural regeneration and coppicing of the naturally regenerated stems	1,114,455 acres 94.0%
Silvicultural system(s)	Area under type of management
Even-aged management	
Clearcut (clearcut size range)	16%
Shelterwood	46%
Other:	
Uneven-aged management	
Individual tree selection	38%
Group selection	
Other:	
<input type="checkbox"/> 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	Unknown, but relatively

products included in the scope of the certificate, by product type	minor
Explanation of the assumptions and reference to the data source upon which AAH and NTFP harvest rates estimates are based:	
<p>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.</p> <p>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.</p>	
Species in scope of joint FM/COC certificate: (Scientific / Latin Name and Common / Trade Name)	
<p>Red spruce, <i>Picea rubens</i> Black spruce, <i>Picea mariana</i> White spruce, <i>Picea glauca</i> Norway spruce, <i>Picea abies</i> Balsam fir, <i>Abies balsamea</i> Hemlock, <i>Tsuga canadensis</i> Northern white cedar, <i>Thuja occidentalis</i> Eastern white pine, <i>Pinus strobus</i> Red pine, <i>Pinus resinosa</i> White ash, <i>Fraxinus americana</i> Black ash, <i>Fraxinus nigra</i> American beech, <i>Fagus grandifolia</i> White birch, <i>Betula papyrifera</i> Yellow birch, <i>Betula alleghaniensis</i> Red maple, <i>Acer rubrum</i> Sugar maples, <i>Acer saccharum</i> Northern red oak, <i>Quercus rubra</i> Big leaf aspen, <i>Populus grandidentata</i> Trembling aspen, <i>Populus tremuloides</i></p>	

1.2.2 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	W3.1 Wood Chips	All

particles		
Non-Timber Forest Products		
Product Level 1	Product Level 2	Product Level 3 and Species

1.2.3 Conservation Areas

Total area of forest and non-forest land protected from commercial harvesting of timber and managed primarily for conservation objectives		19,726 acres		
High Conservation Value Forest / Areas				
High Conservation Values present and respective areas:		Units: <input type="checkbox"/> ha or <input checked="" type="checkbox"/> ac		
	Code	HCV Type	Description & Location	Area
<input checked="" type="checkbox"/>	HCV1	Forests or areas containing globally, regionally or nationally significant concentrations of biodiversity values (e.g. endemism, endangered species, refugia).		
<input checked="" type="checkbox"/>	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.		
<input checked="" type="checkbox"/>	HCV3	Forests or areas that are in or contain rare, threatened or endangered ecosystems.	Yanketuladi St Francis Floodplain Orchard Bog Cross Lake Fen	153 699 534 618
<input checked="" type="checkbox"/>	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
<input checked="" type="checkbox"/>	HCV5	Forests or areas fundamental to meeting basic needs of local communities (e.g. subsistence, health).		
<input checked="" type="checkbox"/>	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

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

<input type="checkbox"/> N/A – All forestland owned or managed by the applicant is included in the scope.
<input checked="" type="checkbox"/> Applicant owns and/or manages other FMUs not under evaluation.

<input type="checkbox"/> 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 (<input type="checkbox"/> ha or <input checked="" type="checkbox"/> ac)
JD Irving Canada	New Brunswick Canada	2.145 million acres

1.4 Social Information

Number of forest workers (including contractors) working in forest within scope of certificate (differentiated by gender):	
320 male workers	10 female workers

1.5 Pesticide and Other Chemical Use

<input type="checkbox"/> FME does not use pesticides.				
Commercial name of pesticide / herbicide	Active ingredient	Quantity applied annually (kg or lbs)	Size of area treated annually (ha or ac)	Reason for use
Rodeo	Glyphosate	3296 gallons	6474 acres total program	Conifer Release
Arsenal	Imazapyr	12.5 gallons	1103 acres inclusive of total program acres	Conifer Release

Oust	Sulfometuronmeth yl	675 ounces	624 acres inclusive of total program acres	Conifer Release
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1.6 Standards Used

1.6.1 Applicable FSC-Accredited Standards

Title	Version	Date of Finalization
FSC-US Forest Management Standard	V1-0	July 8, 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).		

1.7 Conversion Table English Units to Metric Units

Length Conversion Factors		
To convert from	To	multiply by
Mile (US Statute)	Kilometer (km)	1.609347
Foot (ft)	Meter (m)	0.3048
Yard (yd)	Meter (m)	0.9144
Area Conversion Factors		
To convert from	To	multiply by
Square foot (sq ft)	Square meter (m ²)	0.09290304
Acre (ac)	Hectare (ha)	0.4047
Volume Conversion Factors		
To convert from	To	multiply by
Cubic foot (cu ft)	Cubic meter (m ³)	0.02831685
US Gallon (USG)	Liter (l)	3.7854
Quick reference		
1 acre	= 0.404686 ha	
1,000 acres	= 404.686 ha	
1 board foot	= 0.00348 cubic meters	
1,000 board feet	= 3.48 cubic meters	
1 cubic foot	= 0.028317 cubic meters	

2. Description of Forest Management

2.1 Management Context

2.1.1 Regulatory Context

<p>Pertinent Regulations at the National Level</p>	<p>Endangered Species Act Clean Water Act (Section 404 wetland protection) Occupational Safety and Health Act National Historic Preservation Act Archaeological and Historic Preservation Act Americans with Disabilities Act U.S. ratified treaties, including CITES Lacey Act Forest Resources Conservation and Shortage Relief Act National Resource Protection Act National Environmental Protection Act National Wild and Scenic River Act Native American Grave Protection and Repatriation Act Rehabilitation Act Architectural Barriers Act</p>
<p>Pertinent Regulations at the State / Local Level</p>	<p>Maine Revised Statute Annotated (M.R.S.A.), Title 12 Maine Forest Practices Act Maine Forest Service Rules, Chapters 20, 21 Maine Endangered Species Act Maine Natural Resources Protection Act Shoreland Zoning Act Erosion and Sedimentation Control Act Protection and Improvement of Water Act Fish and Wildlife Management Laws Great Ponds Act The Land Use Regulation Act DEP, Resource Conservation and Recovery Act Maine Human Rights Act</p>

Regulatory Context Description

County and local regulations, especially those related to road use and scenic view sheds, are part of the regulatory landscape and are relevant, but do not typically play a prominent role as compared to state and federal regulations. A portion of the Irving’s forestlands are subject to regulation of the Maine Land Use Planning Commission (LUPC). This Commission was established by the State legislature in 1971 to serve as the planning and zoning authority for the state’s townships, plantations and unorganized areas. The Commission has land use regulatory jurisdiction over these areas because they have no form of local government to administer land use controls, or they have chosen not to administer land use controls at the local level. LURC rules and standards cover a number of areas relevant to the management of the

defined land holdings including policies for timber harvest operations, deer yard management, erosion control, roads and water crossings. LUPC permits are required for certain activities within designated protection zones (i.e., wetlands, fish/wildlife zones and aquifer protection areas). Other policies/regulations are found in LUPC’s Lake Management Program (1990) and Rivers with Special Protection Plan.

And finally, recent listings under the federal Endangered Species Act include anadromous Atlantic salmon. Under both the state Forest Practices Regulations and the federal Endangered Species Act, there is a focus placed on long-term management planning. Outcome Based Forestry is a voluntary program that requires that operations be implemented in a manner that is ecologically sustainable, economically viable and socially responsible. This OBF agreement obligates landowners to maintain independent third party certifications and relaxes some provisions of the Maine Forest Practices Act.

2.1.2 Environmental Context

Environmental safeguards:
<p>The forest management plan aligns with the criteria and objectives outlined within the Maine Forest Service’s (MFS) Outcome Based Forestry (OBF) law, an agreement that IWLLC entered into with the MFS in May of 2012. At a broad level this agreement requires that operations be implemented in a manner that is ecologically sustainable, economically viable and socially responsible. This OBF agreement obligates IWLLC to maintain independent third party certifications for our woodlands and relaxes some provisions of the Maine Forest Practices Act. Recent listings under the federal Endangered Species Act include anadromous Atlantic salmon. Under both the state Forest Practices Regulations and the federal Endangered Species Act, there is a focus placed on long-term management planning. The State of Maine has established Best Management Practices for Forestry. Harvest operations meet or exceed BMPs.</p>
Management strategy for the identification and protection of rare, threatened and endangered (RTE) species and their habitats:
<p>IWLLC regularly updates their RTE GIS layers using information provided by the Maine Natural Areas Program. Interviews confirm that foresters check this GIS layer during the planning stage and prior to commencing management activities. RTE locations are clearly identified on harvest plan maps. Surveys are conducted by both MNAP biologists and JD Irving foresters. Rare communities are identified and mapped in the GIS database and protected in the same manner as rare species.</p> <p>IWLLC has identified Type 1 old growth and implemented special management guidelines. The Strategic Plan specifically describes inactive management for Type 1 old growth. Type 2 old growth has not yet been found on the FMU.</p> <p>IWLLC works in collaboration with the regional state wildlife biologist, rangers and other enforcement officials. The state agency regulates hunting and other activities. Gates and signs are used effectively to control access where needed. Hunting in season is encouraged to control deer populations.</p> <p>IWLLC documents areas identified by the U.S. Fish and Wildlife Service as critical habitat for the Canada Lynx. During management activities IWLLC follows Canada Lynx management guidelines developed by the USFWS. These habitat zones regularly change and IWLLC routinely updates this information through USFWS and DIFW.</p>

2.1.3 Socioeconomic Context

The forests of Maine are a vital source of raw materials for the forest products industry while supporting a wide variety of recreational activities and generate 18 percent of the gross state product, approximately \$6 billion. In addition to their economic significance, Maine's forests host a wide array of plant and animal species and play a critical role in maintaining water quality and aquatic habitat. Maine's coastal towns, including the City of Portland, have experienced substantial economic growth since the 1980s. These regions are currently experiencing renewed growth in response to national economic patterns. The population of Maine is just over 1.3 million people. Ninety-seven percent of the population is white; American Indians comprise 0.6 percent of the population.

Maine is home to four federally recognized Native American or First Nation peoples. These are the Penobscot, Passamaquoddy, Maliseet, and Micmac. In 1980, the *Maine Indian Claims Settlement Act* was signed into law. At the time, the Act was the largest Native American settlement of its kind in the U.S. and was the first to include provisions for the reacquisition of tribal lands. Under the terms of the Settlement, the Penobscots and Passamaquoddies gave up future claims to their aboriginal lands in exchange for over \$80 million in Federal trust fund and land acquisition monies. The Settlement also provided a smaller amount of land acquisition funds and Federal recognition for the Houlton Band of Maliseets. The Aroostook Band of Micmacs and those Maliseets who were not members of the Houlton Band also claimed title to parts of present day Maine. Under the terms of the Act, however, these groups received no land or money, and their claims were extinguished. In 1991, the Aroostook Band of Micmacs received Federal recognition as an official tribe.

Maine's generally poor soil, short growing season, and remoteness from industrial and commercial centers have long delayed robust development and population growth, leaving the landscape of the state, and its economy, dominated by agriculture and forestry. Maine's agricultural outputs include poultry, eggs, dairy products, cattle, wild blueberries, apples, potatoes, and maple sugar. Commercial fishing, once a mainstay of the state's economy, still maintains an important presence. Aquifers and springs in Western Maine are a major source of bottled water, a growing and controversial industry. Maine's industrial outputs consist chiefly of paper, lumber and wood products, electronic equipment, leather products, food products, textiles, and bio-technology. Naval shipbuilding and construction remain key as well. Manufacturing is still the largest sector in the state's economy. Maine is a leading producer of paper and wood products in eastern Canada and Northeast U.S., which are the most valuable of all manufactured commodities in the Maine.

