

Public Summary
of the
**Comprehensive Monitoring Plan/Results for
Resolute Forest Products' Ontario Forests**
September 2020
Version 12



Contents

- PRELUDE:..... 1**
- INTRODUCTION:..... 1**
- CONTENTS SUMMARY:..... 2**
- PROVINCIAL MONITORING PROGRAMS (MOST RECENT REPORTS CITED): 2
- SFL MONITORING: 2
- FIELD PRACTICES MONITORING: 3
- CERTIFICATION AUDITS: 4
- HIGH CONSERVATION VALUES: 4
- PRODUCTIVITY AND COSTS: 5
- RESEARCH AND DEVELOPMENT: 5
- PUBLIC REPORTING: 5

- APPENDIX I. PUBLIC SUMMARY OF RESOLUTE FOREST PRODUCTS MONITORING RESULTS
FOR BLACK SPRUCE AND DOG RIVER-MATAWIN FORESTS..... 6**

Prelude:

This document is a brief Public Summary of a lengthy document. Further information, and, or a copy of the full report can be made available by contacting Mike Maxfield, Certification Superintendent at: 807-475-2626 or mike.maxfield@resolutefp.com.

Introduction:

This document represents a Public Summary of Resolute Forest Product's Comprehensive Monitoring Plan for Ontario forests. The full report is prepared in accordance with the FSC® National Boreal Standard 8.1.1 which states:

The applicant has a comprehensive monitoring plan that outlines the parameters to be monitored (consistent with the requirements of Criterion 8.2), and the frequency, intensity, procedures, rationale, and responsibility for monitoring.

Given that this plan applies to Crown Land, there is an underlying requirement to comply with the rigorous framework of Ontario regulations. It is somewhat impractical for Resolute Forest Product's to unilaterally produce a single monitoring plan given the complexity of interrelated plans and monitoring activities being undertaken applicable to all Ontario forests. With due respect to the legislative framework, involved agencies and partners, this report is intended to describe the comprehensive monitoring plans and programs applicable to Resolute's SFLs which include the Caribou, Black Spruce, Dog River-Matawin, and English River.

Recognising that Resolute is currently (July 2018) FSC Forest Management certified on Black Spruce and Dog River-Matawin Forests, Appendix I is added to the report. Appendix I of this public summary report details sources and summarises monitoring results for the Black Spruce Forest and Dog River-Matawin Forest as per FSC National Boreal Standard 8.5.1:

A summary of the results of monitoring activities is regularly compiled and made available to the public.

As noted above, several of the monitoring activities are carried out by the Ontario Ministry of Natural Resources and Forestry (MNRF). Resolute will ensure that the monitoring programs carried out by the company are subject to quality assurance and/or quality control checks and that the results of these efforts are made available to the public. However, the MNRF is responsible for publishing its own monitoring reports; this document endeavors to identify where these reports are publicly available.

Contents Summary:

Provincial Monitoring Programs (most recent reports cited):

- Annual Report on Forest Management: A general overview of the state of forest management activities in Ontario by MNRF. Available from: <https://www.ontario.ca/page/report-forest-management-2014-2015>
- Forest Resources of Ontario Report: A detailed summary of statistics related to Ontario's forest resources, released by the Minister of Natural Resources by MNRF. Available from: <http://www.ontario.ca/document/forest-resources-ontario-2016>
- Provincial State of the Forest Report: A comprehensive report based on criteria and indicators of sustainable forest management by MNRF. Available from: <http://www.ontario.ca/document/state-ontarios-forests>
- State of Ontario's Natural Resource Reports: A general overview of the state of Ontario's Forests in terms of forest management for ecological sustainability by MNRF. Available from: <https://www.ontario.ca/document/state-ontarios-forests>
- State of Resources Reports: A general overview of the state of specific resources in Ontario by MNRF. Available from: <http://www.ontario.ca/search/state-resources-reports>
- Related Monitoring Activities: Provincial-National cooperation related to natural resources. MNRF provides data toward production of Federal programs:
 - The National Forestry Database Program
 - Canada's National Forest Information System
 - Criteria and Indicators of Sustainable Forest Management in Canada
 - The State of Canada's Forests Annual ReportAvailable from: <http://www.ccfm.org/english/>
- Forest Compliance Handbook by MNRF: Extensive monitoring activities occurring across all areas of operations, including roads and water crossings. Available from: <http://www.ontario.ca/document/forest-compliance-handbook>
- Forest Health Monitoring program: Provincial level forest health monitoring by OMNRF. Reports available at <https://www.ontario.ca/page/forest-health-conditions>

