

Sustainable Forest Management (SFM) Plan

October 2008





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1.0 Introduction

The objective of The Teal Jones Group (Teal) Sustainable Forest Management (SFM) Plan is to provide a vehicle for transferring higher level sustainable forest management commitments to ground level commitments.

One of the main drivers for Teal's SFM Plan is The Teal Jones Group Environmental Policy. The policy reflects Teal's commitment to sustainable management of the resources under their stewardship in a scientifically credible; environmentally, economically and socially responsible manner.

In addition to rigorous legislation, regulations and policies, Teal has voluntarily chosen to apply additional standards to aid in the achievement of sustainable forest management; Teal has committed to meeting the Canadian Standards Association Sustainable Forest Management (SFM) Z809-02 Standard.

The Sustainable Forest Management Plan outlines: Teal's approach to achieve sustainable forest management; the current state of the Defined Forest Area (DFA); as well as, the local values, objectives, indicators, and targets of Sustainable Forest Management developed through the public participation process.

1.1 Acknowledgement

The Teal Jones Group wishes to extend their gratitude to the members of the Southwest Island and Fraser Public Advisory Groups for their valuable time and input. Without the community and First Nation involvement donated towards the development of the Sustainable Forest Management Plan this process would not have been as successful.



2.0 Sustainable Forest Management

Sustainable Forest Management (SFM) is defined as: 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.¹

Teal has voluntarily committed to meeting the Canadian Standards Association Sustainable Forest Management (SFM) Z809-02 Standard in order to achieve their objective of managing the resources within the DFA in a sustainable manner. This is in addition to the rigorous legislation, regulations and policies that Teal adheres to during forest management within the DFA.

2.1 Canadian Standards Association

The Canadian Standards Association (CSA) is a non-profit, membership-based association which has developed over 2000 standards for various industries. CSA develops national and international accepted standards for values such as health and safety, quality of life and the environment².

CSA conducts extensive public participation in development of its Standards. The CSA SFM Standard was first published in 1996, following years of discussion and work, using an open and inclusive public participation process. In 2000, when CSA set out to review and improve upon the original Standard, it sought and incorporated public input once again. To learn more about CSA and standards development, visit: <http://www.csa.ca>

¹ Source: Canadian Standards Association Sustainable Forest Management Z809-02 Standard.

² Source: <http://www.csa.ca>



2.2 CSA Sustainable Forest Management Standard Z809-02

The CSA SFM Z809 Standard requires:

- A **systematic approach to management**, based on continual improvement; and compliance with legislation, regulations and government policies, taking into account environmental, social and economic factors
- **Public participation** in order to give local communities a voice in how their forests are managed
- Practical demonstration of **sustainable forest management performance**
- A **third party audit** to confirm adherence to the standard

These requirements are described briefly in the following text.

2.2.1 Sustainable Forest Management System

The CSA SFM Standard requires adaptive management procedures that recognize SFM as a dynamic process. The SFM system ensures that new knowledge acquired through time, experience, and research, as well as, society's evolving environmental, social, economic and cultural values are incorporated in planning processes.

Teal's SFM system is comprised of two major components: the Corporate Management System (CMS) and the Sustainable Forest Management (SFM) Plan:

Corporate Management System

As part of Teal's commitment to sustainable management, the Corporate Management System (CMS) will be established, implemented and maintained to provide a structured process for the achievement of:

- Continual improvement
- Legal compliance
- Prevention of pollution
- An environmentally responsible work force

An adaptive management system allows for a systematic approach to continual improvement. The CMS is based on the dynamic, cyclical process of: planning; implementation & operation; checking; and management review.



The core elements of the CMS are described within the CMS manual, as well as, supporting documents which include, but are not limited to: Standard Operating Procedures (SOP) and Emergency Preparedness & Response Plans (EPRP).

Sustainable Forest Management Plan

The main purpose of the Sustainable Forest Management (SFM) plan is to describe the methods of fulfilling the [SFM Performance](#) and [Public Participation](#) requirements. The core elements of the SFM plan are described within this document.

2.2.2 Public Participation

As Canadian forests are primarily publicly owned, the CSA SFM Standard requires that the public are involved extensively in the forest management planning process. The CSA Standard requires that organizations seek comprehensive, continuous public participation and work with Aboriginal peoples at the local community level in forest planning processes. The public's main role is to identify local values of specific environmental, social, economic and cultural importance. Teal works with the public to identify and select SFM objectives, indicators, and targets, as well as, reviewing planning documents to ensure that identified values and issues are addressed.

Public Advisory Groups

Teal has formed two public advisory groups; each corresponding to the two main geographical areas within the DFA (southwest Vancouver Island and Fraser valley/ canyon area). These public advisory groups aid Teal in soliciting public input from local groups of interested and affected parties on an ongoing basis.

The Southwest Island Public Advisory Group (SIPAG) was formed in June 2005 when Teal initiated their SFM to the CSA SFM Z809 Standard. The Fraser Public Advisory Group (FPAG) was formed in August 2006 when Teal expanded the area under SFM.

A broad range of interested parties from various sectors of society participate in each of the public advisory group meetings, including but not limited to:

- Communities
- Government
- Tourism
- Wildlife
- Labour
- First Nations
- Business
- Recreation
- Fisheries



Public advisory groups operate under a Terms of Reference that outlines: goals, roles and responsibilities; membership; measures to deal with conflicts of interest; meeting content; timelines; communication, decision making and dispute resolution protocols; as well as methods to modify the Terms of Reference.

It is important to note: First Nation participation in public advisory groups will not prejudice aboriginal or treaty rights. Public advisory groups meetings do not in any way intend to define, interpret, or prejudice ongoing or future discussions and negotiations regarding these legal rights and do not stipulate how to deal with treaty rights.

On-going public advisory group participation will provide continued opportunities for input, learning, improvement, and the resolution of issues that may arise in the implementation of the SFM Plan and the SFM System.

Broader Public Input

This strategy of public participation is further extended by communication with a broader public through internet, correspondence, meetings and other public relations. These strategies increase awareness and understanding of SFM and provide a mechanism for soliciting further input into the development and implementation of the SFM requirements.

2.2.3 Sustainable Forest Management Performance

The CSA Standard requires that Teal identify specific performance indicators for values and objectives identified through the [public participation](#) process. These performance indicators supplement and report on existing management plans and regulatory requirements. See [Section 3: Values, Objectives, Indicators & Targets](#) for more details on Teal's performance indicators.

Canadian Council of Forest Minister SFM Criterion and CSA SFM Elements were used as a framework for value identification. In this manner, local level SFM is linked with provincial and national forest policies.