Tourism and outdoor recreation play a major and increasingly important role in Maine's economy, probably supporting more jobs in the state than any other industry. Picturesque coastal and island resorts and the promise of tranquil outdoor life hold a strong appeal for tourists, recreational and seasonal visitors, and, increasingly, retirees. The state is a popular destination for inland sport hunting (particularly deer, moose and bear), sport fishing, snowmobiling, skiing, boating, camping and hiking, among other activities.

2.1.4 Land use, Ownership, and Land Tenure

Relative to pre-settlement conditions, the forests of Maine, including the IWLLC lands, have experienced a systematic reduction of white pine, red spruce, and yellow birch. The entire region was harvested during the 19th century with exploitation focused first on white pine, followed by red spruce and then sawlog quality hardwoods. In contrast to the drier, harsher forest sites of the western U.S., the forests of Maine have remained well stocked despite this extensive harvesting. The species composition, however, has been substantially simplified, and many stands are comprised of pole-sized trees.

JD Irving first established itself in Maine in 1947 with the acquisition of 225,000 acres in the area west of Allagash. These new lands were held in common and undivided ownership primarily with the Dunn heirs, and Dauteuil Lumber. However in the late 1970's, JD Irving took an active role in the management of these lands. In pursuit of their objectives, JD Irving initiated a campaign to consolidate their ownership out of common undivided interest and in 1977 the company assumed direct management responsibility for its lands with its own dedicated staff.

In 1983, there was an additional acquisition of 250,000 acres from International Paper Co. in Northern and Eastern Aroostook County. In 1985, Irving purchased land from Great Northern Paper in the northeastern part of Maine. In March of 1999, JD Irving acquired 1,023,000 acres of lands in northern Maine from Bowater Incorporated (Great Northern Paper, Inc. Woodlands). In 2006, the company sold approximately 350,000 acres of their non-strategic Maine lands, bringing the present ownership to 1,255,000 acres.

Aside from commercial timber harvesting within the general forest, the other principal land uses on the IWLLC woodlands include: (1) outdoor recreation including, hunting, fishing, snowmobiling, ATVing, and camp leases; (2) Consideration for sensitive environments and important wildlife habitats such as deer wintering areas.

2.2 Forest Management Plan

Management Objectives:
<p>Objectives include: Standard operating procedures have been established for all harvest and road construction operations to avoid significant reduction to site productivity; standard operating procedures have been established to protect water quality and aquatic habitats during our harvest and road construction operations and these procedures meet or exceed current regulatory guidelines. The timber quality objective is focused on growing high quality, saw log and veneer products including: Spruce and Balsam Fir trees of sufficient soundness and stem size will be directed to the manufacturing of dimensional lumber; Sugar Maple, Yellow Birch, White Birch, Ash, and Red Maple will be managed and merchandized to produce saw logs and veneer grade products; White Pine and Cedar will be merchandized to produce solid wood products. Maintain an appropriate balance of forest cover types and age class distribution. Review lands for the occurrence of rare or outstanding features, representing important key habitats; best management strategies have been developed to protect their unique characteristics. Harvesting operation sites are screened to identify special wildlife habitats, rare plants and other unique landscape features for retention during harvesting operations. Identified Deer Wintering Areas (DWA) are managed consistent with habitat objectives developed in consultation with</p>

Maine’s Inland Fisheries and Wildlife Department. Clear-cutting activities are conducted for sound silvicultural reasons, and will be ecologically appropriate for the site. A proportion of the land base must be maintained in “old forest” conditions meeting specific wildlife and habitat requirements. Management activities provide wood to our mills and other regional mills at costs allowing for competitive manufacturing. Established stakeholder committee made up of a wide spectrum of public interest groups. Continue to provide historic and traditional recreational opportunities that do not conflict with our management objectives and values. Protect the forest from fire, insects, and disease is a fundamental component of our management program. Committed to investments in tree planting, pre-commercial thinning (PCT), and silvicultural stand improvement treatments to ensure the long term health and sustainability of the lands we manage. Non-timber forest products are utilized when their use does not compromise other forest management objectives. Examples include; gravel, ash for basket making, burls, mushrooms, and fiddleheads. Aesthetics in our management activities where visual impacts may be of concern. Forest management activities align to the criteria set by J.D. Irving Limited’s Best Management Practices and Standard Operating Procedures. Carbon sequestration levels are monitored.

Forest Composition and Rationale for Species Selection:

The IWLLC Maine Woodlands are located in the transition zone between the northern hardwood region (dominated by beech, birch, and maple) and the boreal spruce-fir forest. This transition zone, called by some the Acadian Forest, is rich in species diversity and micro-site variation. Boreal species, such as balsam fir, white and black spruce, tamarack, and white birch, tend to be at the southern end of their range in this area, while species such as red spruce, hemlock, and white and red pine tend to be at the northern end of their ranges. The area in northern Maine west of the Allagash River and extending to the top of Maine is dominated by purer spruce-fir types with hardwoods and mixed forest types prevalent on better-drained sites. Indicative of the transition zone in which the property lies, however, most all townships contain stands in the full continuum from softwoods to mixed types to hardwoods.

General Description of Land Management System(s):

Excerpt from Forest Management Plan (2013-2037)
 Harvest treatments and silvicultural prescriptions represent the merged objectives of growth and yield, markets, operations, and biological objectives. J. D. Irving, Limited has developed a series of silvicultural treatment categories as the basis for planning, modeling, and communications. These are generalized categories, and therefore are subject to modification based on conditions for each individual site. These modifications occur under the direction of the supervising regional forester. Our timber management objective is to increase the sustainable growth and yield of quality timber from the forest. Therefore, our overall goal in designing prescriptions is the identification of healthy, quality growing stock to leave as residual stand components while directing removals at lower quality, slow growing, and unhealthy stems. These treatments are also modified with respect to wildlife and biological considerations, according to the company policy for retention of islands and patches in clear-cut areas, and unique site specific features identified in all harvest areas. The harvest prescriptions sort into two distinct groups:
 1. **Even-aged Management:** prescriptions where the forest stand is managed as predominantly one or two age-classes, and where the stand is ultimately replaced with a young age-class. This grouping includes the regeneration systems of clear-cutting, over-story removal and shelterwood harvest, as well as intermediate treatments such as commercial thinning. Even though these treatments are categorized as even-aged, they often include the management and maintenance of two-storied or three-storied stands. Below is the array of prescriptions under this grouping:
 Clear-cuts: Remove most of the merchantable stems of all species within the definition of operability. The treatment is generally applied in mature to over-mature stands and leads to the creation of new, even-aged stands through either natural regeneration, planted trees, or a combination of both. Operational variations include leaving residual islands or patches of standing timber largely for wildlife

purposes and defining block boundaries and shapes to be less square and angular and better fitting to natural stand boundaries. We have described these modifications under the term – variable retention clear-cuts.

Over Story Removal: Remove most of the merchantable stems of all species in a single treatment entry. This even aged management prescription is targeted to protect and release well established regeneration in the under story. Full planting is not required following an over story removal harvest, however a very minor level of fill planting of trails or small un-regenerated patches within the block may be prescribed.

Commercial Thinning: Commercial thinning is generally prescribed in planted stands or previously pre-commercially thinned areas. The primary objective of this treatment is to remove a portion of the trees, usually focusing on lower quality stems, in order to allow the remaining trees to continue growing vigorously. This prescription generally removes 30-50% of the merchantable volume in the first entry. Some stands, especially those that have been planted, may undergo two commercial thinning(s). Depending upon the species, density, and site productivity, commercial thinning(s) may be prescribed in stands varying from 20 to 40 years old (Table 2). Once a stand has been commercially thinned, it is locked out from harvest eligibility for the next 10 year period.

Shelterwood and Multiple Pass Harvesting: Shelterwood and multiple pass treatments are often practiced in stands with a goal of promoting natural regeneration or salvaging mortality. In most situations, this prescription is even aged management. In shelterwood or multiple pass harvest prescriptions, up to 50% of the standing volume may be removed in the first pass, focusing on the lower quality or less vigorous trees. The second entry is normally delayed by 15 years, depending upon the specific stand conditions and objectives. There are some variations on the standard shelterwood that may be prescribed in specific circumstances in including irregular shelterwood and some group selection methods.

2. Uneven-aged management: prescriptions where the forest is managed to maintain and expand several age classes with an objective to retain a forest canopy indefinitely. This grouping typically includes individual tree selection and riparian zone treatments. Where a truly balanced uneven aged forest can be created, it will be pursued. But some forest conditions under these prescriptions will indefinitely maintain a dominant development. The array of prescriptions under this grouping includes:

Riparian – Selection Harvest: The purpose of selection harvesting in riparian stands is to regenerate and maintain an uneven-aged forest structure. This prescription typically occurs in riparian zones, but may also occur in areas deemed special management zones.

Single Tree Selection: Single tree selection harvest is usually classical uneven-aged management. Ideally, this prescription targets tolerant hardwood, tolerant mixed wood or any cedar dominated stands. Sometimes it may also be used in stands with significant components of Red Spruce. In addition, harvesting in riparian zones, recreational, aesthetically important, or other constrained zones may require that a single tree selection treatment is utilized. Typically, uneven aged management may remove 30% of the stand volume each entry, depending upon the specific stand condition with subsequent entries separated by 20 to 30 years. The objective of the single tree selection treatment is generally to develop a full range of age and diameter classes in the stand; as well as to provide a suitable diversity of tree species at all times.

Harvest Methods and Equipment used:

- Mechanical Harvester Single Grip (MHS): MHS harvesting incorporates various at-the-stump processors combined with forwarders (porters) used to transport wood to the roadside.
- Mechanical Full Tree (MFT) Harvesting: MFT harvest systems utilize a fellerbuncher, grapple skidder, delimeter, slasher, chipper and grinder combinations.
- Mechanical Processor in Box (MPB) Harvesting: MFB harvest systems utilize a fellerbuncher,

<p>grapple skidder, processor, chipper and grinder combinations.</p> <ul style="list-style-type: none"> • Mechanical Processor at Roadside (MPR) Harvesting: MPR harvest systems utilize a fellerbuncher, grapple skidder, delimeter, chipper and grinder combinations. • Conventional Hand Crews: Rare occasion for specialty items. Conventional logging utilizes a cable skidder with a man and chainsaw.
<p>Explanation of the management structures:</p> <p>The headquarters of IWLLC is located outside Fort Kent, Maine. Management operations in Maine are directed independently of other regions with support from corporate specialists. Specifically in Maine, IWLLC employs management personal in the areas of scaling, forest operations administration, trucking, productivity improvement, road building, silviculture, forest operations planning and wood procurement. Key support functions are provided by personnel based in the corporate headquarters in New Brunswick.</p> <p>Every five-year period, the allowable harvest is re-calculated based on inventory, growth estimates and an operational net down. Based on an averaged allowable cut over a fifteen year time period, the planning forester and logging planners work to create a continuous blocked management plan. The blocking process entails grouping forest stands into operational harvest blocks and incorporating on-the-ground realities which were not considered at the non-spatial level, in addition to the rules governing the allowed opening size and delay between harvesting adjacent openings. During this processes, access to future spatial blocks is planned for the subsequent five-year period.</p> <p>Harvest operations are directly administered by the harvesting supervisors and the operations superintendents. Most logging operators are independent contractors though a few are employed directly by IWLLC. All wood transport operations are administered by IWLLC trucking supervisors; roughly 20% of harvest wood is trucked by company-owned trucks and the other 80% is trucked by contractors.</p> <p>Road construction and access is planned by the Planning Forester to support forest management. With regard to construction and access, IWLLC’s objective is to build high quality, environmentally appropriate roads and to maintain roads to such standards. Some key objectives that direct the road building program are; 1) minimize area in roads, 2) maximize safety for Irving operations and the general public, 3) minimize watercourse and wetland crossings, 4) utilize current best practices for forest road construction, and 5) improve transportation efficiency. It is IWLLC’s opinion that these objectives are best served with carefully planned, straight road systems. Road construction right-of-way widths are 60’-70’ with narrower widths at brook crossings.</p> <p>Forest health and protection is maintained in conjunction with corporate-level specialists and the Maine Forest Service. Preventing and extinguishing forest fires is the highest priority protection activity. Each spring, prior to the earliest risk of fire, all staff receives training and practice on fire detection and fighting techniques. Equipment, fully functional and in top condition, is cached across IWLLC’s land holdings, and aerial support is on standby in New Brunswick. Specifically in Maine, forest fire protection strategy includes a strong partnership with the Maine Forest Service (MFS).</p> <p>With regard to insects and diseases, corporate specialists and the MFS Health and Monitoring Division conduct insect and disease monitoring on IWLLC woodlands. Spruce budworm is the dominant forest health issue and specific strategies are employed to mitigate its potential effects. These strategies focus on keeping stands healthy and vigorous, and reducing the landscape level concentration of mature fir. IWLLC is prepared to use insecticides in future outbreaks, if necessary, although these outbreaks are difficult to anticipate or forecast. The most certain priority in a spray program is the protection of young forest stands that are growing vigorously, both planted and natural stands.</p> <p>The management of biodiversity and special areas is directed by the wildlife biologist and naturalist, who reside at the corporate level, in partnership with the logging planners and forester. Special attention is paid to older successional stages as well as the area of all successional stages of forest</p>

communities.