SFL Monitoring:

- Forest Management Planning (FMP) Program: Forest management plans are developed over two or more years and involved collaborative work with an interdisciplinary team, including company and MNRF staff, as well as representatives from local First Nations, Métis and the local citizen's committee. All aspects of the plan are presented to the public for comment through public information events and are available on-line following approval. FMP's are produced in accordance with the Crown Forest Sustainability Act. FMP's are publically available on the MNRF's eFMP website: <http://www.efmp.lrc.gov.on.ca/eFMP/home.do> or NRIP website https://nrip.mnr.gov.on.ca/s/fmp-online?language=en_US
- Compliance Planning Program: Forest compliance planning is a component of each FMP and AWS, with monitoring activities and outcomes documented in the Annual Reports. This is required by the Forest Management Planning Manual and the Forest Information Manual, both of which direct users to the Forest Compliance Handbook. Compliance plans are available as part of the current FMP and AWS via: <http://www.efmp.lrc.gov.on.ca/eFMP/home.do> or NRIP website https://nrip.mnr.gov.on.ca/s/fmp-online?language=en_US
- Values Identification and Monitoring Program: To ensure protection for important values during forestry operations. The values monitoring information collected and maintained by the MNRF also feeds into the high conservation value forest assessment process. MNRF has primary responsibility per Ontario regulations with input provided by Resolute Forest Products and other

stakeholders. The Land Information Ontario, formerly Natural Resource Values Information System, is publicly available by contacting the local District MNRF offices or as published in values maps by Forest available on-line via the following web page:

<http://www.efmp.lrc.gov.on.ca/eFMP/home.do> or NRIP website

https://nrip.mnr.gov.on.ca/s/fmp-online?language=en_US

- Independent Forest Audit Program: To ensure compliance with the Crown Forest Sustainability Act. Resolute Forest Products and the MNRF are monitored by independent auditors overseen by the Forestry Futures Committee. Reports and the associated Action Plans for all Forests are publicly available via the MNRF's webpage at: <http://www.ontario.ca/environment-and-energy/independent-forest-audits>
- Annual Planning (AWS) Program: To lay out planned monitoring activities and priorities for each year of operations. Reporting by Resolute Forest Products; reviewed and approved by the MNRF. The current approved AWS is available for each Forest via the MNRF's webpage at: <http://www.efmp.lrc.gov.on.ca/eFMP/home.do> or NRIP website https://nrip.mnr.gov.on.ca/s/fmp-online?language=en_US
- Annual Reporting Program: To report upon the success and challenges encountered during forest operations, to identify priorities for improvement, and to develop objectives to support continuing compliance with the MNRF-approved forest management plan and annual work schedules. The current approved Annual Reports are available via the MNR's webpage at: <http://www.efmp.lrc.gov.on.ca/eFMP/home.do> or NRIP website https://nrip.mnr.gov.on.ca/s/fmp-online?language=en_US

Field Practices Monitoring:

- Regulated Compliance Monitoring (Forest Operations Inspection Program): Conducted by Resolute and MNRF to ensure that forest operations occur in compliance with the MNRF-approved forest management plan and annual work schedules. Copies of individual reports of forest operations inspections are available by request from the MNRF district offices.
- Environmental management System (EMS) Monitoring: To manage company activities in a manner that will prevent pollution, improve environmental performance, and support sustainable forest management. All aspects of field operations are monitored continuously for conformance with the EMS (such as waste handling; pesticide handling and use; site disturbance that could affect nutrients; harvest & residual tree retention and environmental values; proper sign-off to ensure legal activity; protection of values and sites identified as values); non-conformances are reported, and corrective actions are initiated. In addition, the EMS itself is subject to detailed audits on a regular basis. The EMS is made available to all Resolute Forest Products' employees through a company database and externally to contractors through the following internet site: www.tbw-ems.com. Access is restricted to authorized users and requires a login identification and password.
- Monitoring of Species at Risk (SAR), Invasive Species, and Wildlife Values: All field personnel are responsible for monitoring their operations for the occurrence of SAR and other values and are provided with training to identify species at risk and invasive species in their operating area. Awareness of SAR and Invasive species is continually promoted as it is an integral aspect of field monitoring. All previously unidentified wildlife or SAR habitat values and SAR or invasive species sightings are recorded by field personnel for reporting and follow-up. Regulated compliance monitoring through FOIP evaluate whether measures designed to protect species at risk and other wildlife values (i.e. area of concern prescriptions) are implemented effectively. Additionally, EMS conformance inspections are undertaken as per the EMS and this Monitoring Plan.