On an annual basis, a SFM report is released to analyze the actual outcomes of each indicator.

2.2.4 Third Party Audits

To become certified to the CSA Standard, Teal undergoes third-party, independent audits. A registrar (or company accredited by the Standards Council of Canada to perform certification audits) conducts



the audit. The individual auditors employed or contracted by the registrar are required to be certified as environmental auditors and have some forestry expertise.

In addition to the initial certification audit, there are mandatory annual reviews (or surveillance audits), to ensure progress is being made towards the achievement of targets and that the SFM requirements are being upheld. A full re-certification audit is required periodically following the initial certification, in accordance with the requirements of the CSA standard.

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3.0 Defined Forest Area

The Defined Forest Area is the area to which the requirements of the SFM Plan and CSA standard apply. All comments, unless otherwise stated, pertain to the Defined Forest Area as detailed below.

3.1 Tenures within the Defined Forest Area

For the purposes of this plan, the following tenures are considered to be the Defined Forest Area (see figures 3-1 and 3-2 Overview Maps of the Defined Forest Area and Appendix 3: Detailed Maps of Defined Forest Area).

- Tree Farm Licence (TFL) 46 located on Southwest Vancouver Island in the Arrowsmith Forest District. T00757 (Camper Creek) and A07065 are in the process of being amalgamated into TFL 46, however the Ministry of Agriculture and Lands (Integrated Land and Resource Registry) have not finalized the transfer; these areas are considered to be part of the TFL for the purposes of this plan.
- Timber Licence T0910 is managed in cooperation with TFL 46 and is considered to be within the Defined Forest Area.
- The Dryland Sort in Duke Point (Honeymoon Bay)
- Forest License A19201 and Timber License T0822. These forest tenures are located within the Chilliwack Forest District which is wholly located within the Fraser Timber Supply Area.

Note: Columbia Shake & Shingle and Teal Cedar Products Ltd. form a partnership called The Teal Jones Group.

3.2 Tenures outside the Defined Forest Area

At this time, the DFA excludes other forest tenures operating within the TFL, specifically:

- Under the Forest Revitalization Act, the government has awarded local First Nations volume based licences (A71020 and a Timber Sale Licence under a Forest and Range Agreement). As these blocks are volume based, they may be scattered throughout the TFL.
- BC Timber Sales and Forest Licence A52027 (Lake Cowichan Co-operative) do not operate within TFL 46, and are not considered part of the DFA at this time.

Other forest tenures operating within the chart areas of Teal's FL are excluded from the DFA. As these blocks are volume based, they may



be scattered throughout the DFA. Currently, the following licensees are operating or have the potential to operate within the chart boundaries but are not considered part of the DFA:

- BC Timber Sales
- Mission Tree Farm License 26
- Weyerhaeuser Company Limited (FL A32611)
- Probyn Log Ltd (FL A75657)
- 606546 BC Ltd (FL A76488 & FL A77464)
- Tamih Logging Ltd. (FL A20542)
- Lakeside Pacific Forest Products Ltd. (FL A19207)

Teal does not manage these areas, therefore at this time they are excluded from the DFA.

Teal respects the legal rights and responsibilities of other parties in the DFA that are not part of the registration applicant.

3.3 Other Areas

The Carmanah Walbran and Hitchie Creek Provincial Parks are located within TFL 46, however no harvesting takes place in these areas. The parks are not considered to be part of the DFA.

3.4 General Description

There are two main geographical areas within the DFA: those associated with Honeymoon Bay Operations in southwest Vancouver Island and those associated with Fraser Valley Operations in Fraser valley/ canyon area.

Honeymoon Bay Portion of the DFA

This portion of the DFA is located on southwest Vancouver Island, generally between Muir Creek in the south and Nitinat River and Cowichan Lake in the west and north, respectively. Smaller portions of the DFA are located surrounding Cowichan Lake. The DFA is composed of 7 different areas (or blocks 1, 2, 3, 6, 7, 8 and 9) that are managed as one unit.

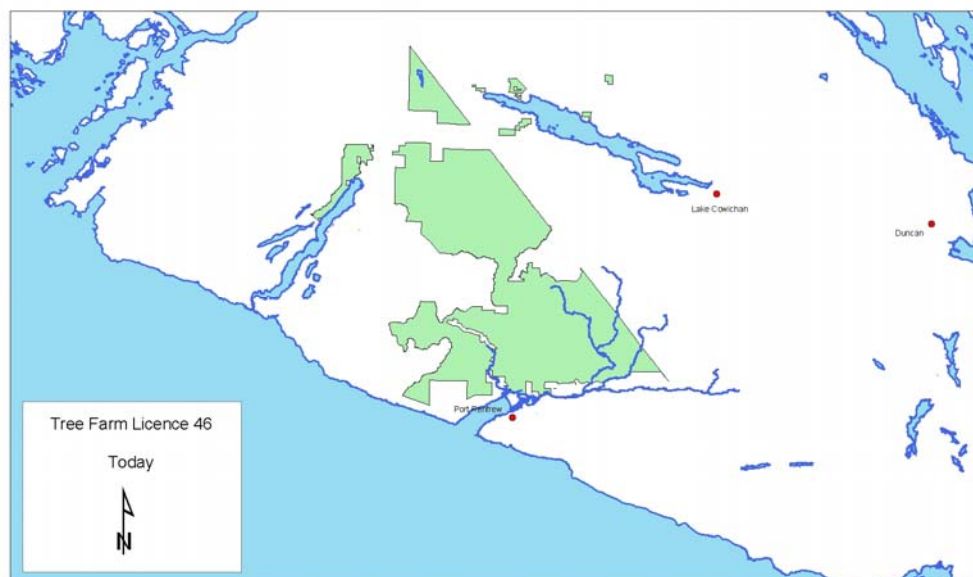


Figure 3-1: Overview Map of Honeymoon Bay Portion of the DFA

The total area of the TFL is approximately 83,304ha, including the Carmanah Walbran and Hitchie Creek Provincial Parks, in which no harvesting takes place. The productive land base is approximately 56,456ha due to reductions from parks, inoperable areas, Environmentally Sensitive Areas (ESAs), riparian reserve zones (the habitat directly adjacent to fish bearing streams, creeks and rivers) and non-productive timber types.

The topography of the area varies from flat, alluvial river valleys to steep, rugged and rocky slopes. Most of the drainages in the TFL flow westward toward the broken coastline. The smaller blocks located in the Cowichan Valley drain eastward through relatively gentle terrain.