2.3 Monitoring System

Growth and Yield of all forest products harvested:
Forest Development Surveys (FDS), continual harvest updates, Sustainable Forest Management (SFM) Scorecard and IQ200 auditing have been implemented. FDS is scheduled on a ten-year cycle. Initially in 1996, the Maine Woodlands were delineated into stands and strata for management and modeling. FDS plots were established within a sample of stands, serving as a snapshot of the forest structure at a distinct point in time. In total, 829 stands were cruised on the Maine land base from 1996 to 2006. FDS is supplemented by a permanent sample plot (PSP) network that provides detailed data on the stand dynamics (growth and mortality) for different components of the forest. Harvest updates are made to redefine stand delineations and maintain a current inventory. The EMS contains a schedule for monitoring.
Forest dynamics and changes in composition of flora and fauna:
A portion of the land is inventoried each year and the information is used to revise volume, species, and size class data in an effort to document changes in composition. The EMS contains a schedule for monitoring.
Environmental Impacts:
The management of biodiversity and special areas is directed by the wildlife biologist and naturalist, who reside at the corporate level, in partnership with the logging planners and forester. Special attention is paid to older successional stages as well as the area of all successional stages of forest communities. The EMS contains a schedule for monitoring.
Social Impacts:
The Public Advisory Committee Process is used to monitor social impacts. The Outcome Based Public Monitoring Summary recaps the social impacts. The SFM Scorecard is produced quarterly using self-assessments, oversight audits and the Environmental Management System (EMS). The score card records/measures performance against selected indicators for sustainable, ecologically sound and socially acceptable forest management. The EMS contains a schedule for monitoring.
Costs, Productivity, and Efficiency:
IQ200 is a program and scorecard that measures the cost, productivity and efficiency of forest management. Monitoring includes financial, customer, internal and business growth metrics. The EMS contains a schedule for monitoring.

3. Certification Evaluation Process

3.1 Evaluation Schedule and Team

3.1.1 Evaluation Itinerary and Activities

Date Monday, October 20	
FMU/Location/ sites visited	Activities/ notes
8 AM – 10 AM HQ: Fort Kent ME (Entire team)	Opening Meeting: Introductions, client update, review audit scope, audit plan, intro/update to FSC and SCS standards and protocols, review of open CARs/OBS, final site selection
10 AM – 4 PM (Dann & Thompson)	<ul style="list-style-type: none"> Block 6076 T 17 R 13: Overstory Removal harvest in a softwood/tolerant hardwood stand where the softwood was

	<p>poor quality fir (80%) and the hardwood was predominantly red maple and beech. A smaller island that had been placed there from previous harvest under the FPA has been enlarged in order to protect a Goshawk nest identified by field staff. Site prep is complete. Areas of abundant, high quality softwood advance regeneration have been excluded from the site prep.</p> <ul style="list-style-type: none"> • Block 6076 T 17 R 13: Tolerant hardwood stand selected to be managed as an uneven-aged stand using 25-30 year cutting cycles. Discussions at this site included research conducted to determine the sensitivity of selected songbirds to changing stand density. Research results seemed to indicate some short term shift in numbers but no big shifts in populations of individual species. • Block 6076 T 17 R 13: This stand was planted in 1999 and now includes a significant proportion of natural regeneration. A cleaning was completed during fall 2014. The protocol for planted stand cleaning was described and observations confirm that the protocol has been implanted. The numbers of trees/acre have been reduced from about 900 to 700 stems per acre. This is an excellent example of a 15-year old planted/cleaned stand that now contains a diverse mix of spruce, fir, white pine, cedar and sugar maple. • Block 6076 T 17 R 13: The audit team led a discussion of the process that takes place to determine which patches of natural regeneration will be left in blocks that are to receive site prep. The staff response included the following scenarios: the stand is initially reviewed by a field forester who identifies natural regeneration or the while the field forester is designing the lay-out of the harvest block or during harvest block supervision field staff identify patches of natural regeneration or patches are identified by the site prep machine operator who has been trained to recognize and protect patches of desirable natural regeneration. • A drive-by and discussion of a tolerant hardwood stand that once included dense beech understory. This uniform shelterwood harvest retained about 30 – 40 ft² BA/acre of sugar maple and yellow birch. The feller buncher operator had been paid an additional \$50/acre to “whip” the beech understory, cutting all non-merchantable beech; this practice increased the amount of maple and birch regeneration. This is an excellent example of field staff recognizing a problem, applying integrated control solutions and implementing mechanical solutions over chemical use. • Rocky Mountain Unique Area T 17 R 12: Observed 2 stands including 1 softwood and 1 hardwood stand that have are part of IWLLC’s late successional (LS) program to achieve the goals of 10% of 5 major forest types being reserved in old (LS) and
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	<p>very old (Old Growth) designations. The discussion mirrored the audit team’s understanding of the company’s LS policy including a description of which stands are chosen and which of the LS stands could receive future treatment with the recognition that following any treatment, stands must to retain the characteristics that initially made them candidates for LS.</p> <ul style="list-style-type: none"> • Block 6045 T18 R 12: This harvest “package” contained 2 stand treatments: A clear-cut of a softwood stand composed predominantly of mature to over mature fir with evidence of decline. Observations of the log pile of harvested cedar from the block initiated a “Legacy Tree” discussion. The 2nd treatment is an uneven-aged management of a hardwood stand. This stand includes high quality pole-size maple and birch and an older cohort of primarily lower quality mature stems that had been retained solely to maintain an element of structural diversity; this practice was commended by the audit team. While spruce was not a large proportion of the original stand, high quality spruce has not been retained to complement the stand and maintain the original stand composition. • Block 6173 T 16 R 12 & T 17 R 12: This “package” consisted of multiple stand prescriptions that are adjacent to each other and that would not have been feasible under the Forest Practices Act (FPA). This tolerant hardwood stand received an initial thinning that removed pulpwood quality stems; uneven-aged management for quality saw logs. • Block 6173 T 16 R 12 & T 17 R 12: This stand was originally mature poplar and balsam fir and has recently been clear-cut and will be planted. • Block 6173 T 16 R 12 & T 17 R 12: A completed final shelterwood harvest with adequate natural regeneration. • Block 6173 T 16 R 12 & T 17 R 12: A mature tolerant hardwood stand adjacent to a clear-cut that had received a shelterwood harvest leaving about 30 ft² BA/acre of maple, birch and white pine; non-merchantable beech removed from the understory. This stand would not have met the separation zone requirements of the FPA, so would not have been harvested in absence of the Outcome-Based Forestry program. A good example of how Outcome-Based Forestry allows silviculturally appropriate stand-level management. • Walker Brook Campground T 17 R 11: Town of Allagash. Walker Brook Campground is on the bank of the St. John River at the foot of the Big Rapids and not part of the North Maine Woods. The local ATV club approached IWLLC with a request to be allowed to improve the campground and rebuild a small bridge over Walker Brook in order to create a connection to
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	the current ATV trail network. IWLLC permitted the activities, worked with the Maine Forest Service and the club to create some safe fire rings. IWLLC also made a donation to the club to fund other projects including the rebuilding of a new covered ATV bridge and the construction of picnic tables and shelters.
10 AM – 4:30 PM HQ: Fort Kent ME (Kittredge)	Continue interviews, document review.
Date Tuesday, October 21	
FMU/Location/ sites visited	Activities/ notes
7 AM – 5 PM (Dann & Thompson)	<ul style="list-style-type: none"> Block 6893 T 14 R 12 23 7/8 Mile Branch Road: Active operation including 2 harvest prescriptions. Multiple-entry in a hardwood-softwood stand. Discussion centered on the decision to remove all merchantable spruce. This decision based on stand showing a long history of blowdown and spruce not of the highest quality. The 2nd prescription is a final removal in a hardwood-softwood stand that had a high component of over mature balsam fir and showed the same long history of blowdown. The audit team interviewed the processor owner/operator who has been with IWLLC for a number of years as well as other landowners. Operator reported that compensation is fair and that concerns are adequately addressed. Observed a cedar legacy tree that was identified during trail layout and that remains part of an uncut island of retention that also includes other old cedar and other softwoods. This harvest package is within the 1-mile zone of the Allagash Wilderness Waterway and was therefore completed through a permit process with the Waterway. Primary goals are retention of basal area to maintain aesthetics from the river. A timing restriction prohibits harvesting during the summer months when traffic on the river is highest. Foresters demonstrated comprehensive understanding of the requirements of the process and prescription. 23 mile Michaud Farm Road: 2013 fall harvest in a hardwood-softwood stand that includes spruce retention. Discussion clarified for the audit team the decision process surrounding the retention of spruce in terms of stem quality and basal area. Field staff reiteration of the point that this decision is made on a stand-by-stand basis. Block 6894 T 14 R 12 Farm Road Winter Detour: Interview with young contractor who felt that the compensation was OK as long as he was performing well enough to receive his “bonus” every week. Operator works closely with staff foresters on almost a daily basis. The audit team observed the riparian zone where operator is currently operating. Discussion focused on the riparian zone (40% BA removal). Observed

