Western Forest Products Inc.
DEFINING A HIGHER STANDARD™

2021 SUSTAINABLE FOREST MANAGEMENT PLAN ANNUAL REPORT (SFMP)

PORT MCNEILL AND QUATSINO SOUND FOREST OPERATIONS

TFL 6, MANAGED FORESTS 29, 31 & 61 AND RELATED LICENCES

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INTRODUCTION

ABOUT THE SFM PLAN

The Sustainable Forest Management Plan (SFMP) outlines a series of performance indicators in accordance with the CSA Z809-16 standard. The SFMP supplements and reports on existing management plans and regulatory requirements (Figure 2). WFP produces an Annual Report of progress on the SFM Plan.

British Columbia has rigorous legislation and policies for protection, conservation, and sustainable management of forests. This legislative framework is being continuously improved, as is forest management and policy. In addition to applying regulatory tools, WFP benefits from using voluntary tools, such as CSA Certification, to aid in the achievement of sustainable forest management (SFM).

THE CSA STANDARD

CSA is based on the most broadly accepted Canadian forest values generated to date as embodied in the Canadian Council of Forest Ministers (CCFM) SFM criteria and elements. The CCFM SFM criteria and elements are fully consistent with those of the UNCED Montréal and Helsinki processes, which are both recognized by governments around the world. WFP is required to work closely with the public to identify local values, objectives, indicators, and targets that reflect the national criteria and to incorporate them into forest management planning and practices. Decisions are made together with the public during this process. CSA Z809-16 is more than a system standard; it is also a performance standard, and it also sets specific requirements for the public participation process. This approach to performance not only respects government-recognized criteria for SFM but also allows the public to participate in the interpretation for the local forest.

A link to the new standard is available at:

http://www.csasfmforests.ca/

PUBLIC INVOLVEMENT

The CSA Standard was first published in 1996, following years of discussion and work, using an open and inclusive process managed by the CSA to define the standard. In 2000, the CSA set out to review and improve upon the original Standard, and again sought and incorporated public input into the 2002 edition. Revision of the 2002 edition, in turn, was initiated in 2004 with input from existing Public Advisory Groups (PAGs) and Aboriginal representatives and incorporated into the 2008 edition.

Under the standard, WFP is required to seek comprehensive, continuous public participation and work with Aboriginal peoples at the local community level. The public identifies forest values of specific importance to environmental, social, and economic concerns and needs. The public, represented largely by a Local Public Advisory Group, also takes part in the forest planning process and works with WFP to ensure that targets and values are addressed. The public participation requirement is one of the most rigorous of its kind in certification standards in the world today. Because Canadian forests are primarily publicly owned, it was seen as vital that Canadian forest certification extensively involves the public. Forest management that meets the CSA SFM requirements involves a positive relationship between the organization and the local community.

LOCAL PUBLIC ADVISORY GROUP

The public advisory group, referred to as the Vancouver Island North Woodlands Advisory Group (VINWAG), was formed in February 2001. It consists of a representative matrix of a diversity of stakeholders from the local communities. Sectors represented include youth and education, small business, labour, and local government. In 2008, members of the group agreed to amend their terms of reference to include additional

sectors to represent aquaculture and 'the community at large.' Together, this group and Western Forest Products continue to develop the SFM performance framework that is incorporated in this SFM Plan. This SFM Plan involved consultation with local communities, to develop the SFM framework, including the local Values, Objectives, Indicators, and Targets (VOIT). VINWAG operates under a Terms of Reference in accordance with the CSA requirements. In 2007, BC Timber Sales (BCTS) asked and was granted permission to join VINWAG and for VINWAG to serve as a local advisory group for its CSA certification initiative. BCTS left the table in 2009 to pursue another type of certification.

FIRST NATIONS INVOLVEMENT

First Nations' peoples are provided opportunity and are encouraged to contribute their knowledge and concerns into the process of setting the objectives in this SFM Plan. WFP hosts a "First Nation Information Exchange Group" (FNIEG) and provides the Bands' minutes of VINWAG meetings related to the SFM Plan to facilitate awareness of the CSA process, but this is not considered involvement in the process and is not consultation. First Nations information sharing with respect to the CSA certification is without prejudice to their Aboriginal and treaty rights.

First Nations related indicators are located within Criterion #7 in the SFM Plan.

The SFM system recognizes that Canadian forests have special significance to Aboriginal peoples. It further recognizes that the legal status of Aboriginal peoples is unique and that they possess special knowledge and insights concerning sustainable forest management derived from traditional practices and experience. First Nations peoples are provided opportunity and are encouraged to contribute their knowledge and concerns into the SFM Plan process.

ADAPTIVE MANAGEMENT AND ANNUAL REPORTING

Ongoing Public Advisory Group participation will provide opportunities for continual input, learning, improvement, and the resolution of issues that may arise in the implementation of the SFM Plan and the WFP SFM System. The adaptive management under WFP's SFM System (Figure 1) ensures that the SFM Plan remains relevant and a product of continual improvement. This is ensured by annual review with VINWAG of the advisory group terms of reference, the WFP SFM Plan annual report, and review of any recommendations for SFM Plan improvement, for example any recommendations arising from the annual audit process.

SETTING LOCAL DFA-SPECIFIC PERFORMANCE REQUIREMENTS

The Canadian Council of Forest Ministers (CCFM) developed generic national Indicators (CAN/CSA Z808-96) as a starting point for consideration in developing Indicators for a DFA. Since other coastal British Columbia regional Z809 initiatives had previously been completed, VINWAG chose to examine these regionally developed Indicator sets in 2001, noting that they had been derived using the CCFM Indicators as guidance. Since then, a continual improvement process has been conducted, and the SFM Plan has been updated to reflect the Z809-02 and Z809-08 standards and evolving Federal and Provincial legislation policy in the following ways:

- For each element, one or more DFA-specific values is identified.
- For each value, one or more objectives are set.
- For each value, one or more meaningful indicators are identified, including core and locally selected indicators. Indicators shall be quantitative where feasible.
- For each indicator, data on the current status is provided, and targets are set. Each target shall specify acceptable levels of variance for the indicator and clear time frames for achievement. A clear justification shall be provided for why the targets have been chosen.

- One or more (alternative) strategies shall be identified for meeting identified Targets.
- Forecasts shall be prepared for the expected responses of each indicator to applicable strategies. Methods and assumptions used for making each forecast are described.
- During plan implementation, measurements shall be taken for each indicator at appropriate times and places. Measurement results shall be interpreted in the context of the forecasts in the SFM plan in an adaptive management process.

Although Z809-08 does not require VINWAG to work through all the content; it gives them the opportunity to do so. This is a fundamental shift recognizing the public's right to focus on what it finds of greatest interest to work on. The public's involvement has been expanded to include "management strategies," "review of the SFM Plan," and "issues of interest relevant to SFM on the DFA." The company still must address the values and elements the public chooses not to proactively engage in. The primary role of public participation is the development of VOITs for the DFA. Members of VINWAG are invited to identify areas where they feel improvement could be made upon indicators, for example. In many cases, specialists having experience with certain values are brought in to make presentations to VINWAG members and answer questions. However, they must be given the opportunity to perform all the items above. WFP must determine which, if any, strategies or monitoring programs they want to assess, evaluate, or design.

PERFORMANCE FRAMEWORK FOR THE DFA: "VOITS"

The local Values, Objectives, Indicators, Targets ("VOIT's"), and Acceptable Variances for each CSA Criteria and Element were developed during discussions between VINWAG and WFP staff and consultants starting in 2001 under the CSA Z809-96 process. In 2004, VOITs were reviewed and updated into a revised SFM Plan reflecting the improvements of the CSA Z809-02 standard. The Z809-02 concept of VOITs is now in line with ISO 14001 and its VOITs for "significant aspects", under the WFP EMS. In 2006, the effects of the BC Bill 28 Forest Revitalization Act were incorporated into the plan, and a number of Targets reduced or noted as needing review to reflect the smaller area remaining in the DFA.

Management Strategies describe means of achieving objectives and targets. The public advisory process includes review of the company's forest management strategies. Existing organizational and government policies that govern the conduct of forest management activities are described in the SFMP. Management strategies are drawn from TFL Management Plans, Forest Stewardship Plans (e.g., Results and Strategies), Managed Forest Management Commitments, Private Managed Forest Land Act and Regulations, Forest Practices Code and the Forest and Range Practices Act. TFL 6 Management Plan #10 provides more detail and is intended to be referenced as integral to this SFM Plan.

Alternative Strategies are reviewed with VINWAG, in relation to their forecasts, so that a preferred strategy can be selected. The management strategies are drawn from TFL 6 Management Plan #10, Silviculture Strategy documents, and the Kingcome TSA Timber Supply Review. These contain inventories, descriptions of current conditions, and Timber Supply Analyses describing several alternative management strategies and associated long term forecasts. Alternatives are summarized in a report for the CSA advisory group.

Monitoring methods and responsibilities for tracking indicator performance is described in the SFMP for each indicator. Adaptive management and continual improvement are the process by which the plan is monitored and improved. WFP's performance against this plan is subject to on-going monitoring and annual review and assessment by PMFO and QSFO management and VINWAG. The monitoring and adaptive management process is described in WFP's SFM System manual. Implementation Schedules (Action Plan Timelines) are aspects of the SFM Plan needing improvement or further research. These specify the delivery dates for key outcomes. Timelines are by definition sensitive to both efficiency (i.e., getting on with the implementation of this Standard without undue delay) as well as effectiveness (i.e., taking sufficient time for the SFM requirements to be met and for key tasks to be completed successfully).

THIRD-PARTY INDEPENDENT AUDITS

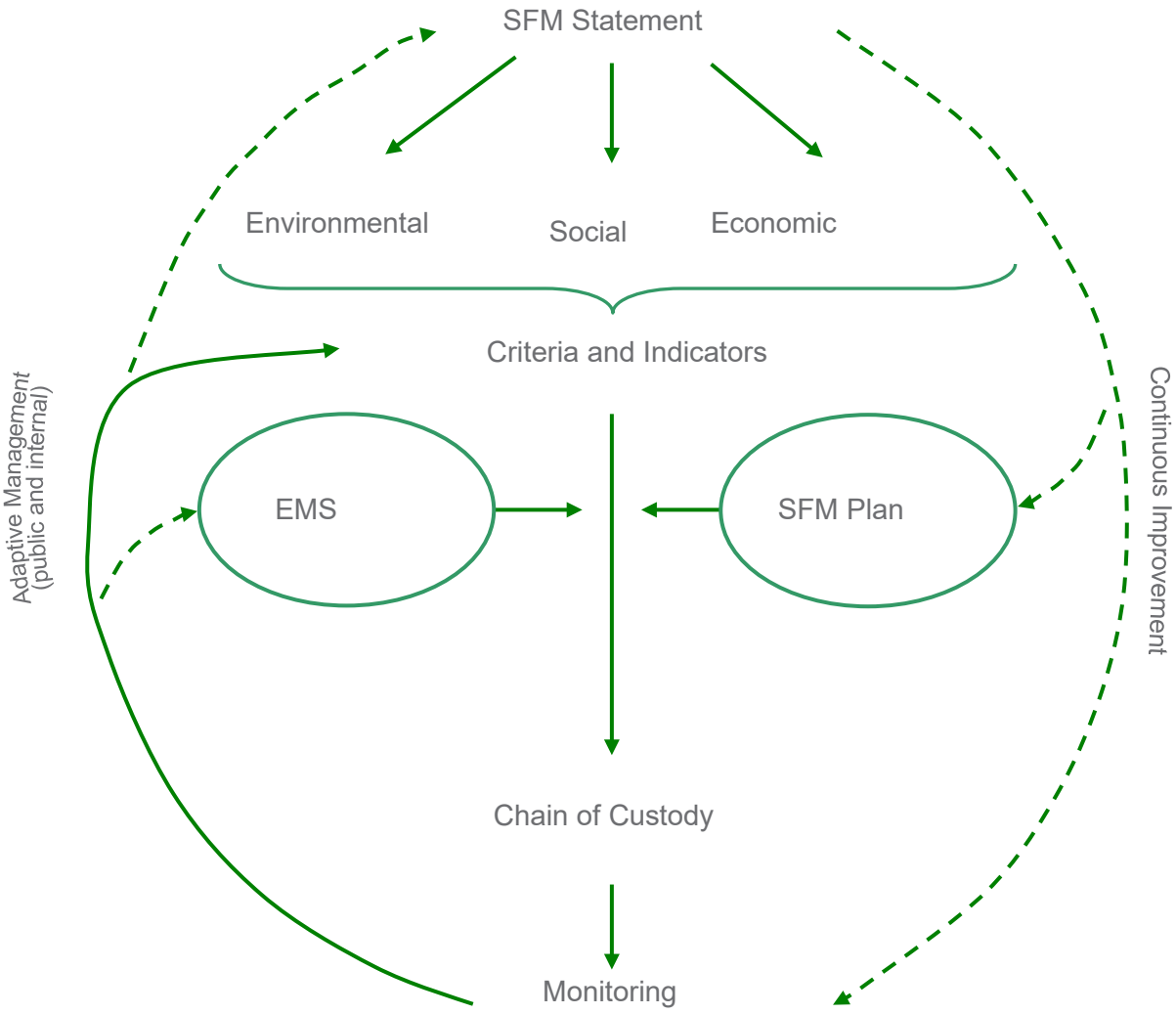
To become certified to this Standard, WFP must undergo a third-party, independent audit to the SFM requirements in this Standard. A registrar (certifier), accredited by the Standards Council of Canada, conducts the audit. The individual auditors employed or contracted by the registrar have the requisite forestry expertise and are certified as environmental auditors. Audits to this Standard are done by accredited certifiers and certified auditors who are independent of the standards-writing body (CSA). In addition to the initial audit, there are mandatory annual reviews, which include both a document review and on-site checks of the forest to ensure progress is being made towards the achievement of targets and that the SFM requirements are being upheld. In addition, a full re-certification audit is required periodically following the initial certification.

SUSTAINABLE FOREST MANAGEMENT SYSTEM

WFP's Sustainable Forest Management System (Figure 1) is described in WFP's Environmental Management System (EMS). Serving as the foundation, WFP's EMS was implemented and registered under ISO 14001 certification in 1999 and has been re-registered in corresponding annual audits. WFP's EMS is no longer registered under ISO 14001. The PMFO and QSFO SFM System describes the adaptive management procedures and public advisory group process that WFP will follow to implement, review, and continually improve the SFM Plan.

The SFM System also includes a Chain of Custody (CoC) procedure, in accordance with the internationally recognized (PEFC) Annex 4 standard. Chain of Custody provides assurance that forest products being traded and sold as "certified" can be traced to forests certified to the Z809 standard or other PEFC recognized forest certifications. The process by which the WFP CoC is maintained is described in the SFM system. In November 2001 WFP attained certification of its Chain of Custody process through an independent audit, and it continues to undertake regular, annual surveillance audits.

Figure 1: PMFO & QSFO Sustainable Forest Management (SFM) System



REFERENCE DOCUMENTS - ADDITIONAL CLARIFICATION

- CAN/CSA ISO 14001- 2015 - Environmental Management Systems – Requirements with guidance for use (third edition, 2015-09-15).
- CSA Plus 1133 (2nd Ed. Pub 2003) – Guidelines for Sustainable Forest Management Systems: General Audit Principles and Audit Procedures for Auditing Sustainable Forest Management Systems. Internal Audit procedures developed under Section 7.5.4 of the Standard - Internal Audits to the SFM Requirements - must conform to this guideline.
- CSA Plus 1134 (2nd Ed. Pub 2003) – Guidelines for Sustainable Forest Management Systems: Qualification Criteria for Sustainable Forest Management Systems Auditors. Guiding document defining the criteria for internal auditors as required under Section 7.5.4 of the Standard - Internal Audits to the SFM Requirements
- CAN/CSA Z731-03 (R2014) Emergency Preparedness and Response. Key document for ISO 14001. Tool for developing procedures under section 7.4.7 – Emergency Preparedness and Response - of the Standard
- CSA Z764-96 (R2012) A Guide to Public Involvement. Defines how to build an effective public advisory committee.
- Chain of Custody of Forest Based Products - Requirements (PEFC ST 2002:2013) 2nd Edition.

LINKS TO MANAGEMENT PLANS AND OPERATIONAL PLANS

The following diagram demonstrates the links between the SFM Plan, operational planning, and existing Management Plans, in relation to the BC Forest Practices Code (FPC), Forest and Range Practices Act (FRPA) and their corresponding regulations.

Figure 2 shows the flow of input and direction to operational plans, including Forest Development Plans and Site Plans. It does not show the feedback loops of monitoring and adaptive management that occurs from operations to the management plans and other higher-level plans.

Figure 2: Link between legislation and the SFM Plan

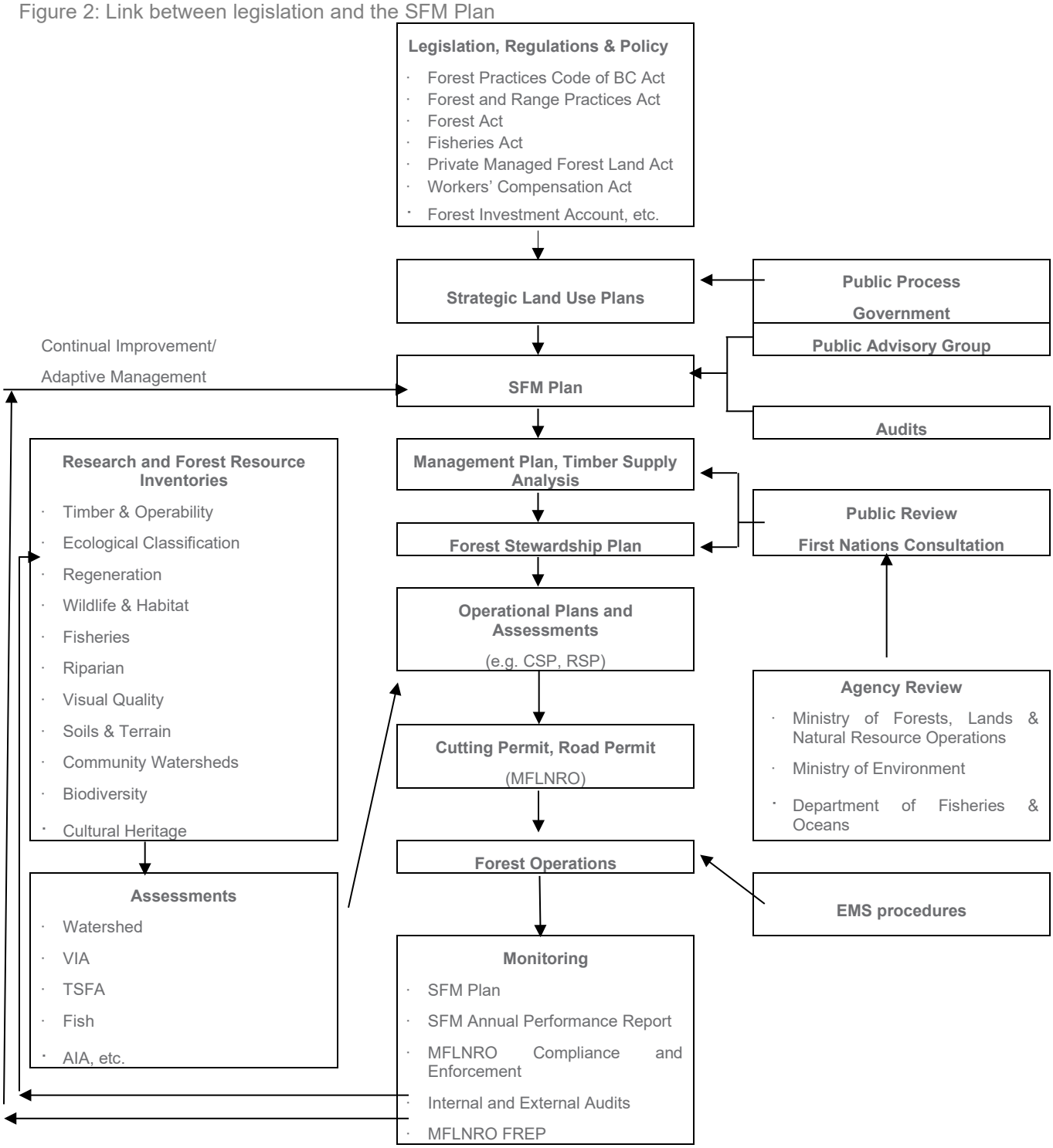


Figure 3: WFP North Island - CSA Defined Forest Area (DFA)

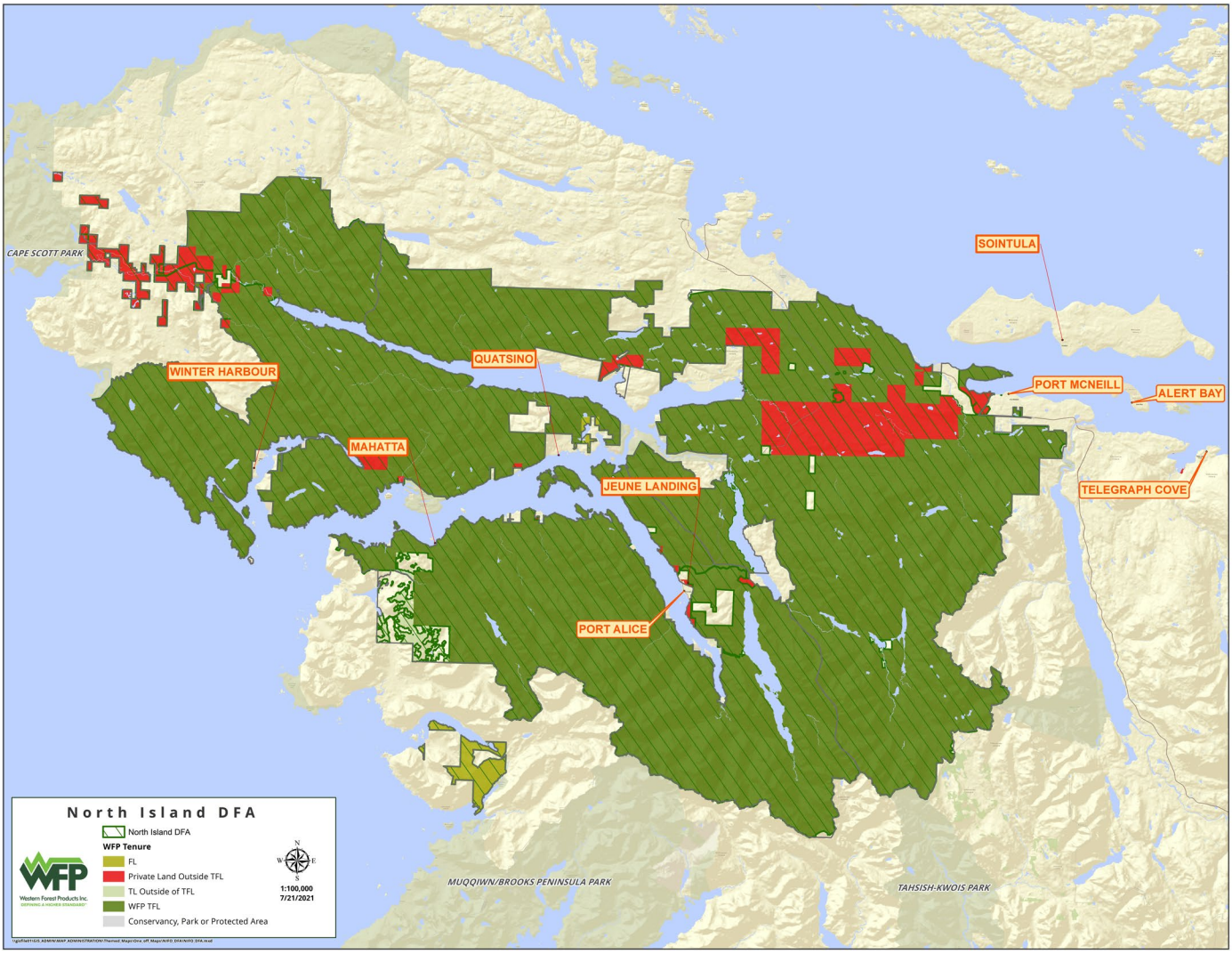


Table 1: Defined Forest Area Statistics (December 31st, 2020)

Tenure	Area* (ha)	WFP AAC (m^3)
TFL 6	218,170	1,350,422
MF 29, 31, 61	16,100	144,000[1]
FLA 94737	3,300	5,443
T0860	3,622	NA
Total	**241,192**	**1,499,865**

[1]: WFP harvest on Managed Forests is unregulated; the volumes listed are for information only.

* Note: The projection of the data is based on Albers. Albers is considered to provide more accurate areas (hectares) where UTM provides more accuracy in terms of shape and distance (i.e., mapping/navigation).

** Timber Licenses (TL's) include T0860. In previous Annual Reports, TL's T0216, T0592, T0632, T0830 and T0872 were included. T0592 expired in April 2020 and all that remains are some free growing obligations. T0216 & T0632 expired several years ago and all that remains are some free growing obligations. TL's T0830 & T0872 are not located in the DFA. These four TL's have been removed from the DFA. T0592 will be removed from the DFA.

SECTION 1: THE DEFINED FOREST AREA (DFA)

WFP'S PORT MCNEILL AND QUATSINO SOUND FOREST OPERATIONS

There are two WFP Forest Operations within the Defined Forest Area; Port McNeill Forest Operation and Quatsino Forest Operation (QSFO). QSFO contains the Holberg and Jeune Landing/Mahatta operating areas.

The Defined Forest Area (DFA) consists of Tree Farm License (TFL) 6, Managed Forests (MF) 29, 31 and 61 as well as other related Licences (see Figure 3). Effective January 2015, Block 4 of TFL 39 was amended into TFL 6 and all previous references to TFL 39 have been updated to reflect its inclusion into TFL 6. The DFA encompass approximately 241,000 hectares of managed forest land (Crown and private lands) with an annual harvest of approximately 1,499,865 m^3. Prior to the Bill 28 reduction in December 2004, the TFL 6 AAC was 1,446,758 m^3. As of the end of 2019, the TFL 6 AAC is 1,350,422 m^3. For more information on the Bill 28 "takeback", please refer to the 2009 SFMP.

There are seven north island communities within or adjacent to these tenures that depend mostly, or in part, on economic activities generated by these tenures. These include Port McNeill, Port Alice, Port Hardy, Holberg, Coal Harbour, Winter Harbour, and Quatsino.

WFP harvesting operations on the DFA are a major employment source for North Vancouver Island. Within the North Island, there is also economic activity derived from other sources, such as other licensees, aquaculture, commercial and recreational fishing and expanding tourism opportunities.

FORESTS OF THE DFA

The forests of the DFA lie within the wetter maritime Coastal Western Hemlock Biogeoclimatic zones. Annual precipitation levels reach 3,000 to 5,000mm. The climate is characterized by mild, wet winters with daily mean minimum temperatures of 0 to 2 degrees Celsius (December to February). Summers are generally cool and moist, with mean daily maximum temperatures of 18 to 20 degrees Celsius during July and August. However, local climates within the DFA can vary significantly due to topographic influences and the movement of low cloud and fog from offshore areas onto northern Vancouver Island. The dominant timber species is western hemlock, which occurs in conifer stands mixed with varying amounts of amabilis fir and western red cedar. Lesser amounts of Sitka spruce, yellow cedar, Douglas fir, red alder, lodgepole pine and mountain hemlock also occur.

The topography within the DFA is variable. Relatively low relief and undulating terrain characterizes the easterly and westerly sections of the DFA. The central and inland portions of the DFA are characterized as mountainous and steep. Numerous rivers and streams drain the area. Most streams support significant anadromous and resident fish populations. Large animals, such as Columbia black-tailed deer, cougar and black bear, are abundant throughout the DFA area. Numerous other large and small mammals, amphibians, fish and birds can also be found.

DESCRIPTION OF DFA TENURES AND LANDS

Tree Farm License 6: Tree Farm License 6 (TFL 6) is located on northern Vancouver Island in the vicinity of Quatsino Sound (see Figure 3). In 2006, 44,747 hectares of the Defined Forest Area in TFL 6 and FL A19240 was "taken back" under the Bill 28 Forest Revitalization Act. In January 2015, TFL 39-Block 4 was amended into TFL 6. TFL 39 Block 4 was located on the east side of northern Vancouver Island in the vicinity of Port McNeill in the Keogh and Marble Landscape Units. In 2006, TFL 39 Block 4, FL A19244, and various Timber Licences were added to the DFA, as a result of the Western Forest Products' acquisition of Cascadia Forest Products (See Figure 3).

Forest Licence A19244: This forest licence is in a number of small parcels located near Colony Lake, Kaikash Creek and Klaskish Inlet. In January 2017, this Forest License was re-allocated as FL A94737 as a result of the Great Bear Rainforest Forest Management Act.

Timber License T0860: This TL was added to the DFA in 2006, as a result of Western Forest Products' acquisition of Canadian Forest Products' Englewood Operation.

Forest License A19240: This licence was removed from the DFA after Bill 28 in 2005. The area is now managed by BC Timber Sales as part of the Pacific TSA. This area is now shown as "takeback" on the map.

Managed Forest 61: The lands managed in Managed Forest 61 (MF 61) consist of fifty-four parcels of private land forming an almost continuous block within the San Josef River drainage near Holberg on Northern Vancouver Island. The valley is fertile and provides good growing sites for western hemlock, western red cedar and Sitka spruce. These lands are regulated under the Private Managed Forest Land Act and Regulations.

Managed Forests 29 and 31: In 2007, private lands in Managed Forests 29 and 31 were removed from Tree Farm Licence 6 and became regulated under the BC Private Managed Forest Land Act and Regulations.

Other TL's not in DFA: Timber License T0632 (located near Klaskish) expired in 2009 and no longer considered part of the DFA. T0216 (located near Kaikash Creek) expired in 2012 and is no longer considered part of the DFA. Timber Licenses T0830 and T0872 are not located in the DFA, however they have been noted in previous Annual Reports. Several other Timber Licenses were sold to another licensee in 2010 and are no longer considered part of the DFA. T0592 expired in April 2020.

MANAGEMENT RESPONSIBILITIES IN THE DFA

TFL 6 and FL A94737 are renewable tenures on Provincial Crown land and administered by the Ministry of Forests, Lands and Natural Resource Operations and Rural Development (MFLNRORD) under the Forest Act. These tenures are managed by WFP in conjunction with the MFLNRORD, Ministry of Environment and other agencies. The primary roles and responsibilities are defined under a variety of legislation including, but not limited to, the Ministry of Forests Act, the Forest Act, and the Forest and Range Practices Act.

The timber licenses located outside of the TFLs are generally non-renewable licenses within the Kingcome Timber Supply Area. Managed Forests 29, 31 and 61 consist of fee simple private land owned and managed by WFP. Responsibilities are defined under a variety of legislation including the Private Managed Forest Land Act and Regulations and the Managed Forest Council. A Management Commitment for each of the MFs is maintained by WFP.

SHARED MANAGEMENT OR INDICATOR RESPONSIBILITIES

As the primary licensee in the DFA, WFP takes responsibility for the lead role in the undertaking to develop and implement the SFM System for the DFA. In the spirit of partnership building and the shared responsibility of all interested parties to take a role in sustainable forest management, WFP works with all interested parties in the planning and implementation of sustainable forest management on the DFA.

Where other parties are operating on the DFA (includes use of log dumps) that are not a part of this SFMP, timber harvested must be segregated from certified wood under this plan. This ensures that the Chain of Custody is maintained.

WFP CONTRACTORS

Contractors play a significant role in the implementation of the forest activities in the DFA. Contractors work in support of planning, and operational activities (includes road building and harvesting), which is an integral part of this plan. Work undertaken must comply with WFP's EMS and CSA certification requirements and is

overseen by WFP. It is their responsibility to ensure that they are working within the bounds of these systems, as well as within all legal framework (legislative and regulatory). In order to work on the DFA, all contractors, who may through their actions impact the environment significantly, must be aware of and understand the requirements of the EMS and CSA SFMP, and carry out their work, accordingly, taking all precautions to protect the environment.

Contractors must only hire employees that are competent and skilled in their role to fulfill their jobs. The contractors are responsible for supervision and direction of their employees in the implementation of forest activities and must ensure that they conform to EMS and CSA requirements. No work may take place unless it is planned and approved by WFP and must be authorized through a Pre-work meeting prior to works beginning. WFP will undertake monitoring and compliance inspections for review of contractor adherence to legislation, regulatory and certification requirements, as well as adherence to the approved plans they are following.

STAKEHOLDERS

WFP has an ongoing public involvement process, which has strengthened the creation and application of the SFM Plan. Public meetings, Public Advisory Group meetings, one-on-one communications with stakeholders have all contributed to sustainable forest management on the DFA. Although there are not any specific shared responsibilities between stakeholders and WFP, on-going input and communications serve to ensure that the shared use of the resources and economic opportunities are fair, reduce conflict and ensure the sustainable management of forest resources.

BC TIMBER SALES PROGRAM (BCTS)

The BCTS program (previously named the Small Business Forest Enterprise Program) consisted of 13,242 m^3 annually inside TFL 6. Following the Bill 28 take backs, this volume was incorporated into the take back area, and is no longer in TFL 6. As a result of the Nootka Island agreement, in 2001 WFP had the silviculture responsibility for about 70% of the remaining SBFEP cutblocks or 624 of the 892 SBFEP hectares. BCTS cutblocks within the WFP portion of TFLs were formerly reported in indicator data; however, when BCTS left the VINWAG table, their practices would not necessarily conform to WFP's obligations. These blocks are not formally removed from the DFA; however, as BCTS is not bound to WFP's CSA certification, indicator data will not be derived from any of their activities. In the future if WFP assumes silviculture liability for these lands, they will once again be included. Landscape level data derived from the TFL 6 Management Plan Timber Supply Analysis are already captured in SFM indicators.

TSL A66259

This First Nation licence within the TFL was proposed by WFP through a "First Nations Timber Access Committee" in the MoFR Region. A non-renewable License of 43,345 m^3 annually for 7 years was awarded from the Crown land portions of TFL 6. Timber Sale License (TSL) A66259 was awarded to three First Nations Bands with territories overlapping the DFA - Quatsino, Tlatlasikwala and Kwakiutl.

The TSL A66259 award was evaluated by the government on the basis of primary objectives of encouragement of participation of local communities including First Nations in the management of forest resources, and provision of employment and/or training opportunities. TSL A66259 was a "non-SBFEP" licence, but BCTS will be funding the silviculture obligations. As with BCTS' own blocks, WFP will not request SFM information for indicators from BCTS annually, as they are not obligated to conform to WFP's CSA management style.

The TSL has concluded and there is no further harvesting under it.

NRFL A87929

This Non-Replaceable Forest License (NRFL) was awarded to the Quatsino First Nation in late January 2013. NRFL A87929 has an AAC of 11,578 m^3/yr. and is for a term of 5 years. The NRFL is a volume-based license and covers those portions of TFL 6 which overlap the traditional territory of the Quatsino First Nation.

Silviculture obligations are funded by the license holder. WFP may be involved with the operational planning of cutblocks within this NRFL through the Quatern Joint-Venture relationship. However, WFP will not request SFM information for indicators, as the Quatsino First Nation are not obligated to conform to WFP's CSA management style.

FIRST NATIONS AND FIRST NATIONS TREATY PROCESS

The Province of BC, the Government of Canada and First Nations groups are currently in the process of negotiating treaties together. This treaty process is based on the blueprint set-out in the 1991 Report of the BC Claims Task Force and includes a six-stage treaty process which is intended to help negotiate fair and durable treaties. The goal of creating treaties is to resolve conflict over land ownership between the Crown and aboriginal peoples, and to create certainty of jurisdiction over land and resources.

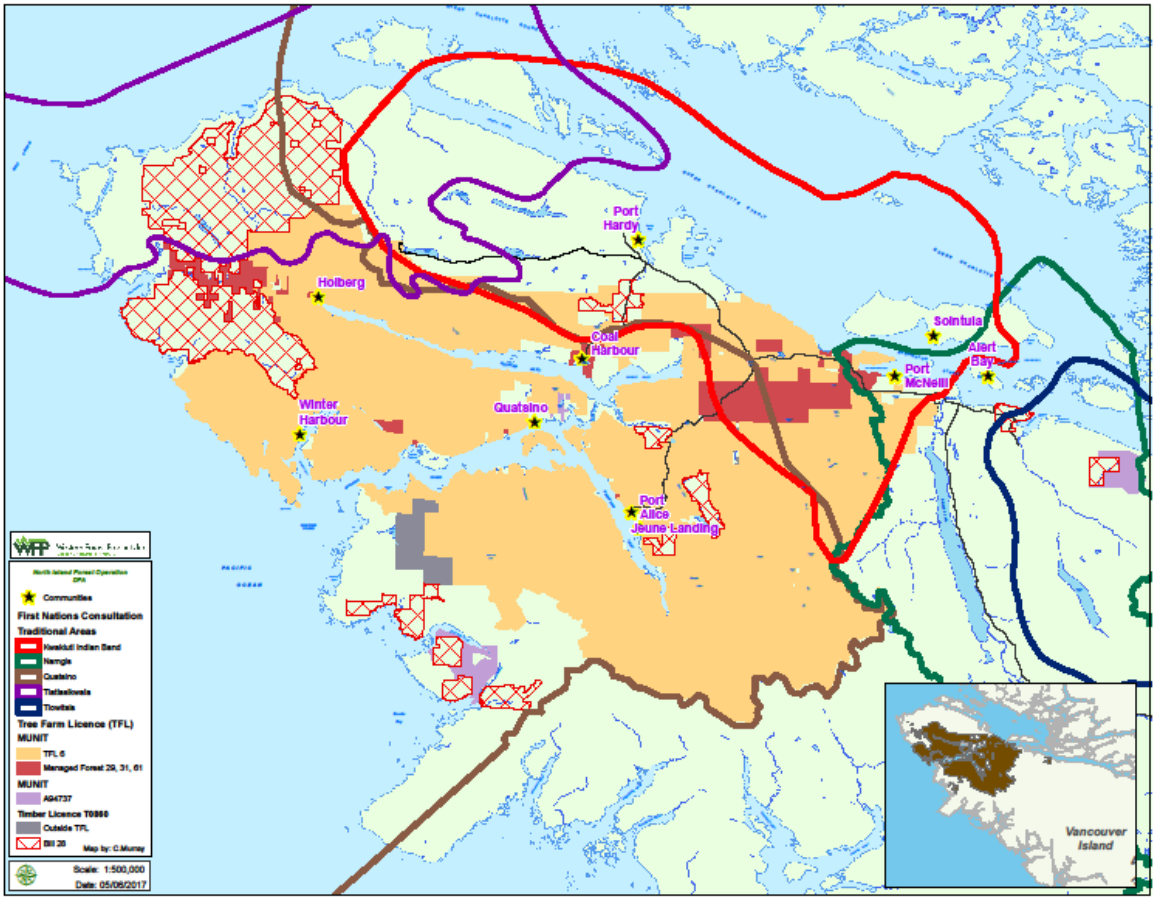
The six stages of BC Treaty negotiations under the BC Treaty Commission (BCTC) are as follows:

- Stage 1: Statement of Intent to Negotiate
- Stage 2: Readiness to Negotiate
- Stage 3: Negotiations of a Framework Agreement
- Stage 4: Negotiation of an Agreement in Principle
- Stage 5: Negotiation to Finalize a Treaty
- Stage 6: Implementation of a Treaty

The SFM Plan DFA falls within the traditional territories of the following First Nations:

- Quatsino First Nation
- Kwakiutl First Nation
- Tlowitsis First Nation
- Tlatlasikwala First Nation
- ‘Namgis First Nation

Figure 4: Map Showing Boundaries of Traditional Territories of First Nations within the DFA



Currently, four of the First Nations in the DFA are in Stage 4 of the treaty process: Negotiation of an Agreement in Principle. This is when the bulk of the negotiations take place. The goal is to reach an agreement on a variety of topics that will become part of the treaty. These may include interests in resources, structure and authority of government, relationship of laws, regulatory processes, dispute resolution, financial and fiscal matters, etc. This stage will also identify how the treaty will be implemented. Table 2 shows in detail the treaty status of each First Nation.

Table 2: Treaty status of First Nations on the DFA (updated December 31st, 2020)

Nation	Treaty Status Description
Kwakiutl	Not negotiating in the BC Treaty Process
Quatsino	At stage 4 Agreement In Principle stage negotiations.
Tlatlasikwala	At stage 4 AIP stage negotiations.
Tlowitsis	At stage 4 AIP stage negotiations.
‘Namgis	At stage 4 AIP stage negotiations.