The TFL has a long history of logging, and therefore the majority of the area is composed of second growth stands. The dominate tree species are Douglas-fir and hemlock, with smaller amounts of western red cedar, yellow cedar, amabilis fir and minor amounts of spruce, pine and alder. The combination of topography, soils and climate have resulted in a full range of growing sites for commercial tree species, however the majority of the TFL is situated on medium quality growing sites.



Fraser Portion of the DFA

Forest License A19201 and Timber License T0822 are located within the Fraser Timber Supply Area (Fraser TSA). The Fraser TSA boundary corresponds to the boundary for the Chilliwack Forest District. The FL & TL are located in along the lower Fraser River, generally between the town of Lytton in the Fraser Canyon and the City of Squamish.

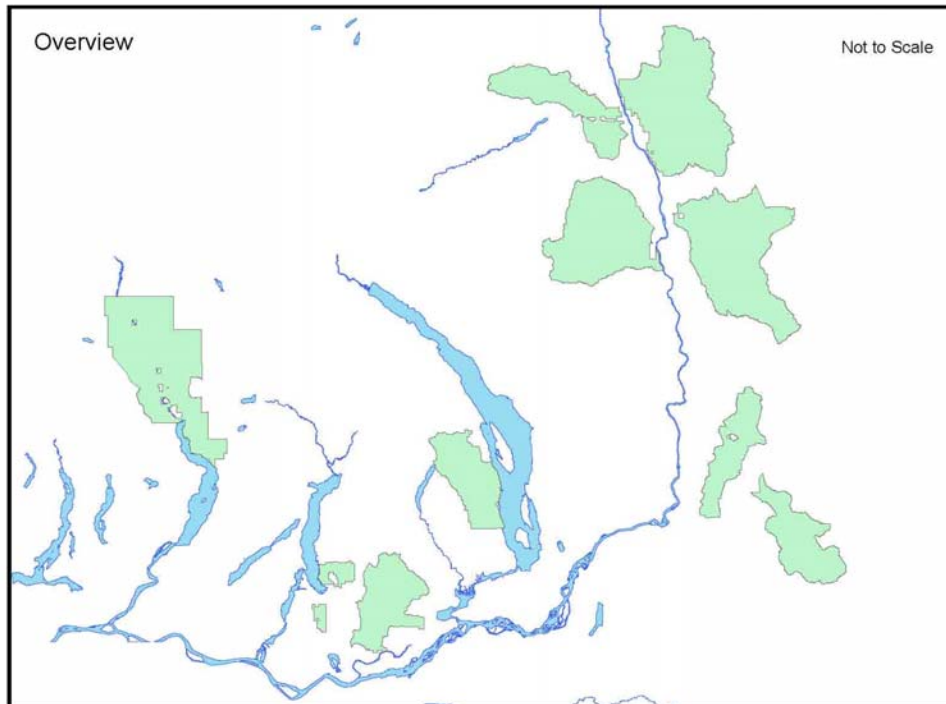


Figure 3-2: Overview Map Fraser portion of the DFA

The Annual Allowable Cut for the FL & TL is set at 314,380 m³ per year. The topography of the area varies from flat, alluvial river valleys to steep, rugged and rocky slopes. Most of the drainages flow into larger river systems such as the Pitt River, Norrish Creek (east of Mission), Sowaqua Creek (east of Hope), the Anderson River (southeast of Boston Bar), the Nahatlatch River (northwest of Boston Bar), Mowhokam Creek (northeast of Boston Bar), and the Coquihalla River. All of these rivers and creeks either directly or indirectly flow into the Fraser River.

There is a long history of logging, and therefore a significant proportion of this forest area is composed of second growth stands. The dominate tree species are hemlock, and Douglas-fir with smaller amounts of western red cedar, yellow cedar, balsam fir and minor amounts of spruce, pine and alder. The combination of topography, soils and climate have resulted in a full range of growing sites for commercial tree species, however the majority of the FL & TL is situated on medium quality growing sites.



3.5 Traditional Territories within the DFA

Teal is committed to identifying and respecting aboriginal and treaty rights. The Honeymoon Bay the DFA falls within the traditional territories of the following First Nations:

- [Pacheedaht First Nation](#),
- [Ditidaht First Nation](#),
- [Cowichan Tribes](#),
- [Lake Cowichan First Nation](#) (represented by Hul'qumi'num Treaty Group) and
- [Penelakut First Nation](#) (represented by Hul'qumi'num Treaty Group)

The Fraser portion of the DFA falls within the traditional territories of the following First Nations:

- [Ashcroft Indian Band](#)
- Boothroyd Band
- [Boston Bar First Nation](#)
- Chawathil Indian Band
- Cheam Indian Band
- [Chehalis Indian Band](#)
- [Coldwater Indian Band](#)
- [Douglas First Nation](#)
- [Esh-Kn-am](#)
- [In-SHUCH-ch Nation](#)
- [Kanaka Bar Indian Band](#)
- [Katzie First Nation](#)
- [Kwantlen First Nation](#)
- [Leq'a:mel First Nation](#)
- [Lower Nicola Indian Band](#)
- [Union Bar First Nation](#)
- [Nicola Tribal Association](#)
- [Yale First Nation](#)
- [Nooaitch Indian Band](#)
- [Okanagan Indian Band](#)
- [Okanagan Nation Alliance](#)
- Oregon Jack Creek Indian Band
- [Scowlitz First Nation](#)
- [Seabird Island Indian Band](#)
- [Shackan Indian Band](#)
- [Shxw'ow'hamel First Nation](#)
- Siska Indian Band
- [Skawahlook First Nation](#)
- Spuzzum First Nation
- [Sto:lo Nation](#)
- [Sto:lo Tribal Council](#)
- [Sumas First Nation](#)
- [Tswawwassen First Nation](#)
- [Lower Similkameen Indian Band](#)
- [Upper Similkameen Indian Band](#)
- [Nlaka'pamux Nation Tribal Council](#)



3.6 Forest Management Regime

3.6.1 Higher Level Plans

The Honeymoon Bay portion of the DFA is within the scope of the Vancouver Island Land Use Plan (VILUP). Teal incorporates the direction from the VILUP higher level plan order (December 2000) into Operational Planning.

The VILUP is a product of a regional planning process by the Commission on Resources and Environment (CORE). CORE was formed in January 1992 to provide Cabinet with independent recommendations on land use and related resource and environmental issues, based on extensive consultation with stakeholders and the general public.