	<p>retention of high quality softwoods stems within the riparian zone. This 100' zone with a 25' no-track buffer exceeds the State requirements for this small stream; state requirements simply state that shade be maintained on this small stream.</p> <ul style="list-style-type: none"> • Block 6892 Ben Glazier Brook: Cooperative and Zoned Deer Wintering Area along Ben Glazier Brook. Discussed the goals including the practice of moving these stands within the DWA toward conforming winter cover as soon as possible, staying out of current conforming cover and timing/placing harvests so as to ensure connectivity of habitat. IWLLC's willingness to include an area of conforming cover that deer are currently using (albeit not within the bounds of the original agreement) is documented evidence of cooperation beyond the requirements. In addition, other planted softwood stands adjacent to the current cooperative DWA will be managed to provide conforming cover and will become part of the cooperative DWA. • Block 6853 T 15 R 12: Over-mature balsam fir stand scheduled to be clear-cut visited in order to refine the audit team's understanding of the decision-making process that is used by staff to determine which stands to clear-cut. The presence of old truck roads is evidence that the area had been harvested by the previous owner either before or during the 1980s budworm outbreak. The adjacent hardwood-softwood stand is scheduled for a multiple entry to remove pulp (hardwood and balsam fir). High quality spruce was removed by the previous landowner. Observed an American Elm Legacy Tree discovered during harvest block layout. This tree is growing in a wetter area and part of an island of retention. The 3rd prescription is an irregular shelterwood in an adjacent hardwood-softwood stand. This prescription will vary based on species quality and presence throughout the stand moving the stand toward an uneven-aged condition. • West Branch Twin Brook – town of Allagash. Observed 6' culvert in a new crossing of Twin Brook that has been designed for the 100-year flood. Proper installation techniques used. Evidence of additional water diversion around the old crossing and road. • Brown Brook Road – Allagash: 400-acre late succession stand containing a variety of hardwoods and large spruce. • Stop #13 T 16 R 11: Active operation. Final shelterwood removal in a softwood-hardwood stand. Removal of over mature fir and pulp (poplar, red maple and birch). The harvest system successfully protecting the maximum amount of excellent advance softwood regeneration. The Town of Allagash prohibits the use of chemicals. Discussion of the system and the possibility of its use in other circumstances
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<p>Blackstone: 7 AM – 5 PM (Kittredge)</p>	<p>where the use of pesticide could be limited.</p> <ul style="list-style-type: none"> • Long Lake T17R3: Camp leases observed along road. Large diversity of silvicultural prescriptions along road and on hillside (within view shed) above Long Lake including shelterwood, selection and including natural softwood regeneration in all stands. HCVF designation and protection of spring-fed water supplies to cottages. Upland buffers have been implemented around the lake. Local snowmobile trail relocated by IWLLC for safety reasons. • Chapel Brook T17R3: Stream crossing improvement. Previous 6’ culvert replaced with a bridge to allow in-stream movement by smelt, other fish and aquatic organisms. • West Road, New Sweden - IWLLC sign: “1972 Planted Spruce; 2014 first commercial thinning...” Boundary marking observed. • West Road, New Sweden Demonstration Site: Observed IWLLC sign “1965 Planted White Spruce - 1998 first commercial thinning, 2014 second commercial thinning...” plus a small foot bridge that was recently installed to improve public access into site. Prior to 1965, this area was part of an agricultural potato field. FME’s goal is to consider/use natural regeneration following final harvest (~20 years from now) in consideration of nearby private properties. Natural regeneration present including spruce, mountain ash, white ash and maple. Observed uncut strip on road across from nearby private property in reaction to neighbor’s concerns. • 1998 Pre-commercial thin T15R4: prescription implemented following 1984 clear-cut during spruce-budworm outbreak era. Not planted. Natural regeneration observed including pockets of cedar, hardwoods, larch, fir, spruce and including live snags (>14”) and LWD. Next harvest prescription is a shelterwood. Future islands of retention described. • Airport road T15R4: 50-70 acre late successional red spruce and cedar softwood stand transitioning into late successional cedar stand along unnamed stream. Red spruce is more resistant to budworm, is a longer-lived species than white spruce and this stand survived the budworm outbreak during the 1980’s. This stand has been designated late-successional based on New Brunswick DNR Old Forest Policy and includes > 8 trees/acre that are > 12” dbh and > 75 years old. Observed moss-covered LWD and skid road nearby from operations completed before the budworm outbreak. • T15R4 White spruce-black spruce plantation: 1st IWLLC plantation in Maine. 100-acre crown thinning will start later this week and will retain 80 ft²/acre in an even-age system (strip cuts); includes retention of islands (3 acre and 2 acre observed). Rocky site. This stand is part of a thousand-acre budworm salvage block; IWLLC’s goal is to not repeat the past
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	<p>thousand-acre prescription but rather create a network of natural stand sizes based on soils and species. Grouse observed. Interviewed operator who has equipment and training to contain spills, fire extinguishers and first aid kit. Prescription maps observed as paper copies and on machine's GPS system. Operator demonstrated use of cruise-all to confirm target stand density and described IWLLC's training to identify and retain nest trees, bear dens and winter deer activity.</p> <ul style="list-style-type: none"> • West Mainland T15R4: 110-acre complete clear-cut implemented as part of Outcome-Based Forestry and removing the buffers between previously established clear-cuts. During the 1990's much of the spruce was removed however the lack of a hardwood market resulted in retention of hardwoods. Planting of red spruce, white spruce and white pine partially completed. Regeneration includes red maple, beech, fir, white pine and sugar maple. Not an excessively 'cleaned' operation: snags observed (12") and LWD observed throughout. LWD (28" hemlock) and large live trees retained in an island including red maple (18"), red maple with cavity (22"), yellow birch (14"), spruce and large hemlock and an undisturbed soil layer. • Black Brook T16R4 Block 6387: Prescription modifications resulting from area visible from Madawaska Lake. Clear-cut plus area of shelterwood completed summer 2014 and then site prep planting and herbicides (with a chemical buffer on unmapped brook). Buffered riparian zone including a no-track zone and 100' SMZ on each side of stream. SMZ includes retention of yellow birch and sugar maple, hemlock (22") cavities and snags and natural regeneration under the shelterwood system. Not an excessively 'cleaned' operation: standing hemlock and pine with cavities (18") observed; LWD (tree length spruce 18" and hemlock 16") observed. • John Goddard Farm T15R5: Sign observed "John Goddard Farm 1840-1861", "Well", "Campsite". One of 40 historic sites found in the GIS database. 180-acre old homestead and base for 1800's white pine logging operation. Observed many large white pine including 35.5".
6 – 8 PM	Audit team compares notes; preliminary discussions
Date Wednesday, October 22	
FMU/Location/ sites visited	Activities/ notes
7:30 AM – 1 PM HQ: Fort Kent ME (Dann & Thompson)	<ul style="list-style-type: none"> • Office interviews to review IWLLC's forest modeling, inventory and the AAH calculations with staff. The audit team reviewed the broad forest types and development class distribution on the landscape.
1 PM – 5 PM (Dann & Thompson)	<ul style="list-style-type: none"> • Block 6802 T 15 R 10 Pelletier Brook: Stop chosen because the area map showed the boundary of T 16R9, owned by Maine

	<p>Bureau of Public lands that is adjacent to a late successional stand owned by IWLLC. Discussion clarified the policy of cooperation with adjacent owner(s) in association with special areas management. Viewed a winter final shelterwood harvest that includes protection of advance softwood regeneration. The adjacent riparian zone management includes mature spruce retention with the goal of moving the stand toward uneven-aged management.</p> <ul style="list-style-type: none"> • Block 6802 T 15 R 10: Mature softwood stand that is scheduled for final shelterwood removal with advance softwood regeneration protection. The audit team’s goal in reviewing this stand is to refine our understanding of the forester’s decision making process in determining stand prescriptions. Discussion with staff about long-term planning confirms that measures, training and policies are in place to insure that these types of stands remain on the landscape. • Block 6802 T 15 R 10: Observed new road construction that removed dangerous corners in the old road and replaced inadequate water crossings with new structures. As other management practices are implemented in nearby stands, sections of the abandoned road bed will be scarified and planted to return it to forest. • Carney Road – 1 mile: Observed a new large culvert installation. Another excellent example of construction techniques and implementation of water quality BMPs to enhance fish and aquatic organism passage. • Block #6804 T 15 R 10: Includes 3 different adjacent prescriptions. First commercial thinning of a tolerant hardwood stand includes management toward uneven-age management. Another recently planted area where discussion centered on the amount and distribution of down woody material both of which were satisfactory. Another stand includes areas of natural regeneration retained within a planted stand. This stand was cleaned and the cleaning step optimized tree spacing without markedly changing species composition. • Block 6804 T 15 R 10: This mature softwood stand that is part of a larger area managed under OBF. This stand was left as an aesthetic buffer between 2 final shelterwood removal harvests.
<p>Oakfield: 7:30 AM – 5 PM (Kittredge)</p>	<ul style="list-style-type: none"> • Dead Water Brook: 22-acre late successional stand identified recently during reconnaissance of deer wintering area including indicator lichens, huge snags and evidence of past harvesting (stumps), large live trees spruce. Observed demonstration of handheld GPS receiver including for example depth to water table, legacy tree location and stand delineations.

	<ul style="list-style-type: none"> • Dead Water Brook: Identified 45” and 35.5 “Atlantic white cedar trees within deer wintering area during the audit process. Observed measurements, photos, GPS location of these newly discovered individuals. • Ulmcolcus Connector Road: One of the 1st OBF prescriptions (2012). This 100-acre post-budworm hardwood stand includes a 4-acre island of retention including snags, aspen, hardwood and softwoods, cavities, evidence of pileated woodpeckers. Prescription includes some acres of clear-cut (and plant) as well as some acres of good quality sugar maple, spruce and fir retained in canopy and natural regeneration (yellow birch, red maple, spruce, fir, sugar maple) representing an example of a stand that was harvested and not planted. IWLLC and soil scientist dug soil pits and observed gleyed soils that were likely more softwood dominated in the past. Poor hardwood markets resulted in the removal of softwoods and yellow birch veneer. This treatment is targeted at restoring a mixed stand of softwood and hardwood. • Six Mile Lane Brook: Hardwood/softwood stand including 65-acre clear-cut plus 25-acre shelterwood on a ridge that includes natural regeneration. 2012 clear-cut followed by 2013 planting and 2014 herbicide application. Observed islands of retention and LWD scattered throughout the stand. This is an example of Outcome-Based Forestry implementation. • New culvert installation on newly established road. Traditional culvert correctly installed to allow passage of aquatic species. • St. Croix Bridge: 1,000-acre salvage in many stands resulting from September 2013 windstorm near PCT and other recent harvest areas. IWLLC sent staff out by helicopter 2 days following the storm to identify storm damage. This 150-acre aspen/softwood stand received a 2008 shelterwood harvest with successful natural regeneration and a 2013-14 salvage. No need or plans to plant. Salvage includes an observed SMZ along river where 40% of canopy was removed. Permit received for deviation to state requirements in PSL1 streamside area where it was not possible to retain ‘evenly distributed’ canopy. Not an excessively ‘cleaned’ operation; observed 20’ tall wind-snapped snags, tip-up mounds and a large volume of LWD distributed throughout area. Outcome-Based Forestry implementation. Elsewhere within the 1000-acre salvage, some mixed wood and softwood stands will be planted other acres will not be planted (depending on availability of natural regeneration); some small isolated patches of tolerant hardwood stands that lack regeneration may be planted. • St. Croix Siding: A block of recent salvage within an aspen/softwood stand that is part of the salvage project
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	<p>described above. Includes some natural regeneration (aspen, fir, spruce). This stand will probably be planted to supplement natural regeneration. Not an excessively ‘cleaned’ operation; observed 20’ tall wind-snapped snags, tip-up mounds and a large volume of LWD distributed throughout area. Outcome-Based Forestry implementation.</p> <ul style="list-style-type: none"> • Old St. Croix Road: A 70-acre strip of recent salvage along edge of stand that is part of the salvage project described above. Large WP observed retained along riparian area. Not an excessively ‘cleaned’ operation; snags and LWD observed throughout. • Matterson Pond 3A Road; Co-op and zoned deer wintering area salvaged during March 2014. Scattered blowdown salvage and deer yard enhancement project that retained cedar in the deer wintering area. Prescriptions include a matrix of 50-acre (cedar-softwood) final shelterwood removal and 160-acre (aspen-softwood) prescriptions including 50-acres of final shelterwood and 50 acres of shelterwood and 10 acres riparian area and 50 acres of selection harvest. Salvage operation extends right to route 11; aesthetic considerations along road observed. Abundant natural regeneration; no planting activities planned. Not an excessively ‘cleaned’ operation; snags and LWD observed throughout. Mature hemlock, white pine, larch, spruce, cedar, fir retained throughout.
Date Thursday, October 23	
FMU/Location/ sites visited	Activities/ notes
<p>7:30 AM – 2 PM Office: Ashland sawmill (Dann &Thompson)</p>	<ul style="list-style-type: none"> • Chain of Custody document review, observations and interviews. • Additional interviews and document review.
<p>Rocky Brook: 7:30 AM – 1:30 PM (Kittredge)</p>	<ul style="list-style-type: none"> • Observed North Main Woods gatehouse including security cameras. • Fox Brook Valley Cement Bridge: Observation of a bottomless culvert that was installed September 2014. This installation replaced dated culvert on a flashy stream and enhances in-stream movement for aquatic species. • Rocky Brook 21-mile: 2003 road construction project on steep slopes (up to 40% slope) includes broad base dips and open/effective side ditches and cross drains. • Rocky Brook 21-mile: Two steep slope harvest projects. (1) 2004 harvest includes excellent examples of islands of retention, snags, white pine and hardwoods retained throughout. Some of this area was planted with softwoods to supplement natural regeneration. (2) 2012 Final shelterwood removal in an 85-year old softwood/hardwood stand with natural regeneration with red spruce and a variety of other softwoods and hardwoods. This is an excellent example of the