MANAGEMENT REVIEW

A management review of the SFM requirements is completed annually by the PMFO and QSFO management teams to ensure that progress towards SFM continues to be suitable, adequate and effective. This review looks at all aspects of the Sustainable Forest Management process including the SFM Plan, the public participation process, findings of audits (internal and external), corrective and preventative actions, etc.

The management review verified that the sustainable forest management plan is being implemented and the sustainable forest management process is functioning well on the DFA. Significant effort and commitment have been made to the sustainable forest management process by PMFO and QSFO and this is reflected in the annual indicator performance review of the SFM Plan.

SECTION 2: ACRONYMS USED IN THIS DOCUMENT

AAC	Allowable Annual Cut
BEC	Biogeoclimatic Ecosystem Classification
BEO	Biodiversity Emphasis Option
BMP	Best Management Practices
CCFM	Canadian Council of Forest Ministers
CoC	Chain of Custody
COSEWIC	Committee on the Status of Endangered Wildlife in Canada
CSA	Canadian Standards Association
CWAP	Coastal Watershed Assessment Procedure
DFA	Defined Forest Area
EBM	Ecosystem Based Management
EMS	Environmental Management System
EMZ	Enhanced Management Zone
FA	Forest Act
FDP	Forest Development Plan
FIA	Forest Investment Account
FNIEG	First Nations Information Exchange Group
FPC	Forest Practices Code
FPPR	Forest Practices and Procedures Regulation
FRBC	Forest Renewal British Columbia
FRPA	Forest Range and Practices Act
FSP	Forest Stewardship Plan
GAR	Government Actions Regulation
GMZ	General Management Zone
GIS	Geographic Information System
GMO	Genetically modified organism
HCV	High Conservation Value
ILMB	Integrated Land Management Bureau
ISO	International Organization for Standardization
LU	Landscape Unit

MoE	Ministry of Environment (formerly MoELP, MWLAP)
MF	Managed Forest
MLNRORD	BC Ministry of Forests, Lands, Natural Resource Operations and Rural Development (previously MoF, FLNRO)
NPP	Net primary production
OGMA	Old Growth Management Area
PAG	Public Advisory Group
PEFC	Program for endorsement of forest certification schemes
VINWAG	Vancouver Island North Woodlands Advisory Group
NSR	Not Satisfactorily Restocked
NTFP	Non-Timber Forest Product
NTU	Nephelometric Turbidity Unit
PFLA	Private Forest Land Act
RMZ	Riparian Management Zone
RRZ	Riparian Reserve Zone
SARA	Species at Risk Act
SFM	Sustainable Forest Management
SMZ	Special Management Zone
SP	Silviculture Prescription or Site Plan
SCC	Standards Council of Canada
TFL	Tree Farm License
WFP	Western Forest Products
UWR	Ungulate Winter Range
WHA	Wildlife Habitat Area
WTP / WTRA	Wildlife Tree Patch / Wildlife Tree Retention Area

GLOSSARY OF TERMS

Aboriginal: “Aboriginal peoples of Canada’ [which] includes Indian, Inuit and Métis peoples of Canada” (Constitution Act 1982, section 35(2))

Aboriginal Right: “in order to be an Aboriginal right an activity must be an element of a practice, custom, or tradition (or an element thereof) integral to the distinctive culture of an Aboriginal group claiming that right.” [*R. v. Van der Peet*, 1996]

Aboriginal Title: “…is a right to the land itself, is a collective right to the land held by all members of an Aboriginal organization. …encompasses the right to use the land pursuant to that title for a variety of purposes, which need not be aspects of those Aboriginal practices, cultures and traditions which are integral to the distinctive Aboriginal cultures.” [*Delgamuukw v. British Columbia, 1997]*

Aboriginal treaty rights “...are those contained in official agreements between the Crown and the native peoples”. [*R. v. Badger* 1996]

Accreditation: the procedure by which the Standards Council of Canada (SCC) gives formal recognition that a registrar (certifier) is deemed competent to conduct specific tasks.

Accreditation body: authoritative body that performs accreditation. Note: The authority of an accreditation body is generally derived from government [ISO/IEC 17000]

Adaptive Management: a learning approach to management that recognizes substantial uncertainties in managing forests and incorporates into decisions experience gained from the results of previous actions.

Allowable Annual Cut (AAC): the allowable rate of timber harvest from a specified area of land. The Chief Forester of British Columbia sets the AAC for woodlots, timber supply areas (TSAs) and tree farm licenses (TFLs) in accordance with section 8 of the Forest Act.

At-risk species: see Species at-risk

Auditor: a person qualified to undertake audits. Note: for SFM registration audit, auditors are qualified according to the requirements set out in CAN-P-14B and CAN-P-1518.

Biogeoclimatic Ecosystem Classification (BEC): developed in BC in 1965, the BEC System classifies areas of similar regional climate, expected climax plant communities and site factors such as soil moisture and soil nutrients. The subzone is the basic unit of this classification system. Within subzones, variants further identify more local climatic factors.

Biogeoclimatic zone: a geographic area having similar patterns of energy flow, vegetation, and soils as a result of a broadly homogenous macroclimate.

Biogeoclimatic variant: see Biogeoclimatic Ecosystem Classification.

Biodiversity (Biological Diversity): “the variability among living organisms from all sources, including their inter alia, terrestrial, marine and other aquatic ecosystems and the ecological processes which they are part; this includes diversity within species, between species and ecosystems” (Environment Canada, Canadian Biodiversity Strategy).

Biomass: the total amount (mass) of living matter in a given ecosystem, population, or sample. Note: *In the context of sustainable forest management, biomass usually refers to plant matter*.

Blue-listed: refers to plants, animals, and plant communities assessed by the BC Conservation Data Center or COSEWIC to be vulnerable.

CAN/CSA-ISO 14001: an internationally recognized environmental management system standard revised in 2004 by the International Organization for Standardization. Note**:** *CAN/CSA-ISO 14001 has been approved as a National Standard of Canada by the Standards Council of Canada.*

Clearcut: a silviculture system that removes the entire stand of trees in a single harvesting operation from an area that is one hectare or greater and at least two tree heights in width. In addition, the silviculture system is designed to manage the area as an even-aged stand. (Forest Practices Code of BC, Operational and Site Planning Regulation).

Certification: the result of a successful certification process in conformance with this Standard, whereby the certification body issues a certification certificate and adds the organization's certification to a publicly available list maintained by the certification body. Note**:** *Certification of a management system is sometimes also called registration.*

Canadian Standards Association (CSA) Standard: refers to CSA Z809-02, a National Standard for Canada for a SFM System. It describes the components and performance objectives of a SFM system that when applied to a DFA will ensure that forest management objectives are set for the critical elements of the CCFM SFM criteria.

Certificate of Registration (Registration Certificate): the official document issued by a registrar to an organization upon successful completion of the registration process, including the registration audit.

Certification/Registration: the result of a successful registration audit to the CSA standard, whereby the registrar issues a certificate of registration and adds the organization's registration to a publicly available list maintained by the registrar. The certification process is described in Annex A of the Z809-02 Standard.

Certification applicant: an organization that has applied to an accredited certification body for certification to this Standard.

Certification audit: a systematic and documented verification process used to obtain and evaluate evidence objectively in order to determine whether an organization meets the SFM requirements of this Standard.

Certification body: an independent third party that is accredited as being competent to certify organizations with respect to nationally and internationally recognized standards.

Certification certificate: the official document issued by a certification body to an organization upon successful completion of the certification process (including the certification audit). Certifier (Registrar): an independent third party that is accredited by the SCC as being competent to register organizations with respect to nationally and internationally recognized standards.

Chief Forester: the assistant deputy minister of the deputy minister of the Ministry of Forests who is responsible for determining allowable annual cuts (AACs)

Coarse woody debris: all large deadwood in various stages of decomposition. Note: Coarse woody debris includes standing dead trees, fallen wood, stumps, and roots.

Coastal Watershed Assessment Procedure (CWAP): assesses the impacts of forest practices on the hydrologic regime of a watershed. In particular, the potential for changes to peak stream flows, accelerated landslide activity, accelerated surface erosion, channel bank erosion and changes to channel morphology as a result of logging the riparian vegetation, and changes to the stream channel interaction from all these processes are assessed.

Complaint: an expression of dissatisfaction, other than an appeal, by any person or organization to a certification body or an accreditation body related to the activities of that body, where a response is expected. Note: In Canada, the accreditation body for certification bodies conducting audits to this Standard is the Standards Council of Canada.

Compliance: the conduct or results of activities in accordance with legal requirements.

Conformance: meeting non-legal requirements such as policies, work instructions or standards (including the CSA standard).

Continual Improvement: the ongoing process of enhancing SFM performance using

(a) experience

(b) assessment of results

(c) the incorporation of new knowledge in line with the organization's SFM policy; and

(d) the application of SFM requirements.

Corrective Action: action to eliminate the cause of a detected nonconformity or other undesirable situation. Note: there can be more than one cause for a non-conformity. Corrective action is taken to prevent recurrence, whereas preventative action is taken to prevent occurrence.

Cutblock: is an area within which an agreement holder is authorized to harvest timber as identified within a cutting permit or within the agreement itself (if the agreement does not authorize cutting permits). (Forest and Range Practices Act, Forest Planning and Practices Regulation).

Cutting Permit (CP): authorizes harvesting on a cutblock. CPs are granted by the MFLNRO upon application by licensees. Licensees must also obtain road permits before they can construct roads to access cutblocks. Once the permits are issued, a licensee may then proceed with forest development (i.e., road construction, logging operations). If a site plan is to be prepared, CPs can be applied for prior to completion of the site plan, however, harvesting and road operations must not commence until a site plan has been completed.

Cultural Heritage Resource (CHR): an object, a site or the location of a traditional societal practice that is of historical, cultural, or archaeological significance to the province, a community, or an Aboriginal people. Cultural heritage resources include archaeological sites, structural features, heritage landscape features and traditional use sites.

Defined Forest Area (DFA): a specific area of forest, including land and water (regardless of ownership or tenure) to which the requirements of the CSA standard apply. The DFA may or may not consist of one or more contiguous blocks or parcels.

Deforestation: "clearing an area of forest for another long-term use (The State of Canada's Forests 2001/2002).

DFA-related worker: any individual employed by the organization to work for wages or a salary who does not have a significant or substantial share of the ownership in the employer's organization and does not function as a manager of the organization.

District Manager: the manager of a Forest Service district office, with responsibilities as outlined in the Forest Act, Ministry of Forests Act, Range Act, Forest Practices Code of British Columbia Act and Forest and Range Practices Act.

Ecological Cycles: refers to the major nutrient cycles (i.e., carbon and nitrogen) and the hydrological cycle.

Ecosystem: a dynamic complex of plants, animals, and micro-organisms in their non-living environment, interacting as a functioning unit. Note: "the term ecosystem can describe small-scale units, such as a drop of water, as well as large-scale units, such as the biosphere" (Environment Canada, Canadian Biodiversity Strategy).

Ecosystem Based Management (EBM): approach to natural resource management that combines ecological, social and economic considerations toward achieving the goal of sustaining natural resources.

Element: the subcategory used to define the scope of each SFM criterion. Note: Each SFM criterion contains several elements. The SFM elements were derived from the national-scale elements developed by the CCFM for more specific local applications.

Environment: the surroundings in which an organization operates, including air, water, land, natural resources, flora, fauna, humans, and the interrelations of these elements.

Environmentally Sensitive Area (ESA): area requiring special management attention to protect important scenic values, fish and wildlife resources, historical and cultural values, or other natural systems or processes. ESAs include unstable soils that may deteriorate unacceptably after harvesting, and areas of high value to non-timber resources such as fisheries, wildlife, water, and recreation.

Environmental Management System (EMS): a structured system for identifying and ranking the environmental risk associated with management activities; creating and implementing control methods to manage that risk; monitoring and assessing performance; and taking corrective action to address deficiencies under a continual improvement program.

Fish habitat “spawning grounds and nursery, rearing, food supply, and migration areas on which fish depend directly or indirectly to carry out their life processes”. [Fisheries Act, 1985]

Focal species: species that warrant special conservation attention and are thus used to guide the management of ecosystems to conserve biodiversity. Note: Criteria for the selection of focal species can include ecological, socio-cultural, scientific, and economic considerations.

Forecast: An explicit statement of the expected future condition of an indicator.

Forest: an ecosystem dominated by trees and other woody vegetation growing more or less closely together, its related flora and fauna, and the values attributed to it.

Forest Condition: the state of the forest ecosystem as determined by a range of variables associated with forest structure, composition and processes.

Forest Development Plan (FDP): an FDP was an operational plan under the Forest Practices Code of BC that provided the public and government agencies with information about the location and scheduling of proposed roads and cutblocks for harvesting timber over a period of at least five years.

Forestland: land supporting forest growth or capable of doing so, or, if totally lacking forest growth, bearing evidence of former forest growth and now in disuse.

Forest License (FL): a renewable tenure to harvest a volume apportioned within a Timber Supply Area. Tenure term is up to 20 years. Chart areas define operating areas.

Forest Practices Code (FPC): the `Forest Practices Code’ is a term commonly used to refer to the former Forest Practices Code of British Columbia Act, the regulations made by Cabinet under the act and the standards established by the chief forester. The term may sometimes be used to refer to the guidebooks as well.

Forest Stewardship Plan (FSP): a FSP is an operational plan under the Forest and Range Practices Act, which addresses the 11 FRPA objectives. It is approved by the Minister of Forests and Range. The FSP allows for delineation of Forest Development Units (FDUs) that demonstrate areas of future forest operations, and the results and strategies that apply.

Forest and Range Practices Act (FRPA): the Act and regulations introduced Jan. 31, 2004. Any activities already approved under the existing Forest Practices Code may continue and are governed by the Forest Practices Code of British Columbia Act and its regulations. After Dec. 31, 2005, all planning and on-the-groundwork must comply with the Forest and Range Practices Act and regulations.

Free Growing (free to grow): a stand of healthy trees of ecologically suitable, commercially valuable species, the growth of which is not impeded by competition from plants, shrubs, or other trees. Silviculture regulations and stocking standards define the criteria (e.g., species, density, and size) that a regenerating forest must meet to be declared free growing.

Genetically modified organism (GMO) an organism that, through human intervention in a laboratory, has had its genome or genetic code deliberately altered through the mechanical insertion of a specific identified sequence of genetic coding material (generally DNA) that has been either manufactured or physically excised from the genome of another organism. Note: Genetic modification can be used to alter a wide range of traits, including insect and disease resistance, herbicide tolerance, tissue composition, and growth rate (adapted from Alberta Forest Genetic Resources Council statement).

Guidebook: guidebooks were one of the four components of the Forest Practices Code. Guidebooks consist of guidelines and recommendations intended to help users exercise their professional judgement in developing site-specific management strategies and prescriptions designed to accommodate resource management objectives. Guidebooks constitute part of the “non-legal” realm of FRPA, and MFR Guidebooks can be used, or other guidance developed using appropriate expertise.

Higher Level Plan: some of the objectives for forest resources in a strategic land use plan can be “declared” as a legal requirement under the Government Actions Regulation (GAR).

Identified Wildlife: Identified Wildlife are species at risk that have been designated by the Chief Forester (MFLRNORD) and Deputy Minister (MoE) as requiring special management attention during forest and range operational planning or higher-level planning.

Identified Wildlife Management Strategy (IWMS): Its goal is to preserve elements of biodiversity that are not addressed through other components of the FPC. For the most part these are threatened and endangered species (i.e., Vancouver Island Marmots) or plant communities (i.e., Douglas-fir / Garry Oak - onion grass). The Identified Wildlife Management Strategy provides foresters and ranchers with best management practices for managing habitats for these species and plant communities. The management practices must be followed within areas set aside for a particular species or plant community. These areas are called "wildlife habitat areas" and are officially designated under the Government Actions Regulation (GAR).

Independent (impartial): free from bias. Note: a registrar is not considered independent (impartial) if, in the two years preceding an audit, it or any of its personnel, subcontractors or relate bodies provided or have provided assistance or consulting services to the organization being audited and, as a result of the audit, certified (see definition of Related body).

Indicator: a variable that measures or describes the state or condition of a value.

Inoperable: forested areas that are expected to be unsuited for commercial timber production due to high elevation, rugged topography, inaccessible location, low timber value, small average timber size, steep or unstable soils, protection of the environment, or difficulty to reforest. Areas designated as parks, wilderness areas, or other uses incompatible with timber harvest are included in many definitions.

Interested Party: an individual or organization interested in and affected by the activities of the management and DFA.

Invasive alien species: plants, animals, or micro-organisms that have been introduced by human action outside their natural past or present distribution, and whose introduction or spread threatens the environment, the economy, or society, including human health. [CFIA, 2006]

ISO 14001: an internationally recognized environmental management system standard published in 1996 by the International Organization for Standardization. The ISO 14001 Standard has been approved as a National Standard of Canada by the Standards Council of Canada.

Landing: an area modified as a place to accumulate logs before they are transported.

Landscape level: a watershed, or series of interacting watersheds or other natural ecological units. This term is used for conservation planning and is not associated with visual landscape management.

Landscape unit: a planning area, designated by a district manager under the FPC, delineated on the basis of geographic and/or ecological features such as watersheds. Once a district manager establishes a landscape unit, the district manager must also establish objectives. Typically, they cover a watershed or series of watersheds, and range in size from 5000 to 100,000 ha.

Long-Term: in the context of making forecasts of forest structure and composition, at a minimum, twice the average life expectancy of the predominant trees in a DFA, up to a maximum of three hundred years.

Managed Forest (MF): forest land that is being managed under a forest management plan. North Island's MF 29, 31 and 61 are areas of privately owned land designated for commercial forestry.

Management Plan (MP): TFL management plans usually cover a period of five years and specify proposed management to establish, tend, protect, and harvest timber resources and to conserve other resource values. MPs include inventories of the forest, recreation, fisheries, wildlife, range, and cultural heritage resources in the tree farm License area. They include a timber supply analysis that analyzes the short term and long-term availability of timber for harvesting in the tree farm License area, including the impact of management practices on the availability of forest values.

Mature forest: generally, stands of timber where the age of the leading species is greater than the specified cutting age. Cutting ages are established to meet forest management objectives. In the Port McNeill SFM Plan, mature is defined as forest areas established before 1864 and includes old growth.

Migratory bird: the sperm, eggs, embryos, tissue cultures, and other parts of a migratory bird as defined in the Migratory Birds Convention Act, 1994.

Native species: a species that occurs naturally in an area; a species that is not introduced.

Non-Timber Forest Products (NTFPs): all forest products except timber, including other materials obtained from trees such as resins and leaves, as well as any other plant and animal products.

Not Satisfactorily Restocked (NSR): productive forest land that has been denuded and has not yet been regenerated to the specified stocking standards for the site.

Objective: a broad statement describing a desired future state or condition of a value.

Old growth: a forest that contains live and dead trees of diverse sizes, species, composition, and age class structure. Old-growth forests, as part of a slowly changing but dynamic ecosystem, include climax forests but not sub-climax or mid-seral forests. The age and structure of old growth varies significantly by forest type and from one biogeoclimatic zone to another. As a rough measure, forests on the BC Coast that are aged 250 years or older and exhibit few or no signs of human intervention are generally termed old growth. (See also second growth and mature.)

Old-growth Management Area (OGMA): an area established under a higher-level plan that contains or is managed to replace specific structural old-growth attributes and which are mapped out and treated as special management areas.

Opening: usually used synonymously with cutblock (see above) to include all of an area that has been harvested or is designated for harvesting, including the trees retained singly or in groups within the area. Less often, used to describe the actual cleared area(s) within a cutblock.

Organization: a company, corporation, firm, enterprise, authority, or combination thereof, whether incorporate or not, public or private, that has its own functions and administration and that, for the purpose of the CSA

standard, applies for certification. Note: for organizations with more than one operating unit (for example, a division), a single operating unit may be defined as an organization.

Permanent Access Structure: a built structure, including a road, bridge, landing, gravel pit, etc.

Personnel: management, contractors and DFA-related workers employed by the organization.

Plantation: a forest area that does not follow natural succession patterns due to reforestation involving high-intensity silviculture practices. Notes: (1) Plantations are highly managed treed areas with few natural characteristics; they are generally managed for a single purpose. (2) Not all areas subjected to intensive silvicultural treatments are plantations.

Preventative Action: action to eliminate the cause of a potential non-conformity or other undesirable. Note: There can be more hat one cause for a potential non-conformity. Preventative action is taken to prevent occurrence whereas corrective action to take to prevent recurrence.

Private Woodlot Owner: an individual, or group of individuals, who privately own forestland. For the purposes of the CSA standard, private woodlots are those recognized as “woodlots” by the woodlot owner association in each province.

Productive Forest: forest land that is capable of producing a merchantable stand of timber within a defined period of time.

Productivity: the natural ability of a forest ecosystem to capture energy, support life forms and produce goods and services.

Protected area: an area of land and/or sea specifically dedicated to the protection and maintenance of biological diversity and of natural and associated cultural resources and managed through legal or other effective means. [IUCN, 1994]

Protected Area Strategy (PAS): a BC strategy to develop and expand the provincial protected area system. This includes representative examples of natural diversity, and special, natural, recreational, or cultural heritage features.

Red-listed: refers to plants, animals and plant communities assessed by the BC Conservation Data Centre or COSEWIC to be extirpated, endangered, or threatened.

Reforestation: re-establishment of trees on forested land following natural (e.g., fire) or human (e.g., timber harvest) disturbance, by natural or artificial (e.g., planting) means.

Regional Land Use Plans (RLUP): the regional land use plan (RLUP) is a strategic land use plan that defines land and resource values and provides goals for these values at a regional level. It provides a strategy to maintain and/or protect these values by establishing land-use categories, which define the type of resource management that will occur there. The Vancouver Island Land Use Plan is an example.

Registrar/Certifier: an independent third party that is accredited by the SCC as being competent to register organizations with respect to nationally and internationally recognized standards.

Registration Applicant: an organization that has applied to an accredited registrar for certification to the CSA standard.

Registration Audit: a systematic and documented verification process used to obtain and evaluate evidence objectively in order to determine whether the organization meets the SFM requirements set out in the CSA standard.

Registration/Certification: the result of a successful registration audit to the CSA standard, whereby the registrar issues a certificate of registration and adds the organization’s registration to a publicly available list maintained by the registrar. The certification process is described in Annex A of the Z809-02 Standard.

Related Body: a body linked to the registrar/certifier by common ownership or directors, contractual arrangement, a common name, informal understanding, or other means such that the related body has a vested interest in the outcome of an audit or has the potential ability to influence the outcome of an audit.

Reserve Zones: zones where timber harvesting is not permitted.

Riparian: an area of land adjacent to a stream, river, lake or wetland that contains vegetation that, due to the presence of water, is distinctly different from the vegetation of adjacent upland areas.

Riparian Management Zone (RMZ): an area of a width adjacent to streams or Riparian Reserve Zones in which management objectives for riparian or habitat attributes are considered. The width of these zones is determined by attributes and classification of streams, wetlands or lakes, and adjacent terrestrial ecosystems.

Riparian Reserve Zone (RRZ): an area of a width adjacent to streams in which harvest is restricted by regulation. The width of these zones is determined by attributes and classification of streams, wetlands or lakes, and adjacent terrestrial ecosystems.

Sensitive Soils: forest land areas that have a high to very high hazard (coastal forests) for soil compaction, erosion, or displacement.

Seral stage: an identifiable stage of vegetative recovery following a disturbance. Note: Disturbances include fire, blowdown, and timber harvest.

SFM Performance: the assessable results of SFM as measured by the level of achievement of the targets set for the DFA.

SFM Policy: a statement by the organization of intentions and principles in relation to SFM, which provides a framework for objectives, targets, practices, and actions.

SFM Requirements: the public participation, performance, and system requirements found in Clauses 4-7 of the CSA standard.

SFM System: the structure, responsibilities, practices, procedures, processes, and time frames set by a registrar for implementing, maintaining and improving SFM.

Short-term Operational Plans: annual or five-year plans.

Silviculture: the art and science of controlling the establishment, growth, composition, health and quality of forests and woodlands. Silviculture entails the manipulation of forest and woodland vegetation in stands and on landscapes to meet the diverse needs and values of landowners and society on a sustainable basis.

Silviculture Prescription: a site-specific operational plan (under FPC) that describes the forest management objectives for harvesting and reforestation.

Silvicultural system: a planned program of treatments throughout the life of the stand to achieve defined objectives. A silviculture system includes harvesting, regeneration and stand tending. It covers all activities for the entire length of a rotation or cutting cycle. In BC this includes eight major categories: clearcut, clearcut with reserves, patch-cut, coppice, seed tree, shelterwood, retention and selection.

Site Plan (SP): a site-specific operational plan (under FPC or FRPA) that replaces the Silviculture Prescription. Content requirements are specified in regulation. Site Plans under the FPC are similar in content to the Silviculture Prescription. Site Plans under FRPA are designed to be more “results based” by describing how the results and strategies specified within the FSP apply to the site rather than specifying the results and strategies within the document itself.

Snag: A large, standing dead tree.

Special Management Zone (SMZ): an area under a strategic land use plan, where special management is needed to address sensitive values such as fish and wildlife habitat, visual quality, recreation, tourism and cultural heritage features. The management intent of SMZs is to maintain these values while allowing some level of compatible resource extractive use and development.

Species at-risk: the species considered "at risk" by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC) are listed in five categories: Special Concern, Threatened, Endangered, Extirpated, and Extinct. These include, but are not limited to, Red and Blue listed species. Species at risk are found within the schedules of the federal Species at Risk Act.

Species At Risk Act (SARA): legislation introduced in order to protect species within Canada identified as “Species at Risk” under SARA.

Standard: a document established by consensus and approved by a recognized body which provides, for common and repeated use, rules, guidelines or specifications for activities or their results, aimed at the achievement of the optimum degree of consistency in a given context. Note: standards should be based on the consolidated findings of science, technology and experience and should be aimed at the promotion of optimum community benefits.

Stand level: level of forest management at which a relatively homogenous (usually small) land unit can be managed under a single prescription, or a set of treatments, to meet well-defined objectives.

Strategy: a coordinated action set designed to meet established targets.

Strategic Land Use Plans: a plan at the regional, sub-regional, and, in some cases, at the local level, which results in land use allocation and/or resource management direction. Strategic land use planning at the regional and sub-regional level involves the preparation of resource management zones, objectives, and strategies. Portions of these strategic plans may become designated as higher-level plans under the FPC, if they meet set criteria.

Sustainable Forest Management (SFM): management to maintain and enhance the long-term health of forest ecosystems, while providing ecological, economic, social, and cultural opportunities for the benefit of present and future generations.

Sustainable Forest Management Performance: the assessable results of SFM as measured by the achievement or lack thereof of established objectives for a defined forest area.

Sustainable harvest level: the harvest level of forest products that, with consideration for ecological, economic, social, and cultural factors, leads to no significant reduction of the forest ecosystem’s capacity to support the same harvest level in perpetuity.

Target: a specific statement describing a desired future state or condition of an indicator. Targets should be clearly defined, time limited and quantified if possible.

Tenure: the terms under which a forest manager or owner possesses the rights and assumes the responsibilities to use, harvest or manage one or more forest resources in a specified forest area for a specified period of time. Note: private ownership of forestland is the strongest form of tenure as the rights and obligations rest solely with the forest owner. Forest tenures on public land in Canada fall into two main categories: area-based and volume-based. Area-based tenures not only confer timber harvest rights but also usually oblige the tenure holder to assume forest management responsibilities. Volume-based tenures normally give the holder the right to harvest specific volumes of timber in areas specified by the landowner or manager but can also oblige holders to assume forest management responsibilities.

Timber Supply Analysis: an assessment of future timber supplies over long planning horizons by using timber supply models for different scenarios identified in the planning process. Timber supply analyses forecast the long-term effects of management options on timber and forest values availability.

Timber supply area (TSA): an integrated resource management unit established in accordance with section 6 of the Forest Act.

Top Management: persons with decision-making authority regarding SFM policy, resource allocation and planning within the DFA.

Total Resource Plan: a plan for long-term use of the forest development that guides resource use, such as logging, road building and recreation activities, over an entire area (such as a watershed); and that describes how approved objectives for identified resource values will be achieved on the ground.

Tree Farm License (TFL): privately managed sustained yield units. TFLs are designed to enable owners of Crown-granted forestlands and old temporary tenures or the timber Licenses, which replace them; to combine these with enough unencumbered Crown land to form self-contained sustained yield management units. These Licenses commit the licensee to manage the entire area under the general supervision of the MoFR. Cutting from all lands requires MoFR approval through the issuance of cutting permits or road permits. TFLs should not be confused with Tree Farms under the Taxation Act, though some Tree Farm land (Crown-granted) may comprise a part of the TFL. A TFL is renewable and has a term of 25 years.

Value: a DFA characteristic, component or quality considered by an interested party to be important in relation to a CSA element or other locally identified element.

Visual Quality Objective (VQO): an approved resource management objective that reflects a desired level of visual quality based on the physical and sociological characteristics of the area; refers to the degree of acceptable human alteration to the characteristic landscape.

Watershed: the total land area from which water drains into a particular stream or river. [Hubbard et al., 1998]

Wildlife Habitat Areas (WHA): designated areas of land and water that support specific wildlife or groups of wildlife.

Wildlife Tree: a standing live or dead tree with particular values, such as old-growth characteristics, tree size or structure, which provide or recruit valuable habitat for the conservation or enhancement of wildlife.

Wildlife Tree Patch (WTP) / Wildlife Tree Retention Area (WTRA): wildlife trees retained in or around cutblocks to achieve stand level biodiversity strategies.

Windthrow: trees uprooted as a result of wind events.

Yarding: in logging, the hauling of felled timber to the landing or temporary storage site from where trucks (usually) transport it to the mill site. Yarding methods include cable yarding, ground skidding, and aerial methods such as helicopter yarding.

SECTION 3: SFM CRITERIA, VALUES, OBJECTIVES, INDICATORS & TARGETS (VOIT'S) AND ANNUAL PERFORMANCE REPORTING

This section of the SFM Plan describes PMFO and QSFO SFM Values, Objectives, Indicators and Targets. As appropriate, an Acceptable Variance is provided for the near-term performance level of each Target and a forecasted future condition is provided for each Indicator. The section is organized according to the Criteria for Sustainable Forest Management, which was developed by the Canadian Council of Forest Ministers and adapted for the Canadian Standards Association's Sustainable Forest Management standard (CAN/CSA-Z809-16).

As further explanation of the organization of this section:

The **Criteria** (e.g., below: 1.0 Conservation of Biological Diversity) and **Critical Elements** (e.g., 1.1 Ecosystem diversity) and their accompanying statements are derived from *Defining Sustainable Forest Management: A Canadian Approach to Criteria and Indicators* (Canadian Council of Forest Ministers, Ottawa, 1995).

The subsidiary **Values**, **Objectives, Indicators, Targets**, **Acceptable Variances** and **Forecasts** were developed for this plan during discussions among VINWAG and FNIEG members, PMFO & QSFO staff and other Western Forest Products staff.

As used in this plan:

Values are DFA characteristics, components, or qualities considered by the advisory groups to be important in relation to a CSA SFM element or other locally identified element.

Objectives are broad statements describing a desired future state or condition of a value.

Indicators are variables that measure or describe the state or condition of a value.

Targets are specific statements describing a desired future state of condition of an indicator. Where possible, targets are clearly defined, time-limited and quantified.

Acceptable Variances specify the range of performance results (+ and/or – relative to the Target) that is deemed to be an acceptable outcome. A result outside this range does not always indicate unacceptable performance. (For example, it could reflect: the impact of an uncontrollable event, such as a natural disaster; the fact that the Target was based on poor quality or inadequate data; or the effects of a responsible choice between two competing Objectives.) A result outside the Acceptable Variance range does, however, require review, assessment and, possibly, a revision of either the objective, target or management practices.

Forecasts are explicit statements of the expected future condition of an indicator.

Legal References are provided where they exist.

PERFORMANCE REPORTING

On an annual basis, the SFM Plan will be updated to include performance reporting information in order to facilitate review of the actual outcomes of each indicator. Most indicators, (but not all) are reported on an annual basis from January 1 – December 31. The monitoring report (Data Set) is completed by PMFO and QSFO Management and presented for review to VINWAG each year. WFP maintains a matrix which assigns the responsibilities of each indicator to key staff.

Annual internal audits will also evaluate the quality, validity, and meaningfulness of the locally determined indicators and all of the targets.

SUMMARY OF RESULTS

For 2021, WFP PMFO and QSFO were in conformance with the target or the respective permitted variance for 46 of the 59 Indicator targets . The following Indicator targets were determined to be in non-conformance with both the target and variance:

Indicator	Comments
3.1.1 Target 2 *Slides seeded and/or planted*	There were at least 4 slide events that were discovered on the DFA in 2021. One of these events was grass seeded in 2021. The other events are scheduled for assessment and/or treatment in 2022. As per the Indicator target, there are two years from the date the slide occurred (or the date the slide as discovered, of the initiation date is unknown) to complete grass seeding or planting treatment or to write the slide off as not requiring treatment.
3.2.1 Target 1 *Proportion of Watershed with Recent Stand-replacing Disturbance*	The target and variance were not met for this Indicator. A risk-based approach was used to implement grass seeding in 2021. The approach focused on grass seeding areas with the greatest potential to generate sediment where exposed fine-textured soils may be susceptible to erosion or transport. Grass seeding need is assessed on a block by block/road by road basis. Upon site visits, some areas had revegetated sufficiently naturally and therefore did not require grass seeding. In other areas, only coarse non-erodible materials were present not requiring grass seeding. There were 61.5 km of new road construction and 7.8 km of road re-construction on the DFA in 2021.
3.2.2 Target 1 *Proportion of Forest Management Activities Consistent with Prescriptions to Protect Identified Water Features*	Overall, the target and the variance were not met. There were 85 cutblocks on the DFA that were harvest complete in 2021; 78 of these had streams within or adjacent to the boundary and 7 did not. A total of 73 of the 78 cutblocks had some level of riparian retention designated. The TFL Foresters have raised the importance with their Planning teams of designating stand level retention that is anchored on existing riparian areas.
5.2.3 *Level of Direct and Indirect Employment*	The target and variance were not met in 2021. The Quatsino Sound Forest Operation did not work a full year in 2021 due to a lack of road and harvesting approvals. Some of the crew were absorbed in other Operations, including Port McNeill. In the last 10 years, the target was met 4 times, the variance was met 2 times, and neither were met 4 times.
5.2.7 Target 1 *Educational Outreach*	Target and variance were not met. This was due to the continuing COVID-19 pandemic. Results for 2022 will likely be improved owing to a loosening of pandemic restrictions.

6.1.3 Target 1 & 2 *Availability of Information on Issues of Concern to the Public*	Target and variance were not met. Neither the SFM Plan nor the TFL 6 FSP were advertised in 2021.

For 2021 Annual Report results, refer to:

https://vinwag.squarespace.com/reports-and-results

SUMMARY OF CHANGES

The current SFM Plan is designed to meet the requirements of the current CSA Z809-16 Standard and replaces all previous versions.

Since the last Annual Report, minor editorial changes were completed.

INDICATOR 1.1.1 ECOSYSTEM AREA BY TYPE

Element: 1.1 Ecosystem diversity *Conserve ecosystem diversity at the stand and landscape levels by maintaining the variety of communities and ecosystems that naturally occur in the DFA.*				
Value	**Objective**	**Indicator**	**Target**	**Variance**
Older seral stages of each ecosystem types	Older seral stages of each ecosystem types found on the DFA are maintained	1.1.1 Ecosystem area by type	There is more than 50% of each ecosystem type (biogeoclimatic variant) in the productive forest area of the DFA within the mid to old seral stages at any time.	-5% (i.e., 45%) for up to 10 years.

HISTORY

This is a Core Indicator from the Z809-16 Standard. The target was created in 2010 to support the Core Indicator in the Z809-08 SFM Plan.

JUSTIFICATION

For many species, if the habitat is suitable, populations will be maintained. Two key characteristics of forest ecosystems are the community types, as driven largely by the species composition of the overstory, and community seral stages, as driven by succession and disturbance processes. These factors are strong predictors of the biotic communities that will inhabit both forest stands and the entire forest landscape.

The 50% level for ecosystem area by type and seral stage provides reasonable assurance that there is adequate representation of each existing ecosystem types in their older age stages being maintained and replaced at all times on the DFA.

The variance is meant to help account for age class distribution imbalance that might develop or exist due to historical activity and / or land use decisions.

CURRENT STATUS & INTERPRETATION

At the end of 2021, the distribution of ecosystem area by type for each seral stage on the North Island DFA was as follows:

BEC Unit	Seral stage	Hectares	%	% In Mid to Old Seral stage
CWHvh1	Early	6,918	33%	67%
	Mid	2,793	13%	
	Mature	7,190	34%	
	Old	4,082	19%	
CWHvm1	Early	60,060	39%	61%
	Mid	51,837	34%	
	Mature	23,665	15%	
	Old	18,356	12%	
CWHvm2	Early	8,379	33%	67%
	Mid	4,291	17%	
	Mature	3,880	15%	
	Old	9,175	36%	
MHmm1	Early	685	19%	81%
	Mid	99	3%	
	Mature	594	17%	
	Old	2,220	62%	

PERFORMANCE

2021 Results: The target was met for 2021. At the end of 2021, more than 50% of the area of each ecosystem type (i.e., BEC Unit) found on the DFA was in the mid to older seral stages. The ecosystem type where the margin is the smallest is the CWHvm1 where 61% is in the mid to older seral stages. The CWHvm1 is the most abundant and most productive type on the DFA. In 2020, the definition of productive and non-productive forests was modified. As such, some areas that were classified as productive in the 2019 results have now flipped and are defined as non-productive in the 2020 forest cover. This would explain the changes in area for mature seral stages for all the ecosystem types.

STRATEGIES & IMPLEMENTATION

Government mandated reserves serve as foundation blocks that ensure representative pieces of ecosystem types in the older seral stages are preserved for the long term in various types of reserves. They include:

- Ungulate Winter Ranges
- Marble Murrelet Areas
- Old Growth Management Areas
- Riparian Reserves
- Wildlife Tree Patches requirements

Additionally, a key supporting company strategy for maintaining elements of the current forest is the *Western Forest Strategy* which describes the use of retention silviculture systems throughout Western's tenures. The strategy was 100% implemented in 2010. It provides target level of retention based on biological and other factors.

A second element of the strategy for this value is also prompt and effective reforestation or regeneration of harvested areas that aims to establish free growing stands of healthy trees of mixed species in sufficient numbers and within set time frames. In this way, harvested areas can be recruited to the mid to older seral stages in the shortest time frame possible.

FORECASTS

It is expected that the target will continue to be met based on the experience of the last decade when it has been gradually more difficult to economically harvest the full extent of the AAC and that states of undercut have been prevalent. Considering also that just over 1% of the DFA forest land base is harvested annually, the natural progression of stands from the Early seral stage to the Mid seral stage should be sufficient to achieve and maintain the target. A key assumption is that no major event will occur (e.g. very large wildfire, catastrophic wind throw event) that would dramatically alter the current seral class distribution within the DFA. Adjustments to areas will likely occur each time the forest cover is analyzed due to minor discrepancies in GIS datasets.

DETAILS/ DATA SET

The biogeoclimatic zone (BGC) variants are used as the basis for defining ecosystem types. This is consistent with the Vancouver Island Land Use Plan and with TFL Management Plans approved by the province.

Forest cover data is maintained in GIS layers along with ecosystem information. The intercept of the ecosystem types with the forest inventory information is then grouped by seral stages defined based on age as follows:

Seral Stage	Definition
Early	0 to <40
Mid	40 to 80 (40 to 120 in MH)
Mature	81 to 250 (121 to 250 in MH)
Old	>250

The licenses included are TFL 6, MF 29, MF 31, and MF 61.

MONITORING

Corporate GIS will compile the data for this Indicator and provide it to the TFL Forester for incorporation into the SFM Plan Annual Report. To monitor performance on this indicator, a number of parameters must be monitored or maintained for the DFA:

- The ecosystem profile of the harvested areas based on their location.
- Forest inventory over time (adjusted for age, for annual harvested area and for roads constructed)

The distribution of seral stages for each ecosystem types on the DFA is determined through a GIS exercise. The primary means to maintain the inventory is through the entry of activity information in CENFOR by the Timberlands Operations. For stands not in CENFOR, their age is corrected manually.