- Monitoring of Forest Renewal: Methods include on-the-ground surveys for regeneration condition and helicopter surveys for free to go (FTG). All harvested areas are surveyed for regeneration success, with follow-up actions if deficiencies are identified. The 2017 Forest Operations and Silvicultural Manual introduced changes to the renewal monitoring program which now consist of establishment surveys and performance surveys (replacing FTG). Monitoring results of the renewal program are summarized and presented each year within the Annual Reports. The current Annual Report is available at: <http://www.efmp.lrc.gov.on.ca/eFMP/home.do> or NRIP website https://nrp.mnr.gov.on.ca/s/fmp-online?language=en_US
- Monitoring of Forest Growth and Yield: To ensure that forest modeling projections are good predictors of actual forest growth and yield, which in turn supports sustainable forest management planning. The results of this monitoring program are incorporated into the decisions and content of each respective Forest Management Plan as an integral part of the plan development and approval process.

Certification Audits:

- Sustainable Forestry Initiative (SFI®): To ensure conformance with SFI 2015-2019 Forest Management Standard and the 2015-2019 Fiber Sourcing Standard requirements. Resolute Forest Products is audited by an independent, accredited (ANAB) certification body. The current Certification Registrar (Audit Firm) is SAI Global and they are required to post a summary of audit results on their website. SFI also maintains copies on their website at: <http://www.sfiprogram.org/audit-reports/params/filter/R>
- Forestry Stewardship Council ® (FSC®): To ensure conformance with the requirements of the FSC's National Standard. Resolute Forest Products is audited by an independent, accredited (ANSI-ASQ, SCC) certification body SAI Global. The FSC Certification status can also be confirmed on the FSC website (<http://info.fsc.org/certificate>; Note search for Resolute).
- ISO 14001 (EMS): To ensure conformance with ISO 14001:2015. Resolute Forest Products is audited by an independent, accredited certification body. The current ISO 14001 Certificate of registration and program auditing information is available through Resolute Forest Products by contacting the Certification and Communication Manager. The current Certification Registrar (Audit Firm) is SAI Global and they produce an audit report each year summarizing their findings.
- Chain of Custody: Ensure that forest products procured by Resolute Forest Products meet the requirements most current requirements of the Chain of Custody standards for FSC; SFI & PEFC and valid Certificates are maintained. The current COC Certificates and audit results are available through Resolute Forest Products by contacting the Certification Superintendent.
- Internal Auditing: (EMS, SFI, CoC) Internal audits are required for these standards. Internal auditing is carried out annually. Annual Audit results tend to be internal information. The Resolute Forest Products contact for the Internal Auditing program is the Certification Superintendent.

High Conservation Values:

- Monitoring of HCV Identification: Program of consultation and field / values monitoring to ensure the identified list and mapped location of HCVs is maintained and current. The most current versions of Forest High Conservation Value Assessment Management and Monitoring Report and Public Summary are available by contacting the Certification Superintendent.
- Monitoring of Identified HCVs: Public & Stakeholder consultation and field / values monitoring to ensure the documented approach to Management and Monitoring of HCV's is maintained and current. The most current High Conservation Value Assessment Management and Monitoring

Report and details regarding any recent improvements or updates are available by contacting the Certification Superintendent.

- Monitoring of Conformance with HCV Prescriptions: HCV Summary map is overlaid with planned or proposed forest operations maps to ensure identified HCVs are never subject to forest operations without an HCV Management Prescription in place. The most current HCV Spatial Assessments and details regarding any recent updates are available by contacting the Certification Superintendent.

Productivity and Costs:

- Internal Key Performance Indicators Program (KPI): A Comprehensive Report is produced and presented to staff on a monthly basis highlighting the performance Key Business drivers. These reports include confidential information and data that is not intended for widespread public circulation. Further detail regarding these reports can be discussed or shared upon request on an as needed case by case basis. Public summaries are available at: http://www.resolutefp.com/Sustainability/Mill_Environmental_Performance/Key_Performance_Indicators/.
- Internal Financial Accounting Program: To communicate and monitor Thunder Bay Wood Products performance in relation to corporate internal financial controls. These reports include confidential information and data that is not intended for widespread public circulation but these reports can be made available to auditors on site and upon request.

Research and Development:

- Resolute currently takes part in and/or supports a variety of research and development initiatives. These activities, while many are monitoring initiatives themselves, are tracked but not monitored per se.