	<p>use of silviculture to regenerate a stand and replace/reduce the need for planting and chemical applications. Grouse observed. Creative use of water diversion measures (brush mats) on now stable skid trails. Islands of retention, snags, white pine and hardwoods retained throughout.</p> <ul style="list-style-type: none"> • 7-mile Hugh’s Brook: Observed potential vernal pool. Biological activity checked once and not yet confirmed. Observed location by GPS receiver. Pool buffered from nearby harvest activity and part of GIS data layer. • 7-mile Hugh’s Brook; Huge sugar maple legacy tree observed. Tree is flagged with ‘Unique Area’ ribbon and part of GIS data layer. • 7-mile Hugh’s Brook: 65-acre (2011) final shelterwood removal with 20’ tall natural regeneration including softwoods and hardwoods (sugar maple pin cherry, yellow birch comprising 70% of regeneration as well as 30% beech). The original stand was 80% hardwood (50% beech) and 20% spruce/fir. Excellent example of hardwood restoration and improvement. • ITS 85 north: new snowmobile trail location by IWLLC eliminates the need for machine operators to cross the lake in an effort to improve the safety for recreational users. • Rocky Brook JD Irving Logging Camp: Camp property used as a check-point for dog-sled races each year (described - not observed).
3- 5 PM Stakeholder interviews (Kittredge)	<ul style="list-style-type: none"> • Stakeholder interviews off-site.
3 – 4 PM	Auditors travel to Presque Isle for lodging, deliberations.
4 - 11 PM Presque Isle ME (Dann, Kittredge, Leahy, Thompson)	Auditor deliberations
Date Friday, October 24	
FMU/Location/ sites visited*	Activities/ notes
Cavendish Agri Services Conference Room; Presque Isle ME 9-9:30 AM	Auditors prepare for closing meeting
10 AM	Closing Meeting and Review of Findings: Convene with all relevant staff to summarize audit findings, potential non-conformities and next steps

3.1.2 Total Time Spent on Evaluation

A. Number of days spent on-site assessing the applicant:	5
B. Number of auditors participating in on-site evaluation:	3
C. Additional days spent on preparation, stakeholder consultation, and post-site follow-up:	5
D. Total number of person days used in evaluation:	20

3.1.3 Evaluation Team

Auditor Name:	Anne Marie Kittredge	Auditor role:	Lead Auditor
Qualifications:	Anne Marie Kittredge is a FSC/PEFC/SFI lead auditor (COC/FM) based in Southern New England. Anne Marie has > 20 years of experience as a natural resources manager, has been auditing since 2008 and authored > 500 audit reports. Anne Marie completed a 3-day ISO 19011 training designed & presented in relation to the FSC Standards and earned both MS and BS in Forestry from the University of Massachusetts - Amherst.		
Auditor Name:	Mike Dann	Auditor role:	Auditor
Qualifications:	Mike Dann is a Lead Forest Management and Chain-of-Custody auditor for SCS from Dixmont, Maine. He earned a BS in Forest Management from the University of Maine Orono and is a Licensed Forester in Maine. He has completed a 3-day ISO 19011 training designed & presented in relation to the FSC Standards, a 3 day SCS training for Forest Management auditors and other SCS in-house training courses. He has conducted multiple FSC forest management and COC audits. He worked 36 years, the last 15 as Woodlands Manager, for Seven Islands Land Company, and more recently, 4 years for the Small Woodland Owners Association of Maine.		
Auditor Name:	Jessica Leahy	Auditor role:	Auditor, Stakeholder Consultant
Qualifications:	Jessica Leahy is an auditor for SCS from Orono, ME. She earned a BS in Forest Recreation Resources and an MS in Forest Resources with a minor in Environmental and Resource Economics both from Oregon State University. Her PhD is in Natural Resources Science and Management with an option in Economics, Policy, Management & Society from the University of Minnesota. She has attended both ISO19011 training as well as FSC auditing training from SCS. Dr. Leahy has worked for 8 years as a professor in the School of Forest Resources at the University of Maine. She is actively involved in the Society of American Foresters at the state, regional, and national level. She also serves on the Boards of the Northeastern Master Logger Certification program and Small Woodland Owners Association of Maine. Dr. Leahy has participated in FM audits since 2006, which have certified nearly 4 million acres of public forestland and 2 million acres of private forestland.		
Auditor Name:	Michael Thompson	Auditor role:	Auditor
Qualifications:	Mr. Thompson is the President of <i>Penobscot Environmental Consulting, Inc.</i> , 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 throughout the U.S. and Canada. He was a member of the FSC's Northeast Region Standards Working Group and he 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 forest ecology program. Mr. Thompson has over 30 years of experience in forest ecology, wildlife management, wetland science, and rare species conservation.		

3.2 Evaluation of Management System

3.2.1 Methodology and Strategies Employed

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.

3.2.2 Pre-evaluation

- A pre-evaluation of the FME *was not* required by FSC norms.
- A pre-evaluation of the FME was conducted as required by and in accordance with FSC norms.

3.3 Stakeholder Consultation Process

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 the pre-evaluation (if one was conducted), 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:

3.3.1 Stakeholder Groups Consulted During Evaluation for Certification

FME Management and staff	Pertinent Tribal members and/or representatives
Consulting foresters	Members of the FSC National Initiative
Contractors	Members of the regional FSC working group
Lease holders	FSC International

Adjacent property owners	Local and regionally-based environmental organizations and conservationists
Local and regionally-based social interest and civic organizations	Forest industry groups and organizations
Purchasers of logs harvested on FME forestlands	Local, state, and federal regulatory agency personnel
Recreational user groups	Other relevant groups

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. A public notice was sent to stakeholders at least 6 weeks prior to the audit notifying them of the audit and soliciting comments. 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.

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

Stakeholder Comments	SCS Response
Economic Concerns	
Rates are not good enough to cover all the costs like fuel, repairs, etc.	The audit team did not find any evidence to support these comments. On each active harvest operation, current operators were interviewed and most expressed overall satisfaction with the current system; interviews specifically covered the following subjects: contract satisfaction, contract details, rate adjustment, re-negotiation of rates mid-contract, and equipment ownership. Stakeholders and current operators state that recent management changes have improved these conditions.
Contractors have had to push hard for re-evaluation of the rate setting agreement.	
IWLLC rates are too low and will not re-negotiate more than once a year.	
IWLLC will not tell truckers the road toll rates until after the fact.	
IWLLC will co-sign loans on equipment and pull the equipment if you disagree with them.	
IWLLC will buy the equipment and lease to contractors. They allow contractors to return the equipment if the contractor wants to quit, but they end up providing free labor.	
IWLLC’s bonus system hurts people not willing to work 7 days a week.	
IWLLC’s pro forma is based on productive hours, which are hard	

<p>to meet, especially when a machine goes down. When people have breakdowns, then they have to make up time on the weekends, missing things like birthday parties and family time.</p>	
<p>IWLLC's contracts are too long and complicated.</p>	
<p>Prices are not held after the contract is signed with contractors.</p>	
<p>IWLLC takes advantage of a captive labor market where workers have no ability to go elsewhere.</p>	<p>As confirmed through document review, observations and interviews, other major forest management companies operate in the same areas that IWLLC operates and a state-wide shortage of qualified forest workers exists (www.maine.gov/labor/Templates/news).</p>
<p>I am extremely impressed with Irving's investments every year here in Maine. They use their resources wisely and invest heavily in our forests and in state of the art manufacturing in Aroostook.</p>	<p>Noted as evidence of conformance.</p>
<p>They are willing to invest in the future of their forests.</p>	
<p>Social Concerns</p>	
<p>IWLLC is very demanding of their field staff, such that long hours are required for the foresters to meet their assigned responsibilities.</p>	<p>A large sample of field staff was interviewed and expressed satisfaction with the system; interviews specifically covered these subjects with no suggestion of dissatisfaction.</p>
<p>Use of night shifts has a significant impact on workers.</p>	
<p>Contractors like being able to go home at night and not stay in a logging camp.</p>	
<p>Contractors and their equipment are pushed too hard to work long hours to meet production goals.</p>	
<p>They are great neighbors in that they maintain the logging roads and allow hunters and camp owners access to them on a continuous basis.</p>	<p>Noted as evidence of conformance.</p>
<p>IWLLC actively participates in</p>	

<p>activities and actions that support recreation users and the tourism industry.</p>	
<p>IWLLC is great working with the public.</p>	
<p>IWLLC participates in public education activities.</p>	
<p>Sporting camps appreciate the use of land for hunting grounds.</p>	
<p>IWLLC does not meet any of the indicators in Principle 4.</p>	<p>Principle 4 was specifically reviewed by the audit team; IWLLC was found to be in overall conformance with Principle 4.</p> <p>Interviews and review of the IWLLC’s 2014 Approved Contract, Base Wage Matrix, Mechanics Pay Skill Matrix and the Harvesting Alignment Scorecard confirm that salaries and benefits meet or exceed those offered by other area companies. Foresters described satisfaction with high-quality jobs. Interviews and review of the IWLLC 2014 Approved Contract, Discrimination, Workplace Violence and Harassment in the Workplace.pdf and informational posters observed in the various offices confirms that details of the company’s equal opportunity statement, harassment policy and federal, state and local regulations have been implemented.</p> <p>IWLLC participates in local communities, hires local contractors and employees. IWLLC is a generous in its support to ~ 22 different groups including for example Boy Scouts, Fort Kent Elementary School, the United Way and Northern Maine Development Commission.</p> <p>Active use of safety measures by employees was observed including for example seat belts, hard hats and CB radio use on gravel roads. A sample of timber harvest contracts was reviewed; each includes a section that describes safety requirements. Timber harvest contractors were observed and interviewed and each has been trained to safely implement the prescription. Each operator uses relevant PPE.</p> <p>Interviews with management, staff and contractors confirm that employees and contractors are free to associate. The J.D. Irving, Limited Head office legal staff developed and implemented an ILO policy. IWLLC employees were consistent in their description of the effectiveness of the process for informal and formal resolution of disputes, including a variety of culturally sensitive options.</p> <p>The social impacts are summarized in the 2014 Outcome Based Public Monitoring Summary (p1) and the 2013-2037 Forest Management Plan (p 57). IWLLC co-operates in a variety of ways to avoid negative impacts of management activities on camp leases and guiding business. Examples include harvest or trucking timing restrictions and the effective use of gates to control unauthorized access.</p> <p>IWLLC maintains open communication with adjacent landowners, logging contractors and owners of a shared road system.</p>

	Stakeholders noted strong support for recreation use including for example snowmobile trails that supports sporting lodges in the local area.
IWLLC does not allow people to organize.	The J.D. Irving, Limited Head office legal staff developed and implemented an ILO policy that was reviewed and is in conformance with indicator 4.3.a. A sample of current operators and field staff were interviewed and expressed satisfaction with the system; interviews specifically covered this subject with no suggestion of dissatisfaction.
IWLLC has actively opposed efforts to allow collective bargaining.	
IWLLC has not contacted all tribes in Maine that have ties to their land.	See CAR 2014.1 .
IWLLC has a commitment and support for annual safety training for migrant forestry workers that is commendable.	Noted as evidence of conformance.
Irving’s lack of membership and participation in regional forest industry associations leaves a void in the industry as well as missing benefits for their team.	As confirmed through interviews and document review, IWLLC is an active member of North Maine Woods, the Cooperative Forestry Research Unit, Maine Forest Products Council, and SFI SIC.
IWLLC has been good to work with on cooperative projects, such as bridges, shared roads, and other projects.	Noted as evidence of conformance.
We work closely on road access opportunities and road maintenance which has worked well.	
IWLLC maintains good relationships with adjacent landowners such as splitting costs on shared boundary line maintenance.	
IWLLC is an active member of North Maine Woods, the Cooperative Forestry Research Unit, Maine Forest Products Council, and SFI SIC.	
Interactions with IWLLC representatives are professional and positive.	Noted as evidence of conformance.
IWLLC will be honored as the Maine corporate landowner of the year by IF&W after being nominated by several land user organizations in northern Maine.	Noted as evidence of conformance.