INDICATOR 1.1.2 FOREST AREA BY SPECIES COMPOSITION

Element: 1.1. Ecosystem diversity *Conserve ecosystem diversity at the stand and landscape levels by maintaining the variety of communities and ecosystems that naturally occur in the DFA*				
Value	**Objective**	**Indicator**	**Target**	**Variance**
The species composition of the forest on the DFA	The overall species composition of the productive forest on the DFA remains stable over time.	1.1.2 Forest area by species composition.	The forest area (ha) by species composition remains within 2% of the baseline on a 5-years basis.	-1% (i.e., up to 3%) for up to 10 years.

HISTORY

This is a Core Indicator from the Z809-16 Standard. The target was created in 2010 to support the Core Indicator in the Z809-08 SFM Plan.

JUSTIFICATION

For many species, if the habitat is suitable, populations will be maintained. Two key characteristics of forest ecosystems are the community types, as driven largely by the species composition of the overstory, and community seral stages, as driven by succession and disturbance processes. These factors are strong predictors of the biotic communities that will inhabit both forest stands and the entire forest landscape.

Maintaining a stable species composition over time helps ensure species are not displaced through management activities. The 2% deviation from the baseline provides for the temporary species shift that can occur in the early stage of stand establishment and development.

The variance is meant to help account for temporary deviations engendered by operational focus on certain markets as well as possible reforestation failures due to browsing pressures or forest health issues.

Climate change may come to affect this target in the long term.

CURRENT STATUS & INTERPRETATION

At the end of 2020, the baseline distribution of forest stands by leading species on the DFA was as follows:

Leading Species	2015 Baseline	2016	2017	2018	2019	2020	2021	5 yr. avg.	% Difference (5 yr. avg.)
Western Hemlock	66.3%	66.8%	67.4%	67.1%	66.2%	67.0%	**67.2%**	**66.9%**	0.6%
Western Red Cedar	19.7%	19.9%	20.1%	20.6%	20.8%	21.0%	**20.9%**	**20.6%**	0.9%
Amabilis Fir	3.1%	2.7%	2.5%	3.0%	3.0%	3.0%	**3.1%**	**2.9%**	-0.2%
Red Alder	2.2%	2.0%	2.0%	2.1%	2.1%	2.0%	**2.2%**	**2.0%**	-0.2%
Sitka Spruce	1.8%	2.0%	1.9%	1.9%	1.9%	2.0%	**1.9%**	**1.9%**	0.1%
Douglas-fir	1.6%	1.8%	1.7%	1.8%	2.0%	2.0%	**2.0%**	**1.9%**	0.3%
Yellow Cedar	4.1%	3.2%	3.1%	2.9%	3.3%	2.0%	**2.2%**	**2.8%**	-1.3%
Misc. & NSR	1.1%	1.7%	1.3%	0.6%	0.7%	1.0%	**0.5%**	**0.9%**	-0.2%

PERFORMANCE

2021 Results: Based on the five-year average for all leading species, the target was met for 2021. The minor differences in the species % of the years is primarily due to more precise analysis of the forest cover, slight revisions to tenure boundaries and actual changes in the forest inventory from harvesting and road building. In 2020, the definition of productive and non-productive forests was modified. As such, some areas that were classified as productive in the 2019 results have now flipped and are defined as non-productive in the 2020 forest cover.

STRATEGIES & IMPLEMENTATION

The main strategy for ensuring a stable overall species composition on the DFA is:

- Prompt and effective reforestation or regeneration of harvested areas with species of trees ecologically suited to the site only.

This is in effect a legal requirement that is met through a combination of natural regeneration and planting of seedlings specifically matched to the site ecology.

In areas where browsing pressures are high, physical protection of seedlings may be required. However, in some extreme cases, this measure may not be successful, and a species shift may result on a specific site.

FORECASTS

Because natural species shift, or drift is very slow it is not likely a factor unless climate was to change so drastically in the short term (i.e., <100 yrs.) as to cause species dieback.

Assuming there is no change in the existing policy to reforest harvested sites with ecologically suited species, the target is expected to be met as tree species that may be preferred for harvesting programs are also promoted in planting programs.

DETAILS/ DATA SET

The forest cover data for the productive forest of the DFA is organized by stands of more or less homogeneous composition and age. The stand descriptors or labels include species composition organized hierarchically by species representation in the stand. Stands can be grouped based on the leading species as follows:

- Amabilis Fir
- Douglas-fir
- Red Alder
- Sitka Spruce
- Western Red Cedar
- Western Hemlock
- Yellow Cypress
- Shore Pine

The total area of the stands with the same leading species is then tallied. Stands not yet reforested or with their composition not yet confirmed are grouped as NSR.

MONITORING

To monitor performance on this indicator, the parameter that must be monitored or maintained for the DFA is forest inventory over time (adjusted annual harvested area and reforestation information). The area of the stands on the DFA grouped by their leading species is determined through a GIS exercise.

The primary means to maintain the inventory is through the entry of activity information (e.g., stocking survey results and free-growing assessment results) in CENFOR by the Timberlands Operations. The forest inventories are updated with this information on a periodical basis. Corporate GIS will compile the data for this Indicator and provide it to the TFL Forester for incorporation into the SFM Plan Annual Report.

INDICATOR 1.1.3 FOREST AREA BY AGE CLASS

Element: 1.1. Ecosystem diversity *Conserve ecosystem diversity at the stand and landscape levels by maintaining the variety of communities and ecosystems that naturally occur in the DFA*				
Value	**Objective**	**Indicator**	**Target**	**Variance**
The distribution of age classes on the DFA	Older age classes on the DFA are maintained	1.1.3 Forest area by age class	The percent of the productive forest area (ha) in the older age classes (81 to 250+) is at least 25% of the DFA forest area (on a five-year basis).	-5% (i.e., down to 20%) for up to 10 years.

HISTORY

This is a Core Indicator from the Z809-16 Standard. The target was created in 2010 to support the Core Indicator in the Z809-08 SFM Plan.

JUSTIFICATION

For many species, if the habitat is suitable, populations will be maintained. Two key characteristics of forest ecosystems are the community types, as driven largely by the species composition of the overstory, and community seral stages, as driven by succession and disturbance processes. These factors are strong predictors of the biotic communities that will inhabit both forest stands and the entire forest landscape. Older age classes are often the most difficult to manage, primarily because they require much time to develop. However, they are often host to unique communities that would not otherwise be present across the forest landscape.

Maintaining a quarter of the forest in older age classes (81 + years) serve to ensure representation of these most unique communities are preserved.

The variance is meant to help account for age class distribution imbalance that might develop or exist due to historical activity and / or land use decisions.

CURRENT STATUS & INTERPRETATION

At the end of 2021, the distribution of productive forest area by age class for the North Island DFA was as follows:

Age Class	2015		2020		2021	
	Ha	%	Ha	%	Ha	%
0 - < 40	81,548	38%	76,591	37%	76,185	37%
40 - 80	49,584	23%	58,554	28%	59,180	29%
81 - 120	11,539	5%	10,192	5%	10,053	5%
121 - > 250	70,769	33%	60,165	29%	60,179	29%

PERFORMANCE

2021 Results: The target was met for 2021, whereby 34% of the productive area of the DFA was in the older age classes (i.e., >80 years). In 2020, the definition of productive and non-productive forests was modified. As such, some areas that were classified as productive in the 2019 results have now flipped and are defined as non-productive in the 2020 forest cover. This would explain the area changes from 2019 to 2020.

STRATEGIES & IMPLEMENTATION

A basic piece of the strategy is to protect part of the older age classes. This is done primarily for species habitat reasons (See Core Indicators 1.2.1 & 1.2.2) and accomplished through processes such as those that identify and designate Ungulate Winter Ranges (UWR) and Wildlife Habitat Areas (WHA).

Additionally, a significant area of the DFA referred to as the Non-Contributing Land Base (NCLB) is not operable for physical and economic reasons and also contributes to the protection of older age classes.

Over time, currently young stands in the NCLB will add to the current supply of older age classes (see Core Indicator 1.2.2). Such recruitment is also occurring for protected habitat areas.

Another key supporting company strategy for maintaining elements of the current forest is the *Western Forest Strategy* which describes the use of retention silviculture systems throughout Western's tenures. The strategy provides target level of retention based on biological and other factors.

Finally, harvesting with the regulated level and the prompt reforestation strategy help contribute to the continuous supply of operating age classes.

FORECASTS

The Timber Supply Analysis done for TFL 6 Management Plan 10 contains projections of age class distributions to the year 2259. These projections were made using a spatial harvest model called Complan 3.0. The data indicates that at year 2259, nearly 35% of the productive forest would be in age class 5 and older (>/= 81 years old) with the majority (2/3) in the old growth age class 9. These results would indicate that the target should continue to be met in the long term under current management approaches.

DETAILS/DATA SET

The age classes used match those of the seral stages. Forest cover data is maintained in GIS layers and includes stand age information current to a given year. A manual exercise is applied to update the age of stands to the reporting year and to account for harvesting activities when necessary.

The total area of stands in the same age class is then tallied. The licenses included are TFL 6, MF 29, MF 31 and MF 61.

MONITORING

To monitor performance on this indicator, the parameter that must be monitored or maintained for the DFA is:

- Forest inventory over time (adjusted annual harvested area)

The area of the stands on the DFA grouped by their age class is determined through a GIS exercise.

The primary means to maintain the inventory is through the entry of activity information in CENFOR by the Timberlands Operations. The forest inventories are updated with this information on a periodical basis. Corporate GIS will compile the data for this Indicator and provide it to the TFL Forester for incorporation into the SFM Plan Annual Report.

INDICATOR 1.1.4 DEGREE OF WITHIN-STAND STRUCTURAL RETENTION

Element: 1.1. Ecosystem diversity *Conserve ecosystem diversity at the stand and landscape levels by maintaining the variety of communities and ecosystems that naturally occur in the DFA*				
Value	**Objective**	**Indicator**	**Target**	**Variance**
The variety of structure at the stand level	A portion of the existing stand structure is retained	1.1.4 The degree of within-stand structural retention.	The retention silviculture system is represented across the DFA according to the targets listed in the Western Forest Strategy; based on a 5-year running average.	≤ 10% of the target for each VILUP, Ecosection and BEC subzone group

HISTORY

This is a Core Indicator from the Z809-16 Standard. The target was created in 2010 to support the Core Indicator in the Z809-08 SFM Plan. This was previously Indicator # 3.1 in the Z809-02 SFM Plan but was adjusted to better align with the Western Forest Strategy. The results of this indicator are also used to support Indicator 3.1.2 which deals with conservation of soil resources by retention of coarse woody debris. The variance for this Indicator was revised downwards (from 25% to 10%) based on feedback from the 2020 External Audit.

JUSTIFICATION

Forest ecosystems and species have evolved in response to changes in climate and different natural disturbances at various scales. To achieve conservation of biological diversity, the basic theoretical premise is that species are adapted to historic local conditions. In coastal B.C., windthrow, insects, disease, infrequent fire and landslides create forests with an abundance of dispersed residual structure (e.g., live and dead standing trees in varying patterns) from the pre-disturbance stand. Our approach is to use scientific knowledge of historical development and habitat as a guide to sustain productive and diverse forest ecosystems. We recognize the resilience of ecosystems and multiple pathways and patterns that can occur within the limits of ecosystem processes; therefore, we do not believe it is necessary to 'mimic' natural disturbances. Our strategy assumes that both stand level retention and landscape level reserves are necessary for maintaining a supply of coarse woody debris over time across the landscape. Neither approach alone is likely to be as effective or efficient.

Coastal B.C. has a diversity of forest ecosystems and species; therefore, forest management practices must vary in response to that diversity. No single harvesting or silvicultural system is appropriate everywhere. Clear-cut, seed tree, retention, shelterwood and selection systems are all ecologically appropriate in the right context. A mixture of systems will achieve a range of patch sizes and structures within stands and landscapes.

Utilization of a retention silviculture system also ensures that there is a short- and long-term supply of coarse woody debris which helps to maintain soil productivity. Western Forest Products' goals for cutblocks using the Retention System are:

- To design and implement the retention system in a safe and cost-effective manner.
- To leave a biological legacy of attributes from mature and old forests, well distributed within stands and landscapes, to maintain and promote biological diversity within the company's public tenures.

- To design cutblocks to maintain forest influence on the majority of the harvested area throughout the rotation.
- To ensure that cutblocks meet the principles of forest stewardship (i.e., prescriptions to address silviculture, forest health, site productivity, visual aesthetics and other values).

The variance is meant to permit operational flexibility in light of weather, market and other conditions and to allow for harvesting of cutblocks approved prior to the implementation of the Western Forest Strategy.

CURRENT STATUS & INTERPRETATION

At the end of 2021, the retention system was represented across the DFA as follows:

Western Forest Stewardship Zone (WFS Zone)	WFP Retention System Targets	5 Year (2017-2021) Rolling Average %
Enhanced Basic	≥50	49%
Enhanced Windy	≥30	28%
General Basic	≥60	55%
General Windy	≥40	60%
Special	≥90	96%

PERFORMANCE

2021 Results: Based on the 5-year rolling average, the target values (percent representation of retention systems across WFS Zones) were achieved in the General Windy and Special Zones. The variance values were achieved in the Enhanced Basic, Enhanced Windy and the General Basic Zones. The targets are derived from the Western Forest Strategy, which has been fully implemented since 2010. The Strategy was revised in 2019 when private land was included in the reporting criteria. During 2021, a significant number of cutblocks were revised/retrofitted so as to meet the requirements of Western Forest Strategy. The variance for this indicator was revised downwards in 2020, based on feedback from the 2020 External Audit.

STRATEGIES & IMPLEMENTATION

Management strategies are described in the Western Forest Strategy document by Bill Beese, MF, RPF, Final Implementation Version approved July 24th, 2007, and Retention System Implementation Standards June 2008. The term retention system refers to a silvicultural system designed to meet the goals of the variable retention approach. It was originally defined in the B.C. Operational Planning Regulation (March 1999) and has three requirements: 1) retention of trees distributed across the cutblock; 2) trees are left for the long term (at least one rotation); 3) distribution of leave trees achieve >50% "forest influence". The specific definition of the retention system is:

"*A silvicultural system that is designed to:*

a. *retain individual trees or groups of trees to maintain structural diversity over the area of the cutblock for at least one rotation; and*
b. *leave more than half the total area of the cutblock within one tree height from the base of a tree of group of trees, whether or not the tree or group of trees is inside the cutblock."*

A Working Group exists and meets periodically to discuss ongoing implementation and possible changes to the Western Forest Strategy. One concern raised is the impact of windthrow on in-block retention. An Adaptive

Management program is being worked on; it will describe what has been learned in the last decade and outline a 5-year plan for variable retention research and monitoring.

FORECASTS

The next Timber Supply Analysis for TFL 6 will include an analysis of the effect of implementing the Western Forest Strategy and will quantify the level of retention on the DFA.

From similar analysis completed on other forests, it is anticipated that the Western Forest Strategy contributes to the retention of over 3% more of the existing stands than would be retained due to legal or operational parameters only. Based on monitoring, the Working Group is discussing whether changes to the retention level targets are required for some of the windier VILUP Zones / Eco-section combinations. Any changes to the Strategy would require a recommendation from the Working Group and approval by WFP management.

DETAILS/ DATA SET

The following table presents the Retention System targets. The targets are taken directly from the Western Forest Strategy.

Retention System Targets			
WFS Zone	**WFP Operation**	**Min. Retention Target**	**% Retention System**
Enhanced Basic	Port McNeill	15%	50%
Enhanced Windy	Holberg, Jeune Landing, Port McNeill	15%	30%
General Basic	Jeune Landing, Port McNeill	20%	60%
General Windy	Jeune Landing, Port McNeill	20%	40%
Special	Holberg, Jeune Landing	25%	90%

Retention – must remain for at least one rotation.
VILUP – Vancouver Island Land Use Plan (came into effect December 1st, 2000).
Eco section – areas with minor physiographic and climatic differences.
BEC – Biogeoclimatic Ecosystem Classification system; provides for a multi scale classification framework.

MONITORING

The detailed monitoring and reporting procedures will be used in reporting this indicator as described in the Western Forest Strategy document and the associated Retention System Implementation Standards documents. The total area assigned as retention system must meet or exceed the percent targets by the Western Forest Stewardship Zone. A spreadsheet is used to track harvest area assigned as retention system for each cutblock relative to the harvest area. Details on cutblock silviculture systems are also tracked in CENFOR. This data is summarized annually and included in the SFM Plan Annual Report.

The TFL Forester with assistance from the Manager, Operations Planning will ensure that data is compiled, and performance reported, in the SFM Plan Annual Report.

INDICATOR 1.2.1 DEGREE OF HABITAT PROTECTION FOR FOCAL SPECIES

Element: 1.2 Species Diversity

Conserve species diversity by ensuring that habitats for the native species found in the DFA are maintained through time, including habitats for known occurrences of species at risk.

Value	Objective	Indicator	Target	Variance
Habitat for selected focal species, including species at risk	Maintain or increase habitat for selected focal species, including species at risk	1.2.1 Degree of habitat protection for selected focal species, including species at risk.	The amounts (in ha) of habitat protected for selected focal species remains the same or increases year after year. Selected focal species are Marbled Murrelet, Northern Goshawk, Black-tailed deer and Roosevelt elk.	Decrease by 1%.

HISTORY

This is a Core Indicator from the Z809-16 Standard. The target was created in 2010 to support the Core Indicator in the Z809-08 SFM Plan.

JUSTIFICATION

“Habitat, in terms of both quantity and quality, is a key component of the health of species and animal populations” (CSA Sustainable Forest Management, 2008). Forest management can have both positive and negative effects for wildlife and their habitat. It is important to ensure forest habitat necessary to the survival of species is available for use in the short-term and long-term. Habitat reserved for focal species also contributes to the habitat needs of many other wildlife species.

Ungulate winter ranges are areas identified as critical to the survival of local populations of ungulates during severe winters. On Vancouver Island, black-tailed deer and Roosevelt elk need areas with suitable forest and topographical features that are able to provide shelter, forage and snow interception. Roosevelt elk are on the BC provincial blue-list and have a BC Conservation Framework Priority 2 (BC Species and Ecosystems Explorer, 2010) as well as having local and cultural importance. Black-tailed deer are not considered a species of concern but have local importance for food, economic opportunity, and recreation.

Marbled murrelets are small seabirds that nest inland with a majority of nests being found on large boughs high in old conifers up to 30 km inland. Much work has been done along the coast to identify and rank suitable nesting habitat for marbled murrelets. Marbled murrelets are listed as Threatened on Schedule 1 of the Federal Species at Risk Act (SARA), provincially blue-listed, listed on the Forest and Range Practices Act (FRPA) Category of Species at Risk and considered Identified Wildlife, and have a BC Conservation Framework Priority of 1 (BC Species and Ecosystems Explorer, 2010). Identified Wildlife are considered to be sensitive to habitat alteration associated with forest and range practices and are considered to be at risk (endangered, threatened, vulnerable or regionally important).

Northern Goshawks are a relatively large forest dwelling hawk. They need a closed canopy forest with an open understory for nesting and foraging. The coastal subspecies is listed as Threatened on SARA Schedule 1, provincially red-listed, listed on the Forest and Range Practices Act (FRPA) Category of Species at Risk and are considered Identified Wildlife, and have a Conservation Priority of 1.

The variance is meant to help account for fluctuation due to spatial issues (e.g., map base or scale) and natural disturbance factors.

CURRENT STATUS & INTERPRETATION

Habitat Type	Measure	Baseline Hectares		2021 (ha)			Difference (%)	
		Legal	Voluntary	Legal	Proposed	Voluntary	Legal	Voluntary
Ungulate Winter Range (UWR)	Spatially delineated ungulate winter range.	2,366	0	**2,376**	**0**	**0**	**0.4%**	**0.0%**
Marbled Murrelet Nesting Habitat	Moderate to Very High ranked habitat from the low-level aerial inventory in WHA, UWR, OGMA.	1,908	0	**3,076**	**2,064**	**8**	**38.0%**	**0.0%**
Goshawk Nesting Habitat	Area reserved around known nests (WHA, other).	157	28	**157**	**700**	**408**	**0.0%**	**0.0%**

PERFORMANCE

2021 Results: The target was met for 2021.

There was a decrease of 6ha in the proposed and 5ha in the voluntary Marbled Murrelet nesting habitat. This was likely due to minor changes to the areas of current Legal Reserves and the Non-Contributing Land base arising from revisions and/or updates to the Forest Cover. There was a 35ha decrease in the proposed Goshawk nesting habitat. This was likely due to revisions to proposed boundaries and/or updates to the Forest Cover.

STRATEGIES & IMPLEMENTATION

- To spatially designate and legally establish Wildlife Habitat Areas and Old Growth Habitat Areas. WFP has a mix of legally established and proposed areas. The intent is to move proposed areas through the process to become legally established.
- When it is necessary to build roads through or harvest adjacent to one of these reserves, WFP attempts to minimize the impact and provides replacement habitat of similar quality, if necessary.
- Species at Risk training is delivered to the operations to aid staff in identifying and working around Species at Risk.
- Northern Goshawk Management Protocol has been developed to guide operations managing forest activities around nests.

When other habitat is encountered that is actively used by a focal species including a species at risk, the site undergoes evaluation for potential candidacy as a permanent reserve.

FORECASTS

As more reserves such as WHAs, UWRs and OGMAs become legally established the habitat conserved for focal species is expected to increase over the short-term.

DETAILS/ DATA SET

Ungulate Winter Ranges have been legally established for all tenures within the DFA. Ungulate Winter Range may also be available through other reserve areas (WHA, OGMA) but has not been spatially delineated as such. A total of 477 ha for TFL 39-Block 4 (now TFL 6) has been delineated (referred to as U-1-006) and 1,873 ha for TFL 6 (referred to as U-1-010) were spatially established in November 2004. Another 16 ha were established within the DFA from the Kingcome Order (U-1-011). The indicator is measured as the total area spatially delineated and conserved for ungulate winter range. This area must meet or exceed the target of 2,366 ha. Amendments to UWRs in 2014 added 4.4 ha of suitable habitat.

Marbled Murrelet nesting habitat has been delineated within the DFA. Potentially suitable habitat was modelled and further assessed and ranked by low-level aerial surveys in 2005 and 2006. The surveys followed provincial standards ranking the habitat nil to very high quality. Habitat ranked moderate to very high is considered “suitable” habitat. In the short-term suitable habitat is protected in a variety of reserves. Some reserves, wildlife habitat areas, have been specifically delineated for marbled murrelets. Other species’ Wildlife Habitat Areas and Ungulate Winter Ranges may incidentally encompass suitable nesting habitat. Old Growth Management Areas (OGMA) are currently being delineated as part of the Landscape Unit Planning process. As of December 2011, two landscape units within the DFA, the San Josef landscape unit and the Marble landscape unit, have legally established OGMAs. The other landscape units have spatially defined proposed OGMAs. Direction has been given by government to consider marbled Murrelet nesting habitat when delineating OGMAs. This indicator is a measure of the amount of inventoried suitable nesting habitat reserved within the DFA. The amount should be consistent or increase from the current state and not be less than 1,908 ha. The 2016 area is the result of amendments and adjustments adding more suitable habitat. This includes amendments to established OGMAs which added some more suitable habitat.

Goshawk nesting habitat mapping is not available at this time. For the current process, the amount of goshawk habitat is based solely on areas that will not be harvested due to the presence of goshawk nests. There are currently eight known or likely nest territories within the DFA, six of these were found between 2011 and 2014. One was formally established in December 2005 as a 157 ha WHA while the others have been voluntarily conserved by WFP. This indicator is a measure of the amount of habitat reserved around known nests. The amount should be consistent or increase from the current state and not be less than 157 ha. Some of the leave areas were redesigned in 2016, slightly increasing the hectares in voluntary leave areas.

MONITORING

- Reserves and leave areas are mapped spatially in a layer of the GIS. Changes in boundaries are tracked by Corporate Forestry biologists.
- All habitat supply will be monitored spatially relative to the target every year.
- Nests are documented when they are located, and appropriate management strategies are developed within site-level plans.
- Known nests will be monitored for activity when forest management activities are planned nearby.

INDICATOR 1.2.2 DEGREE OF SUITABLE HABITAT IN THE LONG TERM FOR FOCAL SPECIES

Element: 1.2 Species Diversity *Conserve species diversity by ensuring that habitats for the native species found in the DFA are maintained through time, including habitats for known occurrences of species at risk.*				
Value	**Objective**	**Indicator**	**Target**	**Variance**
Availability of suitable habitat for selected focal species, including species at risk	To ensure the long-term availability of habitat for selected focal species including species at risk.	1.2.2 Degree of suitable habitat in the long term for selected focal species, including species at risk.	The amount (in ha) of potentially suitable habitat available within WHA, UWR, OGMA and NCLB remains the same or increases over time. The selected focal species are Marbled Murrelet, Black-tailed deer & Roosevelt elk	UWR – decrease by 1% MAMU – decrease by 2%

HISTORY

This is a Core Indicator from the Z809-16 Standard. The target was created in 2010 to support the Core Indicator in the Z809-08 SFM Plan.

JUSTIFICATION

Some species need habitat that includes mature to old trees for their survival. Habitat currently unsuitable for species may develop the attributes necessary for the survival of the species as it ages. It is important to ensure critical habitat will be available in the long-term. Long-term is defined as twice the average life expectancy of the predominate trees in a DFA, up to a maximum of three hundred years. Tree species within the DFA are long lived and the long-term is defined as the maximum of three hundred years.

Ungulate winter ranges are areas identified as critical to the survival of local populations of ungulates during severe winters. On Vancouver Island, black-tailed deer and Roosevelt elk need areas with suitable forest and topographical features that are able to provide shelter, forage and snow interception. Roosevelt elk are on the BC provincial blue-list and have a BC Conservation Framework Priority 2 (BC Species and Ecosystems Explorer, 2010) as well as having local and cultural importance. Black-tailed deer are not considered a species of concern but have local importance for food, economic opportunity, and recreation.

Marbled murrelets are small seabirds that nest inland with a majority of nests being found on large boughs high in old conifers up to 30 km inland. Much work has been done along the coast to identify and rank suitable nesting habitat for marbled murrelets. Marbled murrelets are listed as Threatened on Schedule 1 of the Federal Species at Risk Act (SARA), provincially blue-listed, listed on the Forest and Range Practices Act (FRPA) Category of Species at Risk and considered Identified Wildlife, and have a BC Conservation Framework Priority of 1 (BC Species and Ecosystems Explorer, 2010). Identified Wildlife are considered to be sensitive to habitat alteration associated with forest and range practices and are considered to be at risk (endangered, threatened, vulnerable or regionally important).

The variance is meant to help account for fluctuation due to spatial issues (e.g., map base or scale) and natural disturbance factors. For Marbled Murrelet, the variance is also to account for the inaccuracies of the modelling and the inability to predict the quality of the habitat.

CURRENT STATUS & INTERPRETATION

This indicator is evaluated every 5 years. At the end of 2018, the baseline amount of potentially suitable habitat for selected focal species that was currently available in the DFA was as follows:

Baseline	2013		2018		Variance	
	Legal Reserves (ha)	NCLB (ha)	Legal Reserves (ha)	NCLB (ha)	Legal Reserves (ha)	NCLB (ha)
Ungulate Winter Range (UWR)	2372	0	2380	0	0%	0%
MAMU Nesting Habitat	8398	15193	6459	9755	-23%	-36%
300 Years	**Legal Reserves (ha)**	**NCLB (ha)**	**Legal Reserves (ha)**	**NCLB (ha)**	**Variance**	
					Legal Reserves (ha)	**NCLB (ha)**
Ungulate Winter Range (UWR)	2372	0	2380	0	0%	#DIV/0!
MAMU Nesting Habitat	10477	44338	11689	48389	12%	9%

PERFORMANCE

2021 Results: This indicator is evaluated every 5 years and was last assessed at the end of 2018. The next time it will be assessed will be 2023. The decrease in MAMU nesting habitat has not met the target or the variance. The decrease is due to the changes / updates to forest cover. This has resulted in Old Forest being reduced in age from 231 down to 221 years (the model notes MAMU habitat is >250 yrs.). Note that the amount is down in the current state but increases over 300 years.

STRATEGIES & IMPLEMENTATION

To spatially designate and legally establish Wildlife Habitat Areas, Ungulate Winter Ranges and Old Growth Habitat Areas. WFP has a mix of legally established and proposed areas. The intent is to move proposed areas through the process to become legally established. Proposed OGMAs and WHAs will be managed as if established.

When it is necessary to build roads through or harvest adjacent to one of these reserves, WFP attempts to minimize the impact and provides replacement habitat of similar quality, if necessary.

As committed in Operational Plans, WFP ensures areas of equivalent marbled Murrelet habitat are available in the Timber Harvesting Land Base (THLB) if suitable habitat is harvested in the NCLB.

Western's Forest Strategy around variable retention will leave a legacy of mature and old forest attributes.

As reliable habitat modelling tools and parameters become available for different species, WFP will apply them to its land base to guide the evolution of management prescriptions.

FORECASTS

Ungulate winter range is expected to not change over time as winter range is based on topographical and forested characteristics that are not expected to change significantly from the natural disturbance processes.

The quantity of potentially suitable habitat is forecast for marbled Murrelet. This includes the current amount of potentially suitable habitat and future potentially suitable habitat (i.e., trees that are currently too young). This does not consider habitat quality as the characteristics, such as moss development, are not easily modeled. It is expected that within the amount forecast not all will be suitable.

To forecast suitable habitat into the future only modeling can be used as the inventory gives the current state. Potentially suitable habitat was modeled using parameters from the marbled Murrelet recovery team and in two steps.

1) For forests greater than 250 years old there was an assumption that the old growth characteristics would not change significantly in the long term and the following parameters were used: Forested area > 250 years old and > 28.5 m tall. These parameters are from the "Most Likely" category defined in Table 3 in the Marbled Murrelet Conservation Assessment 2003, Part B.
2) For forests younger than 250 years old there is a potential to develop the necessary attributes. It was assumed that trees with a moderate or better site index had the potential to develop the characteristics and the following parameters were used: Forested area ≤ 250 years old and Site Index ≥18.

The table below shows the result of this modeling exercise. In essence, as currently young stands grow, substantially more potentially suitable habitat is available in the long-term for the marbled Murrelet.

Habitat Type	Legal Reserves (ha)	NCLB (ha)
Ungulate Winter Range	2,380	0
Potential MAMU Nesting Habitat	11,689	48,389

Goshawk nesting habitat mapping is not available currently. The Northern Goshawk Recovery Team is in the process of creating and testing a habitat model for Vancouver Island. Once this model is released it may be used to calculate the amount of habitat conserved within reserves.

DETAILS/ DATA SET

Ungulate Winter Ranges have been legally established for all tenures within the DFA. A total of 2,380 ha has been legally designated through three separate orders (for more details see above indicator). Ungulate Winter Range may also be available through other reserve areas (WHA, OGMA) but has not been spatially delineated as such. Established UWR should remain as such in the long-term because of the old-growth characteristics of the UWR and long intervals between natural disturbances in the ecosystems. The indicator is measured as the total area spatially delineated and conserved for ungulate winter range over the long-term and must meet or exceed the target of 2,366 ha. Amendments to UWRs in 2014 added 4.4 ha of suitable habitat.

Marbled Murrelet nesting habitat has been delineated within the DFA. Potentially suitable habitat was modelled. Of the potentially suitable habitat within the DFA the areas within wildlife habitat areas, ungulate winter range and old growth management areas and found within the non-contributing landbase (generally unharvestable) will be retained in the long-term. The potentially suitable habitat available in reserves was calculated using the current legal and proposed WHA, UWR and OGMAs. The non-contributing landbase was calculated using data from the TFL 6 Management Plan 10 (2012) and TFL 39 (including Block 4) Management Plan 9 (2013) datasets created for the timber supply analysis.

This indicator is a measure of the amount of potentially suitable nesting habitat retained within the DFA over the long-term. The amount should be consistent or increase from the current state and not be less than 17,792 ha. The 2018 area is the result of amendments and adjustments which incorporated additional suitable habitat. This includes amendments to established OGMAs which included additional suitable habitat.

MONITORING

- Reserves are mapped spatially in a layer of the GIS. Changes in boundaries are tracked by Corporate Forestry biologists.
- Potential habitat supply will be monitored spatially relative to the target every 5 years; the next update will be 2023.
- Non-contributing landbase will be recalculated with new timber supply analysis.

INDICATOR 1.2.3 PROPORTION OF REGENERATION COMPRISED OF NATIVE TREE SPECIES

Element: 1.2 Species Diversity *Conserve species diversity by ensuring that habitats for the native species found in the DFA are maintained through time, including habitats for known occurrences of species at risk.*				
Value	**Objective**	**Indicator**	**Target**	**Variance**
The existing pool of genes within tree species on the DFA	The existing pool of genes within tree species on the DFA is maintained	1.2.3 Proportion of regeneration comprised of native tree species	The proportion of regeneration comprised of native tree species is 100%.	None

HISTORY

This is a Core Indicator from the Z809-16 Standard. The target was created in 2010 to support the Core Indicator in the Z809-08 SFM Plan.

JUSTIFICATION

The Chief Forester's Standards for Seed Use require native tree species to be planted. Accordingly, all trees planted within the DFA are native tree species and there is no variance.

CURRENT STATUS & INTERPRETATION

The 2021 species profile of the DFA compared to the number of trees planted by species in 2021 is as follows:

Species	2021 DFA Species Profile (%)	Seedlings planted on DFA in 2021	
		%	#
Amabilis fir	3.1%	0.5%	7,410
Western red cedar	20.9%	86.2%	1,246,760
Yellow cedar	2.2%	8.5%	122,605
Douglas-fir	2.0%	3.2%	46,560
Western hemlock	67.2%	0.8%	12,240
Red alder	2.2%	0.0%	0
Sitka spruce	1.9%	0.7%	10,380
Misc.	0.5%	0.0%	520
Total	**100%**	**100%**	**1,446,475**

The Misc. row for the DFA Species Profile includes White pine, Pacific yew, Shore pine, Mountain hemlock, Noble fir. These species are considered native tree species as per the target.

PERFORMANCE

2021 Results: The target was met in 2021. Across the DFA, there were approximately 1.446 million seedlings planted.

STRATEGIES & IMPLEMENTATION

All tree species regenerated within the DFA are native tree species. Trees are regenerated within the DFA from natural regeneration or from planting trees within their seed transfer limits. At free growing there tends to be more trees regenerated on site in addition to those planted (see indicator 1.3.1). These naturally regenerated trees ensure the existing pool of genes within tree species on the DFA is maintained.

FORECASTS

Assuming that climate change does not trigger species extirpation, it is expected that native tree species will continue to be planted and natural regeneration of trees will continue to significantly augment planted areas at historical levels and contribute to genetic diversity.

Also, there is no expectation of changes in regulation that would alter the current standard of reforestation with ecologically suited species and allow the introduction of exotic species.

DETAILS/ DATA SET

The number of trees planted by species during the annual spring and fall planting programs will demonstrate that only native species are planted. The species planted are generally Cw and Hw with lesser amounts of Ba, Yc, Fdc and Ss. Hemlock regenerates very well naturally across the DFA but to consistently determine the amount of natural Hw regeneration is difficult. Sitka spruce tends not to be reforested in large numbers due to the Sitka spruce weevil. Resistant seed is becoming available and is being employed in the field; there may more be planted in the future.

MONITORING

The TFL Forester or designate manages the planting program. The number and species of trees planted are entered into CENFOR.

The TFL Forester or designate compiles the data from the CENFOR database and reports on the indicator performance in the SFM Plan Annual Report.

INDICATOR 1.3.1 PERCENTAGE OF THE TREES PLANTED ANNUALLY THAT ARE GMOS

Element: 1.3 Genetic Diversity *Conserve genetic diversity by maintaining the variation of genes within species and ensuring that reforestation programs are free of genetically modified organisms.*				
Value	**Objective**	**Indicator**	**Target**	**Variance**
Genetically modified organisms on the DFA.	Genetically modified organisms are not introduced in the DFA	1.3.1 The percent of the trees planted annually that are genetically modified organisms.	The percent of the trees planted annually that are genetically modified organisms (GMO) is 0%.	None

HISTORY

This is a non-Core Indicator from the Z809-16 Standard. The target was created in 2010 to support the Core Indicator in the Z809-08 SFM Plan.

JUSTIFICATION

The target aligns with the current legal status: no genetically modified organisms are currently allowed.

CURRENT STATUS & INTERPRETATION

In 2021, only seedlings from registered seed lots were planted on the DFA. No genetically modified organisms were planted.

PERFORMANCE

2021 Results: Target was met for 2021. No genetically modified organisms were planted on the DFA in 2021.

STRATEGIES & IMPLEMENTATION

The only strategy in place related to this indicator is to only use seedlings from seed lots duly registered for use in BC in reforestation programs.

Alternatively, natural regeneration is also used to enhance restocking of cutblocks.

FORECASTS

Based on past experience, there is no expectation that genetically modified organisms would be allowed as restocking material. This assumes that current seed transfer rules continue to remain stable in the future.

DETAILS/ DATA SET

The seed lot number of all stock planted in the DFA is entered in silviculture records.

MONITORING

The primary means to maintain the silviculture records is through the entry of activity information in CENFOR by the Timberlands Operations.

INDICATOR 1.4.1 PROTECTION OF SITES OF SPECIAL SIGNIFICANCE

Element: 1.4 Protected areas and sites of special biological, geological, heritage, or cultural significance

Respect protected areas identified through government processes. Co-operate in broader landscape management related to protected areas and sites of special biological and cultural significance. Identify sites of special geological, biological, heritage, or cultural significance within the DFA, and implement management strategies appropriate to their long-term maintenance

Value	Objective	Indicator	Target	Variance
Identified sacred and culturally important sites on the DFA	Provide protection for identified sacred and culturally important sites on the DFA	1.4.1 Protection of sites of special significance.	100% of identified sacred and culturally important sites are protected or managed according to measures by WFP and First Nations.	None

HISTORY

This is a Core Indicator from the Z809-16 Standard. This was previously Indicator 1.4.2 (Proportion of identified sacred and culturally important sites) in the Z809-08 SFM Plan. The Indicator and Target were revised in 2017 to align with the Z809-16 Standard. The target was created in 2010 for the Z809-08 SFM Plan; Indicator #50 from the Z809-02 SFM Plan was adjusted.

JUSTIFICATION

Based on Archaeological Overview Assessments (AOA) completed by government, the DFA has been categorized into areas based upon archaeological site potential and the need for an archaeological impact assessment (AIA). As required, AIAs are completed to identify and evaluate archaeological resources within the proposed development areas. AIAs identify and assess all impacts on archaeological resources that might result from the development and recommend alternatives for managing unavoidable adverse impacts.

The target and the variance reflect the requirement to mitigate or control potential effects on identified culturally important sites.

CURRENT STATUS & INTERPRETATION

One of the primary archaeological resources identified in the AIA process are Culturally Modified Trees (CMTs). A CMT is a tree that has been altered by native people as part of their traditional use of the forest. Old indicator #50 tracked CMT's harvested accidentally. Equating "Identified CMT locations" with "Identified Culturally Important sites," the results since 2000 is that 100% of Identified Culturally Important sites have been successfully protected or managed.

PERFORMANCE

2021 Results: The target was met; no CMTs or CHRs were accidently harvested in the DFA.

STRATEGIES & IMPLEMENTATION

The FSP contains commitments for post approval consultation on Cultural Heritage Resources (CHRs). Cultural Heritage Resources are partially defined in the Forest Planning and Practices Regulation as a feature or location which is the focus of a traditional use by an aboriginal people that is of continuing importance that that people and is not regulated under the Heritage Conservation Act. The Heritage Conservation Act applies

to operational activities. Additionally, MFLNRORD District letter on CP consultation guides cutting permit applications.

FORECASTS

In the future, the target is anticipated to be met based on past policy and experience. WFP has strengthened its pre-work and crew orientation standards so that reviews are occurring on site immediately before a phase (i.e., falling, road building) begins work. This will eliminate the opportunity for wildlife to remove ribbons marking features or any mapping errors showing the location of culturally sensitive features to persist. Given the status of First Nations in BC, no change in company policy is anticipated and company cooperation with First Nations is expected to continue.

DETAILS/ DATA SET

This indicator will be determined by tallying the number of known CMTs or CHRs that were accidentally harvested during the reporting year. This has been reported since 2001.

Data will be tracked and compiled at the Forest Operation level. All occurrences will be recorded in the applicable block file.