Public Reporting:

- Resolute Forest Products: http://www.resolutefp.com/installation_site.aspx?siteid=121&langtype=4105
- Central Canada SFI Implementation Committee: This committee has a website and promotes public reporting of any inconsistent practices undertaken by its members. <http://www.sficentralcanada.org/Inconsistent-Practices.html>
- MNRF eFMP Website: electronic forest management plans, AWSs, ARs and other documentation related to each FMP: <http://www.efmp.lrc.gov.on.ca/eFMP/home.do> or NRIP website https://nrip.mnr.gov.on.ca/s/fmp-online?language=en_US

Appendix I. Public summary of Resolute Forest Products monitoring results for Black Spruce and Dog River-Matawin Forests.

September 2020

Indicators	Monitoring activities	Monitoring Records/Reports	Summary of the monitoring results
<p>Yield of all forest products harvested.</p>	<ul style="list-style-type: none"> The utilisation volumes by species and products, and by harvest licence holders are determined according to the Scaling Manual, which is one of the four regulated manuals under the Crown Forest Sustainability Act. The scaling information is recorded in iTREES, the provincial scaling and billing system based on the volumes delivered to the mills and compiled into annual reports. Annual compliance monitoring as per Section 8.7.1 Forest Operations of the Phase 2 FMPs for both Forests. Harvest, access, maintenance and renewal activities occurring annually are illustrated on the operations maps and identified in the text, tables and information products for the Annual Work Schedules. All harvest blocks are inspected and FOIP reported upon completion. Everyone including equipment operators, supervisors, contractors, overlapping licensees and Resolute management have a responsibility to monitor forest compliance as part of their daily activity. 	<p>Annual Reports: http://www.efmp.lrc.gov.on.ca/eFMP/home.do or NRIP website https://nrp.mnr.gov.on.ca/s/fmp-online?language=en_US Year 1-10 Annual Reports (ARs) (as per both 2009 and 2020 FMPM):</p> <ul style="list-style-type: none"> Text and Tables AR-1, AR-2, AR-6 <p>Year 3 AR (for ARs up to 2017 prepared according to the 2009 FMPM): Year 7 and 10 Annual Reports up to 2017 as per 2009 FMPM/Year 5 and final year ARs from 2018 and onward as per 2020 FMPM:</p> <ul style="list-style-type: none"> Text and Tables AR-7, AR-8, AR-14 <p>Forest Operations Information Program (FOIP) Reports.</p> <p>Independent Forest Audits, Action Plans and Status Reports: https://www.ontario.ca/page/independent-forest-audits</p> <p>Sustainable Forestry Initiative Forest Management Standard 2015-2019: http://www.sfiprogram.org/audit-reports/</p> <p>Forest Stewardship Council Forest Management Standard: https://info.fsc.org/certificate.php</p>	<p>Province-wide, the harvest levels are currently under the allowable harvest area (AHA) for most forest management units, including Black Spruce and Dog River-Matawin Forests, largely attributable to the changes in the global wood markets. Most of the harvest has been concentrated on conifer species, with hardwoods accounting for approximately one third of the total realized harvest volume. However, harvested hardwood area has been increasing in recent years due to greater mill utilization as well as increased markets for hardwood chips and fuelwood. Most of the volume is utilized for sawmills, as well as for pulp and paper. Biofibre is also utilized from both management units. Most of the wood is harvested by Resolute Forest Products contractors and overlapping licence holders that deliver to Resolute mills and other local facilities.</p>