<p>IWLLC will not negotiate with groups, associations or organizations.</p>	<p>As confirmed through interviews and document review, IWLLC is an active member of North Maine Woods, the Cooperative Forestry Research Unit, Maine Forest Products Council and SFI SIC. A variety of stakeholders including for example Maine Forest Service, Inland Fisheries and Wildlife, adjacent landowners and recreational users confirm that relationships with IWLLC are positive. A sample of current operators and field staff were interviewed and expressed satisfaction with the system; interviews specifically covered this subject with no indication of a lack of willingness to negotiate.</p>
<p>IWLLC does not involve the public - the public involvement process is not there, leading to a cozy relationship with the Maine state government.</p>	<p>IWLLC maintains open communication with adjacent landowners, logging contractors and owners of a shared road system. Stakeholders noted strong support for recreation use including for example snowmobile trails that supports sporting lodges in the local area. IWLLC’s public advisory committee includes invitations to representatives of the following types of groups: municipal government; non-timber user (outfitters, craft users, cottage industry, etc.); Chamber of Commerce or Economic Development; harvesting and/or transportation contractor representation; woods worker representation; mill worker representation; woodlot owner representation; environmental advocacy group; nature organization (naturalists, birdwatchers, etc.); camp owner representation; recreational user representation (ATV, snowmobile, fisherman, hunters, etc.); youth organization representation (4H, Scouts, School Clubs, etc.); school guidance counselor; service groups(Rotary, Women’s Auxiliary, Church, etc.).</p>
<p>I am extremely impressed with Irving’s Silvicultural practices.</p>	<p>Noted as evidence of conformance.</p>
<p>Environmental Concerns</p>	
<p>IWLLC has no regulatory violations.</p>	<p>Noted as evidence of conformance.</p>
<p>IWLLC has consulted with experts about old growth and HCVF.</p>	<p>Noted as evidence of conformance.</p>
<p>IWLLC allows natural community surveys.</p>	
<p>IWLLC consults with experts about invasive plants.</p>	
<p>IWLLC respect the regulatory system, and are quite good with water quality BMPs.</p>	
<p>IWLLC consults with IF&W on deer wintering areas, incorporating recommendations. IWLLC is one of the best landowners in working with deer yards.</p>	

<p>IWLLC seeks the input of experts on lake development concept plans.</p>	<p>Noted as evidence of conformance. Note: interviews with IWLLC management and document review confirm that development plans have been considered in the recent past, but not implemented.</p>
<p>IWLLC contributes to broad landscape diversity, even though it reduces meso-scale diversity.</p>	<p>Noted as evidence of conformance. Note: the meso-scale subject may be addressed as stands become less fragmented and stands are returned to a more natural size and composition.</p>
<p>IWLLC has plans to convert forestland to other uses such as mining and development.</p>	<p>Interviews with IWLLC management and document review confirm that development/conversion plans have been considered in the recent past, but not implemented.</p>
<p>IWLLC is probably careful with the actual zoned DWAs, but in the past they have cut heavily up to the zoned boundary, creating cover “islands” of less usefulness to the critters.</p>	<p>The audit team reviewed zoned and co-operative DWAs and documentation from biologists to confirm that IWLLC’s practices are in conformance with prescriptions from biologists.</p>
<p>GPS use is nice and foresters are always ahead of the contractors on layout.</p>	<p>Noted as evidence of conformance.</p>
<p>IWLLC is starting to flatten land any way they want.</p>	<p>The audit team reviewed a variety of silvicultural prescriptions distributed across the landscape. Management practices are in conformance with the management plan and the requirements of this standard.</p>
<p>IWLLC has large clear-cuts everywhere.</p>	<p>The audit team reviewed the use of clear-cutting and found that clear-cut size is in conformance with Forest Practices Act and Outcome-Based Forestry. While OBF has been criticized for allowing larger clear-cut sizes, IWLLC’s largest clear-cut occurred in the past under FPA (not OBF). Clear-cut use on this ownership is in conformance with the management plan and the requirements of this standard including requirements for retention as described elsewhere in this report. Over the next 10 years, the management plan describes the use of clear-cutting as targeted to either pre-commercially thinned natural stands that are dominated by balsam fir (often in anticipation of a spruce budworm outbreak), or toward poor quality spruce stands.</p> <p>One wind-storm last year, blew down 1,000 acres within IWLLC’s ownership, most of which have been salvaged as a variety of blocks. The audit team compared the resulting salvage area block sizes to non-salvage clear-cut block sizes and found no obvious difference between the block sizes. Salvage clear-cut block sizes appear to resemble silvicultural clear-cut block size; both include diverse elements of retention.</p>
<p>Size of clear-cuts are not called for biologically.</p>	
<p>To my knowledge, this is the best program in the state and I’d definitely classify it as a “Best Practice”. I know many of their managers and can attest to their disciplined approach and</p>	<p>Noted as evidence of conformance.</p>

<p>attention to detail in virtually every aspect of Forest Management.</p>	
<p>Everything IWLLC is doing [forest management] makes sense and they are doing the right thing for the forest.</p>	
<p>Hardwood ridges are being flattened and planted to spruce/fir – it’s not what Mother Nature intended.</p>	<p>Interviews and observations confirm that the practice of planting softwoods on good tolerant hardwood sites is not appropriate and is not occurring. Hardwood sites that were observed and planted were slivers of a stand type next to a larger, appropriate block, and/or these sites contained a diseased beech component. In some cases these pure hardwood stands exist as a result of the past lack of hardwood markets and as the result of the removal of spruce and other softwoods from what was previously a mixed hardwood-softwood stand; in these cases the addition of softwood species through planting enhances stand conditions. The audit team visited multiple sites where quality hardwood stands are being managed with a shelterwood or uneven-aged systems and including natural regeneration.</p> <p>A review of the 2013-2037 Forest Management Plan and a discussion of the allowable cut calculations with IWLLC staff show that softwood growing stock (overall) fluctuates less than 1% between 5-year planning periods in the short-term (10 years) before increasing. Hardwood growing stock decreases about 10% in the short-term (10 years) before beginning to increase. Any short-term decline in growing stock is offset by the long-term improvement in species composition and stand quality. See OBS 2014.3.</p>
<p>IWLLC is doing pre-salvage activities in the name of spruce budworm which is an excuse to overharvest above and beyond growth models.</p>	
<p>IWLLC has an improper imbalance in their growth to cut rate both in terms of volume and area.</p>	<p>Over the next 10 years, the management plan describes the use of clear-cutting as targeted to either pre-commercially thinned natural stands that are dominated by balsam fir, or to poor quality spruce stands.</p> <p>A review of the 2013-2037 Forest Management Plan and a discussion of the allowable cut calculations with IWLLC staff show that softwood growing stock (overall) fluctuates less than 1% between 5-year planning periods in the short-term (10 years) before increasing. Hardwood growing stock decreases about 10% in the short-term (10 years) before beginning to increase. Any short-term decline in growing stock is offset by the long-term improvement in species composition and stand quality.</p>
<p>IWLLC is cutting any remaining late successional forests (which are in small acreage patches).</p>	<p>IWLLC maintains an explicit late successional program that has been designed to address under-represented successional stages. Late successional stands are explicitly identified in the GIS system, are distributed across the landscape and represent about 10% of the FMU.</p> <p>As confirmed through interviews, observations and document review, staff have been trained in this area and at least one staff</p>
<p>IWLLC is not paying sufficient attention to late successional lichens, moss, etc. and these are being eliminated from the</p>	

northern forest landscape.	person per region demonstrated a working knowledge and interest in the identification and protection of unique species of lichens and moss.
IWLLC is cutting separation zones which contain small patches of late successional forests, legacy trees, and are negatively impacting wildlife and biodiversity through connectivity issue.	IWLLC staff have been re-trained recently and excel in the area of legacy tree identification; management initiated a Legacy Tree Contest, including cash prizes and in return for this creative effort, legacy trees continue to be documented by staff throughout the ownership.
Conversion to plantations is occurring.	While IWLLC has implemented a planting program, the planted acres do not qualify as ‘plantations’ under the FSC standard. This topic was explicitly investigated by the audit team. As confirmed through document review and observations, IWLLC’s management program relies primarily on natural regeneration strategies for 85% of the annual regeneration harvest activities (clear-cuts and over story removal); supplemental plantings also occur in uneven-aged harvests. The sum of all acres that have been planted is 63,700 acres (5.2% of the ownership). Under the current plan, in 2032, 11% of the land base will be planted. A variety of softwoods (spruces and white pine) that are well-suited to the sites are planted; virtually all planted sites that were visited by the audit team and that are >5 years old, also include hardwood and softwood natural regeneration.

4. Results of The Evaluation

Table 4.1 below, contains the evaluation team’s findings as to the strengths and weaknesses of the subject forest management operation relative to the FSC Principles of forest stewardship. Weaknesses are noted as Corrective Action Requests (CARs) related to each principle.

4.1 Notable Strengths and Weaknesses of the FME Relative to the FSC P&C.

Principle / Subject Area	Strengths Relative to the Standard	Weaknesses Relative to the Standard
P1: FSC Commitment and Legal Compliance	<ul style="list-style-type: none"> Outstanding issues or a pattern of non-compliance were checked and not found. Stakeholders report high-level of legal conformance. Unauthorized activities are controlled. 	
P2: Tenure & Use Rights & Responsibilities	<ul style="list-style-type: none"> Public access is allowed for a variety of recreational activities. Legal rights to company lands are clearly established; boundaries are well marked and road are signed. 	

<p>P3: Indigenous Peoples' Rights</p>	<ul style="list-style-type: none"> • IWLLC and Tribal representatives are currently co-operating in association with permits to harvest black ash for weaving and in association with 1 Tribe for the protection of a special site. • Field staff have knowledge of archeological and cultural sites and take appropriate efforts to protect these sites during management operations. 	<p>See 2014.1</p>
<p>P4: Community Relations & Workers' Rights</p>	<ul style="list-style-type: none"> • Stakeholders describe a high-level of satisfaction with IWLLC's cooperation with adjacent neighbors, shared roads, local economic development and civic activities. 	
<p>P5: Benefits from the Forest</p>	<p>IWLLC's implements progressive use of state-of-the-art technology including the use of:</p> <ul style="list-style-type: none"> • LiDAR and • GPS receivers in timber harvesting machines and hand-held GPS units. 	
<p>P6: Environmental Impact</p>	<ul style="list-style-type: none"> • IWLLC staff have been re-trained recently and excel in the area of legacy tree identification. • Management is to be commended for training staff and initiating a Legacy Tree Contest including cash prizes. In response to this creative effort, legacy trees continue to be documented by staff throughout the ownership. • Effective use of GIS database allows initial screening for sensitive areas and soil conditions. • Harvest contractors are provided with GPS receivers that are used to identify boundaries of harvest areas and sites to be protected. • Rare communities and unique stand types have been reserved. • Standards for in-stand habitat 	<p>See 2014.2 See 2014.3 See 2014.4 (closed) See 2014.5</p>

	<p>features are included in the management plan and implemented during forest harvest activities.</p> <ul style="list-style-type: none"> • Non-native invasive species are not common. 	
P7: Management Plan	<ul style="list-style-type: none"> • Staff and contractors are well-trained, participate actively in continuing educational activities and are exceptionally well-qualified to implement the plan. 	See 2014.6
P8: Monitoring & Assessment	<ul style="list-style-type: none"> • Careful records are maintained of harvest volumes and insect/pest/weather related losses. • Monitoring activities take place continually and are routinely incorporated into the allowable harvest calculations. • Supervision and post-harvest close-out activities are effective and constitute a form of monitoring that is responsive to this criterion. 	
P9: High Conservation Value Forests	<ul style="list-style-type: none"> • IWLLC takes a conservation approach to management in areas of high conservation value including for example softwood cover important as cover for deer, habitat for Canada lynx and riparian habitat along streams, rivers, lakes, and ponds. 	
Chain of custody	<ul style="list-style-type: none"> • Staff are aware of the COC requirements; tracking records are complete. 	