MONITORING

The TFL Forester will report on the indicator in the SFM Plan Annual Report. The primary monitoring process will be through Harvest Inspections and Post-Harvest Assessments.

INDICATOR 1.4.2 PROPORTION OF IDENTIFIED SITES WITH IMPLEMENTED MANAGEMENT STRATEGIES

Element: 1.4 Protected areas and sites of special biological, geological, heritage, or cultural significance

Respect protected areas identified through government processes. Co-operate in broader landscape management related to protected areas and sites of special biological and cultural significance. Identify sites of special geological, biological, heritage, or cultural significance within the DFA, and implement management strategies appropriate to their long-term maintenance

Value	Objective	Indicator	Target	Variance
Protected areas identified on the DFA through government processes	Respect and maintain protected areas identified on the DFA through government processes.	1.4.2 Proportion of identified sites with implemented management strategies	100% of identified sites have implemented management strategies.	None

HISTORY

This is a Core Indicator from the Z809-16 Standard. This was previously Indicator 1.4.1 (Proportion of identified sites with implemented management strategies) in the Z809-08 SFM Plan. The Indicator and Target were revised in 2017 to align with the Z809-16 Standard. The target was created in 2010 to support the Core Indicator in the Z809-08 SFM Plan.

JUSTIFICATION

The target aligns with the current legal status. Government processes normally results in government orders that give legal status to the new requirements.

CURRENT STATUS & INTERPRETATION

A number of Government processes, past and ongoing, have served to identify areas for protection or special management:

The Protected Area Strategy (PAS): In July 1993, the government of BC established the Protected Area Strategy (PAS) for British Columbia committed to expanding a protected area system that would protect 12% of the province by 2000. Recommendations began in January 1992 as part of the Commission on Resources and the Environment (CORE). The products of this process were submitted to Cabinet in February 1994, and the recommendations were embodied in the subsequent Vancouver Island Land Use Plan. Cabinet endorsed a final set of boundaries on April 15, 1995, which encompassed 78,342 ha of new protected areas. A second group was formed to identify “special feature” areas. Nominations were accepted from the public and First Nations stakeholder groups. The process resulted in an additional 11,770 ha of protected areas announced in February 1996. Currently, 13.1% of Vancouver Island, or about 439,000 ha has protected status distributed throughout Vancouver Island’s 10 Eco sections. The DFA contains 3 of the Eco sections.

The Old Growth Management Area (OGMA) process: In 2000, in response to CORE, the Vancouver Island Land Use Plan was completed and included the identification of Resource Management Zones with specific Old Growth retention requirements. An ongoing Land Use Planning process involving Western, and the Ministry of Environment is being used to spatially locate Old Growth Management Areas (OGMA) to be retained. It is anticipated that all OGMAs in the DFA will become legally established in the near future.

The Ungulate Winter Range (UWR) process: In August of 2003, a Memorandum of Understanding (MOU) on the Establishment of Ungulate Winter Ranges and Related Objectives was developed between MWLAP, the Ministry of Forests (MOF) and the Ministry of Sustainable Resource Management (MSRM). The purpose of the Memorandum of Understanding (MOU) is to expedite and facilitate the orderly confirmation and establishment of ungulate winter ranges (UWR) and related objectives across the province, in order to support the Forest Practices Code and the new *Forest and Range Practices Act* (FRPA). The MOU clarifies general ministry roles and responsibilities and outlines procedures and considerations to facilitate timely delivery of this initiative. It replaces previous agreements concerning coordination, administrative processes, and consultation requirements. The MOU identifies three types of UWR and objectives. The intent is to facilitate, through due process, the cooperative development of objectives to support the FRPA while at the same time maintaining the foundation of stakeholder support, where UWR and objectives have been established through Cabinet-approved strategic land use planning processes.

The Designated Wildlife Habitat Areas (WHA) process: The Government's Identified Wildlife Management Strategy (IWMS) Version 2004 was released in May 2004 and replaces IWMS Volume 1, released in 1999. IWMS Version 2004 contains an updated list of identified wildlife, updated species accounts and updated procedures for implementing the IWMS. The IWMS provides direction, policy, procedures, and guidelines for managing Identified Wildlife. The goals of the Strategy are to minimize the effects of forest and range practices on Identified Wildlife situated on Crown land and to maintain their limiting habitats throughout their current ranges and, where appropriate, their historic ranges. Identified Wildlife are managed through the establishment of wildlife habitat areas (WHAs) and the implementation of general wildlife measures (GWMs) and wildlife habitat area objectives, or through other management practices specified in strategic or landscape level plans.

PERFORMANCE

2021 Results: The target was met for 2021. There were minor revisions to some areas due to improved data analysis and correction of overlapping boundaries and DFA boundary revisions.

STRATEGIES & IMPLEMENTATION

Western Forest Products follows and cooperates with government processes.

FORECASTS

The target is the forecast given that the establishment of protected areas is normally the result of government policies and processes and no change in policy is anticipated.

DETAILS/ DATA SET

At the end of 2021, the following sites have been identified in the DFA through government processes and are now protected or managed:

Processes	Area Name / Landscape Unit	Total Area 2016	Total Area 2017	Total Area 2018	Total Area 2019	Total Area 2020	Total Area 2021	Strategy / Status
Protected Area Strategy	Misty Lake Ecological Reserve (74 ha) Stickleback Misty Lake Critical Habitat Area (82 ha but overlapped with Misty Lake Ecological Reserve for a net area of 40 ha). Cape Scott Provincial Park (22,307 ha) Raft Cove Provincial Park (787 ha) Quatsino Provincial Park (640 ha) Marble River Provincial Park (1,427 ha) Brooks Peninsula Provincial Park (39,872 ha) changed see August 2016 Provincial Park Watershed Management Cluxewe Salt Marsh Wildlife Conservation Area (43 ha) NOW Cluxewe Wildlife Management Area (123ha) Lower Nimpkish Provincial Park (238 ha) Nimpkish Lake Provincial Park (3,923 ha) Lawn Point Provincial Park (594 ha) Klaskish Ecological Reserve (161 ha) reshaped in 2019 (149 ha) Tahsish Kwois Park (10,993 ha)	81,141 ha (based on new mst. technique)	81,223 ha (+82 ha)	81,188 ha	81,167 ha	81,167	81,167	100% protected
Old Growth Management Areas (by LU)	San Josef (6,579 ha) Marble (9,707 ha)	16,243 ha (+686 ha)	16,247 ha (+4 ha)	16,286 ha	16,273	16,271	16,271	100% Managed
	Holberg (4,702 ha) Keogh (4,335 ha) Mahatta (3,773 ha) Neroutsos (4,943 ha)	17,323 ha (-262 ha)	17,611 ha (+288 ha)	17,753 ha	17,757	17,760	17,752	Proposed and subject to change
Ungulate Winter Ranges (by Order #)	u-1-006 (487 ha) u-1-010 (1876 ha) u-1-011 (18 ha)	2,378 ha	2,380 ha	2,381 ha	2,381	2,376	2,376	100% protected
Designated Wildlife Habitat Areas	Northern Goshawk (157 ha) Marbled murrelet (2,411 ha) Red-legged frog (0 ha)	957 ha	957 ha	2,729 ha	2,572	2,568	2,568	100% protected

MONITORING

The TFL Forester with assistance from Corporate Forestry will review for newly designated or amended Protected Areas and update the details. Normally, such designations and amendments are referred to affected parties prior to formal designation.

INDICATOR 1.4.3 PROTECTION OF IDENTIFIED KARST FEATURES

Element: 1.4 Protected areas and sites of special biological, geological, heritage, or cultural significance

Respect protected areas identified through government processes. Co-operate in broader landscape management related to protected areas and sites of special biological and cultural significance. Identify sites of special geological, biological, heritage, or cultural significance within the DFA, and implement management strategies appropriate to their long-term maintenance

Value	Objective	Indicator	Target	Variance
Diverse ecosystems	Significant karst features are identified and managed during forest management on the DFA	1.4.3 Protection of identified karst features	100% of significant karst features have a successful forest management strategy implemented	None

HISTORY

This is a non-core Indicator in the Z809-16 SFM Plan. The Indicator and target were created in 2010 as a locally developed Indicator in the Z809-08 SFM Plan. This locally developed Indicator was carried over from the previous Z809-02 SFM Plan. The Indicator was developed in 2004 and the target was changed to reporting activity around karst in 2006. In 2011, the target was adjusted in the Z809-08 SFM Plan to reflect successful management strategies in relation to karst landscapes and features, rather than a target of completing karst assessments on cutblocks where karst features were expected to be found.

JUSTIFICATION

The DFA contains a large amount of karst topography owing to the presence of several limestone formations. Karst is a distinctive topography that develops as a result of the dissolving action of water on soluble bedrock (usually limestone, dolomite, marble and, to a lesser extent, gypsum), which produces a landscape characterized by fluted and pitted rock surfaces, vertical shafts, sinkholes sinking streams, springs, subsurface drainage systems and caves (MoFR, 2003, Karst Management Handbook for BC). Within the DFA, a Government Actions Regulation (GAR) Order to Identify Karst Resource Features for the North Island- Central Coast Forest District was signed in March 2007. The order identifies karst caves, the key features and elements within very high or high vulnerability karst and significant surface karst features as resource features.

PREVIOUS STATUS & INTERPRETATION

Year	Type of SSS (Karst)	Number of blocks with action taken (e.g., Karst assessment)	Number of expected blocks (e.g., High vulnerability polygons or features)	% Conducted	Area (ha) placed in reserves as a result (if any)
2006	Karst	10	9	111%	0
2007	Karst	8	8	100%	0
2008	Karst	5	2	100%	0
2009	Karst	12	7	100%	0.5

CURRENT STATUS & INTERPRETATION (IMPLEMENTED FOR 2011 REPORTING YEAR)

Year	Number of cutblocks and/or associated access roads with significant karst features	Number of cutblocks with successful implementation of a karst management strategy	Percent success	Comments
2011	5	5	100%	
2012	6	6	100%	
2013	5	5	100%	
2014	6	6	100%	
2015	9	9	100%	
2016	4	4	100%	
2017	5	5	100%	
2018	5	5	100%	JLO had no blocks harvested with features in 2018
2019	1	1	100%	
2020	3	3	100%	
2021	**5**	**5**	**100%**	

PERFORMANCE

2021 Results: There were five cutblocks harvested on the DFA in 2021 that were adjacent to Karst features of moderate to high significance. All blocks had a Karst Field Assessment completed.

STRATEGIES & IMPLEMENTATION

Conformance or compliance with the Karst GAR Order approved March 23rd, 2007. The Order identifies the following surface or subsurface elements of a karst system as resource features wherever they are found in the North Island – Central Coast Forest District: 1) karst caves; 2) the key features or elements within high or very high vulnerability karst; and 3) significant karst surface features. The significance of a karst feature is determined through a qualitative evaluation of a number of criteria. Criteria may include dimensional characteristics, level of connectivity between the surface and subsurface, hydrological characteristics, geological values, biological values, scientific and educational values, archaeological, cultural, and historic values, recreational and commercial values, rarity and abundance and visual quality. WFP participated in several field reviews of the Karst GAR Order as it was being developed in 2006 and also attended two field trips to the Holberg area to participate in the development of Forest and Range Effectiveness Program (FREP) Indicators for Karst with MFLNRORD.

Successful forest management at the cutblock level can be achieved through the development of strategies implemented through operational harvesting and road building prescriptions. Assessing the results of implemented strategies during and after activities are completed will provide a means of measuring success and allowing for adaptive forest management.

FORECASTS

Karst features will be managed in a manner that maintains their values. The indicator and its associated target are aligned with both legislative requirements as well as public values. These two factors are not expected to change and given that the current target has a high achievement threshold, no forecasted change in the target is expected.

DETAILS/ DATA SET

Report on cutblocks and/or their access roads that are associated with karst caves, the important features and elements within a very high or high vulnerability karst and/or significant surface karst features. Of these, report on those where implemented management strategies were successfully achieved. Data set to include cutblocks with harvesting completed during the reporting year.

MONITORING

The TFL Forester reports on the indicator performance in the SFM Plan Annual Report. The primary monitoring process will be through road and/or cutblock inspections and Post-Harvest Assessments.

INDICATOR 2.1.1 REFORESTATION SUCCESS

Element: 2.1 Forest ecosystem condition and productivity

Conserve forest ecosystem productivity and productive capacity by maintaining ecosystem conditions that are capable of supporting naturally occurring species. Reforest promptly and use tree species ecologically suited to the site.

Value	Objective	Indicator	Target	Variance
Resilient forest ecosystems	Maintain ecosystem processes and ecosystem conditions	2.1.1 Reforestation success	1) Reforest 100% of the harvested area within 4 years on average from time of harvest. 2) 100% NAR that meets FG commitments	1) ≤ 4 years 2) None

TARGET 1: REFORESTATION

HISTORY

This is a Core Indicator from the Z809-16 Standard. The Indicator and Target were revised in 2017 to align with the Z809-16 Standard. The target was created in 2010 to support the Core Indicator in the Z809-08 SFM Plan. Was previously Indicator # 11 in the Z809-02 SFM Plan and was created in 2001. In 2010, the target was increased from 3 years to 4 years to reflect an increased reliance on natural regeneration. The target still exceeds the legal requirements by 2 years.

JUSTIFICATION

This indicator provides a measure of success at enhancing ecosystem recovery, accelerating forest growth to maximize carbon absorption and ensuring that forests are promptly regenerated. Following harvesting, WFP is responsible to ensure that stands of trees are promptly re-established. The objective is to ensure that these stands are established within 4 years of harvesting.

CURRENT STATUS & INTERPRETATION

Year	NSR Area (ha)	5 Year Avg. Harvest Area	Average time to Reforest (Yrs.)	Variance from Target (Yrs.)
2021	2369.2	1350.1	1.8	-2.2

5 Year Avg. Harvest Area		HOL	PMFO	JLO
2017	1696.9	522.6	625.6	548.6
2018	1734.2	623.9	831.9	278.3
2019	1378.7	541	734.7	103
2020	1471.5	549.9	630	291.6
2021	2369.2	328.7	1024.9	409.2

Avg	1350.1	513.22	544.0	171.6
		HOL	**PMFO**	**JLO**

PERFORMANCE

2021 Results: The target was met for 2021. There were both a Spring and Summer planting program on the DFA in 2021.

STRATEGIES & IMPLEMENTATION

A series of steps are involved in managing regeneration: Approved FSP Stocking Standards, Cutblock Silviculture Instructions, Cenfor planning, project reporting, results reporting. Jeune Landing and Port McNeill Operations: Natural regeneration is primarily a strategy on zonal sites in the Northern Vancouver Island Mountains, versus Nahwitti lowland areas which are dominated by more salal influence. Holberg Forest Operation: 20% Natural Regeneration Strategy: Historically (2008) there was a low reliance on natural regeneration. During 2020, a WFP Silviculture Standard was developed to guide Silviculture Foresters on stand establishment and management, including application of artificial vs. natural regeneration.

Risk reduction:

- Reduced brushing - minimal foliar treatments done
- Reduced fill planting – minimal fill plants
- Easier/less planting layout – reduced time – reduced supervision
- Salal “Transitional” sites– can be difficult to predict - short term growth loss but can affect FG hts, Green—up (GU) and Visually Effective Green-up (VEG). Safe to plant Cw
- GU or VEG concerns – may not be immediately known
- Future access to block may be unknown
- Reduced block entries (treatments, surveys)
- Simplified survey scheduling
- Reduced reporting requirements
- Mixed species regeneration
- ~20% of species planted is Hw/Ba

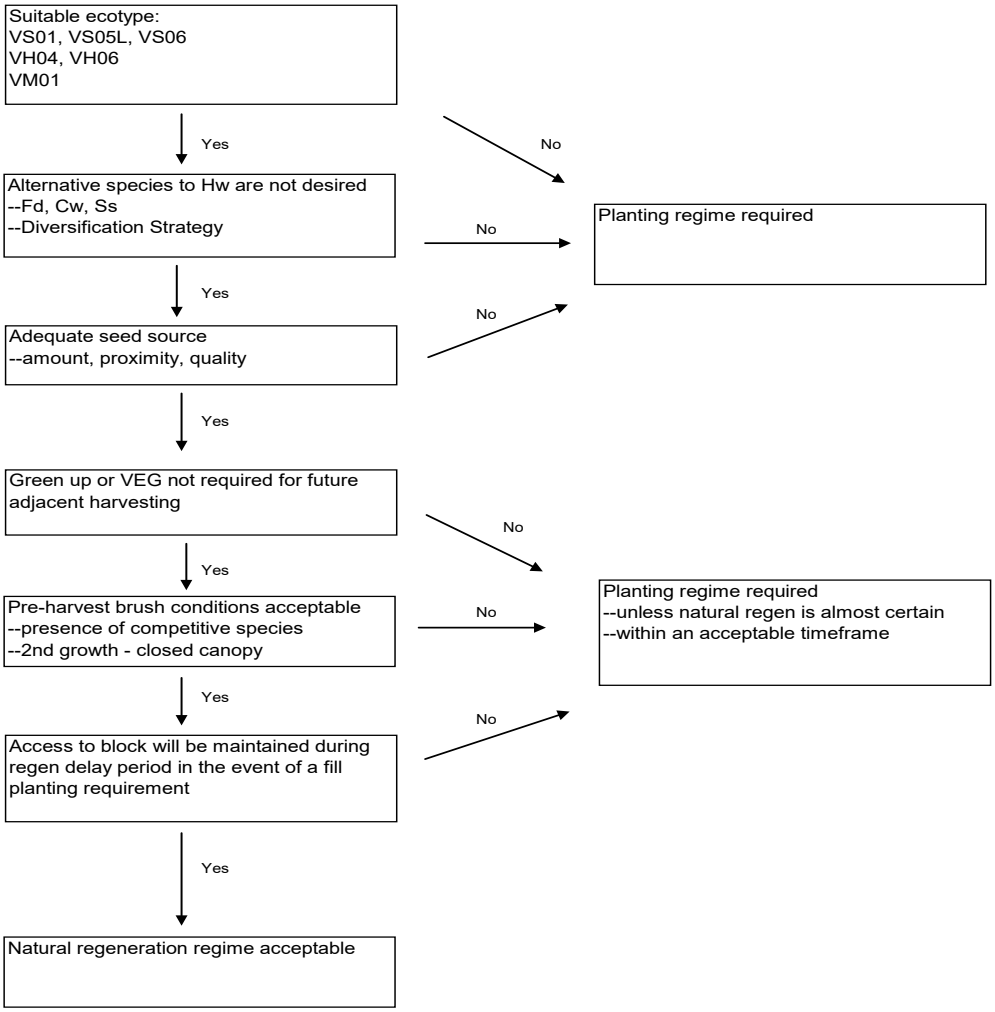
Initial strategies to employ:

1. Improve the reforestation regime in Silviculture Instructions:
    - Avoid generic or blanket prescriptions.
    - Describe specifically where natural regime can be used or where it should be assessed post-harvest for potential use.
2. Utilize a simple flowchart to narrow it down:
    - Identifies which factors are applicable or not.
    - Extensive experience or local knowledge not as critical.

Issues:

1. ~20% of species planted is Hw/Ba. To achieve 20% natural regeneration, a significant portion of the Hw/Ba area would have to be left. Is there enough that is suitable?
2. Diversification Strategy (mixed species) would be impacted.

3. Volume Strategy (high gain Hw) would be impacted.



FORECASTS

All harvested areas are to be restocked in a timely manner. The target is based upon several factors:

- Regeneration delay (6 yrs.) as dictated by stocking standards approved by government.
- Prompt artificial reforestation to expedite forest re-growth and limit brushing and re-planting requirements.
- Natural regeneration on selected sites.

No changes to stocking standards or artificial reforestation timing are expected. Natural regeneration will fluctuate from year to year but is not expected to significantly differ. Natural reforestation is only suitable for specific sites; therefore, if harvesting is carried out annually across the timber profile, the number of sites suitable for natural regeneration should remain stable.

Recent timber supply analyses have forecast the effect of varying regeneration delay assumptions on AAC.

DETAILS/ DATA SET

This indicator is determined by dividing total NSR area by the average harvest area over the past five years.

NSR area – is the total area (ha) that has been logged but not planted or planted but subsequent survey reveals the plantation has failed.

Harvest area – the average harvest area over the past 5 years (supplied by Corporate GIS for DFA). GIS analyses will note windfall or fire origin.

Then using the CENFOR database, each Operation determines the following:

- The area (ha) planted.
- NSR survey area (ha).
- Natural regeneration area (ha).

The result is the new NSR balance.

MONITORING

Stocking surveys are completed on all harvested areas to determine if the relevant stocking standard has been achieved and the area can be declared sufficiently restocked (SR). Walkthrough surveys may also be conducted to monitor regeneration performance. The Corporate Forestry Inventory Forester or designate will conduct a GIS analysis to compile harvest area data. The Silviculture Foresters will ensure that reforestation data is compiled. The TFL Forester or designate will populate tables and report performance in the SFM Plan Annual Report.

TARGET 2: FREE GROWING COMMITMENTS

HISTORY

This is a Core Indicator from the Z809-16 Standard. The Indicator and Target were revised in 2017 to align with the Z809-16 Standard. The target was created in 2010 to support the Core Indicator in the Z809-08 SFM Plan. Was previously Indicator # 10 in the Z809-02 SFM Plan and was created in 2001. In 2010, the variance was reduced to zero from the previous Indicator to ensure alignment with legislated commitments.

JUSTIFICATION

This indicator provides a measure of success at minimizing the stresses associated with harvesting activities, and at enhancing ecosystem recovery. NAR describes the amount of area that WFP is committed to reforest following harvesting activities. Free-growing stands, as defined in the Forest Practices Code of British Columbia Act (FPC) and the Forest and Range Practices Act (FRPA), are stands of healthy trees of a commercially valuable species, meeting stocking standards, the growth of which is not impeded by competition from plants, shrubs, or other trees.

CURRENT STATUS & INTERPRETATION

Year	FG Area Expiring (ha)	FG Commitments met (ha)	% NAR meeting FG Commitment	Variance from Target (%)
2021	1,077	1,077	100%	0%

PERFORMANCE

2021 Results: The target and variance were met in 2021.

STRATEGIES & IMPLEMENTATION

Stocking standards are assigned to each cutblock during Site Plan development. Stocking standards are incorporated into the FSP. Included in the stocking standards is a free growing date. The free growing date is 20 years from the commencement date of the cutblock; the commencement date is defined as the date that falling on the cutblock commenced (not falling for road construction). Detailed Silviculture Instructions documents are prepared by Forest Professionals and placed on file. The Instructions guide post-harvest silviculture activities to achieving free growing well before the prescribed timelines. Activities include planting, assessments and surveys and brushing & weeding treatments to help establish a new stand.

FORECAST

All harvested areas are forecast to meet free growing stocking standards within the prescribed timeline. Free growing stocking standards are a legislated requirement. Silvicultural activities and assessments following the harvest of a cutblock are scheduled such that free growing commitments will be met. Free growing declarations are the end result of a structured process for licensees to be relieved of silviculture obligations on Crown land. Based upon past performance and the fact that no future change to free growing stocking standard commitments is expected, there is no expected future change to this indicator and its target and variance. Reference to Forest Practices Code era cutblocks is declining and is expected to disappear altogether in next 5 to 7 years as these areas are declared free growing. Natural, unforeseen events may affect areas that are not yet free growing. These may include wildfires, forest health impacts, landslides, flooding and animal damage. When these events occur, monitoring and assessments will determine appropriate reporting and remediation activities; re-treatment of areas to re-establish a productive stand or request for relief of free growing obligation.

DETAILS/ DATA SET

For FPC cutblocks: Measured as a percent, this indicator is determined by dividing the total area meeting FG commitments (on a cutblock basis) in the reporting year by the total FG area expiring (on a cutblock basis, based on the latest SU) during the reporting year. If an amendment has been submitted, the block can be tallied as meeting requirements. In the event that the MFLNRO determines that an amendment did not constitute having met FPC requirements to establish a free growing stand within the Free Growing Assessment Period (FGAP), the area failing to meet commitments will be reported in the year this becomes known.

For FSP cutblocks, or FPC cutblocks brought under FRPA FSP stocking standards, the late free growing date is 20 years. For Managed Forest cutblocks, the late free growing date is 15 years, measured from the date the cutblock is declared harvested in the Managed Forest Annual Declaration.

FG Area Expiring – a summary of cutblock area, including all blocks that have their latest SUs expiring in the reporting year.

Area meeting FG commitments – a summary of cutblock area, including all blocks whose FG commitments have been completed (all SU's have achieved FG status).

Data will be tracked and compiled at the Operations level using CENFOR.

MONITORING

The Silviculture Foresters or designate conduct surveys and maintain the currents status of all harvested areas in the CENFOR database. The TFL Forester or designate ensures that data is compiled, and performance reported, in the SFM Plan Annual Report.

INDICATOR 2.1.2 PROPORTION OF REGENERATION COMPRISED OF NATIVE TREE SPECIES

Element: 2.1 Forest ecosystem condition and productivity *Conserve forest ecosystem productivity and productive capacity by maintaining ecosystem conditions that are capable of supporting naturally occurring species. Reforest promptly and use tree species ecologically suited to the site.*				
Value	**Objective**	**Indicator**	**Target**	**Variance**
The existing pool of genes within tree species on the DFA	The existing pool of genes within tree species on the DFA is maintained	2.1.2 Proportion of regeneration comprised of native tree species	The proportion of regeneration comprised of native tree species is 100%.	None

Reported under Criterion 1, Indicator 1.2.3

INDICATOR 2.1.3 ADDITIONS & DELETIONS TO THE FOREST AREA

Element: 2.1 Forest ecosystem condition and productivity

Conserve forest ecosystem productivity and productive capacity by maintaining ecosystem conditions that are capable of supporting naturally occurring species. Reforest promptly and use tree species ecologically suited to the site.

Value	Objective	Indicator	Target	Variance
The integrity of the DFA	The integrity of the DFA is maintained over time	2.1.3 Additions and deletions to the forest area.	1) Permanent access percent for DFA is 7% average for cutblocks harvested within the reporting year 2) Report any additions to the DFA	1) ≤ 8% 2) None

TARGET 1: PERMANENT ACCESS

HISTORY

This is a Core Indicator from the Z809-16 Standard. This was previously Indicator 2.2.1 (Additions & Deletions to the Forest Area) in the Z809-08 SFM Plan. The Element was revised in 2017 to align with the Z809-16 Standard. The target was created in 2010 to support the Core Indicator in the Z809-08 SFM Plan. Previously was Indicator # 17 in the Z809-02 SFM Plan and was developed in 2001. The sample size used for quality checking was included for 2007. In 2009, the “permanent access measured” was replaced by “permanent access estimated”.

JUSTIFICATION

This indicator provides a measure of success at minimizing stresses associated with harvesting activities and monitors forest area lost to other uses. Construction of permanent access structures and related soil disturbance places a degree of abiotic disturbance stress upon forest areas. While recognizing these structures are required infrastructure assets, the target is to limit the area of productive forest land that is occupied by permanent structures to the minimum level necessary to safely conduct efficient forest practices. Permanent access structures include roads, bridges, landings, gravel pits or other similar structures, that provide access for timber harvesting. The maximum proportion of a cutblock area that can be occupied by permanent access structures and subjected to soil disturbance is stated in a Cutblock Site Plan. These are linked to the Forest Stewardship Plan results and strategies with themselves are linked to FRPA. Specifically, they are linked to section 36 of the Forest Planning and Practices Regulation (*Permanent access structure limits*); the limit is 7%, however, there are some exceptions which permit this limit to be exceeded.

CURRENT STATUS & INTERPRETATION

Year	Area in Permanent Access (ha)	TAUP (ha)	Percent Permanent Access (%)	Variance (%)
2021	110	1,480	7.4%	0.4%

PERFORMANCE

2021 Results: The average PAS for the DFA in 2021 was slightly over the target value but within the acceptable variance level. Management of the various resource features at the site and landscape sometimes requires additional road to be built to harvest timber safely and efficiently. Additionally, harvesting on steeper ground often requires additional roads to access the harvestable timber safely and efficiently.

STRATEGIES & IMPLEMENTATION

When cutblocks are engineered, logging efficiency (more roads) must be balanced with road user safety and road building costs, while minimizing the area in permanent access across the DFA. Due to the cost of building and maintaining roads, and environmental liability associated with them, less is usually better if possible. Occasionally, environmental concerns will supersede the goal of minimizing road length built (i.e., avoiding resource features). WFP has been focusing on hauling safety and steep roads (roads with average grades exceeding 18%). Steep roads receive more scrutiny at the design stage to determine if they are justified and if less steep grades are possible. The scrutiny carries through to the construction phase as well to ensure that roads are built as designed. Permanent Access percent is estimated prior to construction, and if estimated to exceed 7%, a professional rationale should be written describing challenges met and reasons for requiring a greater road percentage.

The Forest Stewardship Plan (FSP) sets results, Site Plans identify how they apply at the site, and ocular post-harvest inspections and/or statistical site surveys within specific cutblocks confirm these are met. The surveys traditionally were a 100% sample, but as these results have been stable, a sub-sampling method is used. Suspect excessive blocks noted in post-harvest assessments may be surveyed to determine actual results.

FORECAST

The loss of productive forest landbase due to permanent access structures required for timber development is minimized, with a target that is aligned with past and current performance and meets legislative requirements. Future performance could be affected by an increase in the application of retention silviculture systems (increased road in relation to harvest area) and an increase in the amount of alternative harvest systems (i.e., helicopter, skyline/longline) which generally require less new road to be built and utilize existing roads. Recent focus by WFP on hauling safety has resulted in more scrutiny of steep road grades and switchbacks; steep roads are defined by WorkSafe BC as segments of road with grades exceeding 18%. Current harvesting focus on old growth is in areas with a greater potential for steep roads; strategies for addressing steep roads may result in more roads being built.

DETAILS/ DATA SET

Measured as a percentage, this indicator is determined by dividing total area in permanent access structures (either estimated or measured) by total cutblock area. If estimates are used, the number or percentage of blocks sampled versus total blocks in the report population will be indicated in the report.

Total cutblock area - includes a summary of the total area under prescription (TAUP) for all cut-blocks reportable for the year.

Area in permanent access – determined from the post-harvest survey of permanent access structures for the cutblock area or estimated on the pre-harvest permanent access worksheet.

The majority of blocks were post-harvest field surveyed until 2006. After that, a sampling system has often been employed to quality-check site plan estimates and to assist in building local knowledge. Surveys are normally completed within 1 year of harvest completed. Permanent access data is tracked within the cutblock Site Plan and CENFOR database. Starting in 2009, the "permanent access (ha)" was based on either a field verification measurement (if available) or based on the estimate derived from the pre-harvest permanent access worksheet.

MONITORING

The TFL Forester or designate will ensure that data is compiled, and performance reported, in the SFM Plan Annual Report.

TARGET 2: ADDITIONS TO THE DFA

HISTORY

This is a Core Indicator from the Z809-16 Standard. This was previously Indicator 2.2.1 (Additions & Deletions to the Forest Area) in the Z809-08 SFM Plan. The Element was revised in 2017 to align with the Z809-16 Standard. The target was created in 2010 to support the Core Indicator in the Z809-08 SFM Plan.

JUSTIFICATION

This target provides a report of any land additions to the DFA. Additions can take the form of former industrial sites being reclaimed and either reforested or afforested. Examples might include the former Canadian Forces Base Holberg lands or the Canadian Coast Guard LORAN C site. There are usually site reclamation activities that must occur prior to such lands being included back in the DFA and subject to forest management activities. There would also likely be an application and approval process through the Provincial and/or Federal governments.

CURRENT STATUS & INTERPRETATION

At present, there have been no additions to the DFA. There are several institutional sites within the DFA which have become surplus to their original purpose, however, there was no indication as to their disposition in 2020.

PERFORMANCE

2021 Results: The target was met for 2021. WFP sold approximately 630 hectares of private land associated with the Orca Sand and Gravel quarry facility to US Concrete in March 2021. WFP sold approximately 172 hectares of private land located just east of Coal Harbour to the Quatsino First Nation in June 2021.

STRATEGIES & IMPLEMENTATION

There are industrial and institutional sites located within the DFA. Over time, these sites may become surplus to their original purpose. WFP might seek to apply for these sites to be included within the adjacent TFL or other tenure, subject to government approval and adequate environmental remediation. WFP will monitor the status of these sites.

Forests and trees are the business of WFP and deletions of forest from the DFA are not the core goal of the company. Occasionally there are reasons for adding or deleting forest area from the DFA. In such cases, these additions or deletions must be tracked and reported on a yearly basis. As this is not a common occurrence, this reporting should be dealt with at the time.

FORECAST

Opportunities for additions to the DFA are limited, thus justifies a reporting target rather than a measured target.

DETAILS/ DATA SET

Report on any additions to the DFA each year along with a description of the addition (location, history). Units will be reported in hectares. Additions will be reported in the year that the application is approved.

MONITORING

The TFL Forester will monitor for any changes in the DFA and will ensure that the data is compiled, and performance is reported in the SFM Plan Annual Report.

INDICATOR 2.1.4 PROPORTION OF THE LTHL THAT IS ACTUALLY HARVESTED

Element: 2.1 Forest ecosystem condition and productivity

Conserve forest ecosystem productivity and productive capacity by maintaining ecosystem conditions that are capable of supporting naturally occurring species. Reforest promptly and use tree species ecologically suited to the site.

Value	Objective	Indicator	Target	Variance
The harvest level on the DFA	The harvest level of the DFA is sustainably regulated	2.1.4 Proportion of the calculated long-term sustainable harvest level that is actually harvested	Harvest the Crown Land AAC in a manner consistent with the Cut Control Regulation and Policy	As per the Cut Control Regulation and Policy

HISTORY

This is a Core Indicator from the Z809-16 Standard. This was previously Indicator 2.2.2 (Proportion of the LTHL that is actually harvested) in the Z809-08 SFM Plan. The target was created in 2010 to support the Core Indicator in the Z809-08 SFM Plan. Previously was Indicator # 29 in the Z809-02 SFM Plan and was developed in 2001 and updated to address Forest Act revisions in 2004. TFL 39 Block 4 was amalgamated into TFL 6 effective January 1st, 2015.

JUSTIFICATION

This indicator provides a measure of success towards managing for sustainable harvest levels of timber and economic stability. Cut control is a set of rules and actions specified in the Forest Act that describes the allowable variation in the harvest rate either above or below the annual allowable cut (AAC) approved by the chief forester.

CURRENT STATUS & INTERPRETATION

TFL 6	2019	2020	2021	2022	2023	Cut Control Period to date	Total for current Cut Control Period
AAC	1,350,422	1,350,422	1,350,422	1,350,422	1,350,422	4,051,266	6,752,110
Total Cut Control Volume	1,376,124	1,095,245	685,465			3,156,834	3,156,834
Cumulative % Compliance	101.9%	81.1%	50.8%			77.9%	46.8%
Overcut (Undercut)	25,702	(255,177)	(664,957)			(894,432)	(3,595,276)

FL A94737	2017	2018	2019	2020	2021	Cut Control Period to date	Total for current Cut Control Period
AAC	5,443	5,443	5,443	5,443	5,443	21,772	27,215
Total Cut Control Volume	-	-	-	-	27,215	27,215	27,215
Percent Compliance	0.0%	0.0%	0.0%	0.0%	500.0%	0.0%	100.0%

Overcut (undercut)	(5,443)	(5,443)	(5,443)	(5,443)	21,772	5,443	-

PERFORMANCE

2021 Results: The target was met. The current 5 year Cut Control Period for TFL 6 commenced on January 1st, 2019, and concludes December 31st, 2023. Harvest levels in the Quatsino Sound Forest Operation during 2021 were lower due to a lack of available road and cutting permits. During 2021, approximately 27,000 m3 of harvest was attributed to Forest Licence A94737. 2021 marked the final year of the current Cut Control Period for this Forest Licence. WFP anticipated additional volume will be attributed to FL A94737 in 2022, which marks the beginning of a new Cut Control Period.

STRATEGIES & IMPLEMENTATION

Harvest levels are regulated by the Forest Act (Part 4, Division 3.1) and the Cut Control Regulation and Policy, which must be abided by the tenure holder. Achievement of this target will be realized through meeting the requirements set out in legislation. Specifically, the license holder must not exceed the sum of the annual allowable cuts in the cut control period (5 years) by 110%. Any excess volume of timber (overcut) must be treated as being harvested during the next cut control period and counts toward that period's cut control. There is no minimum volume of timber that must be harvested in any period; however, any timber volume that is not harvested from the allowable cut in the cut control period (undercut) may be disposed of to another party (e.g., BC Timber Sales, etc.).

While WFP always finds it important to harvest the full AAC, it does not always make good economic sense to do so, especially when markets are low. Logging the full AAC in such a condition, while maintaining employment, does not always position the company to be competitive. In some cases when markets exist that promote economic harvesting of timber from the DFA, the goal is to cut the entire allowable cut.

Effective January 1st, 2015, TFL 39 was subdivided. Block 4 was deleted from TFL 39 and added to TFL 6. A new AAC was determined for TFL 6.

FORECASTS

The Timber Supply Review (TSR) provides detailed forecasts on sustainable harvest levels. AAC is determined by the Chief Forester of BC and is calculated based upon the TSR, socio-economic considerations and public input.

Historically, the full extent of the AAC has generally been harvested as can been seen in the following table:

License #	Completed Cut Control Period (yrs.)	Cut Control Performance (%)
TFL 6	2000 to 2004 (5 yrs.)	100.1%
TFL 6	2005 to 2008 (4 yrs.)	102%
TFL 6	2009 to 2013 (5 yrs.)	108%
TFL 6	2014 to 2017 (4 yrs.)	106.4%
TFL 39-4	2001 to 2005 (5 yrs.)	88.5%
TFL 39-4	2006 to 2008 (3 yrs.)	75.1%
TFL 39-4	2009 to 2013 (5 yrs.)	79%
FLA 19244	2002 to 2006 (5 yrs.)	104.5%
FLA 19244	2007 to 2011 (5 yrs.)	60.2%

FLA 19244	2012 to 2016 (5 yrs.)	0%
FLA 94737	2017 to 2021 (5 yrs.)	100%

However, it is evident that over the last few years it has proven difficult to economically harvest the full extent of the approved AAC. How the economic cycle for the forest industry overlaps with the cut control period is a major factor influencing performance in regard to this indicator. Although it is not possible to forecast the actual results for this indicator, it is expected that the Western's policy will remain to harvest 100% of its AAC within each cut control period. Of note, the MFLNRORD has further maintained a policy to allocate undercut volumes to First Nations or made it available through BC Timber Sales which also provide for economic activity.

DETAILS/ DATA SET

This indicator is determined by comparing actual annual harvest volume with allocated AAC for the same period.

MONITORING

The official MFLNRORD Scale Report is received annually by WFP Corporate Forestry. The long-term sustainable harvest level for the DFA is tracked and kept current by Corporate Forestry.

The TFL Forester reports on the harvest volumes and current long-term sustainable harvest level in the SFM Plan Annual Report.

INDICATOR 2.1.5 HIGH WINDFALL RISK EDGES TREATED (NON-CORE INDICATOR)

Element: 2.1 Forest ecosystem condition and productivity

Conserve forest ecosystem productivity and productive capacity by maintaining ecosystem conditions that are capable of supporting naturally occurring species. Reforest promptly and use tree species ecologically suited to the site.

Value	Objective	Indicator	Target	Variance
Healthy forests	Minimize impact on the DFA due to windthrow losses.	2.1.5 High Windfall Risk Edges Treated	Treat 100% of all "high risk edges"	≥ 80%

HISTORY

This is a non-core Indicator in the Z809-16 SFM Plan. This was previously Indicator 2.2.3 (High Windfall Risk Edges Treated) in the Z809-08 SFM Plan. The Indicator and target were created in 2010 as a locally developed Indicator in the Z809-08 SFM Plan. This locally developed Indicator was carried over from the previous Z809-02 SFM Plan and was Indicator #21. Indicator #21 was developed in 2001. In 2007, windthrow management in TFL 6 was audited by the Forest Practices Board. The method of measuring this Indicator has been adjusted for the Z809-08 SFM Plan (see Details/Data Set).

JUSTIFICATION

This indicator provides a measure of success at protecting the forests from damage by windfall. For cutblocks within high windthrow hazard areas considered (considered to include most of the north end of Vancouver Island), timber edges are designed to minimize the risk of windfall. Where possible, edges are located on well-drained sites and oriented to minimize risk. The risks for some edges of cutblocks remain high, despite design and are therefore considered "high risk edges". These edges are likely to require edge treatments to reduce the potential for windfall damage. Treatments include, but are not restricted to: limbing, topping and feathering.