Indicators	Monitoring activities	Monitoring Records/Reports	Summary of the monitoring results
<p>Growth rates, regeneration and condition of the forest.</p>	<p><u>Regeneration monitoring</u> Resolute's regeneration survey program consists:</p> <p>a) Regeneration condition surveys</p> <ul style="list-style-type: none"> • 2-10 years after silviculture treatment <p>b) Free to Grow Surveys</p> <ul style="list-style-type: none"> • 7-15 years after silviculture treatment. <p>Survey results are recorded in Resolute's Forest Management Data System (FMDA) and Woodlands the System (WTS) databases. Treatment response and silviculture treatment effectiveness is assessed by comparing the regeneration standards in the SGRs with the forest condition as assessed during the establishment (formerly FTG) surveys.</p> <p>MNRF's Silvicultural Effectiveness Monitoring program:</p> <ul style="list-style-type: none"> • On areas reported FTG in Annual Reports. The data and conclusions of their survey work report on the conditions and achieved forest unit. • Methodology follows the Silviculture Effectiveness Monitoring Manual for Ontario and the Forest Management Guide to Silviculture in the Great Lakes-St. Lawrence and Boreal Forests of Ontario (2015). • MNRF provide the data yearly to Resolute for incorporation into the Annual Report for each SFL. 	<p>Annual Reports: http://www.efmp.lrc.gov.on.ca/eFMP/home.do or NRIP website https://nrip.mnr.gov.on.ca/s/fmp-online?language=en_US</p> <p>Year 1-10 Annual Reports (ARs) (as per both 2009, 2017 and FMPM FMPM):</p> <ul style="list-style-type: none"> • Text and Tables AR-3, AR-4 <p>Year 3 AR (for ARs up to 2017 prepared according to the 2009 FMPM):</p> <p>Year 7 and 10 Annual Reports up to 2017 as per 2009 FMPM/Year 5 and final year ARs from 2018 and onward as per 2017 & 2020 FMPM:</p> <ul style="list-style-type: none"> • Text and tables AR-9, AR-10 (2009 FMPM), AR-13 (2009 FMPM), AR-12 (2017 & 2020 FMPM), AR-13 (2017 & 2020 FMPM), AR-14: (2017 & 2020 FMPM), AR-15 (2017 & 2020 FMPM), AR-14 (2009 FMPM), AR-16 (2017 & 2020 FMPM) <p>MNRF Silviculture Effectiveness Monitoring (SEM) Program reports</p> <ul style="list-style-type: none"> • These reports, if prepared, are usually amended to the Annual Reports and available at http://www.efmp.lrc.gov.on.ca/eFMP/home.do or NRIP website https://nrip.mnr.gov.on.ca/s/fmp-online?language=en_US <p>In addition: FOIP reporting, IFA reports, third-party certification reports.</p>	<p>The annual reports demonstrate high <i>regeneration success</i> in the blocks surveyed for establishment (FTG). The regeneration success means that the stands are reaching minimum height and stocking requirement and are deemed as not needing further silvicultural treatments.</p> <p><i>Silvicultural success</i> refers to a stand achieving species composition that was prescribed with Silvicultural Ground Rule (treatments). Non-achievement of silvicultural success at the stand level is not considered as an issue as forest composition targets are set on the forest level and variability on stand level treatment outcomes is expected as per high variability natural conditions. Silvicultural success is around 50%.</p> <p>Resolute's regeneration survey program is used to identify sites requiring further treatment based on regenerating stand conditions and management unit level forest composition targets. A detailed assessment of trends in silvicultural and regeneration success at stand and management unit level are included in the Year 7 and 10 Annual Reports. The principle reason for the difference between planned renewal and tending operations and actual is the actual lower harvest on the forest.</p>

Indicators	Monitoring activities	Monitoring Records/Reports	Summary of the monitoring results
	<p><u>Forest Resource Inventory (FRI)</u></p> <ul style="list-style-type: none"> • FRI is an extensive survey of forest resources of Ontario. FRI is the basis of forest management planning. • FRI includes information on species, sizes and number of trees in a forested area. • FRI is updated at the start of each new forest management plan, as well as annually for AWSs to reflect changes to the forest such as depletions and natural disturbances, FTG forest units, access roads. • New FRI (based on recent imagery) is made available by the province in approximately 10-year cycle. • FRI is used for routine planning and modelling. 	<p>Forest Resource Inventory spatial database:</p> <ul style="list-style-type: none"> • Forest Management Plans document the development of the FRI used in the planning process. • Annual Work Schedules include the most recent/updated inventory. • Annual Reports include use FRI for reporting on past forest operations for showing scaled volume and depleted areas. • These reports are available at http://www.efmp.lrc.gov.on.ca/eFMP/home.do or NRIP website https://nrp.mnr.gov.on.ca/s/fmp-online?language=en_US 	<p>However, the amount and type of regeneration being prescribed and implemented is appropriate to the stands being harvested.</p> <p>The updated planning inventory was approved by MNR and used in the development of forest management plans for both Black Spruce and Dog River-Matawin Forests. The inventory is continuously updated for planning for annual work schedules.</p>
	<p><u>Forest age structure</u></p> <p>Forest management planning process includes an assessment of the forest age structure and short, medium, and long-term projections under the planned management scenario.</p>	<p>Forest Management Plans:</p> <ul style="list-style-type: none"> • Include assessment of the current and projected age structure as compared to the natural forest templates (natural ranges of variation). • These reports are available at http://www.efmp.lrc.gov.on.ca/eFMP/home.do or NRIP website https://nrp.mnr.gov.on.ca/s/fmp-online?language=en_US • Year 7 and 10 Annual Reports up to 2017 as per 2009 FMPM/Year 5 and final year ARs from 2018 and onward as per 2017 & 2020 FMPM: • Table AR-11/AR-10, AR-13 (2009 FMPM). 	<p>Short-term projections are illustrated in the Year 7 Annual Reports and show achievement of objective, progress towards to desired levels, or achievement by plan end regarding forest age and structure. Some objectives regarding forest age structure, such as old-growth and specific habitat for featured species in AR-14 are not assessed in year 7, but rather normally assessed with completion of new forest inventory used to develop the Dog River-Matawin 2021-2031 FMP and Black Spruce 2021-2031 FMP. The MNR</p>