The VILUP established Protected Areas throughout Vancouver Island, as well as, identifying broad land use designations, including:

- Protected Area Zones - areas designated for the protection of viable representative examples of natural diversity; and unique or special recreational and cultural heritage features in accordance with BC's Protected Area Strategy.
- Resource Management Zones – areas designated for natural resource management. There are three subdivisions, including:
 - Special Management Zone (SMZ) – areas with management regimes defined for the key primary resource value(s) found in the individual zone units. The intent of the SMZ is to identify regionally significant values or combinations of values requiring more comprehensive management objectives and strategies to minimize impacts on these values. These areas are managed for a variety of extractive and non-extractive activities.
 - Enhanced Forestry Zone (EFZ) – areas with management regimes based on increased timber production, achieved through both enhanced timber harvesting, as well as enhanced silviculture practices (e.g., intensive reforestation, spacing, pruning, thinning) and innovative harvest practices. The intent of the EFZ is to balance the protected areas within the SMZ.
 - General Management Zone (GMZ) – areas with management regimes based on the principles of integrated resource management and an ecosystem approach. The intent of the General Management Zone is to manage areas that have a wide range of resource values, including, but not limited to fish, wildlife, recreation, water, tourism, aquaculture, cultural and scenic values.
- In addition, other land designations were made, such as agricultural, settlements, commercial/ industrial, domestic water supply, etc.



Within the Honeymoon Bay portion of the DFA, VILUP land use designations include:

- Special Management Zones – Walbran Periphery (SMZ # 21)
- General Management Zones – E&N South (GMZ # 34), Nitinat (GMZ # 45), and Gordon-Caycuse-San Juan (GMZ # 46).

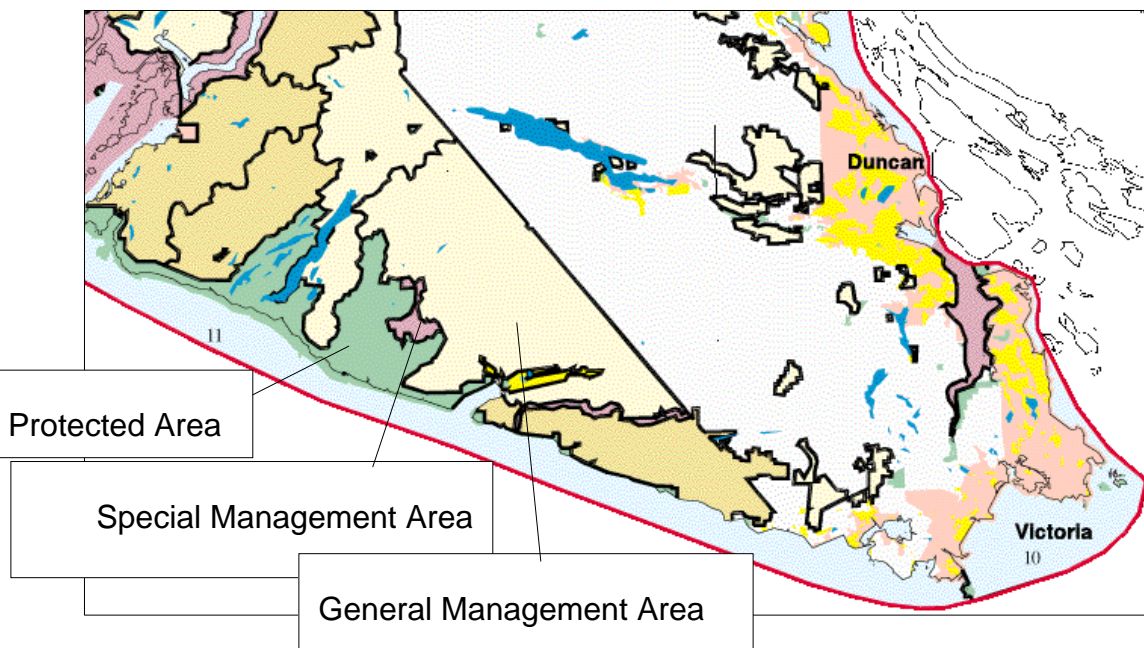


Figure 3-3: Vancouver Island Land Use Designations – Southern Vancouver Island

For more information, view the Vancouver Island Land Use Plan Summary and the Vancouver Island Land Use Higher Level Plan at: <http://srmwww.gov.bc.ca/rmd/lrmp/vanisle/>.

There are no Land and Resource Management Planning initiatives within the Fraser portion of the DFA. Instead, Higher Level Plans are being addressed by Sustainable Resource Management Planning initiatives.

3.6.2 Sustainable Resource Management Planning

Sustainable Resource Management Planning (SRM Planning) is a new approach to Higher Level Planning that Government is initiating in order to consolidate establishment of goals and objectives for provincial Crown lands at the landscape level. This approach replaces and streamlines former planning initiatives from various geographic and government levels. It consolidates the individual planning levels that were formerly conducted at the landscape, watershed, or local level of planning.



The goal of this planning is to promote economic development, balanced with environmental conservation, as well as to provide certainty and clarity for resource management that can be readily implemented on the ground at the site level. The Ministry of Integrated Land Management Bureau (ILMB) is responsible for this planning.

This new process undertakes planning at the landscape level will allow government to establish strategic objectives to manage a wide range of resource values, including biodiversity. These plans will include land-use objectives and guidelines for agriculture, forestry, mining, tourism, settlement and water resources, and will help government identify economic opportunities, design efficient sustainable development and conserve the environment (wildlife habitat and biodiversity). These plans will establish legal objectives and requirements for resource management that are specific, measurable and able to be implemented.

First Nations participation and public involvement are key components of the process.

SRM Planning also integrates existing planning initiatives such as habitat planning related to the Identified Wildlife Management Strategy, various conservation strategies (e.g., grizzly bears). The development of biodiversity conservation objectives is an important priority for SRM Planning. This planning is still in progress.

SRM Planning incorporates the variety of existing approaches to water planning including Watershed-based Fish Sustainability Plans, Integrated Watershed Management Plans and Water Use Plans, such as those presently being led by BC Hydro. SRM Plans will be an important vehicle for supporting the implementation of the Living Rivers Strategy. SRM Planning will be consistent with drinking water legislation and will help to implement the source water protection planning requirements of the government's Drinking Water Protection initiative. Many of the approaches to managing biodiversity at the landscape level are also important for managing hydrology. These two elements are addressed simultaneously in SRM Planning where possible.

3.6.3 Landscape Unit Plans

In the Honeymoon Bay portion of the DFA, the Renfrew Aggregate Landscape Unit Plan (LUP) is legally established. This LUP includes designated landscape units for the Caycuse, Gordon, Nitinat, San Juan and Walbran Landscape Units. This LUP has two objectives: Old Growth Management Areas (OGMA) and stand level retention.