CURRENT STATUS & INTERPRETATION

Year	High risk Edges (km)	Km Treated	% Percent	Variance
2000	7.80	3.80	44%	-56%
2001	4.93	4.93	100%	0%
2002	16.11	16.06	99.7%	-0.3%
2003	20.19	16.12	80%	-20%
2004	41.54	32.26	80%	-20%
2005	34.60	40.95	118.3%	+18.3%
2006	137.8	127.1	93%	-7%
2007	44.85	43.26	96%	-4%
2008	52.71	46.63	88%	-12%
2009	36.2	29.7	82%	-18%
2010	74.5	72.4	97%	-3%
2011 (PM & JL)	34.3	35.6	119%	+19%
Year	# Cutblocks with Prescribed Treatments	# Cutblocks where Treatments Completed within 1 year	% Cutblocks Treated within 1 year	Variance
2012	53	53	100%	0%
2013	60	49	82%	-18%
2014	116	114	97%	-3%
2015	55	47	85%	-15%
2016	42	40	96%	-4%
2017	54	49	91%	-9%
2018	20	20	100%	0%
2019	54	53	98%	-2%
2020	47	46	98%	-2%
2021	**70**	**56**	**80%**	**-20%**

PERFORMANCE

2021 Results: The variance was met in 2021. There was a total of 56 cutblocks fully treated on the DFA in 2021. The Quatsino Sound Forest Operation utilized manual tree topping crews as a means to complete pre-harvest treatments where the stand hazard was high and there were concerns beyond loss of timber in terms of windthrow consequences.

STRATEGIES & IMPLEMENTATION

WFP has taken the lead in developing a *Windthrow Management Strategy* as a due diligence document for use in its operational cutblock planning to guide in cutblock design and provide direction on windthrow mitigation treatments.

Cutblocks with wind firming treatments prescribed are scheduled in CENFOR. Single cutblock treatments are not carried out throughout the year; rather, several cutblocks are treated during one project one or more times a year. For example, a cutblock that is completed in early spring will not need to be treated immediately. Several cutblocks will be treated prior to fall/winter storms. Some cutblocks are not able to be treated prior to fall/winter storms due to worker safety concerns (i.e., treated edges would pose a hazard to ground workers and/or equipment). These cutblocks are treated in the next available treatment window after completion of groundwork.

FORECAST

Using the *Windthrow Management Strategy*, each cutblock is assessed to determine which edges are considered high risk. Through the strategy, high risk edges always warrant treatment. Through adaptive management, future refinements of the strategy may adjust the assessment process. What constitutes a high-risk edge may change, however, the decision to treat high risk edges will not. Therefore, the target is expected to be constant in the future.

Efforts are made at the operations to complete prescribed treatments in a timely manner. Timing is related to completing treatments prior to fall and winter storms. Several factors may prevent treatments being completed prior to fall and winter storms. Foremost is the timing of harvest completion. Cutblocks may be completed immediately prior to the onset of fall storms or may still be active through the fall and winter. There are WorkSafe BC regulations relating to wind firming treatments and active harvesting due to the worker overhead hazards that may be created as a result of wind firming. A secondary factor is helicopter and crew availability, which may be limited during the spring and summer months. Finally, treatments are often difficult to complete during the fall and winter timeframe due to adverse weather constraints. Economics have not historically been a significant factor for completing treatments.

DETAILS/ DATA SET

Measured as a percentage, this indicator is determined by dividing the number of cutblocks with prescribed treatments (due to high-risk edges) by the number of blocks where treatments are completed (within 1 year of harvest completion). Previously (under the Z809-02 SFM Plan), this indicator was measured by dividing the distance (km) of treated edges by the distance (km) of high-risk windfall edges.

MONITORING

The TFL Forester or designate will ensure that treatments are scheduled and reported as done in CENFOR when completed. EMS Cutblock Inspections and Post-Harvest Assessments are used to refine treatment timing and identify any deficiencies in the assessment process and treatment prescriptions. Treatment prescriptions may also be adjusted at time of treatment. These changes are recorded on the “as-built” report for the cutblock.

INDICATOR 2.1.6 HECTARES OF LAND WITHDRAWN FROM FORESTRY USES

Element: 2.1 Forest ecosystem condition and productivity

Conserve forest ecosystem productivity and productive capacity by maintaining ecosystem conditions that are capable of supporting naturally occurring species. Reforest promptly and use tree species ecologically suited to the site.

Value	Objective	Indicator	Target	Variance
The integrity of the DFA	The integrity of the DFA is maintained over time	2.1.6 Hectares of land withdrawn from forestry uses	Evaluate and respond to 100% of all formal requests/referrals	None

HISTORY

This is a non-core Indicator in the Z809-16 SFM Plan. This was previously Indicator 2.2.4 (Hectares of Land Withdrawn from Forestry Uses) in the Z809-08 SFM Plan. The Indicator and target were created in 2010 as a locally developed Indicator in the Z809-08 SFM Plan. This locally developed Indicator was carried over from the previous Z809-02 SFM Plan and was known as Indicator #28. Indicator #28 was developed in 2001. In 2004, the scope of the Indicator was expanded to include Criterion 4 and a disposition table was added based on auditor feedback.

JUSTIFICATION

This indicator provides a measure of success at minimizing the conversion of forests to other uses, while still ensuring the availability of industrial land for resource businesses when valid formal requests have been made (Criterion 5). Responses to formal requests include a cost / benefit analysis that will determine if the withdrawal of forest lands from the DFA to be used for non-forests uses will benefit the Public. This analysis will help determine whether the land is best used as a growing forest or for other external industrial uses.

CURRENT STATUS & INTERPRETATION

In 2021, WFP did not receive any referrals from MFLNRORD. WFP received several notices of mineral exploration work that overlapped the DFA.

In 2020, WFP did not receive any referrals from MFLNRORD. WFP received several notices of mineral exploration work that overlapped the DFA.

In 2019, there was one Notice of Intention published in the North Island Gazette newspaper by Mowi Canada West Inc. for an amendment to a Marine Finfish Aquaculture tenure next to Koskimo Bay, which is adjacent to the DFA.

In 2018, WFP did not receive any referrals.

In 2017, WFP received only one referral through MFLNRORD which overlapped the DFA. The referral was for a Notice of Application for a Coal License in the Suquash area of the DFA. WFP provided comments back to the MFLNRORD.

PERFORMANCE

2021 Results: The target was met for 2021.

STRATEGIES & IMPLEMENTATION

The indicator will also serve to identify that non-forest uses are made only where appropriate per Z809-16 Element 4.2 Forest Land Conversion (Forests can be turned into other types of ecosystems by a variety of activities, including those that relate directly to SFM [e.g., building roads and landings] and those outside the influence of forest managers [e.g., urban and industrial developments, utility corridors]. Forest managers should reduce, as much as possible, the amount of area they convert to non-forest ecosystems and should discourage unwarranted forest land conversions that are beyond their control).

WFP will evaluate all formal requests from outside parties regarding the conversion of parcels of forestland within the DFA to non-forest use for external industrial use. When a request is deemed likely to aid a viable business, and such benefits are considered to outweigh the forest use of the parcel, the land may be made available for the business venture. Government regulatory agencies and local government may also be involved.

WFP will identify pressures from other non-forest requests or uses as these arise (subject to any confidentiality considerations).

A tracking spreadsheet of all requests or referrals known and responded to is maintained. As Corporate Forestry or Operations identify or respond to referrals, they will update the tracking spreadsheet. The MFLNRORD also refers proposals from other agencies to WFP for review and comment.

FORECAST

Historically, WFP has responded to formal request/referrals. This Indicator will continue to be reported on as long as formal requests/referrals are made to WFP. A continued increase of demand for conversion of forest to non-forest uses is expected. WFP is committed to minimizing this conversion where appropriate and possible in order to maintain its timber harvesting landbase.

DETAILS/ DATA SET

This indicator is determined by evaluating the number of requests that were received and responded to. Data will be tracked and compiled at the Operations level. Data will be reported as is appropriate, given that land requests and government agency reviews often extend over a number of years.

MONITORING

The TFL Forester will monitor for any changes to the DFA and will ensure that data is compiled, and performance is reported in the SFM Plan Annual Report.

INDICATOR 3.1.1 LEVEL OF SOIL DISTURBANCE

Element: 3.1 Soil quality and quantity *Conserve soil resources by maintaining soil quality and quantity*				
Value	**Objective**	**Indicator**	**Target**	**Variance**
Conservation of soil resources	Maintain the productive capacity of forest soils	3.1.1 Level of soil disturbance	1) Permanent access percent for DFA is 7% average for cutblocks harvested within the reporting year 2) Slides seeded and/or planted – Plant or grass seed 95% of all reportable slides with productive soil remaining within 2 years that are not associated with natural slide events	1) ≤ 8% 2) ≥ 65%

TARGET 1: PERMANENT ACCESS PERCENT

Reported under Criterion 2, Indicator 2.1.3 Target 1.

TARGET 2: GRASS SEEDING SLIDES

HISTORY

This is a Core Indicator from the Z809-16 Standard. The target was created in 2010 to support the Core Indicator in the Z809-08 SFM Plan. Previously was Indicator # 24 in the Z809-02 SFM Plan and was developed in 2001 and updated to add a reference to FIA eligibility (natural slides) in 2007.

JUSTIFICATION

This indicator provides a measure of commitment towards maintaining and restoring the productive capacity of soils across the DFA. A slide is a mass movement process in which slope failure occurs along one or more slip surfaces, and in which the area generally disintegrates into a jumbled mass en-route to its depositional site[1]. A debris flow or torrent flow may occur if enough water is present in the mass. Slide areas left untreated may result in additional soil erosion where there are areas of loose soil remaining exposed to the elements. Grass seeding or tree planting these areas helps mitigate this erosion by providing rooting structures that penetrate and bind the soils while providing surface cover to minimize exposure and may help re-establish forests.

[1] http://www.for.gov.bc.ca/PAB/PUBLCTNS/GLOSSARY/S.htm

Current Status & Interpretation

Year	Total Slides Reported [2]	Total Slides Treated [3]	% Slides Treated	Variance from Target (%)
2000	7	7	100.0%	0.0%
2001	14	11	78.6%	-16.4%
2002	29	25	86.2%	-8.8%
2003	26	26	100.0%	0.0%
2004	38	38	100.0%	0.0%
2005	17	16	94.0%	-1.0%
2006	25	25	100%	0.0%
2007	19	18	94.7%	-0.3%
2008	13	4	31%	64%
2009	12	6	50%	45%
2010	15	11	73%	-22%
2011	95	22	23%	-72%
2012	15	19	126.7%	31.7%
2013	69	55	80%	-15.3%
2014	122	35	29%	-66%
2015	44	19	43.2%	-51.8%
2016	82	45	54.9%	-40.1%
2017	4	2	50%	-45%
2018	1	0	0%	-100%
2019	2	0	0%	-100%
2020	21	2	10%	-90%
2021	**4**	**1**	**25%**	**-75%**

PERFORMANCE

2021 Results: The target and variance were not met in 2021. There were at least four slide events that were discovered across the DFA in 2021. One of these events was grass seeded in 2021. The other events are scheduled for assessment and/or treatment in 2022. As per the Indicator target, there are two years from the date the slide occurred (or the date the slide was discovered, if the initiation date is unknown) to complete a grass seeding or planting treatment or to write the slide off as not requiring treatment.

[2] Includes only those slides that occurred in stands less than 20 years of age.

[3] Treated - includes all reported slides that have been planted and/or seeded.

Strategies & Implementation

Annually unrecorded slides meeting size criteria are reported promptly as they are encountered. After major storms, a TFL reconnaissance is done (i.e., helicopter flight(s)). Rehabilitation recommendations are derived from the EMS slide reports. Funding sources are as follows: 1) FIA landslide eligibility (e.g., non-status roads and eligible harvested areas, but not natural slides); 2) FRPA s.108 and FPPR s.96 funding may apply in other harvested areas; and 3) company funding where these do not apply. FIA has decided to not fund natural slides, and WFP may decide on a case-by-case basis whether to follow similar criteria. Cutblock and road design on the DFA is guided by several documents: Terrain Risk Management Strategies, Watershed Management Strategies and Windthrow Risk Assessment Procedure. Qualified Registered Professionals assess terrain stability along with other factors in order to reduce the occurrence of slides within harvested cutblocks and from built roads. Typically, treatment windows are March-April and September for planting and April-May and September-October for grass seeding.

FORECASTS

The target is expected to be met into the future. Since the target is to rehabilitate (plant and/or grass seed) non-natural slides within two years of occurrence, flexibility exists to address any specific issues. A key assumption is that no major event will occur (e.g., catastrophic rain and/or windstorm) on the DFA. While it is nearly impossible to forecast the number of landslides that might occur, there are several strategies and tools which serve to minimize the number of landslides and their consequences.

DETAILS/ DATA SET

Measured as a percentage, this indicator is determined by dividing the number of slides where a treatment has been applied (planting and/or seeding) by the total number of slides reported in stands less than 20 years of age. A separate tracking spreadsheet of slides and action plans is maintained by the Assistant Forester. As new slides are found, details are entered onto the tracking spreadsheet and treatments are incorporated into annual projects (planting, grass seeding). When slides are found, a Slide Report is completed which includes an action plan (i.e., treatments) if applicable. These action plans are updated to the Incident Tracking System with deadlines to track them to completion.

MONITORING

The TFL Forester or designates will ensure that data is compiled, and performance reported, in the SFM Plan Annual Report. Data will be tracked and compiled at the Forest Operation level.

INDICATOR 3.1.2 LEVEL OF DOWNED WOODY MATERIAL

Element: 3.1 Soil quality and quantity *Conserve soil resources by maintaining soil quality and quantity*				
Value	**Objective**	**Indicator**	**Target**	**Variance**
Conservation of soil resources	Maintain the productive capacity of forest soils.	3.1.2 The level of downed woody debris.	1) The retention silviculture system is represented across the DFA according to the targets listed in the Western Forest Strategy (see 1.1.4) 2) 100% of 2nd growth cutblocks retain ≥5 CWD pieces per hectare	1) </= 25% of the target for each VILUP, Ecosection and BEC subzone group 2) 100% of 2nd growth cutblocks retain ≥4 CWD pieces per hectare

TARGET 1: RETENTION SILVICULTURE SYSTEM

Reported under Criterion 1, Indicator 1.1.4

TARGET 2: COARSE WOODY DEBRIS

This is a Core Indicator from the Z809-16 Standard. The target was created in 2012 to support the Core Indicator in the Z809-08 SFM Plan and to better reflect the core value of soil quality and quantity. A partial dataset was reported in 2012 and full reporting began in the 2013 Annual Report.

JUSTIFICATION

Having a healthy productive forest is important in the management of a land base for the long term. Through generations of logging, productivity of soils can degenerate unless measures are taken. While often overlooked, coarse woody debris (CWD), standing or down, plays a critical role in forest productivity. Many flora and fauna rely on CWD, and may be at risk, if through logging, the levels of CWD are reduced significantly. CWD is one of the major inputs of organic matter to forest soils, critical for forest function, structure, and productivity.

Through normal logging practices, plenty of woody debris is generally left behind, although a large portion of this is small in size. Larger pieces of debris (CWD) provide a different ecological function than smaller pieces. They last longer, hold more moisture, contribute more organic matter to the soil and provide habitat to a greater number of species.

Managing CWD over the long term can be achieved through a combination of leaving large downed woody debris (Target 2), which will remain for a certain period of time, and by retaining safe dead and live standing trees (Target 1). When the standing trees fall, they will provide downed CWD for the mid to late stages of the rotation.

Old growth cutblocks generally have a fair deal of CWD after harvest. There are several factors that lead to this. Old growth blocks have never been harvested, so there has never been a removal of residual CWD through logging, so there is less pressure on the CWD stock. It is for this reason that this target will only be

measured in 2nd growth blocks, where there is generally much less CWD, and a management focus may be necessary.

CURRENT STATUS & INTERPRETATION

Year	% of 2nd Growth Cutblocks meeting Target	% of 2nd Growth Cutblocks meeting Variance	Target or Variance Met	Variance
2012	84%	84%	No	16%
2013	100%	100%	Target met	0%
2014	100%	100%	Target met	0%
2015	100%	100%	Target Met	0%
2016	100%	100%	Target Met	0%
2017	86%	86%	Not Met	14%
2018	92%	92%	Not Met	8%
2019	95%	95%	Not Met	5%
2020	20%	20%	Target Met	0%
2021	**100%**	**100%**	**Yes**	**0%**

PERFORMANCE

2021 Results: The target was met in 2021. A total of 19 cutblocks were residue surveyed in 2021. The survey plots in all 19 cutblocks contained >/= 5 CWD pieces per hectare.

STRATEGIES & IMPLEMENTATION

Through normal logging practices, there is generally a certain level of woody debris that is left behind. This is usually composed of non-merchantable wood or wood that is uneconomical to remove from the cutblock. Production Supervisors, during logging, and forest professionals conducting post-harvest assessments will visually determine whether there is sufficient CWD left behind after harvesting. If levels of downed CWD levels are not sufficient, then redistribution of CWD may be required in order to meet this target. Waste surveys are completed on most Crown land cutblocks. Coarse woody debris pieces are tallied during these surveys.

FORECASTS

The target is expected to be met into the future regardless of policy or regulation changes. Utilization practices result in lower quality logs being left in the cutblock or not loaded at the roadsides. This practice is expected to continue. If large scale biomass harvesting begins occurring on the DFA, the number of CWD pieces in the roadside stratums may decrease.

DETAILS/ DATA SET

Performance is calculated as a percentage of 2nd growth cutblocks conforming to the target of containing 5 logs per hectare, each being a minimum of 5m in length and 30cm at one end. A variance of 100% of 2nd growth cutblocks containing ≥4 logs per hectare will be considered acceptable. The variance meets the FPPR requirements. As there is generally a period of time between harvesting and when the waste assessment is completed, the dataset will be composed of cutblocks that have had waste assessments completed and

returned. Care will have to be taken to ensure that all blocks are accounted for as harvest completion and waste assessment completed may not occur in the same year.

Another source of data for this Indicator is to utilize data collected by FREP on the DFA.

MONITORING

The Forest Act requires licensees to carry out waste assessments to ensure that an unacceptable level of merchantable waste is not left on site. WFP uses these assessments to confirm the number of CWD pieces. As part of this assessment, waste surveyors will be instructed to determine levels of CWD as described above (and in FPPR). The results will then be reported back to WFP in a meaningful form, which can be reported for this target. In instances where the survey does not pick up any CWD pieces, the cutblock is re-assessed to get an ocular confirmation. The TFL Forester or designate is responsible for compiling this information for inclusion in the Annual Report.

INDICATOR 3.2.1 PROPORTION OF WATERSHED WITH RECENT STAND-REPLACING DISTURBANCE

Element: 3.2 Water quality and quantity *Conserve water resources by maintaining soil quality and quantity*				
Value	**Objective**	**Indicator**	**Target**	**Variance**
Healthy watersheds	Maintain or enhance water quality (clean water) and water quantity (stream flow regimes within natural variations)	Indicator 3.2.1 Proportion of watershed or water management areas with recent stand-replacing disturbance	1) Roadside Re-vegetated versus Roads Built – a) To re-vegetate 90% of roadside erosion risks (i.e. high risk) following construction; OR b) where a risk based system has not been developed, re-vegetate > 75% of all roadsides. The timelines for a) and b) is within 12 months of construction. 2) Watershed Trends – 100% of Cutblock Site Plans are consistent with both the Watershed Trends Report and the Terrain Risk Management Strategy (TRMS).	1) ≤ 10% of targets; a) ≥ 80% and b) ≥ 65%. 2) ≥ 90% of Cutblock Site Plans are consistent with both the Watershed Trends Report and the TRMS.

TARGET 1: ROADSIDE RE-VEGETATED VERSUS ROADS BUILT

HISTORY

This is a Core Indicator from the Z809-16 Standard. The target was created in 2010 to support the Core Indicator in the Z809-08 SFM Plan. Previously was Indicator # 23 in the Z809-02 SFM Plan and was developed in 2001 and revised in 2007 to allow for risk rating or qualitative reporting versus 100% seeding.

JUSTIFICATION

This indicator provides a measure of success at maintaining and restoring the productive capacity of soils across the DFA. Grass seeding is considered an effective strategy used to minimize the effects of road building and other harvesting activities on productive soils and water quality. While not counted in the indicator, planting of roadsides and natural re-vegetation also contribute. Newly built roads may increase the potential for sediment to enter streams, particularly fish bearing streams. Exposed fine textured soils are a potential sediment source. Grass seeding is an effective treatment to minimize the amount of sediment generated by newly constructed roads. Drainage design and installation (culverts and ditch lines) also serve to minimize sediment generation.

CURRENT STATUS & INTERPRETATION

Year	High Risk Road identified for revegetation (km)	High Risk Road Re-vegetated (km)	Roads Built (km)	Percent of distance re-vegetated (%)	Variance from Target (%)
2010 (excluding HOL)	69.9		76.0	92%	+2%
2011	59.9	59.9	113.2	100% (of High-Risk Road)	0%
2012	21.296	21.296	79.23	>90%	<10%
2013 HOL		13.1	13.9	94%	+4%
2013 PM/JL	41.3	21.6	86.2	100%	+10%
2014	28.865	28.215	-	98%	+2%
2015	40.27	39.37	106	98%	+2%
2016	6.21	6.21	125.7	100%	0%
2017	12.82	12.82	112.2	100%	0%
2018	0.93	0.93	62.3	100%	0%
2019	1.82	1.82	97.8	100%	0%
2020	N/A	N/A	97.8	N/A	N/A
2021	**N/A**	**N/A**	**61.5**	**N/A**	**N/A**

PERFORMANCE

2021 Results: The target and variance were not met for this Indicator. A risk-based approach was used to implement grass seeding in 2021. The approach focused on grass seeding areas with the greatest potential to generate sediment where exposed fine-textured soils may be susceptible to erosion or transport. Grass seeding need is assessed on a block by block/road by road basis. Upon site visits, some areas had revegetated sufficiently naturally and therefore, did not require grass seeding. In other areas, only coarse non-erodible materials were present not required grass seeding. There were 61.5 km of new road construction and 7.8 km of road re-construction on the DFA in 2021.

STRATEGIES & IMPLEMENTATION

Re-vegetation can be 100% of roads constructed or follow a risk-based protocol (guided by the December 2013 Grass Seeding Standard in the WFP Timberlands EMS). During Post Harvest Assessments, higher risk segments of roads that require grass seeding are identified. The seeding is either completed at the time of the Post-Harvest Assessment or during one of the following two seeding windows (Spring = late April/early May and Fall = September). Grass seeding is also completed during bridge installation and replacement projects. Sometimes, grass seeding is completed for aesthetic reasons (i.e., high public usage, mainlines).

FORECASTS

The target is expected to be met into the future. Over time, there will be an increasing amount of second growth timber harvested on the DFA. Typically, second growth timber is located in areas with higher risks such as finer textured soils, close proximity to fish habitat, higher number of stream crossings, potential karst

features, adjacent tenures or property owners, etc. These areas will be accessed through utilizing existing or previously constructed roads or a combination of new road construction and road re-construction of existing roads. As such, the number of roads re-vegetated will likely increase. Length of roads built will include new roads built but not include road re-construction unless there has been a new bridge or major culvert installed.

DETAILS/ DATA SET

Measured as a percent, this indicator is determined by dividing the kilometers of roads re-vegetated by the kilometers of roads built.

If numerical data on distances or area seeded is not available, describe the management strategy used as a qualitative written statement in the SFM Plan Annual Report, and this would be subject to audit. Indicate what the procedure was (describe it, or refer to a written document), and indicate if the planned program was completed, or if there is an action plan to finish it. The procedure referred to would normally include some sort of risk rating of roads, addressing high priorities such as invasive plants (possibly), new culverts, bridges, ditch line, slope stability etc. within distances upstream of fish streams, or transportable to streams, etc. Kilometres of roadside re-vegetated - includes areas/lengths that have been grass seeded or hydro-seeded. Distances reported can include small scale unseeded portions, if they are too small to map and track, as long as the risk criteria in the overall section mapped were addressed.

Kilometres of roads built – annual km built. This figure does not include road re-construction unless there has been a new bridge or major culvert installed (i.e., a wooden culvert or a metal culvert ≥ 1000 mm).

MONITORING

The TFL Forester or designate will ensure that data is compiled, and performance reported, in the SFM Plan Annual Report.

TARGET 2: WATERSHED TRENDS

HISTORY

This target was created in 2010 to support this Core Indicator in the Z809-08 SFM Plan. Previously was Indicator # 25 in the Z809-02 SFM Plan and was developed in 2001 based on the Coastal Watershed Assessment Procedures (CWAPs). Indicator #25 was revised in 2006 and again in 2008 based on the newly introduced Watershed Trends Assessment document.

JUSTIFICATION

The DFA is annually subject to storms and contains significant salmonid habitat, making watershed condition indicators of interest such as hydrologic effects, terrain stability and alluvial channel sensitivity to riparian disturbance. Watershed assessments were conducted to evaluate the present state and trend of all watersheds over 1,000 ha in area, and recommended management strategies. The Forest Stewardship Plan (FSP) requires these strategies where VILUP HLP s.8 applies, if any Fisheries Sensitive Watersheds (FSW) or Community Watersheds are designated, and the strategies are voluntarily adopted in the SFM Plan for all watersheds. As timber harvesting often began in the lower more accessible alluvial portions of watersheds as early as 1917-50 and prior to the 1995 Forest Practices Code (FPC), the effects of historic logging practices, as well as current practices, natural disturbance events, and watershed restoration projects were incorporated.

CURRENT STATUS & INTERPRETATION

Year	Number of Eligible Site Plans	Number consistent with the Trends Report	Number Consistent with the TRMS	% Consistent with Trends and TRMS	Target Met (Y/N)?
2013	95	95	95	100%	Yes
2014	85	85	85	100%	Yes
2015	100	100	100	100%	Yes
2016	74	74	74	100%	Yes
2017	41	41	41	100%	Yes
2018	87	87	87	100%	Yes
2019	56	56	56	100%	Yes
2020	64	64	64	100%	Yes
2021	**85**	**85**	**85**	**100%**	**Yes**

PERFORMANCE

2021 Results: The target was met for 2021. The TFL 6 Watershed Trends Report was updated during 2019.

STRATEGIES & IMPLEMENTATION

Adoption of this indicator and associated target will ensure that the Watershed Management Strategies Report and the Terrain Risk Management Strategy are implemented as part of the operational planning process and in Site Plans for cutblocks. Forestry and engineering staff will review the “key management concerns”, “identified sensitive areas” and the “watershed management strategies” for each watershed, and then design CSPs and harvest instructions to be consistent with the Watershed Management Strategies report. Identification of sensitive areas and stream channel types are facilitated through the use of the GIS inventory mapping. These reports are intended to be used to guide CSPs in conjunction with the WFP Terrain Risk Management Strategy report, and the Stream Management Flowchart that is appended to the Watershed Management Strategies report. The Terrain Risk Management Strategy and the Watershed Management Strategy are directly linked and therefore both strategies are adopted as part of this indicator. Implementation of these strategies is intended to help ensure that the Forecast is met. Although the management strategies within the Terrain Strategy and the Watershed Strategy reports are equally important to roads (i.e., slides, fan destabilization, road sedimentation issues etc.), and these reports should be used in road planning, the target results for this indicator will currently be based on CSPs only for ease of data collection. In the future, the target may be expanded to include Road Site Plans.

Current watershed conditions, changes to watershed conditions over time (watershed trends) and watershed risk ratings were reported by Glynnis Horel P.Eng in October 2007. The results are summarized in the 2007 FIA report entitled *Tree Farm Licence 6 and 39-4 Watershed Indicators*. This report developed a suite of watershed indicators to be tracked for different purposes (FSW evaluation, operational management strategies, watershed restoration prioritization). A summary indicator, number of watersheds in target condition, to monitor results of management strategies has been identified in the SFM Plan forecast.

A follow-up report entitled *Tree Farm Licence 6, Tree Farm Licence 39 Block 4 and Tree Farm Licence 37 Watershed Management Strategies* is the basis of the SFM Plan target. It provides the management strategies to guide ongoing forest development, and restoration priorities, in order to address the key concerns identified.

FORECASTS

The watershed indicators have allowed comparison of pre-Code and post-Code management, particularly for terrain stability impact. The data show an order of magnitude reduction in landslides from roads constructed under FPC standards, and substantial reduction in events from harvested blocks. In addition, FPC stream buffers were effective in significantly reducing disturbance to alluvial channel reaches. The tracking of this indicator with respect to site plans, and Watershed Target Condition (A = stable, B = improving) is intended to ensure that strategies implemented achieve desired results for adaptive management.

The 2007 Watershed Trends Report indicates that 84% of watershed units are in target condition (stable or improving). In order for the Watershed Management Strategies to have future relevance, the attribute data upon which the strategies are based (i.e., potential terrain hazards, landside data and riparian condition etc.) needs to be periodically updated. Section 8 of the Watershed Management Strategies document indicates that inventories of potential terrain hazards and landslide information should be updated every 3 years. An update to the landslide inventory took place in early 2014 and another update was completed in 2018/2019. Watershed condition, watershed trends and watershed management strategies are recommended to be updated at ~10-year intervals.

A review of the watershed recovery rates was prepared during 2019. As well, by following the terrain and watershed management strategies mentioned above, it is expected that the watershed trends data will be at or above the baseline conditions data (see Table) in the scheduled update. The table below summarizes watershed trends and target conditions as determined in October 2007.

Watersheds in target condition A (Stable) & B (Improving) within TFL 6 as of October 2007					
# Watersheds in Target condition (Watershed Trend Class A&B)	Total # of Watersheds assessed	% of Watersheds in Target Condition	Area (Ha) of Watersheds in Target condition (Watershed Trend Class A&B)	Total area (Ha) of Watersheds assessed	% of Watershed area in Target Condition
41	49	84%	130,211	170,656	76%

Watershed Trend	Watershed Name			
(D) Highly Disturbed	Keith			
(C) Moderately disturbed OR improving but still of concern	Cluxewe*, Goodspeed*, Mahatta*	U. Marble*, Cayeghle*	Hushamu, Clesklagh*	
(B) Improving, may have sites that are still disturbed.	U. Benson*, Waukwaas (both units) *, Hathaway, Koprino, Kwatleo, Buck*, San Josef*	Howlal*, Raging*, Yootook*, Colonial*, Hepler, Klootchimmis, Kewquadie	Craft*, Malook*, Teihsum	Wady*
(A) Stable OR consistent with natural condition	Hump, Hyde, Keogh*, Mackjack*, Mills, Quatse*, Stephens, Stranby	Three Lakes*, Wanokana*, Coetkwaus, Denad, Pegattem, Washlawlis	Allen, Cayuse*, Lewis, Quatsino. Utluh*, Youghpan	Teeta*
Fisheries Rank	(1) High to V.High capacity. Large or potentially large anadromous runs	(2) Moderate anadromous capacity or important resident fishery.	(3) Small but significant anadromous capacity or some resident fish.	(4) Limited fish capacity. Few resident or anadromous fish

* Note: Watersheds denoted with an asterisk indicate that a CWAP was previously completed

DETAILS/ DATA SET

CSPs tallied are those signed during the reporting year, where the assessments were conducted after October 2008. Consistent with Trends Report means CSPs where the Watershed Management Strategies (Trends) report was referenced. Consistent with TRMS means that the TRMS was referenced in the Terrain Stability Assessment Report or the CSP.

MONITORING

The TFL Forester or designate will ensure that the data is compiled and reported in the Annual SFM Plan Report.

INDICATOR 3.2.2 PROPORTION OF FOREST MANAGEMESNT ACTIVITIES, CONSITENT WITH PRESCRIPTIONS TO PROTECT IDENTIFIED WATER FEATURES

Element: 3.2 Water quality and quantity *Conserve water resources by maintaining soil quality and quantity*				
Value	**Objective**	**Indicator**	**Target**	**Variance**
Water quality and quantity	Maintain or enhance water quality (clean water) and water quantity (stream flow regimes within natural variations)	Indicator 3.2.2 Proportion of forest management activities, consistent with prescriptions to protect identified water features.	1. 100% of cutblocks harvested annually will have stand level retention associated with an existing riparian area within the Total Area Under Prescription (TAUP). 2. Road Inspections are completed on all new road construction, road modification, reactivation or deactivation upon completion as per WFP's EMS.	1. No variance 2. ≥ 90% of target level- depending on snow and access to roads

TARGET 1:

HISTORY

New Core Indicator under CSA Z809-16. Target was created in discussion with VINWAG during 2017. VINWAG has requested that this Target be re-visited/re-evaluated in 2018 with the goal of developing more quantitative Target(s).

JUSTIFICATION

This target aligns with the Forest Stewardship Plan (FSP) for the Defined Forest Area. Specifically, the government objective in the Forest Planning and Practices Regulation (FPPR) is to conserve at the landscape level values within riparian areas. The FSP commits that at the conclusion of harvesting a portion of the stand level retention requirement will be located in a riparian management zone of a stream associated with the cutblock.

CURRENT STATUS & INTERPRETATION

Year	Total # Cutblocks Harvested (Complete)	Total # Cutblocks Harvested (With Streams)	# Cutblocks with Riparian Retention	% Cutblocks with Riparian Retention	Target Met (Y/N)
2021	85	78	73	94%	No

PERFORMANCE

2021 Results: Overall the target and the variance were not met. There were 85 cutblocks on the DFA that were harvest complete in 2021; 78 of these had streams within or adjacent the boundary and 7 did not. A total of 72 of the 78 cutblocks had some level of riparian retention designated.

STRATEGIES & IMPLEMENTATION

Strategies to conserve water quality are also planned and implemented at the cutblock level. Strategies include falling and yarding timber away from streams, stream cleaning, and retaining vegetation (understory and overstory). Retaining overstory vegetation in riparian areas ensures that timber harvesting activities are directed away from streams.

FORECASTS

It is expected that the target will be met because of the requirement in the Forest Stewardship Plan.

MONITORING

Stand level retention is prescribed and located in the planning phase of proposed cutblocks. Inspections and Post-Harvest assessments ensure that retention levels and locations are met and not damaged. The TFL Forester will query Post Harvest Assessments to ensure that riparian retention was respected and achieved.

TARGET 2:

HISTORY

New Core Indicator under CSA Z809-16. Target was created in discussion with VINWAG during 2017. VINWAG had requested that this Target be re-visited/re-evaluated in 2018 with the goal of developing more quantitative Target(s).

JUSTIFICATION

This Indicator is consistent with the intent of FRPA Values Section 149(1) and FPPR Section 8. Section 8 is the objective set by government for water, fish, wildlife, and biodiversity within riparian areas that states without unduly reducing the supply of timber from British Columbia's forests to conserve, at the landscape level, the water quality, fish habitat, wildlife habitat and biodiversity associated with those riparian areas.

CURRENT STATUS & INTERPRETATION

This is a new target with 2018 being the start of the data set which is to be re-evaluated with VINWAG.

WFP has sediment control measures identified in the SOP's for Grade, Hauling, and their associated field cards (field card Grader Operator, field card Hauling, field card Grade). The Grass Seeding Standard and Rainfall Shutdown Standard help support the Environmental Management System in response to erosion and sediment transport and to minimize potential adverse effects to the environment.

As per WFP's Environmental Management System Road Construction Inspections are completed whenever a formal inspection of new road construction or road modification, reactivation or deactivation is carried out. Inspections are to be carried out at a minimum once per construction reactivation or deactivation project upon completion.

The EMS Road Inspection Form encompasses the criteria to ensure sedimentation controls identified at the planning stage and WFP's SOP's are implemented.

PERFORMANCE

2021 Results: The variance was met in 2021.

STRATEGIES & IMPLEMENTATION

A WFP Final Road Construction Inspection is completed on all new road construction or road modification, reactivation, or deactivation projects are carried out as per WFP's Environmental Management System. Inspections are carried out at a minimum once per construction, reactivation or deactivation upon completion.

FORECASTS

Target result is a review of road inspections and will have a variance set to accommodate unanticipated snow levels or unforeseen circumstances that precludes inspections from being completed annually. The results will be reported the following year within the annual report out.

DETAILS/ DATA SET

Year	Total # Cutblocks 100% roaded	Total # Cutblocks roaded were Inspected	% of Cutblocks with inspections Done	Target Met? (Y/N/V)
2021	77	73	95%	Variance

MONITORING

The TFL Forester will ensure that data is compiled from the Cenfor database and/or cutblock files, and performance reported, in the annual SFM Plan.

INDICATOR 4.1.1 NET CARBON UPTAKE

Element: 4.1 Carbon uptake & storage *Maintain the processes that take carbon from the atmosphere and store it in forest ecosystems*				
Value	**Objective**	**Indicator**	**Target**	**Variance**
The uptake of carbon	The net rate of carbon uptake by the forest is positive over time	4.1.1 The net carbon uptake	The net annual carbon uptake on the DFA is positive year after year	1 year negative

HISTORY

This is a Core Indicator in the Z809-16 SFM Plan. The target was created in 2010 to support the Core Indicator in the Z809-08 SFM Plan.

JUSTIFICATION

The basic premise of a sustainable forest management organization is that it should be at least carbon neutral from the onset. In this context carbon neutrality is a demonstration that harvest levels are sustainable. In itself, forest management should be shown to be a positive contributing activity for global ecological cycles over time.

CURRENT STATUS & INTERPRETATION

For 2021, the net carbon uptake of the DFA (expressed in CO_2e tonnes) was calculated to be as follows:

	2021 CO2e (tonnes)
Carbon uptake (from growing stock) (TFL 6, TFL 39/4, MF29, MF 31, MF 61)	1,052,084
Carbon removed (to short-lived products)	-417,706
Fuel Consumed (harvest & transport)	-14,835
Debris burned (debris disposal/operational fires)	-5,886
NET Carbon Uptake	**613,658**

PERFORMANCE

2021 Results: The target was met in 2021 and has been met since reporting began in 2011.

STRATEGIES & IMPLEMENTATION

The primary strategy for ensuring a consistent net rate of carbon uptake on the DFA over time is:

Prompt and effective reforestation or regeneration of harvested areas that aims to establish free growing stands of healthy trees of mixed species in sufficient numbers and within set time frames.

This is primarily achieved through a combination of natural regeneration and the planting of seedlings shortly after harvest is completed.

In certain circumstances, additional treatments may be required in support of this core strategy to achieve its goal including:

- Site preparation such as spot or broadcast burns or mechanical debris scattering or removal to ensure a good distribution of the regeneration throughout the harvested area.
- Fertilization at the time of planting to help initial seedling growth and establishment ahead of competing brush.
- Physical protection of seedlings against browsing pressures from deer and/or elk.

Additional strategies that contribute to the consistent sequestration of carbon on the DFA include:

- The use of improved seed for planted seedlings that have improved growth performance and/or insect or disease resistance.
- Brushing treatments to relieve young trees from some of that competition.
- Broadcast fertilization of stands to stimulate growth (e.g., SCHIRP) when funding is available.
- Forest fire preparedness & response that aim at the prevention of fires and the prompt control and extinguishment of those that occur.
- Modernizing or upgrading of equipment that result in improved fuel efficiencies.

FORECASTS

Testing of different harvest levels in the spreadsheet model indicates that the annual net carbon uptake would remain positive for the DFA at the normal AAC level of harvest but could turn negative in a year where substantially more than the AAC is harvested to compensate for a year of undercut.

DETAILS / DATA SET

The net carbon uptake on the DFA is simply defined as the difference between the total carbon uptake on the DFA by its growing stock, minus the net carbon removed from the DFA through harvest operations and the total carbon emitted through fuel consumption during forest management operations.

The net volume of carbon removed is a factor of the total volume harvested which accounts for the portion of the harvest that remains sequestered in long-life products such as building lumber and furniture.

Net carbon uptake can be expressed in a simple equation as follows:

Carbon uptake (from growing stock)
- Carbon removed (to short-lived products)
- Fuel consumed (harvest & transport)
- Debris burned (debris disposal/operational fires)

= Net carbon uptake

Carbon uptake is calculated using the current growing stock on the DFA and applying growth estimates to the updated timber inventory. The government growth models TIPSY (Table Interpolation Program for Stand Yields) and VDYP (Variable Density Yield Projection) are used to generate growth estimates depending on stand age and tenure. Growth is distributed by species according to the species percentages recorded for each stand. The annual growth (in m^3) is multiplied by the average carbon density estimates (kg/m^3) by species to obtain the carbon uptake in tonnes of carbon.