Indicators	Monitoring activities	Monitoring Records/Reports	Summary of the monitoring results
	<p><u>Forest health monitoring</u> MNRF records and monitors major factors (e.g., insects, diseases, severe weather) affecting forest health. Forest health monitoring includes:</p> <ul style="list-style-type: none"> • mapping areas to document how much area is affected and how severe the damage is • collecting insect and disease samples to track where they occur, how abundant they are, and any changes to tree species affected • surveying for specific forest pests, particularly invasive species or pests that affect biodiversity • conducting or supporting science projects related to forest health • collecting information from long term plots used to assess forest ecosystem health <p>MNRF also manages forest fire detection and monitoring programs.</p> <p>MNRF is also responsible for invasive species monitoring. Resolute’s EMS trains workers on invasive species and requires reporting of such.</p>	<p>Independent Forest Audits, third-party certification audits</p> <p>MNRF publishes annual reports on forest health. This information is incorporated into SFL’s forest management planning and decisions. Each report includes:</p> <ul style="list-style-type: none"> • a summary of forest health conditions • amount of area disturbed • photos and maps • descriptions of damage caused by individual pests, diseases, and weather events across the province <p>Forest health conditions annual reports are available at https://www.ontario.ca/page/forest-health-conditions</p> <p>MNRF’s Interactive Fire Map is available at http://www.gisapplication.lrc.gov.on.ca/ForestFireInformationMap/Index.html?site=AFES_ONLine&viewer=AFES_ONLINE&locale=en-US</p> <p>Invasive species potential sightings on the forest have been reported internally within the Company however, investigation confirmed they were not invasive.</p>	<p>inventory has been delivered and is currently undergoing final review in preparation for the forest management plan development.</p> <p>The latest public report available reports on forest health monitoring program for 2016. In 2016, the main weather-related issues affecting forest health were blowdown, freezing rain, and drought. Areas where tree leaves/needles were eaten by forest tent caterpillar increased while those that lost leaves because of spruce budworm and jack pine budworm decreased.</p> <p>In northwestern Ontario, white spotted sawyer beetle damage increased in areas damaged by snow in 2012. Several other insects affected forests across the province, but damage was minimal and localized.</p> <p>Invasive emerald ash borer continued to spread and was found in Northwestern Ontario for the first time in Thunder Bay.</p> <p>2020 monitoring interim reporting from MNRF to the Company indicates a substantial jack pine budworm infestation on English River and Caribou forests.</p>
Composition and observed changes in the flora and fauna.	All field operations are monitored for continuous conformance by Resolute staff as well as MNRF, Independent Forest Audit and third-party certification auditors.	Resolute’s internally records all reported wildlife and SAR habitat values and SAR, as well as values reported to MNRF and information in Invasive Species monitoring.	Socio-economic factors, including a rapidly declining wood supply have impacted achieving habitat amount and arrangement target. In Dog River-Matawin SFL and