4.2 Process of Determining Conformance

4.2.1 Structure of Standard and Degrees of Nonconformance

FSC-accredited forest stewardship standards consist of a three-level hierarchy: principle, the criteria that correspond to that principle, and the performance indicators that elaborate each criterion. Consistent with SCS Forest Conservation Program evaluation protocols, the team collectively determines whether or not the subject forest management operation is in conformance with every applicable indicator of the relevant forest stewardship standard. Each nonconformance must be evaluated to determine whether it constitutes a major or minor nonconformance at the level of the associated criterion or sub-criterion.

Not all indicators are equally important, and there is no simple numerical formula to determine whether an operation is in nonconformance. The team therefore must use their collective judgment to assess each criterion and determine if the FME is in conformance. If the FME is determined to be in nonconformance at the criterion level, then at least one of the applicable indicators must be in major nonconformance.

Corrective action requests (CARs) are issued for every instance of a nonconformance. Major nonconformances trigger Major CARs and minor nonconformances trigger Minor CARs.

4.2.1 Interpretations of Major CARs, Minor CARs and Observations

Major CARs: Major nonconformances, either alone or in combination with nonconformances of all other applicable indicators, result (or are likely to result) in a fundamental failure to achieve the objectives of the relevant FSC Criterion given the uniqueness and fragility of each forest resource. These are corrective actions that must be resolved or closed out before a certificate can be awarded. If Major CARs arise after an operation is certified, the timeframe for correcting these nonconformances is typically shorter than for Minor CARs. Certification is contingent on the certified FME’s response to the CAR within the stipulated time frame.

Minor CARs: These are corrective action requests in response to minor nonconformances, which are typically limited in scale or can be characterized as an unusual lapse in the system. Most Minor CARs are the result of nonconformance at the indicator-level. Corrective actions must be closed out within a specified time period of award of the certificate.

Observations: These are subject areas where the audit team concludes that there is conformance, but either future nonconformance may result due to inaction or the FME could achieve exemplary status through further refinement. Action on observations is voluntary and does not affect the maintenance of the certificate. However, observations can become CARs if performance with respect to the indicator(s) triggering the observation falls into nonconformance.

4.2.2 Major Nonconformances

<input checked="" type="checkbox"/>	No Major CARs were issued to the FME during the evaluation. Any Minor CARs from previous surveillance audits have been reviewed and closed prior to the issuance of a certificate.
<input type="checkbox"/>	Major CARs were issued to the FME during the evaluation, which have all been closed to the satisfaction of the audit team and meet the requirements of the standards. Any Minor CARs from previous surveillance audits have been reviewed and closed prior to the issuance of a certificate.
<input type="checkbox"/>	Major CARs were issued to the FME during the evaluation and the FME has not yet satisfactorily closed all Major CARs.

4.2.3 Existing Corrective Action Requests and Observations

Finding Number: 2013-1	
Select one: <input type="checkbox"/> Major CAR <input type="checkbox"/> Minor CAR <input checked="" type="checkbox"/> Observation	
FMU CAR/OBS issued to (when more than one FMU):	
Deadline	<input type="checkbox"/> Pre-condition to certification <input type="checkbox"/> 3 months from Issuance of Final Report <input checked="" type="checkbox"/> Next audit (surveillance or re-evaluation) <input type="checkbox"/> Other deadline (specify):
FSC Indicator:	FSC-US Forest Management Standard V1-0 6.3.f.
Non-Conformity: Field visit to T16R8 1 st &2 nd Wallagrass Lakes site showed that there were tertiary cohorts of spruce and cedar that potentially met the JDI definition of Legacy Trees. Some of these trees had been harvested and several outstanding examples had been retained. On-site discussion with JDI staff and the auditors concluded that while a change in the definition to answer Observation 2012-2 had occurred and foresters were aware of it, further training would improve consistency in application of the policy.	
Corrective Action Request: JDI should conduct further training on Legacy Tree identification to improve consistency in application of their new policy.	
FME response <i>(including any evidence submitted)</i>	
SCS review	This area of potential weakness was assessed again this year and has been determined to be an area of strength. As confirmed through training record review, management re-trained staff and designed and initiated a Legacy Tree Contest, including cash prizes. As confirmed through field observations, GPS layer demonstrations, and interviews, in response to this creative effort, legacy trees continue to be documented by staff throughout the ownership.
Status of CAR:	<input checked="" type="checkbox"/> Closed <input type="checkbox"/> Upgraded to Major <input type="checkbox"/> Other decision (refer to description above)

Finding Number: 2013-2	
Select one: <input type="checkbox"/> Major CAR <input type="checkbox"/> Minor CAR <input checked="" type="checkbox"/> Observation	
FMU CAR/OBS issued to (when more than one FMU):	
Deadline	<input type="checkbox"/> Pre-condition to certification <input type="checkbox"/> 3 months from Issuance of Final Report <input checked="" type="checkbox"/> Next audit (surveillance or re-evaluation) <input type="checkbox"/> Other deadline (specify):
FSC Indicator:	FSC-US Forest Management Standard V1-0 7.1.c
Non-Conformity: Discussion of desired future conditions of timber and non- timber resources in the <u>2013 – 2037 Forest Management Plan J.D. Irving Northern Maine Woodlands</u> is cursory and not cross referenced to other documents which contain the full details of the topics.	
Corrective Action Request: A more thorough cross referencing of all policy documents with the Forest	

Management Plan would improve comprehension and readability.	
FME response <i>(including any evidence submitted)</i>	JD Irving created a spreadsheet that cross-references the various JD Irving planning and monitoring documents to enhance auditor review for conformance to the indicators of this standard. JDI-FSC US Standard crosswalk 2014.xls was received and reviewed by the audit team and assessed to be an improvement to the planning and audit process.
SCS review	
Status of CAR:	<input checked="" type="checkbox"/> Closed <input type="checkbox"/> Upgraded to Major <input type="checkbox"/> Other decision (refer to description above)

4.2.4 New Corrective Action Requests and Observations

Finding Number: 2014.1	
Select one: <input type="checkbox"/> Major CAR <input checked="" type="checkbox"/> Minor CAR <input type="checkbox"/> Observation	
FMU CAR/OBS issued to (when more than one FMU):	
Deadline	<input type="checkbox"/> Pre-condition to certification <input type="checkbox"/> 3 months from Issuance of Final Report <input checked="" type="checkbox"/> Next audit (surveillance or re-evaluation) <input type="checkbox"/> Other deadline (specify):
FSC Indicator:	FSC US Forest Management Standard, V1-0, 3.3.a
Non-Conformity (or Background/ Justification in the case of Observations): The Penobscot Nation have no record of being consulted in association with the specific requirements of this indicator and IWLLC did not present evidence to the contrary. While contact has been established with 2 Tribes in conformance with this indicator, and with all Tribes in association to basket weaving interests, interviews confirm that this certificate holder and some of the tribal representatives continue to struggle during these early stages of these relationships. Some important stakeholder feedback indicates that IWLLC could do more to promote a working relationship with tribal representatives through culturally sensitive methods and to ensure that actions are taken so that forest management does not adversely affect tribal resources.	
Corrective Action Request (or Observation): IWLLC shall invite consultation with tribal representatives in identifying sites of current or traditional cultural, archeological, ecological, economic or religious significance.	

<p>FME response <i>(including any evidence submitted)</i></p>	<p>Excerpted from several email texts with individual names removed:</p> <p>“...I just got your message on 3.3.a and am quite concerned about the transformation of this finding. I have taken this one very seriously and had quite in depth discussions with [representative]... on this one from the onset to the present to insure I was covering the bases (<i>sic</i>). We had discussions about the appropriateness of who we should be in contact with and based on those discussions and discussions with folks within the local tribes we reached out to the Micmacs and Maliseets. We have worked hard to build a relationship and have always been available for any request. For example, I was approached this summer by ... currently a grad student at Orono, about the feasibility of supporting a study of Black Ash in the North Woods. Her hope is that her learning from that study can be a benefit to all of the tribes of Maine as well as the Maine Indian Basketmakers Alliance which includes the Micmacs, Maliseets, Penobscots and Passamaquoddys. We had representatives from both the Maliseets and Micmacs as well as interested folks from the Penobscots present at that meeting. The meeting went very well and everyone was appreciative of our support and its potential to aid the Maine Indian Basketmakers Alliance (also present). (Representative) discussed the availability of permits for harvesting Ash, and I let folks know that the permits could be made available to all parties at the meeting. Ash is a hot topic for folks as the resource is under threat by the EABorer and the folks within the Maine Indian Basketmakers Alliance have a hard time finding places to acquire it. There were no other concerns raised at the meeting. Very positive.”</p> <p>“.... this shows we have made contact, and invited the Penobscots to access traditional Ash sites that are very important to them... even offered permits for them to acquire ash for their traditional needs from these sites. As (representative) noted, there were no other concerns at the meeting. This interaction should keep this finding as an Observation. To be a nonconformance it would need to be clear that we had no contact or consultation; that is not the case....”</p>
<p>SCS review</p>	<p>See text of the original finding above. Basket weaving interests may represent a portion of the requirements of this indicator; however, the Penobscot Nation report that they have no record of being invited to consult in the identification of sites of archeological, ecological, economic or religious significance. Documentation of a formal communication from IWLLC that invites consultation with each of the tribal representatives in identifying sites of current or traditional cultural, archeological, ecological, economic or religious significance is still lacking. (Note: letters of invitation to 2 Tribes have been reviewed and accepted as evidence of partial conformance).</p>
<p>Status of CAR:</p>	<p><input type="checkbox"/> Closed</p> <p><input type="checkbox"/> Upgraded to Major</p> <p><input checked="" type="checkbox"/> <i>Other decision (refer to description above)</i></p>

Finding Number: 2014.2			
Select one:	<input type="checkbox"/> Major CAR	<input type="checkbox"/> Minor CAR	<input checked="" type="checkbox"/> Observation

FMU CAR/OBS issued to (when more than one FMU):	
Deadline	<input type="checkbox"/> Pre-condition to certification <input type="checkbox"/> 3 months from Issuance of Final Report <input checked="" type="checkbox"/> Next audit (surveillance or re-evaluation) <input type="checkbox"/> Other deadline (specify):
FSC Indicator:	FSC US Forest Management Standard, V1-0, 6.3.a.1
Non-Conformity (or Background/ Justification in the case of Observations): IWLLC has not explicitly identified large blocks of un-fragmented forest interior habitat. (i.e., assess the presence and distribution of areas that are large enough to contain blocks of forest that are not materially influenced by edge-effects associated with roads and other fragmenting features.)	
Corrective Action Request (or Observation): IWLLC should document more explicitly that it maintains, enhances, and/or restores under-represented successional stages in the FMU that would naturally occur on the types of sites found on the FMU, specifically large block of un-fragmented forest interior habitat.	
FME response (including any evidence submitted)	
SCS review	
Status of CAR:	<input type="checkbox"/> Closed <input type="checkbox"/> Upgraded to Major <input type="checkbox"/> Other decision (refer to description above)