There are currently six approved Landscape Unit Plans within the Fraser portion of the DFA (completed under Sustainable Resource Management Planning). Landscape Units that occur within the DFA are



listed below. Completed Landscape Unit plans that have been legally established that apply to forest management within the DFA are denoted with an asterisk:

- Ainslie *
- Anderson *
- Coquihalla *
- Hatzic
- Nahatlatch *
- Pitt
- West Harrison *
- Widgeon

The legal objectives with respect to Old Growth Management Areas (OGMAs) and Wildlife Tree Patches (WTPs) are specified by Landscape Unit within the Orders issued by Government.

More details and maps for these LU plans (and other LUs not associated with the DFA) for the Chilliwack Forest District can be found at: <http://srmwww.gov.bc.ca/cr/srmp/chilliwack/index.htm>.

3.6.4 Operational Plans

Management Plan

Within TFL 46, Teal is operating under the approved Management Plan number 4 (December 1, 2001 – November 30, 2006). Teal is currently updating information for the next management plan.

There is no Management Plan for FL or TL as this is not part of the license agreement.

Forest Stewardship Plan

Both the Honeymoon Bay Operation and Fraser Operations have approved Forest Stewardship Plans (FSP); therefore all new operations are approved under these plans and are subject to the Forest and Range Practices Act legislation.

For blocks planned and harvested under the Forest Practices Code and its transitional legislation, they will continue to be managed under this legal framework until silviculture obligations are met. The FSP includes details on those operations that follow the Forest Practices Code and those which follow FRPA.



3.6.5 SFM Plan & Links to Management Regime

The following diagram describes the SFM plan links with other plans, management systems, inputs from review and relevant legislation, regulations, policies, etc.

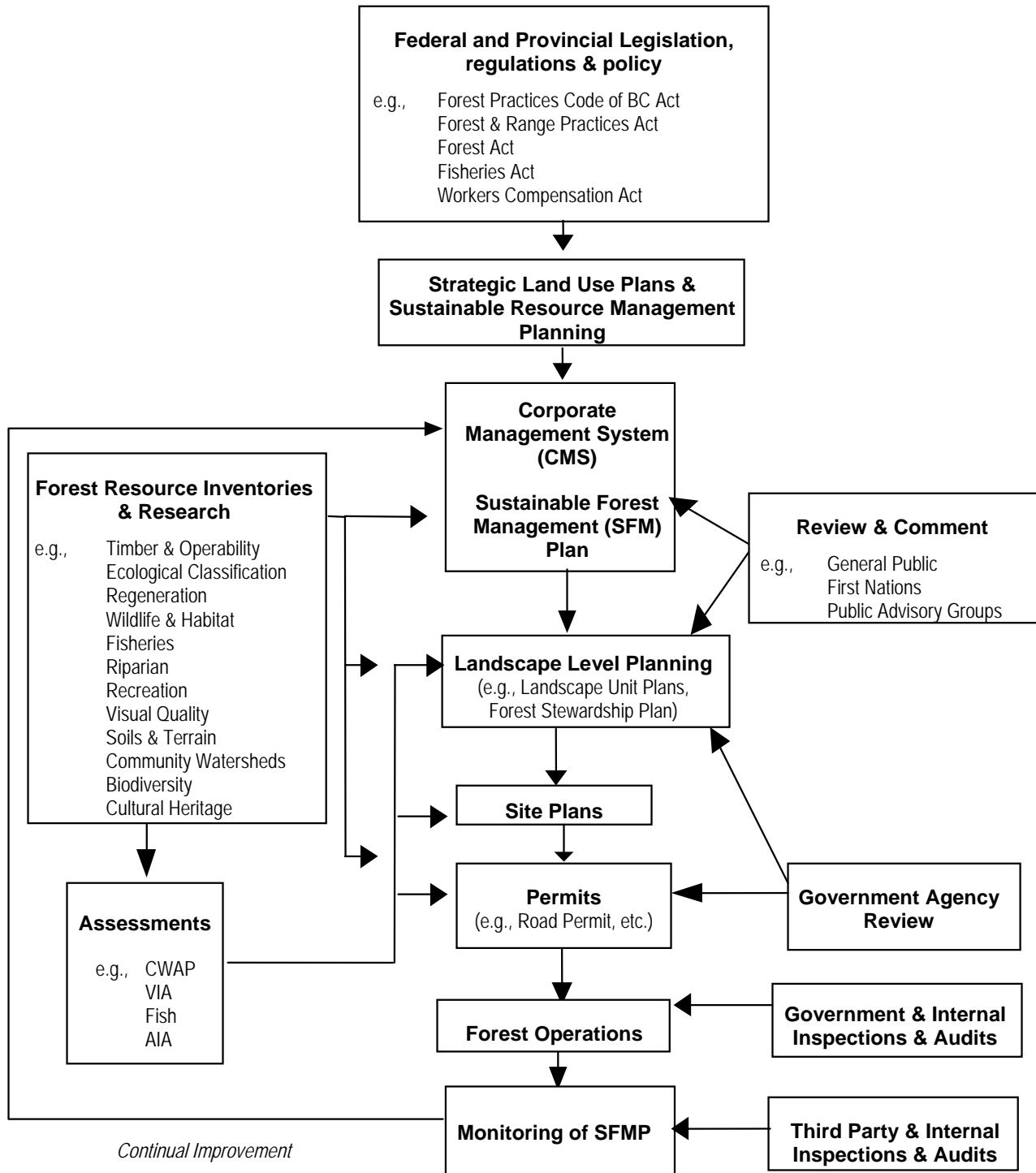


Figure 3-4: SFM Plan links with other plans, legislation, etc.

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4.0 Values, Objectives, Indicators & Targets

Teal, working in conjunction with the members of the Public Advisory Groups, has established specific performance requirements that address the CSA SFM elements and reflect local values and objectives.

A summary of these performance requirements is found in Appendix 1: Values, Objectives, Indicators and Targets (VOITs) Summary. This appendix has been split into two subgroups for ease of reference and reporting to the Public Advisory Groups:

- Appendix 1a contains those VOITs created by the Southwest Island Public Advisory Group (SIPAG) which are relevant to the Honeymoon Bay portion of the DFA; and
- Appendix 1b contains those VOITs created within the Fraser Public Advisory Group (FPAG) which are relevant to the Fraser portion of the DFA.