The carbon removed is calculated based on the log volume production for each species. The annual log production (in m^3) is multiplied by the average carbon density estimates (kg/m^3) by species to obtain the gross carbon removed. This is then multiplied by a factor of 60% to estimate the tonnes of carbon removed to short-lived products. For simplicity, only stem-wood volume is considered in the calculation which is consistent with the results of yield curves.

The known fuel consumption is matched to the operational log production. When contractors independently purchase fuel, their consumption is assigned the average calculated rate (in L/m^3) for the remaining of the operation's log production to estimate the total amount of fuel they consumed. The sum total of fuels consumed (in L) is then multiplied by the average carbon density by fuel types (in t/L) to obtain the tonnes of carbon emitted through fuel consumption.

Finally, the carbon emitted through forest practices such as debris burning or through other operationally caused fires is estimated by multiplying the approximate volume of wood consumed (in m^3) by the average carbon density estimates (kg/m^3) of all of the entire harvested volume to obtain the carbon uptake in tonnes of carbon.

MONITORING

To monitor and calculate performance on this indicator, a number of parameters must be monitored or maintained for the DFA:

- Growing stock inventory over time (adjusted for age and for annual harvested area)
- The volume harvested annually.
- The species profile of the harvested volume.
- The age (i.e., old growth vs. 2^{nd} growth) profile of the harvested volume.
- Total annual fuel consumption (gasoline, diesel fuel, aircraft fuel).
- Annual area burnt in operationally caused forest fires.
- Annual area burnt in broadcast silviculture fires.
- Total number of debris piles burned annually for silviculture or fire abatement reasons and their average size.

The parameters listed above are entered in a spreadsheet built to calculate the carbon values emitted. It includes conversion factors extracted from recognized and credible international research literature. These factors include:

- Carbon density (CO_2e) of wood by species in tonnes/m^3.
- Carbon density of various fuel types in tonnes/L.
- Proportion (%) of wood harvested that is stored in short-lived products.

The Manager, EMS and Certification is responsible for determining the net carbon uptake with assistance from Corporate Forestry. The results are provided to the TFL Forester for inclusion in the Annual Report.

INDICATOR 4.1.2 REFORESTATION SUCCESS

Element: 4.1 Carbon uptake & storage *Maintain the processes that take carbon from the atmosphere and store it in forest ecosystems*				
Value	**Objective**	**Indicator**	**Target**	**Variance**
Resilient forest ecosystems	Maintain ecosystem processes and ecosystem conditions	2.1.1 Reforestation success		

REPORTED UNDER CRITERION 2, INDICATOR 2.1.1.

INDICATOR 4.2.1 ADDITIONS AND DELETIONS TO THE FOREST AREA

Element: 4.2 Forest land conversion *Protect forest lands from deforestation or conversion to non-forests, where ecologically appropriate*				
Value	**Objective**	**Indicator**	**Target**	**Variance**
Productive forest ecosystems	Maintain ecosystem conditions	2.1.3 Additions and deletions to the forest area		

REPORTED UNDER CRITERION 2, INDICATOR 2.1.3.

INDICATOR 5.1.1 TIMBER AND NON-TIMBER BENEFITS PRODUCED IN THE DFA

Element: 5.1 Timber & non-timber benefits *Manage the forest sustainably to produce mix of timber and non-timber benefits. Support a diversity of timber and non-timber forest products and forest-based services.*				
Value	**Objective**	**Indicator**	**Target**	**Variance**
Forest benefits	A consistent range of forest benefits is produced from the DFA	5.1.1 Documentation of the diversity of timber and non-timber resources, including products and services in the DFA.	The quantity and quality of timber and non-timber benefits, products, and services produced from the DFA and known to the manager is constant from year to year	Variable (see below)

HISTORY

This is a Core Indicator under CSA Z809-16 Standard. The target was created in 2010 to support the Core Indicator in the Z809-08 SFM Plan. It incorporates Indicators # 29, 32 and 34 from the Z809-02 SFM Plan.

JUSTIFICATION

The forest can and does provide a wide range of benefits, products and services to society at large. The exact amount and nature of these benefits will depend on the general character of the DFA. However, the broad types of timber and non-timber benefits from the forest will include:

- outdoor activities and recreation opportunities (e.g., hiking, boating, camping)
- sustainable harvest of timber and non-timber resources (e.g., mushroom harvesting, salal harvesting)
- hunting, fishing, and trapping activities.
- opportunities for ecotourism (e.g., birdwatching, wildlife viewing); and
- Cultural and heritage resources.

In BC, the government directly manages and controls all natural resources on Crown land. As a forest licensee operating on Crown land, WFP only indirectly affects most resources but cannot administer them. For example, while Western's harvesting activities may have effect on wildlife or water quality, Western cannot issue hunting licenses or water licenses, this being the function of Government. Nonetheless, Western is charged with managing the timber resource in a way that minimizes adverse effects on other resources and resource users and uses publicly available information to assist.

In this context, the parameters of known forest benefits that Western can report on are as follows:

- Timber quantity produced from the DFA (volume): This is the core of Western's business and the primary direct product extracted from the forest. Annually, the regulated volume variance can be up to 50% from the AAC, as allowed by legislation. This provides some flexibility to respond to market demand fluctuations.
- EBITDA: For a business enterprise to be sustainable over time, it must be financially sound. The EBITDA (earnings before interest, tax, depreciation and amortization) is a common general measure of a business' financial health. The target is to show a positive EBITDA year after year. The variance

is 1 year of negative EBITDA. Any extended period of negative results would bring in question the sustainability of the business and ultimately engender major restructuring.

- Net road access created (km): The provision of road access is the primary way in which use of the forest for recreation, sporting, tourism, cultural and harvesting of non-timber products activities can be directly affected. The large inventory of roads throughout the DFA is the asset that allows the use and enjoyment of most forest products and benefits. Western contributes to the maintenance and growth of this asset through its road construction and maintenance programs. On an on-going basis, roads are constructed or reconstructed to primarily provide access to timber. As well, roads are regularly decommissioned to remove an environmental risk. Occasionally, rock ballast is removed for recycling purposes and use on newly constructed roads where suitable rock ballast sources are rare. The roads are usually left in a drivable condition for four-wheel drive vehicles and ATVs. The target is for the net effect of these activities to produce a positive increase in the overall road access available for any use on the DFA measured on a yearly basis. A variance of 1 year of a nil or negative increase would allow for the unlikely occurrence of such a negative business climate that no roads are constructed to preserve cash.
- Recreation sites maintained (number): The primary responsibility for recreation sites falls on Government. Nonetheless, Western demonstrates its understanding of the importance of non-timber benefits and recreation by maintaining sites for public use. Recreation sites maintained include campsites, trails, and picnic areas. The target is to maintain all the recreation sites (27) established in the DFA. A variance of 7 sites not maintained in a year allow for the fluctuations in resource available for recreation.
- Trap-lines (number): In planning harvesting operations communications with registered trappers are occasionally carried out, even if not required, in order to provide them an opportunity for direct comments. From year to year there should not be any trap line lost or denied due to Western's activities.
- Limited entry tags available (number): The Ministry of Environment is the agency charged with regulating and managing hunting. However, a year after year allowance of hunting Elk in the DFA under limited entry hunting permits is evidence of an ongoing healthy population. Western's forest management contributes in some degree to that health through the maintenance of ungulate winter ranges. The target is to have limited entry hunts in the DFA with a variance of 1 year without any to account for possible fluctuation in the elk population due to illness or poaching.

CURRENT STATUS & INTERPRETATION

For 2021, the quantity and quality of timber and non-timber benefits, products, and services produced in the DFA and as defined above was as follows:

Type	Unit of Measure	2021 Results	Comments	Variance	MET?
Timber Quantity	m^3	**683,750 m^3 (50.6% of AAC)**	Refer to comments under Indicator 2.1.4	>50% of AAC	Met
EBITDA	$ mm	**$302.1 mm**		1 year negative	Met
Net Road Access Increase	km	**Positive**		1 year at or below 0 km	Met
Recreation Sites Managed	#	**20/21 sites**		≥ 18/21 sites	Met
Trap-Lines	#	**31**	Decrease of 2 traplines from 2020 due to DFA boundary revisions.	None	Met
Limited Entry Tags	#	**0**		1 year at 0	Met

PERFORMANCE

2021 Results: The targets were met in 2021.

STRATEGIES & IMPLEMENTATION

Western's strategy with regards to its harvest level is to harvest the full extent of its annual allowable cut. In adverse market conditions, production levels have been significantly reduced below the AAC and focus has been on harvesting areas with a positive margin.

A current WFP initiative involves efforts to remove older inactive roads from permit. This results in reduction of overall road access. This effort is however offset by the building of new roads on a continual basis for accessing new stands of timber for harvesting.

Primarily, recreation sites are maintained by Western through service arrangements with the Ministry of Forests, Lands and Natural Resource Operations. Western supplements this with its own financial resources when needed and to the extent it can afford. In support of public use, established recreation sites are indicated on WFP visitor guides of the North Island area, which are distributed free of charge.

Trap-lines are administered and managed by the Ministry of Environment.

Similarly, the number of Limited Entry Hunting tags or authorizations made available is determined solely by the Ministry of Environment and the Ministry of Forests, Lands, Natural Resource Operations and Rural Development.

FORECASTS

- Based on past experience through several economic cycles, it is expected that the timber quantity annually produced will vary sometimes significantly from year to year according to markets. However, in the long term, the timber volume produced should approach 100% of the AAC as determined by the Chief Forester (see 5.1.2 for more details).
- EBITDA is monitored in quarterly company financial reports and may be forecasted only in the short term based on the financial and economic outlook of the company and the economy in general.

- It is expected that additional roads will be built annually until the forest land base is developed to its full potential, at which time, the net road access should stabilize. Past experience shows that old roads continue to provide a level of recreational access even when no longer drivable.
- It is expected that a number of maintained recreation sites will continue to be available for use by the public. Recreation is an important local value for all those who live and work in the area and has long been supported by corporate policy. No change in this policy is anticipated although the funding sources are likely to vary as they have in the past.
- Historically, the number of trap-lines has remained stable. The level of activity on those trap-lines is unknown as they are managed by the Ministry of Environment but is believed to be minimal due to current public views on fur. It is anticipated that the number will continue to remain stable. It is assumed that license holders choose to retain their rights in the expectation of occasional requests to trap pest beavers.
- The number of limited entry tags is the sole jurisdiction of the Ministry of Environment and is set annually. Based on past experience, the number of tags issued is expected to remain relatively stable with minor fluctuations depending on the general health of the herds.

DETAILS/ DATA SET

The current status of the DFA regulated cut expresses the quantity of timber produced. Refer to Indicator 2.1.4 for details.

Earnings before Interest, Tax, Depreciation and Amortization (EBITDA) is reported regularly for the whole company in its various public financial reports. The EBITDA reported in annual reports were as follows:

	2017	2018	2019	2020	2021
EBITDA (in mm$)	$152	$143	($1.5)	$116.8	**$302.1**

The net road access created in 2021 on the DFA was as follows:

	Created (km)		Ballast Recycling	Removed (km)	Net access created (km)
	Construction	Reconstruction		Decommissioned	
DFA	61.5	7.8	Unknown	0	69

In 2021, there are currently 21 recognized recreation sites established in the DFA. WFP partners with Recreation and Sites Trails BC in maintaining several recreation sites.

Site name	Tenure	Type	Description	2021 Maintenance
Beaver Lake Recreation Site and Trail	TFL 6	Day use site	Picnic site with lake access; 0.9 km trail	Y
Clint Beek	TFL 6	Campsite	Campsite with lake access	Y with campground host

Site name	Tenure	Type	Description	2021 Maintenance
Devils Bath	TFL 6	Day use site	Viewpoint for a karst feature	Y
Eternal Fountain	TFL 6	Day use site	Viewpoint for a karst feature	Y
Grant Bay	TFL 6	Campsite	Trail and 4 campsites	Y
Kathleen Lake	TFL 6	Campsite	Campsite with 2 sites	Y
Lac Truite	TFL 6	Day use site	Picnic site and trail	Y
Marble River Recreation Site	TFL 6	Campsite	33 campsites, picnic tables, boat launch, fishing and hiking	Y
Neroutsos Picnic Site	TFL 6	Day use site	2 picnic sites overlooking Neroutsos Inlet	Y
O'Connor Lake Recreation Site	Managed Forest 31 (private land)	Day use site	Picnic tables, boat launch, swimming, waterskiing and fishing, no camping	Y
San Josef Recreation Site	MF 61 (private land)	Campsite	11 campsites and boat launch	Y
Spencer Cove Recreation Site	TFL 6	Campsite	10 campsites, boat launch, dock and fishing	Y
Spruce Bay Recreation Site	TFL 6	Campsite	7 campsites, swimming, fishing, canoeing, dock and old growth trail	Y
Swan Lake Recreation Site	MF 61 (private land)	Day use site	Picnic area, boat launch and fishing – no camping	N
Three Isle Lake Recreation Site	TFL 6	Day use site	Picnic site with boat launch	Y
Cluxewe Beach Trail	TFL 6	Trail	0.52 km	Y
Hecht Beach Trail	TFL 6	Trail	0.51 km	Y
Lady Ellen Trail	TFL 6	Trail	0.82 km	Y
Merry Widow Trail	TFL 6	Trail	1.50 km	Y
Grant Bay Trail	TFL 6	Trail	0.44 km	Y
Spruce Bay Old Growth Trail	TFL 6	Trail	2.06 km	Y

A query of the WFP Corporate GIS database revealed that 31 traplines overlap/intersect the DFA boundaries in 2021. This is a decrease of 2 traplines from what was reported in 2020. The 2 traplines just barely intersected the DFA boundary previously and were found to not intersect in 2021. The new target is 31 traplines across the DFA.

There were zero (0) Limited Entry Hunting (LEH) authorizations issued in Zone A (Nahwitti) and B (Benson Valley) of Management Unit 1-13 (which overlap the DFA) in 2021. According to the Wildlife Biologist for MFLNRORD, the LEH season for these two Zones remained closed for hunting due to small herd size. The Ministry have been seeing promising recovery of the herds in the Mahatta and Waukwaas areas in the last

few years and consideration is being given to open a new LEH Zone in the Waukwaas EPU for 2022/2023 The Waukwaas EPU covers Rupert Inlet, the former BHP mine site and portions of Rupert Main located west of Highway 19.

Mgt Unit/Zone	# of permits available 2017	# of permits available 2018	# of permits available 2019	# of permits available 2020	# of permits available 2021
Nahwitti 1-13A	2	0	0	0	**0**
Benson 1-13B	2	0	0	0	**0**

MONITORING

The tracking of the status of the Cut Control levels is a primary responsibility of the Manager, Inventory & Analysis. Operations enter the key production information in CENFOR and LIMS.

EBITDA is value tracked through the company annual reports. It is an accounting measure created for broad performance evaluation and reporting purposes.

Operations are responsible to enter road production information (construction and rehabilitation) in CENFOR and the accounting system on a monthly basis.

The maintenance of Recreation Sites is primarily the responsibility of Recreation Sites and Trails BC (a part of MFLNRORD). WFP supports through a Partnership Agreement with RSTBC for a number of the listed sites.

Information on trap lines is maintained by the Ministry of Environment and Climate Change Strategy. Trap line boundaries are monitored on the iMapBC website.

The number of Limited Entry Hunting authorizations made available is shown in the annual hunting regulation synopsis published by the MFLNRORD as well as regular correspondence with the MFLNRORD Wildlife Biologist.

INDICATOR 5.1.2 EVIDENCE OF OPEN AND RESPECTFUL COMMUNICATIONS WITH FOREST DEPENDENT BUSINESSES, FOREST USERS AND LOCAL COMMUNITIES

Element: 5.1 Timber & non-timber benefits *Manage the forest sustainably to produce mix of timber and non-timber benefits. Support a diversity of timber and non-timber forest products and forest-based services.*				
Value	**Objective**	**Indicator**	**Target**	**Variance**
Forest benefits	Support a diversity of timber and non-timber forest products and forest-based services.	Indicator 5.1.2 evidence of open and respectful communications with forest dependent businesses, forest users, and local communities to integrate non-timber resources into forest management planning. When significant disagreement occurs, efforts towards conflict resolution are documented	1) All written communications with forest dependent businesses, forest users and local communities, related to integrating non-timber forest uses into forest management planning are recorded and reported out annually and, where disagreement occurs, all efforts of conflict resolution are documented. 2) Senior WFP representatives meet with VINWAG at least once every 2 years to discuss community issues (joint VINWAG/NWAC meetings acceptable).	1) None 2) None

TARGET 1:

HISTORY

New Core Indicator under CSA Z809-16.

JUSTIFICATION

The target and variance are tied to legal requirement under the Forest and Range Practices Act (FRPA) to refer and consider comments on some Plans (e.g. the Forest Stewardship Plan) from groups and individuals influenced by forest practices. Moreover, non-regulated communications occur with forest businesses, forest users, and communities frequently. Records of important communications are maintained by the Company.

CURRENT STATUS & INTERPRETATION

This is a new indicator and records of communication with forest users will begin in 2018.

PERFORMANCE

2021 Results: The target was met for 2021.

Discussion/communications with VINWAG and local government about proposed cutblocks on the DFA:

- Harvesting near Coal Harbour
- Harvesting adjacent to the Orca Sand and Gravel site and Highway 19

STRATEGIES & IMPLEMENTATION

Engagement with forest businesses, forest users, and communities will continue in public venues like Fall Fairs, National Forest Week, Career Fairs, Woods tours, and public forums/committees. In additions, engagement will occur when Forest Management Plans, Forest Stewardship Plans, and Pest Management Plans are referred to the public. Communications will be stored in telephone logs, electronic messaging, and meeting notes. Confidential information will not form part of the target evidence. In cases where disagreement occurs, target evidence will be documented but stakeholder names will not be made public.

FORECASTS

The forecast for this target is that it will be met, with no variances, into the foreseeable future. Upcoming amendments to the Forest and Range Practices Act and Regulations could modify how this target is tracked/reported.

DETAILS/ DATA SET

There were no written communications with forest dependent businesses, forest users or local communities related to integrating non-timber forest uses into forest management planning in 2020. There were no formal meetings held in 2020 due to the COVID-19 pandemic.

No other communications received.

MONITORING

The TFL Forester reviews central files to obtain records related to referrals and other correspondence.

TARGET 2:

HISTORY

New Core Indicator under CSA Z809-16.

JUSTIFICATION

Senior WFP representatives make decisions and plans for the DFA. Meeting with them semi-annually will help support an open dialogue with representatives and VINWAG members about community concerns.

CURRENT STATUS & INTERPRETATION

The WFP General Manager of Timberlands Planning met with VINWAG and NWAC members during the October 25th, 2018, joint meeting to discuss WFP's Harvest Profile strategy. The WFP Chief Forester and VP met with VINWAG and NWAC member during the October 26th, 2017, joint meeting to discuss recent changes at WFP dryland sorts and log sorting processes.

PERFORMANCE

2021 Results: The target was met for 2021. The WFP President & CEO and the Chief Forester & VP met virtually with members of VINWAG and the rest of the WFP PAGs on October 13th, 2021, during an All-PAG meeting. Representative of the operations Management of the DFA participated in the 2021 VINWAG meetings. Refer to the results Indicator 6.1.4.

STRATEGIES & IMPLEMENTATION

The TFL Forester will ensure that a representative or representatives of senior WFP management attend at least one VINWAG meeting or joint VINWAG/NWAC meeting every two years. There is no variance for this target, as it is a measure of the company's commitment to the public advisory process.

FORECASTS

The forecast for this target is that it will be met, with no variance, into the foreseeable future.

DETAILS/ DATA SET

The WFP General Manager of Timberlands Planning met with VINWAG and NWAC members during the October 25th, 2018, joint meeting to discuss WFP's Harvest Profile strategy. The WFP Chief Forester and VP along with the Regional Manager of Company Operations met with VINWAG and NWAC members during the May 23rd, 2019, joint meeting to discuss the future of CSA Certification on North Island DFA's and other topics. Meetings scheduled for September and November 2019 and the joint VINWAG / NWAC meeting scheduled for October 2019 were postponed due to the WFP-USW strike that commenced July 1st, 2019. Refer to results of Indicator 6.1.4.

MONITORING

The VINWAG facilitator will monitor whether senior WFP management representatives meet with members of VINWAG or at a joint VINWAG/NWAC meeting every two years and provide this information to the TFL Forester.

INDICATOR 5.1.3 PROJECTED PERCENT CHANGES IN AAC

Element: 5.1 Timber & non-timber benefits

Manage the forest sustainably to produce an acceptable and feasible mix of timber and non-timber benefits. Evaluate timber and non-timber forest products and forest-based services.

Value	Objective	Indicator	Target	Variance
Forest benefits	A consistent range of forest benefits is produced from the DFA	5.1.3 Projected percent changes in AAC (over 200 years).	Maximum 5% per 5-year period or 10% per decade.	None

HISTORY

This is a non-Core Indicator in the Z809-16 Standard. This was previously Indicator 5.1.2 (Projected Percent Changes in AAC) in the Z809-08 SFM Plan. This Indicator and target were created in 2010 as a locally developed Indicator in the Z809-08 SFM Plan. This locally developed Indicator was carried over from the previous Z809-02 SFM Plan and was known as Indicator #30. Indicator #30 was developed in 2001.

JUSTIFICATION

This indicator provides a measure of success towards managing sustainable harvest levels of timber to provide a sustainable supply of forest values, timber, and non-timber. The projected percent change in AAC describes how projected harvest levels are expected to increase or decrease over 5 year or 10 year cut control periods. In order to maintain community stability, the target is to keep any changes at a slow constant level, rather than sharp fluctuations upwards or downwards. The harvest level on External Timber Licenses and Managed Forests 29, 31 and 61 is unregulated.

CURRENT STATUS & INTERPRETATION

Management Plan #10 for TFL 6 was approved on February 10th, 2012, and a revised AAC was authorized by the Chief Forester. The TFL 6 AAC prior to Plan #10 approval was 1,243,958 m^3 yr. (determined in 2001); the AAC as of Plan #10 approval is 1,148,422 m^3/yr. This represents a 6.8% reduction. The new AAC for TFL 6 effective January 2015 (post TFL 39 Block 4 merger) is 1,350,422 m^3/yr.

Effective January 1st, 2017, the portions of former Forest License A19244 that were situated on North Vancouver Island (DFA) were placed into newly created Forest License A94737. This change was the result of the implementation of the Great Bear Rainforest (Forest Management) Regulation and the re-charting process of the former Kingcome Timber Supply Area. The AAC for Forest License A94737 is 5,443 m^3/yr. (Forest License A19244 AAC was 5,443 m^3/yr.). The geographic area covered by A94737 is the same as what was covered by A19244 in the DFA.

PERFORMANCE

2021 Results: The target was met for 2021. Management Plan #10 for TFL 6 was approved on February 10th, 2012, and a revised AAC was authorized by the Chief Forester. The TFL 6 AAC prior to MP #10 approval was 1,243,958 m3/yr. (determined in 2001); the AAC as of MP #10 approval is 1,148,422 m3/yr. This represents a 6.8% reduction. The new AAC for TFL 6, effective January 2015 (Post TFL 34 Block 4 merger), is 1,350,422 m3/yr.

Effective January 1st, 2017, the portions of the former Forest License A19244 that were situated on North Vancouver Island (DFA) were placed into newly created Forest License A94737. This change was the result of the implementation of the Great Bear Rainforest (Forest Management) Regulation and the re-charting

process of the former Kingcome Timber Supply Area. The AAC for Forest License A94737 is 5,443 m3/yr. (Forest License A19244 AAC was 5,443 m3/yr.). The geographic area covered by A94737 is the same as what was covered by A19244 in the DFA.

STRATEGIES & IMPLEMENTATION

TFL 6 Management Plan #10 and associated Timber Supply Analysis will guide meeting the AAC. The next update to the TFL 6 Management Plan is currently scheduled for late 2021.

FORECASTS

It is anticipated that the AAC of the crown land tenures will decline slightly into the future due to various tenure take-backs and establishment of future wildlife reserves (i.e., UWRs and WHAs) by government.

DETAILS/ DATA SET

Management Plan #10 for TFL 6 was approved on February 10th, 2012, and a revised AAC was authorized by the Chief Forester. The TFL 6 AAC prior to MP #10 approval was 1,243,958 m3 yr. (determined in 2001); the AAC as of MP #10 approval is 1,148,422 m3/yr. This represents a 6.8% reduction. The new AAC for TFL 6, effective January 2015 (post TFL 39 Block 4 merger), is 1,350,422 m3/yr.

Effective January 1st, 2017, the portions of former Forest License A19244 that were situated on North Vancouver Island (DFA) were placed into newly created Forest License A94737. This change was the result of the implementation of the Great Bear Rainforest (Forest Management) Regulation and the re-charting process of the former Kingcome Timber Supply Area. The AAC for Forest License A94737 is 5,443 m3/yr. (Forest License A19244 AAC was 5,443 m3/yr). The geographic area covered by A94737 is the same as what was covered by A19244 in the DFA.

The projected percent change in AAC (over two hundred years) is included as part of the forecasting completed for the TFL Management Planning process and in the Timber Supply Review (TSR) for the Forest Licence. New Management Plans and TSRs are completed up to every 10 years.

MONITORING

The TFL Forester will ensure that the projected change in AAC (over 200 years) is reported in the SFM Annual Report. The Timber Supply Forester in Corporate Forestry assists with reviewing the relevant Timber Supply Analysis.

INDICATOR 5.1.4 COOPERATION WITH FOREST-DEPENDENT GROUPS TO STRENGTHEN AND DIVERSIFY THE LOCAL ECONOMY

Element: 5.1 Timber & non-timber benefits

Manage the forest sustainably to produce an acceptable and feasible mix of timber and non-timber benefits. Evaluate timber and non-timber forest products and forest-based services.

Value	Objective	Indicator	Target	Variance
Forest benefits	A consistent range of forest benefits is produced from the DFA	5.1.4 Evidence that the organization has cooperated with other forest-dependent businesses, forest users and the local community to strengthen and diversify the local economy	100% of required Visual impact assessments	None

HISTORY

This is a non-Core Indicator in the Z809-16 Standard. This was previously Indicator 6.3.1 Target 2 (Cooperation with Forest-Dependent Groups to Strengthen and Diversify the Local Economy) in the Z809-08 SFM Plan. The Objective was revised in 2017 to align with the Z809-16 Standard. The target was created in 2010 for the CSA Core Indicator for Z809-08 SFM Plan. Was previously Indicator # 35 in the Z809-02 SFM Plan and was developed in 2001.

JUSTIFICATION

This indicator provides a measure of success at managing scenic qualities across the DFA. There are several fishing lodges and sport fishing grounds in Quatsino Sound and Port Alice for example, as well as the general public. Recognized as an important value of BC residents, and an important feature for BC's tourism industry, the Forest and Range Practices Act recognizes BC's scenic landscapes as an integral component of the forest resource base. VIAs must be completed for all proposed blocks that lie within Known Scenic Areas. A scenic area is any visually sensitive area or scenic landscape that is identified through a visual landscape inventory or planning process carried out or approved by the District Manager. A Government Actions Regulation (GAR) order was signed in September 2010, establishing updated Visual Quality Objectives for TFL 6.

PERFORMANCE

2021 Results: The target was met for 2021. Visual Impact Assessments (VIA's) were completed on all cutblocks harvested in Known Scenic Areas (KSAs). KSAs are located along portions of Neroutsos Inlet, Quatsino Sound, Holberg Inlet and Queen Charlotte Strait.

CURRENT STATUS & INTERPRETATION

Year	# of VIAs required	# of VIAs completed	% completed	Variance from Target (%)
2021	**48**	**48**	**100%**	**0%**

STRATEGIES & IMPLEMENTATION

Forest Stewardship Plan backgrounder and FRPA Planning checklists for Site Plans. A Visual Inventory is conducted every 5-10 years in conjunction with Management Plans and Timber Supply Analyses and Western reviews it with the public. A Government Actions Regulation (GAR) order was signed in September 2010 establishing updated Visual Quality Objectives for TFL 6 that incorporates the most current Visual Landscape Inventory for TFL 6 prepared by WFP.

Where visual concerns that are outside the Visual Quality Objectives and Known Scenic Area are brought to Western's attention, Western considers the concern and responds.

FORECASTS

Conduct Visual Impact Assessments (or their equivalent) on all areas to be harvested within the Known Scenic Area to verify that harvest alterations will be consistent with established Visual Quality Objectives. Historically, visual assessments have been completed for planned cutblocks within the Known Scenic Area. Assessments have also been completed in areas outside of the Known Scenic Area, but in the vicinity of locally known travel corridors. Visual Quality Objectives are legally designated through GAR, therefore visual assessments are necessary to ensure that these Visual Quality Objectives will be met, and scenic values will be maintained for the public.

DETAILS/ DATA SET

This indicator is determined by dividing the number of VIAs completed by the number of VIAs required. VIAs (or their equivalent) are considered to be required for those cutblocks located within the Known Scenic Area. Cutblocks to be included in the reporting are those that have harvesting completed during the reporting year.

MONITORING

The TFL Forester and Operations Planners are responsible for ensuring that VIAs are completed where required and are responsible for compiling annual data. Post-harvest monitoring may be carried out to assess cutblock design and the effectiveness of a VIA.

INDICATOR 5.2.1 LEVEL OF PARTICIPATION AND SUPPORT IN INITIATIVES THAT CONTRIBUTE TO COMMUNITY SUSTAINABILITY

Element: 5.2 Communities & Sustainability

Contribute to the sustainability of communities by providing diverse opportunities to derive benefits from forests and by supporting local community economies

Value	Objective	Indicator	Target	Variance
Community sustainability	Support community sustainability	5.2.1 Level of participation and support in initiatives that contribute to community sustainability	Level of participation and support in initiatives that contribute to community sustainability is greater than $40,000 annually	≥ $20,000

HISTORY

This is a Core Indicator under the Z809-16 Standard. The target was created in 2010 to support the Core Indicator in the Z809-08 SFM Plan. It incorporates Indicator # 45 from the Z809-02 SFM Plan. Indicator #45 was developed in 2001 and revised in 2007.

JUSTIFICATION

Historically, investments in initiatives that contribute to community sustainability have mainly centered on the maintenance of recreation sites, hatcheries, and salmon enhancement projects. Other projects would be considered for support in the context of the economic circumstances at the time they are identified.

The previous indicator included public education expenditures in its targeted amount. The current target has been reduced to $40,000 and includes projects and public education. The variance has been empirically maintained at half the target to account for periods of economic difficulty and market downturns.

CURRENT STATUS & INTERPRETATION

WFP continues to receive funding from the Department of Fisheries and Oceans through the Public Involvement Program (PIP). WFP supports two salmon hatcheries on the DFA: Cordy Creek at Holberg and Marble River at Port McNeill. Cordy Creek is run almost entirely by WFP staff while Marble River is run by the Friends of the Marble River Society. Both hatcheries are supported by the North Vancouver Island Salmon Enhancement Society. In 2019, both hatcheries were able to complete successful brood stock collections.

The following bullets highlight some of WFP's community support in 2021:

- WFP staff continued to operate the Cordy Creek hatchery. WFP provided in-kind support to the Marble River hatchery.
- WFP supported numerous firewood cuts for several local non-profit groups such as the Port McNeill Baptist Church and Port McNeill Minor Hockey Association.
- WFP donated a couple of logging truck loads of logs to two local First Nation communities for firewood.
- WFP heavy equipment completed road maintenance work on access roads to several recreation sites on the DFA (grading, brushing, minor road repairs). WFP completed Danger Tree Assessments and required falling at several recreation sites and trails located across the DFA.

- Numerous WFP employees volunteer for the Port McNeill, Port Hardy, Hyde Creek and Holberg Volunteer Fire Departments. WFP supports these employees when they are called upon. WFP also covers the wages of employees who attend specific training for these positions (i.e. firefighting training, vehicle extrication training).
- WFP sponsored several bursaries for Port Hardy and North Island Secondary School graduating students.
- Corporately, WFP donated $13,000 in July 2020 to Food Bands and First Nation communities located in the DFA in December 2021.
- WFP supported the Christmas Dinner for seniors in Port Alice.
- WFP supported the North Island Rotary Auction in 2021.
- WFP sponsored several public skating sessions at the Port McNeill and Port Hardy arenas at the end of 2021.

PERFORMANCE

2021 Results: The target was met for 2021.

STRATEGIES & IMPLEMENTATION

Western supports the DFO Salmonid Enhancement Hatcheries Public Involvement Program at the Cordy Creek and Marble River hatcheries and receives up to $5,000 in DFO support annually. The hatchery at Colonial Creek is no longer utilized as power is no longer available to the facility. There is a plan in place to raise brood stock from the Colonial and Cayeghle Rivers at the Marble River Hatchery. This funding offsets some of the expenses incurred by WFP on behalf of these hatcheries. Recreation sites in the DFA located on Crown lands are maintained with a combination of WFP funds and funds from Recreation Sites and Trails BC (part of the Ministry of Forests, Lands and Natural Resource Operations) as well as support from the Regional District of Mount Waddington. Recreation sites in the DFA located on private lands are maintained by WFP funds.

FORECASTS

Based on past performance, the target is expected to continue to be met through these main initiatives. Although the actual dollar value may fluctuate depending on the economic health of the company, there is no expected change in policy that would stop the support of the Salmon Enhancement Project or Recreation.

DETAILS/ DATA SET

In-kind contributions include a dollar estimate of equipment time, personnel time, and facilities donated for the purpose of developing public projects.

MONITORING

Report annual company contributions, plus any reimbursements from other funding sources cost-shared or managed by WFP for these project types.

Dollars and in-kind contributions provided to public projects are determined by compiling the total dollars and in-kind contributions spent during the reporting year on public projects. Data is tracked at the Operation by the TFL Forester Planner and Planning Administrators using queries to the WFP financial system. “In-kind” volunteer time and other contributions may be extensive but are not necessarily able to be accurately captured but are reported where possible.

INDICATOR 5.2.2 LEVEL OF PARTICPATION AND SUPPORT IN TRAINING AND SKILLS DEVELOPMENT

Element: 5.2 Communities & Sustainability *Contribute to the sustainability of communities by providing diverse opportunities to derive benefits from forests and by supporting local community economies*				
Value	**Objective**	**Indicator**	**Target**	**Variance**
Employee skills	Develop employee skills	5.2.2 Level of participation and support in training and skills development	Annually, 100% of employees receive the defined training (EMS and other) and at least 5 summer student positions (or equivalent) for developing youth are filled	≤ 15% (i.e., down to 85%) for employee training; 4 summer student positions

HISTORY

This is a Core Indicator under the Z809-16 Standard. The target was created in 2010 to support the Core Indicator in the Z809-08 SFM Plan. It incorporates Indicators # 27 and 37 from the Z809-02 SFM Plan. Indicator #27 was developed in 2001 and revised in 2004. Indicator #37 was developed in 2004.

In 2014, reference to the former COMFOR crew was removed from the Details/Data Set section.

JUSTIFICATION

The level of annual employee training provided characterizes the bulk of Western's training investment. The 15% variance for the crew subjected to the defined training is to account for exceptional circumstances (e.g., sickness, leave of absence) that prevent some employees to attend training sessions and for the more common missing of single or small elements of their required training.

The five summer student positions are the equivalent of the former COMFOR crew that was the original measure used in previous Indicator # 27 (changes in government funding essentially eliminated the COMFOR program several years ago). This element of the target represents investment in the training of potential future employees. There is a variance of 4 or more summer students associated with this element of the target.

CURRENT STATUS & INTERPRETATION

The results for 2021 are as follows:

Personnel Completed Required Training (%)	Summer Student Positions (#)
90%	**5**

PERFORMANCE

2021 Results: The variance for annual training was met in 2021; >90% of employees received their full annual training as required for Port McNeill Forest Operation and Quatsino Sound Forest Operation. Although WFP goes to great lengths to ensure that all employees are fully trained, (i.e., group sessions at start-up meetings where everyone in attendance undergoes EMS training), it has proven difficult to meet its 100% training commitment over the past years. The variance level of 15% is well within the acceptable level.

The target for summer student positions was met in 2021. There was a total of eight (8) term positions (i.e., summer students) hired in PMFO and QSFO to work in the Planning Department, (4 positions), the Finance department (2 positions) and the PMFO Shop two (2 positions); There was a 3 month and 6-month term in

Finance, two for month and an 8-month term in Planning. A fourth term position in Planning ended up only being a 3-month term (was intended to be a 12-month term, however, the employee was hired as a full-time Planner in another Forest Operation). Finally, there were two-four-month terms in the PMFO Shop. The target is based on a summer student position being 4 months in length (i.e., 5 positions = 20 person months of employment). In 2021, there were 37 person months of employment from the summer student/term positions.

STRATEGIES & IMPLEMENTATION

The core elements of the required training for employees are described in the Timberlands EMS according to general employee positions. Further specialized training requirement for specific employees (e.g., wildfire firefighting, TDG, Safe Work Practices) is defined in the training record databases (Training Manager) maintained by the Operations. Often, the bulk of the defined training is carried out early in the year at the beginning of production operations following the winter shutdown period. Employees include staff, union, and contract workers.

Western's strategy has been to hire summer students to support higher production levels during the field season in the Planning Department. This provides students with training opportunities and at the same time a chance for Western to assess prospective future employees.

FORECASTS

Training levels are expected to remain constant into the future. EMS training requirements are not expected to change. Summer student hiring should remain fairly constant over the years but may see a gradual reduction in absolute numbers reflecting reduced harvest levels due to timber supply analysis and land base reductions due to land sales and tenure reallocation. Similarly, the opportunities in summer recreation employment will likely decline because of the increasing involvement of Recreation Sites and Trails BC in recreation site management.

DETAILS/ DATA SET

The training requirement for each employee is defined by the Operation and includes EMS Level 1 training and core Safety training (i.e., Safe Work Procedures). Specialized training such as TDG training, spill response and wildfire firefighting training is also completed annually with employees but is not reported on. Personnel are considered trained only when all required courses for the position are completed. All operations within the DFA conduct training needs assessments to verify achievement of target.

Year	Personnel Completed	Variance from Target (%)
2001	59%	-41%
2002	68%	-32%
2003	81%	-19%
2004	84%	-16%
2005	89%	-11%
2006	83%	-17%
2007	88%	-12%
2008	99%	-1%
2009	93%	-7%

Year	Personnel Completed	Variance from Target (%)
2012	99%	-1%
2013	99%	-1%
2014	99%	-1%
2015	93%	-7%
2016	92%	-8%
2017	95%	-5%
2018	95%	-5%
2019	90%	-10%
2020	99%	-1%
2021	**90%**	**-10%**

Each year, summer students are normally hired in support of field activities in the Planning Departments at the Forest Operations. The economic conditions and the volume of outstanding work are the primary factors affecting the level of hiring.

Year	Summer Students (#)
2003	10
2004	9
2005	9
2006	12
2007	10
2008	9
2009	0
2010	8
2011	10
2012	8
2013	9
2014	10
2015	5
2016	5
2017	7
2018	7
2019	5
2020	5

Year	Summer Students (#)
2021	9

MONITORING

The Operations are responsible to maintain training records for all their employees. Training records are the basis for training needs assessments that indicate if all defined training requirements have been met. The Operations Administrators are responsible for tracking this information.

The number of summer student positions filled each year is compiled and reported by the TFL Forester.

INDICATOR 5.2.3 LEVEL OF DIRECT AND INDIRECT EMPLOYMENT

Element: 5.2 Communities & Sustainability *Contribute to the sustainability of communities by providing diverse opportunities to derive benefits from forests and by supporting local community economies*				
Value	**Objective**	**Indicator**	**Target**	**Variance**
Full-time jobs on the DFA	There are stable full-time jobs provided from the forest resource on the DFA	5.2.3 Level of direct and indirect employment	Annual level of direct employment on the DFA is at least 663 Full-Time Employees.	≤15% (i.e., ≥564 FTE)

HISTORY

This is a Core Indicator from the Z809-16 Standard. The target was created in 2010 to support the Core Indicator in the Z809-08 SFM Plan. The variance was adjusted to ≤ 15% from ≤ 10% in 2013. It incorporates Indicator # 41 from the Z809-02 SFM Plan. Indicator #41 was developed in 2001.

JUSTIFICATION

This indicator provides a measure of success at providing opportunities for stable, full-time jobs from the DFA over the long term. Full time equivalent employees include all planning and development, harvesting, silviculture and integrated resource management, processing (local) and administration employees. This figure includes staff, union, and contract jobs for WFP Timberlands within the DFA.