Finding Number: 2014.3	
Select one: <input type="checkbox"/> Major CAR <input type="checkbox"/> Minor CAR <input checked="" type="checkbox"/> Observation	
FMU CAR/OBS issued to (when more than one FMU):	
Deadline	<input type="checkbox"/> Pre-condition to certification <input type="checkbox"/> 3 months from Issuance of Final Report <input checked="" type="checkbox"/> Next audit (surveillance or re-evaluation) <input type="checkbox"/> Other deadline (specify):
FSC Indicator:	FSC US Forest Management Standard, V1-0, 6.3.d
Non-Conformity (or Background/ Justification in the case of Observations): White pine and red spruce are recognized as species that are under-represented in this landscape and efforts to conserve/enhance these species' distributions were observed. However, IWLLC could explicitly articulate a goal of maintaining these species in naturally established stands across the landscape. IWLLC could attempt to identify other species such as yellow birch that are not well-represented in this landscape.	
Corrective Action Request (or Observation): IWLLC should ensure that management practices maintain or enhance plant species composition, distribution and frequency of occurrence similar to those that would naturally occur on the site, particularly for white pine and red spruce.	
FME response (including any evidence submitted)	
SCS review	

Status of CAR:	<input type="checkbox"/> Closed <input type="checkbox"/> Upgraded to Major <input type="checkbox"/> <i>Other decision (refer to description above)</i>
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Finding Number: 2014.4	
Select one: <input type="checkbox"/> Major CAR <input type="checkbox"/> Minor CAR <input checked="" type="checkbox"/> Observation	
FMU CAR/OBS issued to (when more than one FMU):	
Deadline	<input type="checkbox"/> Pre-condition to certification <input type="checkbox"/> 3 months from Issuance of Final Report <input checked="" type="checkbox"/> Next audit (surveillance or re-evaluation) <input type="checkbox"/> Other deadline (specify):
FSC Indicator:	FSC US Forest Management Standard, V1-0, 6.4.b
Non-Conformity (or Background/ Justification in the case of Observations): IWLLC completed the RSA exercise. However, the areas intended to be RSAs as described by staff during interviews appear as listings within the Unique Areas data layer but are not explicitly designated as RSAs.	
Corrective Action Request (or Observation): Where existing areas within the landscape, but external to the FMU, are not of adequate protection, size, and configuration to serve as representative samples of existing ecosystems, forest owners or managers, whose properties are conducive to the establishment of such areas must designate ecologically viable RSAs to serve these purposes.	
FME response (including any evidence submitted)	Updates were made to RSA layer in the relevant database during the course of the audit.
SCS review	IWLLC added a designation of 'RSA' to each of relevant systems in the GIS database. The database was presented to the audit team before the field audit was completed and before this report was completed and submitted to SCS Global services.
Status of CAR:	<input checked="" type="checkbox"/> Closed <input type="checkbox"/> Upgraded to Major <input type="checkbox"/> <i>Other decision (refer to description above)</i>

Finding Number: 2014.5	
Select one: <input type="checkbox"/> Major CAR <input type="checkbox"/> Minor CAR <input checked="" type="checkbox"/> Observation	
FMU CAR/OBS issued to (when more than one FMU):	
Deadline	<input type="checkbox"/> Pre-condition to certification <input type="checkbox"/> 3 months from Issuance of Final Report <input checked="" type="checkbox"/> Next audit (surveillance or re-evaluation) <input type="checkbox"/> Other deadline (specify):
FSC Indicator:	FSC US Forest Management Standard, V1-0, 6.9.b

Non-Conformity (or Background/ Justification in the case of Observations): 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; <i>Thompson, N. Norway Spruce (Picea abies) Regeneration in Central and Northern Maine</i>). IWLLC should consider repeating this monitoring effort.	
Corrective Action Request (or Observation): IWLLC should periodically monitor the establishment and abundance of Norway spruce seedlings outside the planted footprint.	
FME response (including any evidence submitted)	
SCS review	
Status of CAR:	<input type="checkbox"/> Closed <input type="checkbox"/> Upgraded to Major <input type="checkbox"/> Other decision (refer to description above)

Finding Number: 2014.6	
Select one: <input type="checkbox"/> Major CAR <input checked="" type="checkbox"/> Minor CAR <input type="checkbox"/> Observation	
FMU CAR/OBS issued to (when more than one FMU):	
Deadline	<input type="checkbox"/> Pre-condition to certification <input type="checkbox"/> 3 months from Issuance of Final Report <input checked="" type="checkbox"/> Next audit (surveillance or re-evaluation) <input type="checkbox"/> Other deadline (specify):
FSC Indicator:	FSC US Forest Management Standard, V1-0, 7.1.b and 7.1.c and 7.1.e
Non-Conformity (or Background/ Justification in the case of Observations): The 2013-2037 Forest Management Plan briefly summarizes some aspects of the history of the FMU. However, for example, the management plan text (or associated documents) do not include a description of how spruce budworm and the subsequent salvage operations affected the current forest composition and how that influences IWLLC's silvicultural decisions. The history does not include a description of the influence of fire, which played a significant role around the town of Allagash and along the western boundary near farms in Quebec and the railroad. There is almost no discussion of how management will react to the next Budworm outbreak. While the management plan mentions who owned the land prior to IWLLC, there is no description of how past management shaped current practices. The areas intended to be RSAs as described by staff during interviews appear as part of the Unique Areas data layer but are not explicitly designated as RSAs.	
Corrective Action Request (or Observation): The management plan must describe the history of land use and past management and natural disturbance regimes that affect the FMU, historical ecological conditions, and Representative Sample Areas.	

<p>FME response <i>(including any evidence submitted)</i></p>	<p>Page 1 of the management plan shows evidence of conformance to 7.1.b</p> <p>“INTRODUCTION</p> <p>For all of the industrial forestlands that J.D. Irving, Limited owns and manages, we prepare forest management plans. The purpose of these management plans is to outline the strategies necessary to meet our long-term objectives, and the tactical actions required for implementation over the next ten years. It is these tactical actions that provide the basis for our Annual Operating Plans.</p> <p>J.D. Irving, Ltd. made its first Maine land acquisition in 1947 when 91,000 hectares were purchased in the area west of Allagash and north to the border in Escourt. Much of these new lands were held in common and undivided ownership primarily with the Dunn heirs, and Dauteuil Lumber. For the first 30 years, until 1976, the Seven Islands Land Company of Bangor, Maine managed these lands.</p> <p>By the late 1970’s, we had established ownership objectives that were often inconsistent with the other common undivided owner’s objectives, principally greater silvicultural investment in forest productivity. The result of this divergence was an aggressive campaign to consolidate our ownership out of the common undivided status. In 1977, the company assumed direct management responsibility for its lands with our own staff.</p> <p>In 1983, there was an additional acquisition of 101,000 hectares from International Paper Co. in the northern and eastern Aroostook County area. This area included townships from New Canada east to T16R4 with some additional land in St. Francis and Allagash. In 1985 Irving purchased new lands from Great Northern Paper in the northeastern part of Maine. This area included townships T17R3, T17R4, and T17R5 along with acreage in Cyr Plantation, Grand Isle and Hamlin.</p> <p>A more recent land purchase occurred in March of 1999. This land purchase increased IWLLC Northern forestland base by 414,000 hectares. The newly acquired lands were bought from Bowater Incorporated (Great Northern Paper, Inc. Woodlands). With an eye to consolidate land under IWLLC’s management, several towns were sold between 2002-2005 (T5R7, T3R8, T4R8, T4R7, T5R8 to T2R8 and T10R12-T9R11, T9R12). The total lands sold were approximately 218,000 hectares.</p> <p>In reviewing the recent land acquisitions and releases the total forestland presently managed by Irving Woodlands LLC in Northern Maine is approximately 524,000 hectares. There have been no significant challenges to this ownership other than occasional boundary line disputes which have been amicably resolved. In the future event that good-faith efforts to resolve a conflict were not possible, then it would be referred to the appropriate courts for legal resolution.”</p> <p>7.1 c Page 59 of the management plan shows evidence of conformance to c) historical ecological conditions</p> <p>APPENDIX VIII – FOREST MANAGEMENT ACTIVITIES</p> <p>Historical Perspective</p> <p>Two issues beyond the control of land managers have played a critical role in directing harvest activities in Northern Maine. The two issues are:</p> <ol style="list-style-type: none"> 1. The Spruce Budworm (SBW) infestation. The SBW outbreak of the 70’s and 80’s (and to a lesser degree the outbreak early in the century) forced decisions to harvest large affected tracts or lose substantial volumes of mature timber. The post outbreak impact of these decisions is that there is a gross imbalance in forest age-class structure. 2. The historic lack of market outlets for low-grade hardwood had been a substantial management challenge for us at the time of the last plan. Today, a combination of aggressive actions by our marketing department and the establishment of flail to rail chipping operations has allowed us to expand markets to better utilize hardwood <p>7.1.e The management plan includes a description of the following resources and outlines activities to conserve and/or protect Representative Sample Areas (see Criterion 6.4)</p>
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<p>SCS review</p>	<p>7.1.b&c The 2013-2037 Forest Management Plan briefly summarizes some aspects of the history of the FMU. However, for example, the management plan text (or associated documents) does not include a detailed description of the important influence that the last spruce budworm outbreak and the subsequent salvage operations had on forest structure and species composition and how this influences current management practice.</p> <p>The plan does not include a description of the effects fire and wind have had on the landscape. For example 1,000 acres of wind-storm damage occurred during 2013; the recent increased frequency of major wind events is ignored. Entire townships burned around 1900 and the state of Maine is still struggling with the outcome of this disturbance; the history does not include a description of the influence of fire.</p> <p>While the management plan mentions who owned the land prior to IWLLC, there is no description of how past management shaped current practices. The intent of 7.1.b. “past management” includes the description of how past management practices shaped the current forest and influences desired future conditions including (1) the ‘mining’ of softwood out of hardwood stands and (2) the harvesting of only the best hardwood sawlogs due to lack of pulpwood markets.</p> <p>The purpose of establishing historic conditions is to facilitate creating a baseline for assessing environmental impacts of operations, to facilitate establishing desired future conditions, and to determine when restoration may be needed. Natural disturbance regimes include wind, fire, insects, and pathogens. Typical disturbance events in terms of opening size, intensity disturbance, range, and frequency of disturbance must be described to the extent they are known. All management plans regardless of the scale and intensity of operations must address the Indicators of Criterion 7.1; the scale and intensity of IWLLC’s operations call for a more comprehensive summary of the details described in this section. This nonconformance remains open.</p> <p>Note: 7.1.e The areas intended to be RSAs as described by staff during interviews appear as part of the Unique Areas data layer however RSAs were not explicitly designated as RSAs (i.e. they are simply part of the list of unique areas that also includes HCVFs, RTEs, etc.). Staff revised the GIS layer during the 2014 audit and this portion of the nonconformance has been addressed and closed, however, the other sections of this nonconformance remain open.</p> <p>This nonconformance remains open.</p>
<p>Status of CAR:</p>	<p><input type="checkbox"/> Closed</p> <p><input type="checkbox"/> Upgraded to Major</p> <p><input checked="" type="checkbox"/> <i>Other decision (refer to description above)</i></p>

5. Certification Decision

Certification Recommendation	
FME be awarded FSC certification as a “Well-Managed Forest” subject to the minor corrective action requests stated in Section 4.2.	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
The SCS evaluation team makes the above recommendation for certification based on the full and proper execution of the SCS Forest Conservation Program evaluation protocols. If certification is recommended, IWLLC has satisfactorily demonstrated the following without exception:	
FME has addressed any Major CAR(s) assigned during the evaluation.	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
FME has demonstrated that their system of management is capable of ensuring that all of the requirements of the applicable standards (see Section 1.6 of this report) are met over the forest area covered by the scope of the evaluation.	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
FME has demonstrated that the described system of management is being implemented consistently over the forest area covered by the scope of the certificate.	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Comments: Major CARs were not assigned during this evaluation.	