Details for each indicator, including: current status; performance reporting, strategy to meet the target; method to monitor; forecast and analysis of the results are found in Appendix 2: Detailed Indicator Descriptions. Again, this appendix is split into two sub-groups:

- Appendix 2a Honeymoon Bay VOITs; and
- Appendix 2b Fraser VOITs.

The following section describes how local values, objectives, indicators and targets were identified; as well as how alternative strategies were considered.

4.1 Setting Local Values, Objectives, Indicators & Targets

Values, objectives, indicators and targets are established based on the following considerations:

- Views of interested parties
- Legal and other commitments
- Activities with potential for significant environmental impacts
- Financial, operational and business requirements
- Technological options



Values are chosen and prioritized based on input from all members.

A **value** is a characteristic, component, or quality considered by an interested party to be important in relation to a CSA SFM element or other locally identified element.

A minimum of one objective for each value was identified. Where more than one objective was identified, members discussed alternatives and ensured compatibility.

An **objective** is a broad statement describing a desired future state or condition of a value.

For each objective, a minimum of one indicator and target was identified.

An **indicator** is a qualitative or quantitative variable that measures the state or condition of a value.

Indicators were selected from any of the following sources:

- Suggestions from members
- Mandatory indicators that Teal must measure for other commitments or processes (e.g., legislative requirements, government policy, VILUP, etc.)
- Reference sets of indicators such as Canadian Council of Forest Minister Indicators or indicators used by other forest companies on the coast.

Ideally, indicators measure forest conditions, rather than SFM activities. However, in some cases direct measurement of forest conditions is not possible (e.g., due to economic or technical constraints). Indirect measurement is necessary where direct measurements are not possible. For example, measurement of the population of a rare species may not be possible due to the disturbance caused by measurement; therefore an indirect indicator may be used, such as the amount of a certain habitat type. Where indirect indicators are used, the relationship between the indicator and the objective is established.

Proposed indicators were evaluated based on the following characteristics:

- Measurability – indicators should be qualitative or quantitative in nature in order to be able to set a target
- Predictability – indicators whose future levels may be predicted with reasonable accuracy



- Relevance – indicators should be clearly applicable to their associated value(s). Indicators that may have significant outside influences should be avoided
- Complexity – indicators should be simple, clear and easy to understand
- Validity – indicators should be consistent with scientific understanding of the value they measure and should be technically valid (objectively obtained, documented, comparable and reproducible)
- Feasibility – indicators should be economically practical and efficient

For each indicator, a specific target was chosen.

A **target** is a specific statement defining a desired future state or condition of an indicator.

Targets need to specify time and space requirements. Targets may be set in a variety of ways, for example:

- Target may be a specific quantity (bull's eye concept) or specified portion of a quantity (%)
- Target may be a specified minimum or maximum range
- Target may be a specific level for an indicator set for corresponding specific points in the future
- Target may be a specific action achieved by a specific date (e.g., complete a strategy to manage x)

An acceptable range of variation from the chosen target was also considered (in some cases zero deviation was acceptable).

4.2 Alternative Strategies

Alternative strategies to measure values and objectives are discussed at Public Advisory Group meetings. Discussions focus on the relative advantages and disadvantages of each option. Decisions are based upon the decision making process as defined in the Terms of Reference.



5.0 Glossary

5.1 Terms and Definitions

The terms and definitions described here are for the purposes of the Public Advisory Groups, the SFM Plan, and its associated criterion and indicators.

Aboriginal

Aboriginal peoples of Canada which includes Indian, Inuit and Métis peoples of Canada. (*Constitution Act 1982 s35(2)*)

Aboriginal Rights

Rights that some aboriginal people of Canada hold as a result of their ancestors. Note: the rights of certain aboriginal peoples to hunt, trap and fish on ancestral lands are examples of Aboriginal rights. Aboriginal rights vary from group to group depending on the customs, practices and traditions that have formed part of their distinctive cultures. (*The State of Canada's Forests 2001/2002*)³

Aboriginal Title

A legal term that recognizes the interest of Aboriginals in the land. It is based on their long-standing use and occupancy of the land descendants of the original inhabitants of Canada. (*The State of Canada's Forests 2001/2002*)³

Accreditation

The procedure by which the Standards Council of Canada (SCC) gives formal recognition that a registrar (certifier) is deemed competent to carry out specific tasks (e.g., audit). (*CSA Z809-02 SFM: Requirements and Guidance*)

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. (*CSA Z809-02 SFM: Requirements and Guidance*)

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

³ specific First Nations may not be comfortable with the definition provided in this glossary, however in absence of a legally established alternative, the definition from the CSA standard is provided



supply areas (TSAs) and tree farm licenses (TFLs) in accordance with section 8 of the Forest Act.

Auditor

A person qualified (accredited) 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. (*CSA Z809-02 SFM: Requirements and Guidance*)

Biogeoclimatic Ecosystem Classification

A system that groups similar segments of the landscape (ecosystems) into categories of a hierarchical classification system. Developed in BC in 1965, the Biogeoclimatic System classifies areas of similar regional climate, expected climax plant communities and site factors (e.g., soil moisture and soil nutrients). The subzone is the basic unit of this classification system. Within subzones, variants further identify more local climatic factors. (*A Field Guide for Site Identification and Interpretation for the Vancouver Forest Region*)

Biogeoclimatic Zone

A geographic area having similar patterns of energy flow, vegetation and soils as a result of a broadly homogenous macroclimate. (*A Field Guide for Site Identification and Interpretation for the Vancouver Forest Region*)

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*)

Canadian Standards Association (CSA)

CSA is a non-profit, membership-based association which has developed over 2000 standards for various industries. CSA develops nationally and internationally accepted standards for values such as health and safety, quality of life and the environment. (*Source: <http://www.csa.ca>*)



Canadian Standards Association (CSA) Sustainable Forest Management Standard

CSA SFM Z809-02 is a National Standard for Canada. It describes the system, performance, public participation and third party audit requirements of a Sustainable Forest Management program in order for an organization to become certified.

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. *(CSA Z809-02 SFM: Requirements and Guidance)*

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. *(CSA Z809-02 SFM: Requirements and Guidance)*

Certifier (Registrar)

An independent third party that is accredited by the Standards Council of Canada as being competent to register organizations with respect to nationally and internationally recognized standards. *(CSA Z809-02 SFM: Requirements and Guidance)*

Chief Forester

Government position, the assistant of the deputy minister of the Ministry of Forests who is responsible for determining Allowable Annual Cuts (AACs).