The target level was set from the year 2000 baseline information. Since then, the DFA AAC has been reduced due to take-back under Bill 28 (includes transfer to Community Forest) and there was some private land sold to generate cash for the company during the previous market downturn. Also, further loss of land and AAC is expected due to land-claim settlements and an updated timber supply analysis. A new baseline target needs to be set.

There has been discussion that the target be connected to the volume of harvest (jobs/m^3 harvested). It was noted during discussion with VINWAG that employment will likely continue to decrease in harvesting because of further reductions to AAC and technological advances, but that new employment might be generated in other areas such as value added.

The 15% variance level is meant to help account for “normal” market fluctuations that occur in the cyclical forest industry.

CURRENT STATUS & INTERPRETATION

In 2021, the FTE calculated from the exposure hours in the DFA were as follows:

Operating Area	Total hours
Holberg	117,892
Jeune Landing	64,486
Port McNeill	287,854
Quatsino DLS	18,302
Total Hrs.	**485,534**
FTE	**337**

PERFORMANCE

2021 Results: The target and variance were not met in 2021. The Quatsino Sound Forest Operation did not work a full year in 2021 due to a lack of road and harvesting approvals. Some of the crews were absorbed in other Operations, including Port McNeill.

STRATEGIES & IMPLEMENTATION

It is currently Western's strategy to set operational level that align as much as possible with market demand within the AAC limits set by legal agreements and regulation. Also, employment is guided by contractual agreement with the union and contractor rights under legislation (Bill 13).

More recently, Western's approach has been to make operating decisions based on the financial margins generated by Operations.

FORECASTS

It is expected that a recalculated target and variance can be maintained in the long term but within a fluctuating range due to the cyclical nature of the forest industry. Other external forces that can have a detrimental effect include labour strikes, extended weather extremes, productivity gains due to technological advancements, internal business process changes and unforeseen landbase reductions.

DETAILS/ DATA SET

The record of FTE on the DFA is as follows:

Year	# FTE	Variance from target	Comments
2000	663	0	Baseline
2001	482	-181	No
2002	651	-12	Variance met
2003	573	-14	Variance met
2004	758	+95	Target met
2005	543	-120	No
2006	663	0	Target met
2007	608	-55	Variance met
2008	579	-84	No
2009	420	-243	No
2010	573	-90	No
2011	631	-32	Variance met
2012	679	+16	Target met
2013	717	+54	Target met
2014	694	+31	Target met
2015	727	+64	Target met
2016	635	-28	Variance met
2017	574	-89	Variance met
2018	559	-104	No
2019	383	-280	No, prorated target Yes
2020	473	-190	No, prorated target Yes
2021	**337**	**-326**	**No**

Since the baseline level was set in 2000, the target has been met or exceeded six times, the variance has been met six times and the target has been missed eight times.

MONITORING

The Full-Time Employees (FTE) number is calculated based on the data on exposure hours collected by Operations for safety statistics. Normally, the Operations Administrator is responsible to collect this information.

One FTE is equal to one employee working 8 hours per day for 180 days (= 1,440 hours per year).

INDICATOR 5.2.4 COOPERATION WITH FOREST-DEPENDENT GROUPS TO STRENGTHEN AND DIVERSIFY THE LOCAL ECONOMY

Element: 5.2 Communities & Sustainability *Contribute to the sustainability of communities by providing diverse opportunities to derive benefits from forests and by supporting local community economies*				
Value	**Objective**	**Indicator**	**Target**	**Variance**
Other forest users	Support other forest users	5.2.4 Evidence that the organization has cooperated with other forest-dependent businesses, forest users and the local community to strengthen and diversify the local economy	Volume of wood from DFA sold locally: 4,500 m^3 (sold annually)	≥ 75% (≥ 3,600 m^3)

HISTORY

This is a non-Core Indicator under the Z809-16 Standard. This was previously Indicator 6.3.1 Target 1 (Cooperation with Forest-Dependent Groups to Strengthen and Diversify the Local Economy) in the Z809-08 SFM Plan. The target was created in 2010 for the CSA Core Indicator for Z809-08 SFM Plan. It was previously Indicator # 36 in the Z809-02 SFM Plan. This indicator was developed in 2001. Inclusion of volume sold to Neucel was discussed and included since 2007.

The volume target was reduced to 4,500 m^3 and the variance was increased slightly to ≥75% of the target in February 2014. The reporting out of volume of logs sold to Neucel Specialty Cellulose was removed in 2020 as the facility was permanently closed.

JUSTIFICATION

This indicator provides a measure of success at supporting a viable, local value-added manufacturing sector where access to raw material at fair market price exists. Local wood sales include all those sold to resident, local businesses on northern Vancouver Island. These may include but are not restricted to shake and shingle mills, sawmills, re-manufacturers, cedar salvage operators, and general woodworkers. The volume reported does not include wood sales to traders and/or businesses that reside outside the Mount Waddington Regional District, although some significant sales are made to some independent central Vancouver Island mills. Currently, local shake and shingle mills buy the largest local volumes.

CURRENT STATUS & INTERPRETATION

Year	Volume Sold Locally (m^3)	Variance (m^3)
2000	17,407.7	-2,592.3
2001	24,817.9	+4,817.9
2002	28,987.6	+8,987.6
2003	20,274.5	+274.5
2004	41,807.9	+21,807.9
2005	42,665.4	+22,665.4
2006	23,586.5	+3,586.5
2007	40,947.7	+ 20,947.7
2008	19,466.1	-334
2009	8,271.2	-11,728.8
2010	8,245	-11,755
2011	5,503	-14,497
2012	3,796	-16,204
2013	5,338	+838
2014	5,475	+975
2015	10,462	+5,962
2016	15,833	+11,333
2017	13,696	+9,196
2018	9,754	+5,254
2019	4,889	+389
2020	7,243	+2,743
2021	**6,898**	**+2,032**

PERFORMANCE

2021 Results: The target was met in 2021 with 8,930 m^3 sold locally. There were 6,898 m^3 of logs sold from the dryland sorts to local customers. There were 2,032 m^3 of Special Forest Products recovered by Contractors from previously harvested cutblocks on the DFA. Over 17,000 m3 of residual fibre was recovered from harvested cutblocks around the DFA by a third party and processed into chips and hog fuel at the Atli Chipping facility.

STRATEGIES & IMPLEMENTATION

Scaling System and Log Inventory Management System (LIMS, WFP production software application) are used to track volumes including log sales. Operations Managers are responsible for DLS arrangements. Individuals or businesses interested in purchasing logs from WFP are required to contact WFP's Log Sales

group. This group then contacts the respective WFP Operation to attempt to locate fiber which matches the potential buyer's requirements. Generally, logs are sold at log market prices.

FORECASTS

WFP has continued to provide wood sales to local manufacturing businesses at fair market prices. The annual volume provided fluctuates annually due to market conditions and local demand, rather than volume availability. The revised target and variance reflect recent performance and is more representative of the current local demand for fiber from WFP. The volume available to small scale salvage and debris salvage is expected to be impacted proportionally with a change in AAC, due to a reduction in available landbase for salvage as well as a reduction in the availability of previously un-salvaged areas. Additionally, some areas of the DFA may be too expensive for these operators due to their cost structures. The volume available to other manufacturing businesses is not expected to be impacted as the volume is sourced from dryland sorts rather than the DFA landbase. However, there will be occasions where requests may not be able to be met because of WFP's internal fiber requirements (i.e., no surplus logs available as WFP mills require all of the volume of certain log types).

DETAILS/ DATA SET

This indicator is determined by referencing the annual summary of external wood sales.

MONITORING

The TFL Forester with assistance from the Scale Specialists, will ensure that data is obtained and compiled from production coordination staff, and performance reported, in the annual SFM Plan Annual Report.

INDICATOR 5.2.5 OPPORTUNITY FOR LOCAL SUPPLIERS, CONTRACTORS AND CONSULTANTS

Element: 5.2 Communities & Sustainability *Contribute to the sustainability of communities by providing diverse opportunities to derive benefits from forests and by supporting local community economies*				
Value	**Objective**	**Indicator**	**Target**	**Variance**
Community sustainability	Support community sustainability	5.2.5 Opportunity for local suppliers, contractors and consultants	Report the annual percentage of goods and services spending in North Island communities.	N/A

HISTORY

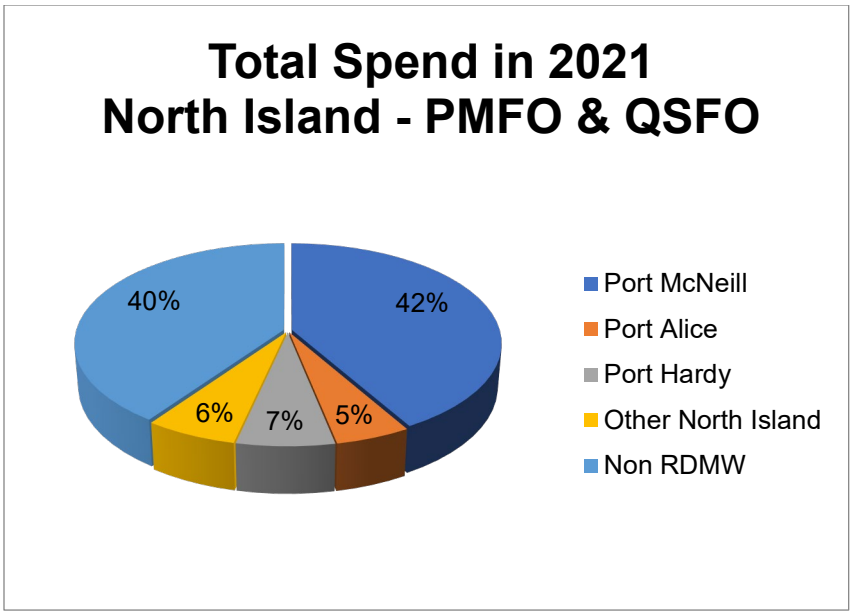
This is a non-Core Indicator under the Z809-16 Standard. The Indicator and target were created in 2010 as a locally developed Indicator in the Z809-08 SFM Plan. This locally developed Indicator was carried over from the previous Z809-02 SFM Plan and was known as Indicator #44. Indicator #44 was developed in 2001.

JUSTIFICATION

The value of goods and services WFP purchases from businesses located in the communities in and around the DFA provides support to those businesses that in turn contribute to the diversity of amenities available to all residents. As such, it represents a direct contribution to the sustainability of local communities. No variance is proposed as this is initially a reporting out target.

CURRENT STATUS & INTERPRETATION AND PERFORMANCE

The chart below summarizes the percentage of spending within and outside the DFA in 2021. The results for 2021 indicate that 60% of the spending was within the communities of the DFA. For comparison purposes, in 2020, 58% of the annual percentage of goods and services spending was spent in the DFA. In 2010, it was 60%.



STRATEGIES & IMPLEMENTATION

For WFP, its primary goal is to be a successful and viable business in the global market. Towards that goal, all Operations endeavour to obtain the goods and services they need at the most competitive price they can. This often provides local enterprises with a competitive advantage over others. Mostly, it is goods that cannot be produced locally at a competitive price that are purchased elsewhere. With respect to this, WFP will endeavour wherever possible to purchase goods locally and to ensure that the purchasing personnel are aware of this strategy.

FORECASTS

The level of local purchases depends on many factors that cannot be readily predicted or that can change rapidly. They include the condition of global markets, the local availability of specific goods and services and the financial state of the company. However, WFP remains committed to report on this target. No variance is proposed as this is a reporting target.

DETAILS / DATA SET

The source information is un-audited data from the WFP financial system and is based on the date of invoicing. The amounts used for the analysis include all sales tax (e.g., PST, GST). The distribution is based on the location of the store or dealership the purchases were made from.

MONITORING

The goods and services purchases made by WFP in the DFA are documented through invoices. The invoices are processed and tracked in the financial system. A summary report provides the base un-audited data for reporting out on the target.

The TFL Forester with assistance from the Division Controller compiles the data and reports on the indicator performance in the annual SFM Plan report.

INDICATOR 5.2.6 NEW HIRES THAT ARE LOCAL

Element: 5.2 Communities & Sustainability

Contribute to the sustainability of communities by providing diverse opportunities to derive benefits from forests and by supporting local community economies.

Value	Objective	Indicator	Target	Variance
Availability of full-time jobs on the DFA supports community stability	There are stable, full-time jobs available to local residents from the forest resource on the DFA.	5.2.6 New hires that are local	Report out on the number of qualified people hired.	No variance

HISTORY

This is a non-Core Indicator under the Z809-16 Standard. Became a new locally developed Indicator in 2014 under the Z809-08 SFM Plan and was previously Indicator #38 in the Z809-02 SFM Plan. In 2014, members of VINWAG agreed that the target that had been established would be hard to meet and addressed that by providing for a huge variance. It was agreed that this was not the best long-term solution and that the target should be revised in 2015 to better reflect the intent of making as many job opportunities available through the forest sector to local hires, where required qualifications that support a competitive and changing industry environment, and union agreements permitted.

JUSTIFICATION

This indicator provides a measure of success at providing opportunities for local people to grow up, stay and work within the local area. If qualified candidates exist, WFP will maintain a commitment to hire local individuals when hiring new USW employees. Locals are considered those persons who reside within the Mount Waddington Regional District during the period of recruitment. Qualified applicants are those who possess the required skills and experience to meet WFP's need to be productive and competitive, and to meet any union requirements existing at the time of hiring.

CURRENT STATUS & INTERPRETATION

This revision will constitute a new target and variance for 2015 and build on the new indicator introduced in 2014. Results from 2000 up to 2010 and 2013 are included to maintain some continuity of measurement (no data was collected for 2011 or 2012) but the data table will be divided to begin tracking the number and percentage of new qualified local applicants who are hired. The target was revised in 2021 to just reporting out on the number of qualified hired.

Year	# of New Hires	# of Local Hires	% Local Hires	% Variance from Target
2000	48	41	85%	-5%
2001	56	42	75%	-15%
2002	80	70	87%	-3%
2003	53	44	83%	-7%
2004	73	57	78%	-12%
2005	23	18	78%	-12%
2006	42	27	64%	-26%
2007	27	26	96%	+6%
2008	19	13	68%	-22%
2009	18	12	67%	-23%
2010	40	26	65%	-25%
2013	45	21	47%	-43%
2014	20	20	100%	0%
2015	17	17	100%	0%
2016	23	16	70%	-20%
2017	11	9	82%	-8%
2018	17	9	53%	-47%
2019	20	15	75%	-25%
2020	21	14	67%	-33%
2021	**15**	-	-	-

PERFORMANCE

2021 Results: The target was met in 2021. There were 15 qualified employees hired in 2021. The Indicator and target were revised in November 2021 to just reporting out on activities.

STRATEGIES & IMPLEMENTATION

Hiring is the responsibility of the Operations Managers. In the case of hourly positions, current applications on file are reviewed before advertising.

FORECASTS

The forecast is to consistently meet the target and to gradually increase the number of qualified local people hired into the future by introducing them to career opportunities in sustainable forest management in the DFA and making every effort to ensure that training and employment opportunities are available locally. Western Forest Products' Logging Fundamentals Training (LFT) program has been discontinued, however another collaborative training initiative in Woss may be started under the guidance of the RDMW's North Island Forestry Training Centre. Ongoing on the job training will also be critical to provide skilled workers in future in fields such as hand falling, scaling and equipment operation plus heavy-duty mechanics.

Members of VINWAG will continue with their efforts to support the establishment of a forestry program in the high school that supports awareness of and skills development for future opportunities in the forest sector locally.

DETAILS/ DATA SET

This indicator is determined by dividing the number of new hires that are local by the total number of new hires during the reporting year. This indicator includes new employees who are anticipated to be both long-term and short-term hires. The indicator is focussed primarily on hourly positions.

MONITORING

The TFL Forester along with the Operations Administrators and Time & Attendance Clerks will ensure that data is compiled, and performance is reported in the annual SFM Plan.

INDICATOR 5.2.7 EDUCATIONAL OUTREACH

Element: 5.2 Communities & Sustainability

Contribute to the sustainability of communities by providing diverse opportunities to derive benefits from forests and by supporting local community economies.

Value	Objective	Indicator	Target	Variance
Public education and knowledge	Increase/develop public education and knowledge over time	5.2.7 Number of people reached through educational outreach	1) Conduct at least 4 forest tours or workshops per year, which could include: customer tours, public tours, school tours, forest science research tours or workshops, or forest community related tour or workshop. 2) Recreation site information maps available and updated every 5 years on website	1) ≥ 2 forest tours or workshops 2) Maps updated within 10 years

HISTORY

This is a non-Core Indicator under the Z809-16 Standard. This was previously Indicator 6.5.1 (Educational Outreach, 2 targets) in the Z809-08 SFM Plan. Target 1 was created in 2010 for the CSA Core Indicator for the Z809-08 SFM Plan. Target 1 incorporates part of previous Indicator # 45 from the Z809-02 SFM Plan. Indicator # 45 was developed in 2001. It was revised in 2004 to clarify that both WFP funds and cost sharing from other funding sources managed by WFP were included. In 2007, this indicator was merged with former indicator #33 (Dollars spent locally on Forestry Public Awareness and Education).

Target 2 arose from public feedback to WFP. Previous target 3 arose during a visit to the Quatsino community to discuss Visual Management around Quatsino Sound. Based on feedback and discussion with VINWAG in 2014, target 3 was removed from this Indicator.

JUSTIFICATION

The indicator addresses two important areas for outreach: 1) tours and workshops for customers, public, researchers, etc., can be an important outreach tool for both stakeholders within the Regional District and broader stakeholders and 2) WFP has a considerable number of recreation sites for which information should be available to users.

CURRENT STATUS & INTERPRETATION

Target	Year	Results	Target or Variance met?
Tours and workshop	2021	Target and variance not met	No
Recreation maps	2021	Target met. The North Island Recreation Map was updated midway through 2021 and posted on the WFP Road Infor website (www.wfproadinfo.com)	Met

PERFORMANCE

2021 Results:

Target #1 – Target and variance not met. This was due to the continuing COVID-19 pandemic.

Target #2 - Target met. The North Island Recreation Map was updated midway through 2021 and posted on the WFP Road Info website (www.roadinfo.com).

STRATEGIES & IMPLEMENTATION

WFP conducts a number of tours annually on an as-requested basis for interested groups, schools, customers and the BC Market Outreach Network. WFP has participated with the local MFLNRO staff and forest consultants and First Nations in the annual National Forestry Week events for the past number of years. Part of the events is a forest tour for local elementary school students (a hike on an interpretive forest trail, a kid's logger sports event and a tree planting event). The variance to this target is to conduct at least 2 forest tours or workshops per year.

WFP provides financial and in-kind support to maintain WFP recreation sites. For a time beginning in 2009, the Regional District of Mount Waddington received funding to upgrade several WFP recreation sites in the DFA. Previously, WFP recreation sites were maintained with FIA support for the Crown Land sites through the FIA LBIS. There are numerous requests from the public for these maps. Tourism Vancouver Island and the Regional District of Mount Waddington have prepared their own maps of the region that show WFP and other recreation sites and parks as well as the larger logging roads. However, these maps do not contain the same level of detail that the WFP recreation maps do. The current TFL 6 map was most recently update in 2016 and covers all of WFP's tenures on Northern Vancouver Island. Maps are found on the WFP Road Info website. Maps may also be made available to the local MFLNRORD office and to tourism offices in Port Hardy, Port McNeill, and Port Alice.

FORECASTS

The forecast is to meet the targets into the future. The uptake of the forest tours associated with National Forestry Week has been excellent. This has turned into requests for school tours outside of National Forestry Week. Given the proximity of the Port McNeill Operating Area to the working forest, it is an ideal location for tours. A key assumption of meeting these targets in the future is the availability of WFP resources (personnel and financial) as well as continued public interest in participating in forestry educational outreach programs.

DETAILS/ DATA SET

Refer to Current Status for latest data.

MONITORING

The TFL Forester will summarize the number of forest tours and/or workshops held in the calendar year along with a brief description and report the results in the SFM Plan Annual Report. The TFL Forester will report on the status of the recreation map (i.e., any updates during the reporting year) in the SFM Plan Annual Report.

INDICATOR 6.1.1 LEVEL OF PARTICPANT SATISFACTION WITH THE PUBLIC PARTICIPATION PROCESS

Element: 6.1 Fair and Effective Decision Making *Demonstrate that the SFM public participation process is designed and functioning to the satisfaction of the participants and that there is general public awareness of the process and its progress*				
Value	**Objective**	**Indicator**	**Target**	**Variance**
SFM public participation process	SFM public participation process works well	6.1.1 Level of participant satisfaction with the public participation process	1) Overall positive results from an annual VINWAG member survey 2) 100% of letters received are replied to	1) VINWAG member survey completed every 2nd year 2) None

TARGET 1: POSITIVE RESULTS FROM ANNUAL VINWAG MEMBER SURVEY

HISTORY

This is a Core Indicator under the Z809-16 Standard. This was previously Indicator 6.4.1 (Level of Satisfaction with the Public Participation Process) in the Z809-08 SFM Plan. The target was created in 2010 for the CSA Core Indicator for the Z809-08 SFM Plan.

JUSTIFICATION

This target provides a measure of the success of the Public Advisory Group process. The CSA Z809-16 SFM Standard contains a requirement for the Public Advisory Group process to create and maintain a mechanism to measure participants' satisfaction with the public participation process. A draft survey was provided to VINWAG members in mid-November 2010 for comment. The surveys continue to be utilized within VINWAG.

This indicator provides a measure of success at increasing public awareness, addressing public concerns, and ensuring the effectiveness of public consultation.

CURRENT STATUS & INTERPRETATION

VINWAG members were requested to complete a member survey during the September 20th, 2018, meeting and again during the November 22nd, 2018, meeting. Responses to the survey were summarized and reviewed with VINWAG members during the February 28th, 2019, meeting. Overall, there were positive results to this survey. There were nine responses to the survey formally submitted (seven digitally, two paper). Survey Monkey was utilized in 2018 and allowed VINWAG members to complete the survey online; all seven digital responses were through Survey Monkey.

PERFORMANCE

2021 Results: The Variance was met in 2021. There were no completed surveys returned in 2021. The results of the 2020 surveys were discussed during the February 25th, 2021, VINWAG meeting.

STRATEGIES & IMPLEMENTATION

A VINWAG member survey has been prepared and distributed to the group for the past nine years. Typical timelines for survey distribution are during the last VINWAG meeting of the year. Members are asked to

complete the survey and return to the Chair or WFP rep for compilation by mid-January of the following year. The results are compiled and reviewed during the first VINWAG meeting of the following year. VINWAG members will have the option of providing their names or remaining anonymous when submitting the survey.

FORECASTS

The forecast is for the VINWAG member survey to generate positive results going forward. This is assuming that there continues to be public interest in the Public Participation Process and the VINWAG Terms of Reference and Procedures is followed and regularly reviewed.

DETAILS/ DATA SET

This target is determined by compiling the responses to the annual VINWAG member survey. The results will be presented showing the % of positive or favorable responses to each question. The acceptable variance for this target is to conduct a survey every second year.

MONITORING

The TFL Forester will ensure that the survey results are obtained and compiled, and results reported, in the SFM Plan Annual Report.

TARGET 2: 100% OF LETTERS RECEIVED ARE RESPONDED TO

HISTORY

This is a Core Indicator under the Z809-16 Standard. This was previously Indicator 6.4.1 (Level of Satisfaction with the Public Participation Process) in the Z809-08 SFM Plan. The target was created in 2010 for the CSA Core Indicator for the Z809-08 SFM Plan. Previously was Indicator # 53 in the Z809-02 SFM Plan which was developed in 2001.

JUSTIFICATION

This target provides a measure of success at increasing public awareness, addressing public concerns, and ensuring the effectiveness of public consultation. Throughout the planning and consultation process, the target is to provide a response to all letters of support or concern received from members of community or government related to Forest Development Plans (FDPs), Forest Stewardship Plans (FSPs), Management Plans (MPs), and any other plans that may have been advertised. VINWAG is another avenue for public input.

CURRENT STATUS & INTERPRETATION

This target has been in existence since 2001. In 2009, Port McNeill Forest Operation received a letter from a resident of Port Alice regarding harvesting adjacent to the Port Alice highway. The letter was forwarded to WFP via the Village of Port Alice municipal office. WFP representatives attended a Port Alice Council meeting in April 2009 to discuss the cutblock in question as well as future harvesting plans. Council sent a letter to WFP-PMFO thanking them for the meeting and inviting them back in 2010. WFP met with the Regional District of Mount Waddington Board of Directors several times in 2018.

PERFORMANCE

2021 Results: The target was met in 2021. WFP Corporate and Operational Staff continued to provide updates to the Village of Port Alice Council, the Coal Harbour Local Community Commission, the Regional District of Mount Waddington Board of Directors, the Town of Port McNeill Mayor and Council and the District of Port Hardy Council during 2021 to keep them apprised of operating plans adjacent to their respective communities. For the most part, these updates were done virtually due to the COVID-19 pandemic.

STRATEGIES & IMPLEMENTATION

Copies of correspondence related to FSPs, and other plans are retained and reviewed; those that contain concerns will be responded to. Total number of letters received (with concerns) and responded to will be reported. These are generally summarized in a FSP supplement document. Correspondence regarding MPs will be dealt with through the Corporate Office. Again, letters will be responded to, filed, and reported on an annual basis. Other correspondence will also be addressed.

FORECASTS

The forecast is to continue to meet the target into the future; respond to all letters / correspondence with concerns. Public consultation is part of the “social licence” that WFP operates under. A key assumption is that the current legislative environment for forest management continues.

DETAILS / DATA SET

This target is determined by dividing the number of letters with concerns that are replied to by the number of letters with concerns received in response to plans. There is no variance for this target.

MONITORING

The TFL Forester will track letters received and responded to and report the results in the SFM Plan Annual Report.

INDICATOR 6.1.2 CAPACITY DEVELOPMENT AND MEANINGFUL PARTICIPATION

Element: 6.1 Fair and Effective Decision Making *Demonstrate that the SFM public participation process is designed and functioning to the satisfaction of the participants and that there is general public awareness of the process and its progress*				
Value	**Objective**	**Indicator**	**Target**	**Variance**
Public capacity to meaningfully participate.	Develop/improve public participation capacity over time.	6.1.2 Evidence of efforts to promote capacity development and meaningful participation in general	At least 2 community visits or open house per year (including one or more of FSP open house, visit to town or village groups or Councils, RDMW), visit to discuss an issue of specific concern (e.g., visuals, recreation, NTFPs, etc.)	≥ 1 community visit or open house per year

HISTORY

This is a Core Indicator under the Z809-16 Standard. This was previously Indicator 6.4.2 (Capacity Development and Meaningful Participation) in the Z809-08 SFM Plan. The target was created in 2010 for the CSA Core Indicator for the Z809-08 SFM Plan.

JUSTIFICATION

This indicator provides a measure of success at increasing public awareness, addressing public concerns, and ensuring the effectiveness of public consultation. In the Forest Stewardship Plan realm, annual public reviews of plans are no longer legally required as they were in the Forest Development Plan era. This indicator and target support a proactive approach to seeking public input on operational plans (road construction, cutblock harvesting) as well as other forest management issues. Indicators 5.2.7 and 6.1.3 support this indicator and target.

CURRENT STATUS & INTERPRETATION

Target	Year	Results	Target / Variance Met
2 or more community visits per year	2021	WFP staff communicated with the Regional District of Mount Waddington several times in 2021 to provide operational and corporate updates	Met

PERFORMANCE

2021 Results: The target was met. WFP participated in at least two open community visits in 2021, albeit virtual visits due to the COVID-19 pandemic. These included the Village of Port Alice and the RDMW. During the 2021 virtual VINWAG meetings, a map showing WFP active and proposed operations on the DFA was not available for members to review and comment on.

STRATEGIES & IMPLEMENTATION

WFP will attempt to annually contact communities and Local Governments (i.e., Port Alice, Winter Harbour, Quatsino, Coal Harbour, Regional District of Mount Waddington) to offer to meet to discuss operational plans and forest management. Contact can take the form of a phone call, e-mail, letter, or face to face contact. In some years, this target will likely be met through “on-demand” visits to communities (a community has a specific request to discuss).

FORECASTS

The forecast is to continue to meet the target into the future. Meeting with the public to discuss and review operational plans is part of the “social licence” that WFP operates under. A key assumption is that the current legislative environment for forest management continues and that there is continued public acceptance of offers to meet or participate in open houses.

DETAILS/ DATA SET

This indicator is determined by tallying the number of community visits completed in a calendar year along with a summary of what was discussed or presented. If an offer of a community visit is turned down or not responded to, this will be recorded and reported. The variance to this target is to conduct at least one community visit or open house per calendar year.

MONITORING

The TFL Forester, with support from the Operations Planners, will summarize the number of community visits completed in a calendar year along with an explanation of what was discussed, and report the results in the SFM Plan Annual Report.

INDICATOR 6.1.3 AVAILABILITY OF INFORMATION ON ISSUES OF CONCERN TO THE PUBLIC

Element: 6.1 Information for Decision-making *Demonstrate that the SFM public participation process is designed and functioning to the satisfaction of the participants and that there is general public awareness of the process and its progress*				
Value	**Objective**	**Indicator**	**Target**	**Variance**
Relevant information for the public.	Relevant information is provided.	6.1.3 Availability of summary information on issues of concern to the public	1) SFM Plan Annual Report, SFM Plan and the VINWAG will be advertised annually and maintained on website (excluding VINWAG); 2) The TFL 6 FSP will be advertised annually and maintained on website, and a summary of any non-confidential public comments received from FSP advertising, or open houses will be prepared. 3) A summary of Corporate Monitoring and Research Projects and Alliances will be reported annually	None

HISTORY

This is a Core Indicator under the Z809-16 Standard. This was previously Indicator 6.5.2 (Availability of Information on Issues of Concern to the Public) in the Z809-08 SFM Plan. The target was created in 2010 for the CSA Core Indicator for the Z809-08 SFM Plan. Targets 1 and 2 incorporate parts of previous Indicator # 51 from the Z809-02 SFM Plan. Previous Indicator # 51 was developed in 2001 and revised in 2007 to include reference to the FSP. Target 3 incorporates previous Indicator # 54 from the Z809-02 SFM Plan. Previous Indicator # 54 was developed in 2001 and was revised in 2006 to reflect the merger of the former companies.

JUSTIFICATION

This target recognizes the importance of keeping members of the public informed of forestry strategies being developed and planning occurring in their area. Open lines of communication facilitate public awareness and understanding of the SFM Plan and other current forestry topics and provide an open opportunity for the public to respond. Members of the public can provide local knowledge that contributes to socially and environmentally responsible forest management. Forest research and monitoring may help to provide information to the public as well. Additionally, research and monitoring support the concepts of adaptive management and continuous improvement.

CURRENT STATUS & INTERPRETATION

Year	SFM Plan Annual Report	FSP	Research	Target met
2010	Advertisement run; no comments received	Advertisement run; no comments received	Refer to 2010 SFMP Annual Report	Yes
2011	Ad run in July 14th, 2011, edition of North Island Gazette; no comments received	An ad for the FSP was run in the June 9th, 2011, edition of the North Island Gazette newspaper. The FSP was available on the WFP website in 2011. There were no public comments received from FSP advertising in 2011. Note that the FSP covers two separate Defined Forest Areas. The results are only for the DFA.	Refer to 2011 SFMP Annual Report	Yes
2012	Ad run in November 15th, 2012, edition of North Island Gazette; no comments received	An ad for the FSP was run in the December 27th, 2012, edition of the North Island Gazette newspaper. The FSP was available on the WFP website in 2012. There were no public comments received from FSP advertising in 2012. Note that the FSP covers two separate Defined Forest Areas. The results are only for the DFA.	Refer to 2012 SFMP Annual Report	Yes
2013	An ad for the SFM Plan Annual Report, the SFM Plan and VINWAG was run in the August 15th, 2013, edition of the North Island Gazette newspaper. The SFM Plan and the 2012 Annual Report as well as minutes from the 2013 VINWAG meetings were available on the WFP website in 2013. In mid-September 2013, a stand-alone website was launched for the benefit of VINWAG members and NWAC (Nimpkish Woodlands Advisory Committee) members. This website contains meeting minutes, upcoming meeting schedules, presentations, photos, respective SFM Plans and Annual Reports and several other features.	An ad for the FSP was run in the August 1st, 2013, edition of the North Island Gazette newspaper. The FSP was available on the WFP website in 2013. There were no public comments received from FSP advertising in 2013. Note that the FSP covers two separate Defined Forest Areas. These results are for the DFA only.	Refer to 2013 SFMP Annual Report	Yes
2014	An ad for the SFM Plan Annual Report, the SFM Plan and VINWAG was run in the September 11th, 2014, edition of the North Island Gazette newspaper. The SFM Plan and the 2013 Annual Report as well as minutes from the 2014 VINWAG meetings were available on the WFP website in 2014. The website that was launched in 2013 continues to be maintained and available (www.northislandpag.com). The website contains PAG meeting minutes, upcoming PAG meeting schedules, photos, respective SFM Plans and Annual Reports and several other features.	An ad for the FSP was run in the July 17th, 2014, edition of the North Island Gazette newspaper. The FSP was available on the WFP website in 2014. There were no public comments received from FSP advertising in 2014. Note that the FSP covers two separate Defined Forest Areas. These results are for the DFA only.	Refer to 2014 SFMP Annual Report	Yes

Year	SFM Plan Annual Report	FSP	Research	Target met
2015	An ad for the SFM Plan Annual Report, the SFM Plan and VINWAG was not in the North Island Gazette newspaper during 2015. The SFM Plan and the 2014 Annual Report as well as minutes from the 2015 VINWAG meetings were available on the WFP website in 2015. The website that was launched in 2013 continues to be maintained and available (www.northislandpag.com). The website contains PAG meeting minutes, upcoming PAG meeting schedules, photos, respective SFM Plans and Annual Reports and several other features.	An ad for the WFP FSP was run in the September 23rd, 2015, edition of the North Island Gazette newspaper. The FSP was available on the WFP website in 2015. There were no public comments received from FSP advertising in 2015. Note that the FSP covers two separate Defined Forest Areas. These results are for the DFA only.	See Details / Data Set below.	Targets 2 & 3 – Yes Target 1 - No
2016	An ad for the SFM Plan, the Annual Report and VINWAG was not run in the North Island Gazette newspaper during 2016. The SFM Plan and the 2015 Annual Report as well as minutes from the 2016 VINWAG meetings were available on the WFP website in 2016. The website (launched in 2013) continues to be maintained and available (www.northislandpag.com). The website contains PAG meeting minutes, meeting agendas, upcoming PAG meeting schedules, photos, respective SFM Plans and Annual Reports and several other features.	An ad for the FSP was not run in the North Island Gazette newspaper during 2016. The FSP was available on the WFP website in 2016. There were no public comments received through the FSP being posted on the internet in 2016. Note that the FSP covers two separate Defined Forest Areas. These results are for the DFA only.	See Details / Data Set below.	Targets 1 & 2 - No; Target 3 – Yes
2017	An ad for the SFM Plan Annual Report, the SFM Plan and VINWAG was run in the July 5th, 2017, edition of the North Island Gazette newspaper during 2017. The SFM Plan and the 2016 Annual Report as well as minutes from the 2016 VINWAG meetings were available on the WFP website in 2016. The website that was launched in 2013 continues to be maintained and available (www.northislandpag.com). The website contains PAG meeting minutes, upcoming PAG meeting schedules, photos, respective SFM Plans and Annual Reports and several other features	An ad for the Replacement FSP was run in the March 1st and March 8th editions of the North Island Gazette newspaper during 2017. The FSP and Replacement FSP were available on the WFP website in 2017. There were no public comments received through the FSP being posted on the internet in 2017. Note that the current FSP covers two separate Defined Forest Areas. These results are for the DFA only. The Replacement FSP covers the DFA only.	See Details / Data Set below.	Yes
2018	An ad for the SFM Plan Annual Report, the SFM Plan and VINWAG was not in the North Island Gazette newspaper during 2018. The SFM Plan and the 2017 Annual Report as well as minutes from the 2018 VINWAG meetings were available on the WFP website in 2018. The website that was launched in 2013 continues to be maintained and available (www.northislandpag.com). The website contains PAG meeting minutes, upcoming PAG meeting schedules, photos, respective SFM Plans and Annual Reports and several other features.	An ad for the FSP was not run in the North Island Gazette newspaper during 2017. The FSP was available on the WFP website in the later part of 2018. There were no public comments received through the FSP being posted on the internet in 2018. Note that a Replacement FSP for TFL 6 was approved in June 2018; this FSP covers the DFA.	See Details / Data Set below.	Targets 1 & 2 - No; Target 3 – Yes
2019	An ad for the SFM Plan Annual Report, the SFM Plan and VINWAG was not in the North Island Gazette newspaper during 2019. The website that was launched in 2013 continues to be maintained and available (www.northislandpag.com). The website contains PAG meeting minutes, upcoming PAG meeting schedules, photos, respective SFM Plans and Annual Reports and several other features.	An ad for the WFP TFL 6 FSP was not run in the North Island Gazette newspaper during 2019. The TFL 6 FSP was available on the WFP website in 2019. There were no public comments received through the FSP being posted on the internet in 2019.	See Details / Data Set below.	Targets 1 & 2 - No; Target 3 – Yes
2020	An ad for the SFM Plan Annual Report, the SFM Plan and VINWAG was not run in the North Island Gazette newspaper during 2020. The	An ad for the WFP TFL 6 FSP was not run in the North Island Gazette newspaper during 2020. The FSP was available on the WFP website in	See Details / Data Set below.	Targets 1 & 2 - No;

	website that was launched in 2013 continues to be maintained and available (www.northislandpag.com). The website contains PAG meeting minutes, upcoming PAG meeting schedules, photos, respective SFM Plans and Annual Reports and several other features.	2020. There were no public comments received through the FSP being posted on the internet in 2020.		Target 3 – Yes
2021	An ad for the NIFO SFM Plan Annual Report, the SFM Plan and VINWAG was not run in the North Island Gazette newspaper during 2021. The website that was launched in 2013 continues to be maintained and available (www.northislandpag.com) The website contains PAG meeting minutes, upcoming PAG meeting schedules, photos, respective SFM Plans and Annual Reports and several other features	An ad for the WFP TFL 6 FSP was not run in the North Island Gazette newspaper during 2020. The FSP was available on the WFP website in 2020. There were no public comments received through the FSP being posted on the internet in 2020.	See Details / Data Set below.	Targets 1 & 2 - No; Target 3 – Yes

PERFORMANCE

2021 Result: Targets 1 & 2 were not met in 2021. Target 3 was met in 2021.

STRATEGIES & IMPLEMENTATION

The SFM Plan Annual Report is generally prepared early in the following year. Once it is reviewed with the VINWAG, it is published and posted on the WFP website and a newspaper ad is run in the local newspaper. The current SFM Plan is published and posted on the VINWAG website. A newspaper ad will be run annually in the local newspaper to make the public aware of the SFM Plan.

The TFL 6 FSP will be advertised in the local newspaper at least once during the year to let the public know they can provide input on forest management activities to WFP. The FSP is posted on the WFP website. Any non-confidential public comments received will be summarized and reported in the SFM Plan Annual Report.

Research, growth and yield and other trials are maintained by the WFP Tree Improvement Forester. WFP also supports university and government researchers when requested. A summary of research and/or monitoring projects that WFP is involved with or supports (alliances) will be prepared and reported in the SFM Plan Annual Report.

There is no variance for any of the targets in this indicator.

FORECASTS

The forecast is to meet these targets into the future. Additional newspaper advertisements may be run if there are significant changes to the SFM Plan or to the FSP (i.e., FSP Amendments) to inform the public. The number of research and/or monitoring projects is expected to remain constant over time (older projects wrap up and new project are started). There has been discussion at recent VINWAG meetings about investigating alternative forms of advertising the SFM Plan, the FSP and VINWAG (i.e., social media approach). It is expected that this discussion will be guided by WFP Corporate guidelines on social media.

DETAILS/ DATA SET

TARGET #3 – 2018 MONITORING AND RESEARCH PROJECTS – WESTERN FOREST PRODUCTS

Forest Monitoring & Research

The Company supports and engages in forest research and monitoring that leads to improved forest management practices. Our objectives include sustaining timber supply and economic values, sustaining ecological values and processes, and sustaining social values. The strategy is to:

- Identify knowledge gaps and recommend basic and applied research needs;
- Engage with government, academic, and private agencies that have capacity and mandate to undertake applicable research;
- Support (with letters, in-kind resources, and leverage funding) research funding proposals for projects of particular or strategic interest to our license areas;
- Cooperate with research organizations in conducting basic and applied research; and
- Test and develop practicable applications and use of published research that are relevant to Western Forest Products' management goals and responsibilities.