Indicators	Monitoring activities	Monitoring Records/Reports	Summary of the monitoring results
	<p>The procedures for the field monitoring are outlined in the EMS Work Instruction. There are four main components of the wildlife EMS field monitoring including:</p> <ol style="list-style-type: none"> i. Training and Awareness ii. Monitoring and Recording iii. Reporting and Tracking iv. Inspections <p>All field personnel have received SAR training and are responsible for monitoring for SAR, wildlife values, and invasive species on their operating area and for ensuring any previously unidentified wildlife or SAR habitat values and SAR or invasive species sightings are recorded for reporting and follow-up.</p> <p>Regulated compliance monitoring takes place through FOIP to evaluate whether measures designed to protect species at risk and other wildlife values (i.e. area of concern prescriptions) are implemented effectively.</p> <p>Additionally, EMS conformance inspections are undertaken as detailed within EMS.</p> <p>Invasive species are monitored for an reported to MNRF.</p>	<p>MNRF manages the Natural Heritage Information Centre (NHIC) database that includes values reported by the MNRF staff, SFL staff, as well as other resource managers and general public.</p> <p>SAR values deemed reportable to MNRF are so reported, suspected Invasive Species locations are reported to the MNRF Invading Species Hotline, and planning documents (FMP; AWS), and EMS documents (sign-off Maps) are updated as necessary to reflect the new values.</p> <p>FOIP and EMS reports</p> <p>Year 7 and 10 Annual Reports up to 2017 as per 2009 FMPM/Year 5 and final year ARs from 2018 and onward as per 2017 & 2020 FMPM:</p> <ul style="list-style-type: none"> • Text and tables AR-11/AR-10; AR-12/AR-11; AR-14/AR-16 (http://www.efmp.lrc.gov.on.ca/eFMP/home.do or https://nrip.mnr.gov.on.ca/s/fmp-online?language=en_US) 	<p>southern portions of Black Spruce SFL, the declining harvesting levels have reduced the ability to defragment habitat in areas significantly impacted by historic harvesting practices. However, there is improvement from last plan and over time.</p> <p>Both management units have very high compliance rate (~99%).</p>
<p>Environmental and social impacts of harvesting and other operations.</p>	<p>Monitoring of HCV Identification</p> <ul style="list-style-type: none"> • Development and continual improvement of High Conservation Values Assessment, Management and Monitoring Reports. 	<p>High Conservation Value Assessment Management and Monitoring Reports:</p> <ul style="list-style-type: none"> • Identify the High Conservation Values specifically associated with each SFL land base. These reports 	<p>Ontario’s requirements for the development of forest management plans and the extensive planning process contribute substantially to Resolute’s approach to the</p>

Indicators	Monitoring activities	Monitoring Records/Reports	Summary of the monitoring results
	<p>Monitoring of Identified HCVs</p> <ul style="list-style-type: none"> • Management and monitoring protocols for HCVs are outlined in the respective High Conservation Value Assessment Management and Monitoring Reports <p>Monitoring of Conformance with HCV Prescriptions</p> <ul style="list-style-type: none"> • All field operations are monitored for continuous conformance by Resolute staff as well as MNRF, Independent Forest Audit and third-party certification auditors. • A spatial comparison is conducted between the geographic areas associated with each HCV and the area of proposed harvest operations. • This analysis is documented, reviewed internally, monitored and verified by certified auditors as an integral part of Resolute’s FSC Certification and Chain of Custody program. • Any areas identified as overlap are flagged and the HCV prescription is confirmed before operations are permitted to proceed. 	<p>are continually improved and updated as new information becomes available.</p> <ul style="list-style-type: none"> • The reports and their public summaries are available by contacting the Resolute’s Certification Superintendent. • The summaries of the reports are available at the Resolute’s webpage: http://www.resolutefp.com/installation_site.aspx?siteid=121&langtype=4105 <p>HCV Spatial Assessments:</p> <ul style="list-style-type: none"> • Updated annually for each SFL. • The most current HCV Spatial Assessments and details regarding any recent updates are available by contacting the Certification Superintendent. 	<p>identification, management and monitoring of HCVs. Many of the identified HCVs overlap with the values identified during the standard forest management planning process. The planning process contains a significant amount of public consultation enabling updates and consultation on identification of HCVs as well as on mitigation or protection measures.</p> <p>The assessments include spatial analyses of HCVs to unequivocally confirm and demonstrate that operations do not occur within areas designated as high conservation values without a dedicated management prescription in place. The HCV spatial assessments demonstrate that identified HCVs have been protected and monitored according to the HCV management and monitoring protocol.</p>
<p>Impacts on Cultural Values and Resources</p>	<ul style="list-style-type: none"> • The commercial boat cache and resource harvester boat cache data are updated regularly by the MNRF District office. • Most other commercial resource user-related data (e.g. outpost camps, traplines, baitfish blocks, and bear management areas) are updated yearly. 	<ul style="list-style-type: none"> • Updated values maps by MNRF, provided to Forest managers • Resource-Based Tourism Values Maps produced locally by the MNRF during the forest management planning process. • The cultural heritage values are updated by MNRF in NRVIS/LIO layers • Compliance inspection reports (FOIP reports) • Independent Forest Audits • Third party certification audits 	<p>Forest management plans for both management units include prescriptions on identified cultural values and resources. The objective assessment and FOIP reports indicate strong compliance with protection of cultural values and resources in both management units.</p>