Carbon Cycle

The movement of carbon, in its many forms, between the biosphere, atmosphere, oceans, and geosphere. The cycle has various sinks, or stores, of carbon and processes by which the various sinks exchange carbon. (PhysicalGeography.net)

Catastrophic Windthrow Event

Windthrow events in the Riparian Reserve Zone that lead to significant damage to water quality or fish habitat. For example, a debris torrent, creation of a fish barrier, permanent destruction of rearing grounds, or alteration of habitat to the point where it can no longer be utilized in the same manner that it was utilized by wildlife and fish species prior the event.



Coarse Woody Debris

Sound and rotting logs and stumps that provide habitat for plants, animals, and insects and a source of nutrients for soil development. Woody material is generally greater than 8–10 cm in diameter. (*Forest Practice Code Biodiversity Guidebook September 1995*)

Coastal Watershed Assessment

An analytical procedure to help forest managers understand the type and extent of current water-related problems that may exist in a watershed, and to recognize the possible hydrological implications of proposed forestry activities or restoration in that watershed. The Watershed Assessment considers the cumulative effects of forest practices on the aquatic environment. (*FPC Watershed Assessment Procedures Guidebook, April 1999*)

Community Communications Plan

A document or list of community meetings to be held by Teal for community referral and communication. The Community Communications Plan will provide a list and general timeline for conducting community meetings in advance or during forest management planning. This may form part of the SFM Plan, or it may refer to a separate document created for the purposes of this plan. (*this is a term developed during the FPAG process*).

Compliance

The conduct or results of activities in accordance with legal requirements. (*CSA Z809-02 SFM: Requirements and Guidance*)

Conformance

Meeting non-legal requirements or commitments such as policies, procedures or standards (including the CSA standard). (*CSA Z809-02 SFM: Requirements and Guidance*)

Continual Improvement

The ongoing process of enhancing performance, resulting from experience and the incorporation of new knowledge in line with the organization's SFM policy and from the application of the SFM requirements. (*CSA Z809-02 SFM: Requirements and Guidance*)

Corporate Management System (CMS)

Provides a structured process for the achievement of: Continual improvement; Legal compliance; Prevention of pollution; and an environmentally responsible work force. The CMS is based on the dynamic, cyclical process of: planning; implementation & operation; checking; and management review. The core elements of the CMS are described in detail within the CMS manual and supporting documents



(*Standard Operating Procedures and Emergency Preparedness and Response Plans*).

Corrective Action

Action to eliminate the cause of a detected non-conformity or other undesirable situation. Note: there can be more than one cause for non-conformity. Corrective action is taken to prevent recurrence, whereas preventative action is taken to prevent occurrence. (*CSA Z809-02 SFM: Requirements and Guidance*)

Cultural Heritage Resource

An object, a site or the location of a traditional societal practice that is of historical, cultural or archaeological significance to British Columbia, a community or an aboriginal people. (*Forest Act*)

Cutblock

A specific area of land identified in a site level plan (e.g., site plan), within which timber is to be or has been harvested. Cutblock is also defined as 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*) Also see the definition for opening.

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. (*CSA Z809-02 SFM: Requirements and Guidance*)

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. (*CSA Z809-02 SFM: Requirements and Guidance*)

Ecological Cycles

Refers to the major nutrient cycles (i.e. carbon and nitrogen) and the hydrological cycle. (*Canadian Council of Forest Ministers: Defining Sustainable Forest Management in Canada, Criteria and Indicators 2003*)



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 Condition and Productivity

The health, vitality and rates of biological production in forest ecosystems. (*Canadian Council of Forest Ministers: Defining Sustainable Forest Management in Canada, Criteria and Indicators 2003*)

Ecosystem Diversity

The variety and pattern of communities and ecosystems. Maintenance of the variety and quality of the earth's ecosystems is necessary for the preservation of species. (*Canadian Council of Forest Ministers: Defining Sustainable Forest Management in Canada, Criteria and Indicators 2003*)

Element

A concept used to define the scope of each CCFM SFM criteria. Each CCFM SFM criterion contains several elements. The CCFM SFM elements were derived from the national-scale elements developed by the CCFM for more specific local applications. The elements serve to elaborate and specify the scope of their associated criterion. (*CSA Z809-02 SFM: Requirements and Guidance*)

Environment

The surroundings in which an organization operates, including air, water, land, natural resources, flora, fauna, humans and the interrelations of these elements. (*CSA Z809-02 SFM: Requirements and Guidance*)

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. (*Vancouver Island Land Use Plan*)

Erosion Hazard

Ranking based on road risk ratings. The road risk level is calculated as: HAZARD (i.e., physical factors such as terrain, instability indicators and likelihood of event) X CONSEQUENCE (i.e., down slope resources such as human safety, fisheries/ water quality, and land base).



Falling

In logging, the cutting of trees or a stand of trees.

First Nation

An aboriginal people sharing a common traditional territory and having a common traditional language, culture and laws; or the duly mandated governing body of one or more such people. (*Heritage Conservation Act*)

Fisheries Sensitive Zone

The littoral zone of a lake; a freshwater area where the water is less than 10 m deep; a flooded depression, pond or swamp that is not a stream, wetland or lake, but either perennially or seasonally contains water, and is seasonally occupied by a species of fish. (*Forest and Range Practice Act, Forest Planning and Practices Regulation, Part 1 Interpretation*)

Forecast

An explicit statement of the expected future condition of an indicator. (*CSA Z809-02 SFM: Requirements and Guidance*)

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. (*CSA Z809-02 SFM: Requirements and Guidance*)

Forest Condition

The state of the forest ecosystem as determined by a range of variables associated with forest structure, composition and processes. (*CSA Z809-02 SFM: Requirements and Guidance*)

Forest Development Plan (FDP)

An operational plan under the Forest Practices Code of BC which addresses forest management activities at the landscape level. FDPs provide government agencies, stakeholders and the general public with information about: the location and scheduling of proposed roads and harvesting over a period of at least five years; measures that will be carried out to protect forest resources (e.g., water, fisheries, visual quality, etc.); illustrations and descriptions on how objectives and strategies are established in higher-level plans, where they have been declared; and how they will be carried out. FDPs are required to undergo an agency and public review process before they are approved by government agencies.

Forest Ecosystem Resilience

The ability of forest ecosystem processes and conditions to recover from or adapt to disturbances. (*Canadian Council of Forest Ministers:*



Defining Sustainable Forest Management in Canada, Criteria and Indicators 2003)

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. (*CSA Z809-02 SFM: Requirements and Guidance*)

Forest Practices Code (FPC)

This term is commonly used to refer to: the Forest Practices Code Act; the regulations made by Cabinet under the Act; the standards established by the Chief Forester; and/ or guidebooks.