Significant areas of research include:

- Forest Ecology – The objectives of the forest ecology research program are to determine the effects of management activities on forest ecosystem functions and components, and to improve our ability to predict ecosystem response. The outcome is development and implementation of ecologically sound silviculture prescriptions.
- Silviculture – The silviculture research program focuses on examining silvicultural practices for regeneration and growth. Objectives of this research are to maintain and enhance timber supply where economically viable to do so. Various trials—some with over 20 years of monitoring—examine species selection, genetic gain for volume and pest tolerance, stock types, mechanical site preparation, vegetation control, and fertilization.
- Forest Growth and Yield & Light Detection and Ranging (LiDAR) – The aim of this program is to quantify forest inventory and growth rates across the range of site conditions on the company's tenure. A recent focus has been to examine the impact of variable retention harvesting and edge effects on early establishment and growth. The company has invested in LiDAR to improve inventory estimates and aid in planning. This investment has been further employed to examine forest ecology knowledge gaps.

Research supported or implemented by the Company occurs across its tenures. In many cases, the findings apply broadly to sites in multiple tenures. The following is a listing of active and ongoing forest management research and monitoring projects in which the company is a lead or major partner; it covers all company tenures and divisions. Those projects which were monitored, measured, or reported on in 2019 are underlined. Funding sources apart from the Company (WFP) include Natural Science and Engineering Research Council of Canada (NSERC), Land Based Investment Strategy (LBIS), Operational Tree Improvement Program (OTIP), Ministry of Forests, Lands, Natural Resource Operations, and Rural Development (MFLNRORD), Canadian Wood Fibre Centre (CWFC) and GenomeBC (and GenomeCanada).

Forest Ecology: Variable Retention Adaptive Management (VRAM)

- Lewis Lake (R885), Moakwa (R1164), Port McNeill (R817), Tsitika (R917), Horseshoe Lake (R949), Goat Island (R1009), Memekay (R1163), Klanawa (R1217) Forest Structure Experimental Sites
- Avian communities, carabid beetles, terrestrial gastropods, small streams

Forest Ecology: Species at Risk

- Northern goshawk site monitoring (2020 – Manning and others – $WFP)
- Owl population monitoring and Autonomous Recording Unit testing
- Breeding birds: Population trends and habitat association

Silviculture: Resiliency

- Climate change strategies and mitigation
- Climate-based seed transfer – CoAdapTree (2020 – UBC Aitken et al - $WFP, $GenomeBC)
- Western redcedar genomic selection – pest tolerance

Silviculture: Regeneration and growth

- SCHIRP installation, Transition trials, Kennedy Lake trials, Demonstration trials, Vaccinium trials
- Western redcedar – western hemlock fertilization trials (2020 – $LBIS)
- Planting trials – stock types, fertilization-at-plant, species selection

Silviculture: Seed & Seedling Production

- Cone & Seed insect management (2020 - $WFP)
- Douglas-fir nursery trials (2020 – Noshad - $OTIP)

Growth and Yield

- VRAM Regeneration performance

Light Detection and Ranging (LiDAR)

- LiDAR Enhanced Forest Inventory Project

Harvest and Logistics Planning

- Harvest phase scheduling optimization (2020 - UBC Griess, $WFP, $Mitacs)

MONITORING

The TFL Forester will plan for and track targets 1 and 2. The Tree Improvement Forester will provide an annual research summary upon request for target 3. The TFL Forester will report the results of these targets in the SFM Plan Annual Report.

INDICATOR 6.1.4 NUMBER OF VINWAG MEETINGS

Element: 6.1 Information for Decision-making *Demonstrate that the SFM public participation process is designed and functioning to the satisfaction of the participants and that there is general public awareness of the process and its progress*				
Value	**Objective**	**Indicator**	**Target**	**Variance**
SFM public participation process	SFM public participation process works well	6.1.4 Number of VINWAG meetings held per year	5 VINWAG meetings held per year	≥ 3 VINWAG meetings per year

HISTORY

This is a non-Core Indicator under the Z809-16 Standard. This was previously Indicator 6.4.4 (Number of VINWAG meetings) in the Z809-08 SFM Plan. This was a locally Developed Indicator in 2010 for the Z809-08 SFM Plan. Previously was Indicator # 46 in the Z809-02 SFM Plan. Indicator # 46 was developed in 2001.

JUSTIFICATION

This indicator provides a measure of success at managing social values in forest management planning. Subject to periodic review, VINWAG meetings will be held approximately every two months. Meetings will provide an on–going dialogue between WFP and the communities, ensuring both parties remain informed throughout management planning activities.

CURRENT STATUS & INTERPRETATION

Year	# of VINWAG meetings/yr.	Variance from Target
2001	18	13
2002	6	1
2003	7	2
2004	7	2
2005	9	4
2006	5	0
2007	8	3
2008	5	0
2009	3	-2
2010	8	3
2011	6	1
2012	5	0
2013	6	1
2014	6	1
2015	7	2

Year	# of VINWAG meetings/yr.	Variance from Target
2016	6	1
2017	6	1
2018	6	1
2019	4	-2
2020	4	-2
2021	**7**	**2**

PERFORMANCE

2021 Results: The target was met. There were 5 regular VINWAG meetings held in 2021 (February 25th, April 22nd, June 24th, September 9th, and November 25th). There was a joint NWAC-VINWAG meeting held (May 27th). There was an All-PAG meeting held (October 13th). There was no VINWAG field trip held in 2021. The continuation of the COVID-19 pandemic resulted in all of the 2021 VINWAG, joint and All-PAG meetings being conducted virtually (through the TEAMS platform).

STRATEGIES & IMPLEMENTATION

Refer to the latest version of the VINWAG Terms of Reference and Procedures for details on goals, tasks, roles and procedures. Meeting agendas are prepared and distributed prior to meetings and minutes are kept and distributed to participants. A facilitator and chairperson guide the meetings. Membership includes public advisory group members, First Nations observers, WFP representatives and occasionally representatives from government agencies as required. A typical VINWAG meeting includes review of previous meeting minutes, a presentation on an aspect of forest management or on a mandatory discussion item, review, and discussion about the SFM Plan, review and discussion of membership and Terms of Reference and other business matters.

FORECASTS

The forecast is that the target will continue to be met into the future. There were a higher number of meetings in 2010; attributable to the requirement to update the SFM Plan to the Z809-08 Standard by the end of the year. The Z809-16 Standard was released in 2016/2017; there were no additional meetings required to update the SFM Plan to this Standard. A key assumption is that there is continued public interest in the SFM process.

DETAILS/ DATA SET

Refer to Current Status for latest data.

MONITORING

The TFL Forester will summarize the number of VINWAG meetings held in each calendar year and report the results in the SFM Plan Annual Report. VINWAG meeting agendas and minutes and related correspondence are maintained on file.

INDICATOR 6.2.1 CO-OPERATION WITH WORKERS TO IMPROVE SAFETY STANDARDS, PROCEDURES AND OUTCOMES

Element: 6.2 Safety

Demonstrate that the organization is providing and promoting safe working conditions for its employees and contractors.

Value	Objective	Indicator	Target	Variance
Worker safety	There is an active worker safety program	6.2.1 Evidence of cooperation with DFA-related workers and their unions to improve and enhance safety standards, procedures and outcomes in all DFA-related workplaces and affected communities	Maintain Occupational Health and Safety Committee	None

HISTORY

This is a Core Indicator under the Z809-16 Standard. This was previously Indicator 6.3.2 (Cooperation with Workers to Improve Safety Standards and Procedures) in the Z809-08 SFM Plan. The target was created in 2010 for the CSA Core Indicator for the Z809-08 SFM Plan.

JUSTIFICATION

The Occupational Health and Safety Committee (OH&S Committee) addresses all elements. Maintaining an effective OH&S Committee is a requirement under the Occupational Health and Safety Regulations of WorkSafe BC. A safety committee is an integral component of an effective safety program.

CURRENT STATUS & INTERPRETATION

The Operation's Occupational Health and Safety Committees meet once a month when the Operation is operating. Meeting minutes which include a Corrective Action Log are produced and distributed. The Operation's safety program applies to all employees and contractors working in the Forest Operation.

Year	Number of Occupational Health and Safety Committee Minutes (e.g. monthly, if operating).		Goal of Program met (Y/N)
	PMFO/JLFO	Holberg	
2010	10	9	Yes
2011	9	8	Yes
2012	10/8	10	Yes
2013	10/9	10	Yes
2014	10/9	10	Yes
2015	11/11	10	Yes
2016	11/9	11	Yes
2017	10/9	9	Yes
2018	11/10	9	Yes
2019	6/6	4	Yes

2020	9/7	8	Yes
2021	**12 – PMFO**	**7 – QSFO**	**Yes**

PERFORMANCE

2021 Results: The target was met in 2021. OH&S meetings continued to be held virtually in most cases. Operational curtailments and weather shutdowns during 2021 meant that OH&S meetings were not held for several months at the Quatsino Sound Forest Operation.

STRATEGIES & IMPLEMENTATION

Maintain WFP's SAFE Company registration through the BC Forest Safety Council. Maintain an effective safety committee that will: foster a work environment that will promote reporting of all hazards, near misses and incidents; investigate near misses and incidents to determine root cause; make corrective actions and distribute and review findings with workers; review and address findings and worker's concerns that arise from departmental safety meetings.

FORECASTS

Regular (monthly) OH&S Committee meetings will continue to be held when the Operations are operating. WFP has maintained safety committees for many years. The committee's functions and effectiveness can be shown to have evolved and improved over the years. An effective OH&S Committee is an integral component of an effective safety program. WFP is strongly committed to an effective safety program. There is no expected change in this indicator as WFP expectations of its Operation's safety committees are not expected to change, although they will likely improve and evolve over time.

DETAILS/ DATA SET

OH&S Committee's meeting minutes are documented and retained within the Operations.

MONITORING

The Operations Administrators will provide an annual summary of Operation's OH&S Committee meetings (i.e., minutes). Operations are subject to audit by the BC Forest Safety Council as part of WFP's SAFE Company Certification.

INDICATOR 6.2.2 WORKER SAFETY PROGRAM IMPLEMENTATION AND REVIEW

Element: 6.2 Safety

Demonstrate that the organization is providing and promoting safe working conditions for its employees and contractors.

Value	Objective	Indicator	Target	Variance
Worker safety	Worker safety improves over time	6.2.2 Evidence that a worker safety program has been implemented and is periodically reviewed and improved	Maintain SAFE Company certification and WFP Safety Program	None

HISTORY

This is a Core Indicator under the Z809-16 Standard. This was previously Indicator 6.3.3 (Worker Safety Program Implementation and Review) in the Z809-08 SFM Plan. The target was created in 2010 for the CSA Core Indicator for the Z809-08 SFM Plan.

JUSTIFICATION

This indicator provides evidence that a worker safety program has been implemented. A worker safety program can be demonstrated through SAFE Company Certification with the BC Forest Safety Council and an effective Company safety program. An effective safety program is one that not only meets the requirements necessary to achieve and maintain SAFE Company certification, but also can be considered effective in continually improving worker safety through regular reviews and adaptation.

CURRENT STATUS & INTERPRETATION

WFP is SAFE Company certified (certificate #9070161, valid until September 29th, 2020) through the BC Forest Safety Council. All contractors working for WFP Timberlands Operations are required to maintain valid SAFE Company Certification and valid registration with WorkSafe BC. An external SAFE Company Re-Certification Audit was conducted at Port McNeill, Jeune Landing, and Holberg Forest Operations in late 2018. Audits are now conducted Timberlands wide, and not every Operation is audited since the certification applies to WFP Timberlands.

WFP's Company safety program is implemented at all Operations. This safety program includes a Health and Safety Policy, Safe Work Procedures, Safety Standards, safety statistics reporting and regular OH&S Committee and Department safety meetings.

Within each Operation there are specific policies and procedures that augment the Company safety program.

PERFORMANCE

2021 Results: The target was met in 2021. WFP Timberlands continues to be SAFE Company certified through the BC Forest Safety Council (certification #9070161, valid until November 8th, 2024). WFP Timberlands underwent a re-certification audit by BCFSC in November 2021.

The WFP Health and Safety Management System (HSMS) was introduced in 2018. During 2021, the HSMS was further implemented at the Operation level. Completion of Hazard Identification Assessments and Near Miss Reporting were a focus with workers during the year. Corporate Safety Standards continued to be updated and revised in 2021 to ensure standard practices and monitoring across the Company.

STRATEGIES & IMPLEMENTATION

In 2018 WFP Health & Safety introduced a new Health and Safety Management System. Corporate Safety Standards have been updated and improved to ensure standard practices and monitoring across the company.

Each Operation is responsible for implementing the Company safety program and continuing to meet the requirements of SAFE Company Certification and supporting Timberlands in maintaining this certification. The Company safety program is applicable to staff, union, and contract workers. WFP Health and Safety advisors assist the Operations in maintaining and improving the safety program.

FORECAST

Continue to maintain SAFE Company Certification though the BC Forest Safety Council. Continue to maintain WFP's Company safety program. WFP's safety program continues to evolve with a higher level of monitoring and measuring by managers/staff and accountability at the crew level. WFP's goal is to continually reduce its medical incident rate (MIR). MIR reduction can be directly linked to an effective safety program. There is no expected change in this indicator as WFP's expectation of its Operation's implementing its Company safety program is not expected to change, although the program is expected to improve and evolve over time.

DETAILS/ DATA SET

Report on SAFE Company Certification and BC Forest Safety Council audit results. WFP Health and Safety advisor visits, inspections, and reports. Report on significant innovations or improvements to the Company/Operation's safety plans.

MONITORING

The Operations Administrators will provide evidence of continued certification with the BC Forest Safety Council (i.e., Internal and External Audits, reports from BC Forest Safety Council website). Operations Administrators will provide documentation related to any WFP Health and Safety advisor reports.

INDICATOR 7.1.1 EVIDENCE OF A GOOD UNDERSTANDING OF THE NATURE OF ABORIGINAL TITLE AND RIGHTS

Element: 7.1 Aboriginal and treaty rights *Recognize and respect Aboriginal title and rights, and treaty rights. Understand and comply with current legal requirements related to Aboriginal title and rights, and treaty rights.*				
Value	**Objective**	**Indicator**	**Target**	**Variance**
Aboriginal title and rights.	Aboriginal title and rights are understood.	7.1.1 Evidence of a good understanding of the nature of Aboriginal title and rights	Planning staff have an awareness of the current known information relating to aboriginal title and rights, and treaty rights for First Nations relating to the DFA (report on the number of knowledge transfer opportunities).	None

HISTORY

This is a Core Indicator under the Z809-16 Standard. This was previously Indicator 6.1.1 (Evidence of a good understanding of the nature of Aboriginal title and rights) in the Z809-08 SFM Plan. The target was created in 2010 to support the Core Indicator in the Z809-08 SFM Plan.

JUSTIFICATION

This indicator provides a measure of demonstrating knowledge of aboriginal title and rights to avoid infringement of Aboriginal rights and provide a measure of due diligence to WFP forest professionals. The DFA is located within several First Nations traditional territories.

CURRENT STATUS & INTERPRETATION

Topic	Date	Comments
Overview of Aboriginal Law and Recent Cases that affect WFP	May 1, 2009	Presentation by Billy Garton attended by Operations and Area Foresters and Engineers
QFN/WFP Joint venture discussion (Quatern) , Namgis FN treaty update	March 19, 2010	Presented to HFO Planning staff by Ray Robazza and Shannon Janzen
FNIEG field trip looking at recent management of CMTs on DFA	June 23, 2011	FNIEG group toured some recent cutblocks to look at management of CMTs
Overview of Aboriginal Law and Recent Cases that affect WFP	June 24, 2011	Presentation by Billy Garton attended by Engineering and Forestry staff (PM and HOL) and several summer students
Working Effectively with Aboriginal Peoples	August 1, 2012	Numerous WFP planners who work on the DFA attended one day workshop in Port McNeill put on by Indigenous Corporate Training Inc. One planner attended the

Topic	Date	Comments
		workshop “Working Effectively with Aboriginal Peoples During Consultation” in Campbell River.
ABCFP Training	ongoing	Various WFP planning staff completing on-line version of Working Effectively with Aboriginal Peoples.
First Nations Update	June 1, 2013	Operations Forester, Operations Engineer and Operations Managers from DFA attended information session hosted by Geoff Plant at Menzies Bay.
First Nations Consultation	December 1, 2014	Operations Forester attended workshop put on by MFLNRO in Nanaimo about current First Nations consultation.
Cultural Awareness Workshop	February 1, 2018	Sr. Ops Planner participated in a Cultural Awareness Workshop put on by Quatsino First Nation.
Indigenous Awareness Training	September 1. 2021	WFP Indigenous Awareness Training roll-out across Timberlands (online)

PERFORMANCE

2021 Results: The target was met. WFP Planning staff met virtually with First Nations virtually due to the COVID-19 pandemic (usually Lands and Resources staff) whose traditional territories overlap the DFA for updates, Information Sharing of cutblocks and roads and renewals of various tenures during the year. The WFP Planning staff discussed recent developments related to Aboriginal title and rights (i.e., United Nations Declaration on the Rights of Indigenous People – UNDRIP; Truth and Reconciliation Commission Calls to Action, introduction of the Declaration on the Rights of Indigenous Peoples Act in BC; recent legal rulings). During 2021, WFP initiated a process for attaining Progressive Aboriginal Relations certification.

FORECAST

Continue to facilitate training and awareness with regards to aboriginal title and rights. This is a dynamic issue that can be affected by changed legislation and evolving case law. Training and awareness must keep pace and thus this indicator is not forecasted to change.

DETAILS/ DATA SET

Report on the training opportunities undertaken by planners during the calendar year (professional development plans, corporate training).

MONITORING

TFL Forester and Operations Planners will be responsible for compiling training opportunities undertaken by planners. Operations Administrators will provide any training documentation information and will be compiled annually and incorporated within the SFM Plan Annual Report.

INDICATOR 7.1.2 EVIDENCE OF ONGOING OPEN AND RESPECTFUL COMMUNICATIONS WITH ABORIGINAL COMMUNITIES

Element: 7.1 Aboriginal and treaty rights *Recognize and respect Aboriginal title and rights, and treaty rights. Understand and comply with current legal requirements related to Aboriginal title and rights, and treaty rights.*				
Value	**Objective**	**Indicator**	**Target**	**Variance**
Aboriginal understanding of plans.	Aboriginal understanding of plans is increased.	7.1.2 Evidence of ongoing open and respectful communications with Aboriginal communities to foster meaningful engagement, and consideration of the information gained about their Aboriginal title and rights through this process. Where there is communicated disagreement regarding the organization's forest management activities, this evidence would include documentation of efforts towards conflict resolution.	# of documented opportunities provided to local First Nations for review of Forestry plans: 100% of FSPs, FSP cutblocks, and Management Plans (MPs) are accessible for review by local affected First Nations.	None. 100% of FSP cutblocks are referred to First Nations or a rationale is provided

HISTORY

This is a Core Indicator under the Z809-16 Standard. This was previously Indicator 6.1.2 (Efforts to obtain acceptance of Management Plans by Aboriginal communities) in the Z809-08 SFM Plan. The target was created in 2010 to support the Core Indicator in the Z809-08 SFM Plan. It incorporates Indicator # 49 from the Z809-02 SFM Plan. Indicator #49 was developed in 2001 and revised in 2004 to include reference to Forest Stewardship Plans under the Forest and Range Practices Act as well as current case law. In 2007, an FSP cutblock referral was added to the target. In 2009, the word "affected" First Nations was added to the target.

JUSTIFICATION

This indicator provides a measure of success at coordinating and managing activities to avoid infringement of Aboriginal rights, and provides a measure of information sharing activity, in support of CSA SFM principles. It is noted that this indicator does not constitute consultation and is not part of a consultation process. Consultation is done Government to Government with each Band, whereas this indicator groups all Bands and is voluntary on behalf of the company. This indicator provides a measure of opportunity for all affected First Nations to review proposed plans and referrals and provide comment.

CURRENT STATUS & INTERPRETATION

Year	# of Plans Made Accessible	# of Affected First Nations	# of Contacted First Nations	Opportunity for Review (%)
2021	Annual Harvest Plan and tenure renewal referrals to Quatsino - 67 referral packages	1	1	100%
	Annual Harvest Plan and tenure renewal referrals to Kwakiutl FN - 23 referral packages	1	1	100%
	Annual Harvest Plan and tenure renewal referrals to 'Namgis FN - 2 referral packages	1	1	100%
	Annual Harvest Plan and tenure renewal referrals to Tlowitsis FN (Nanwakolas Treaty Society) - 0 referral packages	1	1	100%
	Annual Harvest Plan and tenure renewal referrals to Tlatlasikwala FN - 2 referral packages	1	1	100%

PERFORMANCE

2021 Results: The target was met for 2021.

STRATEGIES & IMPLEMENTATION

Forest Stewardship Plans (FSP) are plans outlining harvesting, road construction, protection, and silviculture activities over the short-term (often 5 years) in accordance with various MFLNRORD and Ministry of Indigenous Relations and Reconciliation (MIRR) consultation policies that reflect evolving Canadian law. WFP attempts to schedule Information Sharing meetings with First Nations whose traditional territories overlap the DFA in order to review Forest Operating Plans and answer any questions about forest management activities. Forest Operating Plans are still provided to First Nations in situations where meetings are unable to be arranged.

FORECASTS

Information sharing is currently conducted with First Nations where activities are proposed within their traditional territory. There is no expected change to this indicator and target. The District Manager from the MFLNRORD has previously provided guidance to forest licensees including WFP regarding their role in information gathering and assessment in the form of a letter dated January 23rd, 2007, another dated September 14th, 2017, and another dated October 22nd, 2019. The level of engagement with First Nations whose traditional territories overlap the DFA is expected to continue into the future as individual nations enhance their capacity and understanding in natural resource management.

DETAILS/ DATA SET

This indicator is determined by tallying the number of FSPs, Management Plans, Annual Harvest Plans and tenure renewals made accessible to local First Nations for review during the reporting year. Measured as a percentage, the indicator is determined by dividing the number of First Nations affected by the number of First Nations contacted, for each plan. The TFL Forester/Operations Planners are responsible for compiling and reporting the results in the SFM Plan Annual Report.

MONITORING

The TFL Forester compiles the data and reports on the indicator performance in the SFM Plan Annual Report.

INDICATOR 7.2.1 CAPACITY DEVELOPMENT AND PARTICIPATION FOR ABORIGINAL COMMUNITIES

Element: 7.2 Respect for Aboriginal forest values, knowledge, and uses

Respect traditional Aboriginal forest values, knowledge, and uses as identified through an Aboriginal input process.

Value	Objective	Indicator	Target	Variance
Aboriginal capacity to meaningfully participate.	Develop/improve aboriginal participation capacity over time	7.2.1 Evidence of efforts to promote capacity development and meaningful participation for Aboriginal individuals, communities, and forest-based companies	Offer opportunity to sign WFP-First Nations protocol for information sharing regarding forest developments or other matters	Where no protocol is made or is not desired, offer annual meetings addressing issues. If meetings do not occur, forest plans must still be provided to Bands.

HISTORY

This is a Core Indicator under the Z809-16 Standard. This was previously Indicator 6.4.3 (Capacity Development and participation for Aboriginal communities) in the Z809-08 SFM Plan. The target was created in 2010 for the CSA Core Indicator for the Z809-08 SFM Plan.

JUSTIFICATION

In order to effectively incorporate Aboriginal rights and interests into SFM plans, a process should be established to identify, address, and protect Aboriginal rights, uses, cultural resources, and values. Agreements based on information sharing and engagement should encourage the dissemination and use of information, respect confidentiality, and specify the parameters for the release of information. In order to address the issues regarding the sharing of confidential and sensitive information from Aboriginal communities, organizations are encouraged to develop information-sharing agreements, such as partnership agreements and memoranda of understanding, which outline ways to protect this information.

CURRENT STATUS & INTERPRETATION

So far, there is only one signed WFP-First Nation protocol for information sharing; the Quatsino Protocol with the Quatsino First Nation.

PERFORMANCE

2021 Results: The variance was achieved in 2021. The continuation of the COVID-19 pandemic resulted in no face-to-face meetings with First Nations in 2021. Only one WFP-First Nation protocol is in place on the DFA (Quatsino Protocol, in place prior to the current and previous SFM Plans); e-mail exchanges were held with Quatsino to review Forest Operating Plans. There were e-mail exchanges with 'Namgis to share Forest Operating Plans in 2021. Forest Operating Plans were provided to Kwakiutl via their Trailmark Referral application. There were no e-mail exchanges with Tlatlasikwala to share Forest Operating Plans in 2021. There were no e-mail exchanges with Nanwakolas Council to share Forest Operating Plans with Tlowitsis FN in 2021.

STRATEGIES & IMPLEMENTATION

The need for a protocol will be assessed on a case-by-case basis and will consider WFP Corporate and MFLNRORD and MIRR input on consultation engagement. Protocols with First Nations are coordinated with assistance from the WFP Corporate Forestry group.

FORECASTS

It is difficult to forecast this target into the future. The WFP-Quatsino Protocol has been in place for at least a dozen years and is expected to be maintained into the future. A key assumption is that the current Treaty process continues (this is not offered as a negative comment). As treaties between the Crown and First Nations are concluded, the context of the relationship between the WFP and First Nations will likely be changed. It is difficult to say how this target (and other Indicators/targets in the SFM Plan) will be affected in a post-treaty world.

DETAILS/ DATA SET

Refer to Current Status for latest data.

MONITORING

The TFL Forester will summarize the number of protocol agreements in place and offers of protocol agreements as well as the number of annual meetings held and report the results in the SFM Plan Annual Report.

INDICATOR 7.2.2 EVIDENCE OF UNDERSTANDING AND USE OF ABORIGINAL KNOWLEDGE THROUGH THE ENGAGEMENT OF WILLING ABORIGINAL COMMUNITIES, USING A PROCESS THAT IDENTIFIES AND MANAGES CULTURALLY IMPORTANT RESOURCES AND VALUES

Element: 7.2 Respect for Aboriginal forest values, knowledge and uses *Respect traditional Aboriginal forest values, knowledge and uses as identified through the Aboriginal input process.*				
Value	**Objective**	**Indicator**	**Target**	**Variance**
Aboriginal knowledge	Aboriginal knowledge provided is used and respected	7.2.2 Evidence of understanding and use of Aboriginal knowledge through the engagement of willing Aboriginal communities, using a process that identifies and manages culturally important resources and values	1) Use a First Nations engagement protocol or guidelines and blanket permit, or similar process to manage archaeological survey and assessment program 2) Management of monumental cedar requests: Respond to 100% of requests from First Nations in the DFA	1) Other agreed due diligence process after discussion with First Nation and MFR. 2) None

TARGET 1: USE OF FIRST NATIONS ENGAGEMENT PROTOCOL OR SIMILAR PROCESS

HISTORY

This is a Core Indicator under the Z809-16 Standard. This was previously Indicator 6.2.1 (Evidence of understanding and use of Aboriginal knowledge through the engagement of willing Aboriginal communities, using a process that identifies and manages culturally important resources and values) in the Z809-08 SFM Plan. The target was created in 2010 to support the Core Indicator in the Z809-08 SFM Plan.

JUSTIFICATION

This new target is intended to give a measure of success at identifying and managing culturally important resources and values. The Provincial Heritage Conservation Act provides guidance on assessing, identifying and managing archaeological sites. For example, the Quatsino Protocol provides some guidance as to when certain types of archaeological assessments need to be completed during Information Sharing meetings between the Western Forest Products and the Quatsino First Nation. The Quatsino Protocol has been in use since 2007 on the DFA. Proposed developments (roads and/or cutblocks) are reviewed with the Forestry Coordinator for Quatsino. Comments are provided to Western as to the level of archaeological work required:

- No assessment required as no concerns identified.
- Informal assessment required, completed by competent Western employees and a note to file prepared.
- Archaeological Field Reconnaissance required as potential exists for archaeological features within or adjacent to the proposed development, completed by an archaeologist, short report prepared for Western, if archaeological features are found the Reconnaissance turns into an Archaeological Impact Assessment.

- Archaeological Impact Assessment (AIA) required as archaeological features known to exist or have a high potential to exist within or adjacent to the proposed development, completed by an archaeologist, Archaeological Impact Assessment report prepared with copies to the Provincial Archaeology Branch, Western and Quatsino.

CURRENT STATUS & INTERPRETATION

There is a current, signed protocol agreement between WFP and the Quatsino First Nation. The protocol provides terms of reference and guidance on Archaeological assessments (Archaeological Impact Assessments, Archaeological Overview Assessments, etc.) in Quatsino traditional territory. This protocol also provides a basis for other First Nations that do not have protocols.

PERFORMANCE

2021 Results: The variance was achieved in 2021. The continuation of the COVID-19 pandemic resulted in no face-to-face meetings with First Nations in 2021. Only one WFP-First Nation protocol is in place within the DFA (Quatsino Protocol, in place prior to the current SFM Plan); e-mail exchanges and virtual meetings were held with Quatsino in 2021. Periodic virtual meetings were held with another First Nation. There were no meetings (virtual or otherwise) held with three other First Nations (repeated offers of meetings with one of the First Nations were not responded to). Forest Operating Plans were still provided to these First Nations and to the MFLNRORD. Archaeological surveys followed the requirements of the Heritage Inspection Permit for TFL 6 and guidelines from the Provincial Archaeology Branch, which is a Branch of MFLNRORD.

STRATEGIES & IMPLEMENTATION

The Quatsino Protocol was developed by Quatsino in conjunction with WFP and the MFLNRORD. Other First Nations are aware of the protocol. WFP also retains an archaeologist to apply for and hold an Archaeological Inspection Permit that contains the procedures used in the case that AIAs are conducted on the DFA.

FORECAST

The current protocol clearly outlines the process to be followed with regards to archaeological assessments. To date, the protocol has been effective. Amendments to the protocol may be implemented in the future, but no alternative method of managing archaeological assessments is anticipated. It is anticipated that more First Nations Engagement Protocols will be signed in the future as First Nations increase their capacity and understanding of natural resource management as well as their involvement in such management.

DETAILS/ DATA SET

This target is determined by summarizing and reporting on the different processes used for managing the annual Information Sharing process and the Archaeological Survey and Assessment programs.

MONITORING

The TFL Forester will report on the processes used for Information Sharing with First Nations within the DFA in the SFM Plan Annual Report.

TARGET 2: MANAGEMENT OF MONUMENTAL CEDAR REQUESTS

HISTORY

This is a Core Indicator under the Z809-16 Standard. This was previously Indicator 6.2.1 (Evidence of understanding and use of Aboriginal knowledge through the engagement of willing Aboriginal communities, using a process that identifies and manages culturally important resources and values) in the Z809-08 SFM Plan. The target was developed in 2008 after discussion with FNIEG and subsequently carried over into the Z809-08 SFM Plan. Formerly was Indicator #50.1 in the Z809-02 SFM Plan.

JUSTIFICATION

This indicator is intended to give a measure of success at responding to First Nations requests related to aboriginal rights.

CURRENT STATUS & INTERPRETATION

Year	Percent Request Response
2008	100%
2009	100%
2010	100%
2011	100%
2012	100%
2013	100%
2014	100%
2015	100%
2016	100%
2017	100%
2018	100%
2019	100%
2020	100%
2021	**100%**

PERFORMANCE

2021 Results: The target was met for 2021. All requests that were received from First Nations within the DFA were responded to.

STRATEGIES & IMPLEMENTATION

WFP will be consistent with MFLNRORD policies on supply of monumental cedar and “Sappier” trees. The FSP has results and strategies for “Cultural Heritage Resources”. The MFLNRORD’s role is to confirm that the request meets qualifying criteria for the requested use including Band Council Resolution, if necessary, to coordinate amounts requested between licensees, to identify options for access to the material via harvesting

(e.g. FUP's, licensee sale or donation, etc.), and to provide exemption from scale. WFP has an internal process to follow regarding donated material and will maintain a tracking spreadsheet to support audit of this indicator. The intent is that the indicator will note that reasonable responses have been made to interested parties and indicate that WFP will make itself available to meet with First Nations or Government if there is any issue to be discussed. As the actual material supplied may be confidential, reporting of the material supplied is not included at this time.

This target does not include purchases of logs by First Nations artisans for carving and subsequent sale.

FORECASTS

WFP is committed to responding to First Nations monumental cedar requests. This commitment is guided by MFLNRORD policy and FSP commitments. The continued expectation is that requests will continue to be addressed and accommodations made where mutually suitable between the parties.

DETAILS/ DATA SET

This indicator is determined by tallying the number of requests received and responded to. If the receipt and response overlap calendar years, it will be recorded in the year responded to. All occurrences will be recorded on a tracking spreadsheet. A request may be one or more pieces. A confidential table of responses and their disposition will be maintained.

MONITORING

The TFL Forester will ensure that data is compiled, and performance reported, in the SFM Plan Annual Report. Data will be tracked and compiled at the Operations level and summarized at Timberlands level. The Operations Managers and Dryland Sort Supervisors will maintain data and supply as necessary.

INDICATOR 7.2.3 LEVEL OF MANAGEMENT AND/OR PROTECTION OF CULTURALLY IMPORTANT AREAS

Element: 7.2 Respect for Aboriginal forest values, knowledge and uses *Respect traditional Aboriginal forest values, knowledge and uses as identified through the Aboriginal input process.*				
Value	**Objective**	**Indicator**	**Target**	**Variance**
Areas where culturally important practices and activities occur	Areas where culturally important practices and activities occur are managed for or protected	7.2.3 Level of management and/or protection of areas where culturally important practices and activities (hunting, fishing, gathering) occur	1) Zero known CMTs harvested without a Site Alteration Permit 2) 100% opportunity at relevant referrals for First Nations input on areas of fishing, hunting, gathering and/or other CHR`s	1) None 2) None

TARGET 1: CMTS

HISTORY

This is a Core Indicator under the Z809-16 Standard. This was previously Indicator 6.1.3 (Level of management and/or protection of culturally important areas) in the Z809-08 SFM Plan. The target was created in 2010 to support this Core Indicator in the Z809-08 SFM Plan. It incorporates Indicator # 50 from the Z809-02 SFM Plan. Indicator #50 was developed in 2001. In 2007, a reference to “cultural heritage resources” was also added.

JUSTIFICATION

This indicator provides a measure of success at coordinating and managing activities to avoid infringement of Aboriginal rights. Based on Archaeological Overview Assessments (AOA) completed by government and/or First Nations, the DFA has been categorized into areas based upon archaeological site potential and the need for an archaeological impact assessment (AIA) or other type of assessment. As required or requested, AIAs are completed to identify and evaluate archaeological resources within the proposed development area. AIAs identify and assess all impacts on archaeological resources that might result from the development and recommend alternatives for managing unavoidable adverse impacts. One of the primary archaeological resources identified in the AIA process are Culturally Modified Trees (CMTs). A CMT is a tree that has been altered by First Nations as part of their traditional use of the forest.

CURRENT STATUS & INTERPRETATION

Year	Number of accidentally harvested CMTs	Variance from Target
2000	0	0
2001	0	0
2002	0	0
2003	0	0
2004	0	0
2005	0	0
2006	0	0
2007	0	0
2008	0	0
2009	0	0
2010	0	0
2011	0	0
2012	0	0
2013	1	1
2014	0	0
2015	0	0
2016	0	0
2017	0	0
2018	0	0
2019	0	0
2020	0	0
2021	**0**	**0**

PERFORMANCE

2021 Results: Target 1 was met for 2021; no CMTs accidentally harvested in 2021.

STRATEGIES & IMPLEMENTATION

The FSP contains commitments for identifying and protecting archaeological features that are protected under the Heritage Conservation Act. This starts with annual Information Sharing of proposed cutblocks and roads with the First Nations. Areas of concern and/or high potential for features may be identified during these meetings. Assessments are completed on proposed cutblocks and roads to locate and identify any features. Cutblocks and roads are modified to protect any identified features. Harvest and Road Instructions identify where such features are located and strategies to be undertaken to protect them. Workers maintain a look out

for any additional features during activities. If any such features are located, work is stopped, and the appropriate groups contacted.

FORECAST

The previous performance of this indicator is expected to continue into the future. No CMTs will be harvested without agreement from the respective First Nation and a Site Alteration Permit as per the Heritage Conservation Act. CMTs are protected through legislation and WFP is committed to continued appropriate management of CMT features, therefore no future change to this indicator is anticipated.

DETAILS/ DATA SET

Target 1 of this indicator is determined by tallying the number of known CMTs that were harvested during the reporting year that did not have a Site Alteration Permit issued under the Heritage Conservation Act (HCA). Target 2 of this indicator is determined by summarizing the meeting minutes from the annual Information Sharing meetings.

MONITORING

The TFL Forester will report on the number of known CMTs harvested without a Site Alternation Permit issued under the HCA and on the results on Annual Information Sharing meetings in the SFM Plan Annual Report.

TARGET 2: OPPORTUNITY FOR FIRST NATIONS INPUT

Reported under Criterion 7, Indicator 7.1.2

INDICATOR 7.2.4 LEVEL OF ABORIGINAL PARTICIPATION IN THE FOREST ECONOMY

Element: 7.2 Respect for Aboriginal forest values, knowledge and uses *Respect traditional Aboriginal forest values, knowledge and uses as identified through the Aboriginal input process.*				
Value	**Objective**	**Indicator**	**Target**	**Variance**
Aboriginal economic opportunities.	Support Aboriginal economic opportunities in and around the DFA.	7.2.4 Level of Aboriginal participation in the forest economy	There are both internal and external (G to G) business arrangements with First Nations in effect on the DFA (report on these).	None

HISTORY

This is a Core Indicator under the Z809-16 Standard. This was previously Indicator 5.2.4 (Level of Aboriginal participation in the forest economy) in the Z809-08 SFM Plan. The target was created in 2010 to support this Core Indicator in the Z809-08 SFM Plan.

JUSTIFICATION

The target tracks the level of participation of the aboriginal community in the forest economy that is based in and around the DFA. Internal arrangements include joint ventures, and contractual business arrangement directly between a First Nation and WFP. External arrangements include Government-to-Government (G to G) negotiated opportunities and treaty land settlements.

No variance is applicable.

CURRENT STATUS & INTERPRETATION

In 2021, there were a total of 5 First Nations business arrangements in effect in the DFA that WFP was aware of. There were four separate internal and external agreements with Quatsino and one external agreement with ‘Namgis.

PERFORMANCE

2021 Results: The target was met for 2021. The Quatern project was not active in 2021. There was no harvest on the Quatsino FN Woodlots in 2021. The 'Namgis Participating Interest arrangement will not be included in future Annual Reports; refer to Indicator 2.1.3 target 2 for details on the disposition of the lands associated the Orca Sand and Gravel facility.

STRATEGIES & IMPLEMENTATION

Western Forest Products endeavors to negotiate mutually beneficial business arrangements directly with willing First Nations.

FORECASTS

The importance and scale of business arrangement with First Nations should continue to increase in the near future with their increasing political profile and Government’s policy efforts to negotiate settlements with aboriginals.

DETAILS / DATA SET

Year	First Nation	Arrangement Type	Internal / External	Nature	Quantity
2021	Quatsino	Limited Partnership	Internal	Engagement in the Quatern Project = logging / marketing opportunities and profit sharing between QFN and WFP Inc.	~ 40,000 m3/year
	Quatsino	Bill 13 Replaceable Contract	Internal	Yarding & Loading - Quatishhe Forest Products (formerly known as Quatsino Forestry Company) grapple yarder and loader	~ 30,000 m3/year
	Quatsino	Fixed Term Yarding Non-Replaceable Contract	Internal	Yarding & Loading - Quatishhe Forest Products (formerly known as Quatsino Forestry Company) grapple yarder and loader	~ 15,000 m3/year
	Quatsino	Woodlots 0072 and 2053	External	Management and Harvest agreement. Note that the two woodlots are not within the DFA	10,600 m3/year
	'Namgis	Participating Interest	External	Aggregate extraction - Orca Sand and Gravel	Up to 6.6 million tons

MONITORING

The level of Aboriginal participation in the forest economy within the DFA is calculated by summarizing the number of business arrangements within the DFA. The TFL Forester is responsible for summarizing this information with assistance from the Director, Indigenous Relationships.