Indicators	Monitoring activities	Monitoring Records/Reports	Summary of the monitoring results
	<ul style="list-style-type: none"> • Updates related to non-Aboriginal traplines are provided through MNRF's licensing procedures • Information on Indigenous trapline areas are provided to the MNRF from Band Councils. • Resource Stewardship Agreement (RSA) negotiations between Resolute Forest Products and members of the tourism industry. • The MNRF, in conjunction with the Ontario Ministry Heritage, Sport, Tourism and Culture Industries collects and archives information regarding known sites of cultural heritage values. • The planned operations in five-year term and annually, including values maps, are reviewed by Local Citizens Committee. The public and Indigenous review is also solicited. 		
Economics	<p>Forest Management Plans include objectives for the economic opportunities for local and Aboriginal communities. These objectives are assessed in Year 7 and 10 ARs.</p> <p>Internal Key Performance Indicators Program (KPI)</p> <ul style="list-style-type: none"> • Numerous Key Performance Indicators (KPIs) have been developed in order to focus performance and promote continual improvement. • The four key areas in which we monitor performance include: air emissions, waste generation, water management, and key materials used. 	<p>Year 7 and 10 Annual Reports up to 2017 as per 2009 FMPM/Year 5 and final year ARs from 2018 and onward as per 2017 & 2020 FMPM:</p> <ul style="list-style-type: none"> • AR-14/AR-16 (http://www.efmp.lrc.gov.on.ca/eFMP/home.do or https://nrip.mnr.gov.on.ca/s/fmp-online?language=en_US) <p>A Comprehensive Reports on KPI:</p> <ul style="list-style-type: none"> • Produced and presented to staff monthly highlighting the performance Key Business drivers. • The KPI Reporting encompasses the entire Thunder Bay Woodlands. Some KPIs are unique to each Forest, while others reflect a broader scope that includes data from other SFLs. 	<p>Due to market driven reductions in the harvesting levels, there has been reduction in socio-economic benefits from jobs and revenues to local communities.</p> <p>Public summary of the 2016 KPI assessment can be found at http://www.resolutefp.com/Sustainability/Mill Environmental Performance/Key Performance Indicators/. The summary includes a description and interpretation of the four key performance areas in 2016: air emissions, waste generation, water management, and key materials used.</p>

Indicators	Monitoring activities	Monitoring Records/Reports	Summary of the monitoring results
	<ul style="list-style-type: none"> Specific Resolute staff are responsible for maintaining and tracking their performance in relation to very specific targets. <p>Internal Financial Accounting Program</p> <ul style="list-style-type: none"> To communicate and monitor Thunder Bay Wood Products performance in relation to corporate internal financial controls. The responsibility of monitoring is with Thunder Bay Wood Products/Resolute Forest Products Corporate Financial Management Team. 	<ul style="list-style-type: none"> Public summaries can be found at http://www.resolutefp.com/Sustainability/Mill_Environmental_Performance/Key_Performance_Indicators/ <p>Internal Financial Accounting Program reports:</p> <ul style="list-style-type: none"> Produced monthly The monthly and year to date financial information is presented and tracked. 	<p>The full KPI reports include confidential information and data that are not intended for widespread public circulation, but these reports can be made available to auditors on site, upon request.</p> <p>The Internal Accounting Program reports include confidential information and data that are not intended for widespread public circulation, but these reports can be made available to auditors on site and upon request.</p>
Additional	<ul style="list-style-type: none"> Participation in the former Forest Ecosystem Science Cooperative Growth and Yield Plot network. From 1999-2014, a network of over 3,300 plots were established through this program. 	<ul style="list-style-type: none"> Forest ecosystem Science Cooperative Growth and Yield plot information is stored in a database managed by MNRF. 	<p>The PGP program was used in yield curve development and in yield curve development tools used in forest modeling.</p>
Additional	<p>Resolute currently takes part in and/or supports a variety of research and development initiatives. These activities, while many are monitoring initiatives themselves, are not monitored per se. Some of the examples of activities include tree improvement, protection of water resources, modelling woodland caribou habitat, gap analysis of conservation areas and so forth.</p>	<p>Series of reports, journal articles and databases have been created as a result of research activities. The list of projects is available upon request.</p>	<p>The outcomes of these research projects have successfully used to inform forest management and operations decisions. Among many examples, PSP research has been used to inform development of yield curves, fire regime analyses have been used to fulfil the forest certification requirements for preparing pre-industrial condition reports, and tree improvement studies have aided to strengthen company's tree improvement program.</p>