Forest Productivity

The rate of flora and fauna production. (*Canadian Council of Forest Ministers: Defining Sustainable Forest Management in Canada, Criteria and Indicators 2003*)

Forest Resource or Value

Resources and values associated with forests, including, without limitation, timber, wildlife, fisheries, recreation, botanical forest products, forage and biological diversity. (*Forest Practices Code Act*)

Forest Stewardship Plan (FSP)

An operational plan under the Forest and Range Practices Act which addresses forest management activities at the landscape level. FSPs provide government agencies, stakeholders and the general public with information about: Forest Development Units (demonstrate areas of future forest operations); results or strategies that will be carried out to meet objectives set by government. FSPs are required to undergo an agency and public review process before they are approved by government agencies.

Forest and Range Practices Act (FRPA)

The Act and regulations were 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, 2006, all planning and on-the-ground work must comply with the Forest and Range Practices Act and regulations.

FPC Guidebook

A component of the Forest Practices Code. Guidebooks offer guidelines and recommendations intended to help forest managers in developing site-specific management strategies and prescriptions designed to accommodate resource management objectives. Although many guidebooks are not legally enforceable, specifications and procedures



recommended by the guidebooks may be incorporated into plans, prescriptions and contracts in which case those specifications and procedures may become legally enforceable.

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. (*Forest and Range Practices Act: Part 1 Definitions and Interpretation*). 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.

General Wildlife Measures

Describe management practices that must be implemented within Wildlife Habitat Areas or other spatially defined areas. These measures may entirely prohibit, or partially limit, activities during sensitive periods, such as the breeding season. Within a Wildlife Habitat Area, General Wildlife Measures describe the management practices that must be implemented and prescribe a level of management appropriate to the conservation status of the Identified Wildlife. Operational practices must comply with established General Wildlife Measures. (*Forest and Range Practices Act*)

Genetic Diversity

The variation of genes within a species. (*Canadian Council of Forest Ministers: Defining Sustainable Forest Management in Canada, Criteria and Indicators 2003*)

Hauling

In logging, the transportation of timber from the cutblock to a storage site (e.g., log sort).

Higher Level Plan

“An objective for a resource management zone, landscape unit, sensitive area, recreation site, recreation trail or interpretive forest site.” (*Forest Practices Code Act*) Objectives for forest resources in a strategic land use plan can be “declared” as a legal requirement by Order in Council.

Identified Wildlife

Identified Wildlife refers to those Species at Risk and Regionally Important Wildlife that the Minister of Environment, designates as requiring special management attention under the Forest Practice Code Act and/ or Forest and Range Practices Act. (*Forest and Range Practices Act*)



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). (CSA Z809-02 SFM: Requirements and Guidance)

Indicator

A qualitative or quantitative variable that measures the state or condition of a value. (CSA Z809-02 SFM: Requirements and Guidance)

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.

Integrated Wildlife Management Strategy

Provide direction, policy, procedures and guidelines for managing Identified Wildlife. The goals of the Strategies 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. Integrated Wildlife Management Strategies include the establishment of Wildlife Habitat Areas, General Wildlife Measures and Wildlife Habitat Features. (Forest and Range Practices Act)

Interested Party

An individual or organization interested in, and affected by the activities of the management of a DFA. (CSA Z809-02 SFM: Requirements and Guidance)

Invasive Plant Species

Species that are non-native (or alien) to the ecosystem under consideration and whose introduction causes, or is likely to cause, economic or environmental harm or harm to human health. (Source: <http://www.invasivespeciesinfo.gov/>)

Landing

An area modified as a place to accumulate logs before they are transported.



Landscape Level

A watershed; series of interacting watersheds; or other natural ecological units. This term is used in planning to denote application to a broad area. Note this term 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. Typically they cover a watershed or series of watersheds, and range in size from 5000 to 100,000 ha. Objectives for Landscape Units may also be established.

Landslide

Geographically, definition: the movement of a mass of rock, debris, or earth down a slope (*Cruden, D.M., 1991. A Simple Definition of a Landslide. Bulletin of the International Association of Engineering Geology, No. 43, pp. 27-29*). With respect to SFM, a landslide must meet the following criteria: 200 cubic meters of sediment or more that directly entered a community watershed stream, a fish-bearing reach of a stream, or a direct tributary of a fish stream within 500 meters of fish habitat; any size that caused a debris flow that scoured a portion of a fish stream delivered in excess of 500 cubic meters of sediment to a stream directly tributary to a fish stream; destroyed more than 0.25 hectares of forest or plantation.

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 300 years. (*CSA Z809-02 SFM: Requirements and Guidance*)

Long Term Forest Product

Wood products such as lumber, shake and shingles, etc. that do not break down as quickly as short term products, such as paper.

Minor Forest Products

Forest products in which Teal is required by law to track and pay stumpage on the volume harvested. May include post harvest material and damaged timber (e.g., shakes and shingles; blocks and bolts; cants; fence rails; hop poles; etc.).

Management Plan

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. Management Plans 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.

Objective

A broad statement describing a desired future state or condition of a value. (*CSA Z809-02 SFM: Requirements and Guidance*)

Old growth

There are multiple, complex definitions of old growth, as the age and structural characteristics of old growth varies significantly by forest type and from one biogeoclimatic zone to another. Generally, forests on the BC Coast that are aged 250 years or older and exhibit few or no signs of human intervention are termed old growth. Old-growth forests, as part of a slowly changing but dynamic ecosystem, include climax forests but not sub-climax or mid-seral forests.

Old Growth Management Area (OGMA)

Areas that contain, or are managed to replace, specific structural old-growth attributes, and that are mapped out and treated as special management areas. (*Forest Practice Code Biodiversity Guidebook September 1995*)

Opening

An area that has been harvested or is designated for harvesting, including the trees retained singly or in groups within the area. This term is usually used synonymously with cutblock (see above); or less often, to describe the actual cleared area(s) within a cutblock.

Operational Plans, Operational Planning

Under FRPA, a Forest Stewardship Plan is considered an Operational Plan. Within the SFMP, this term also refers to site level plans (e.g., Site Plan) that prescribe management activities on the ground level.

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. (*CSA Z809-02 SFM: Requirements and Guidance*)



Permanent Access Structures

Includes on-block roads, landings, gravel pits, bridges, borrow pits, quarries and permanent logging trails that are reasonably required for timber harvesting and other forest management activities. (*Forest and Range Practices Act*)

Personnel

Management, contractors and DFA-related workers employed by the organization. (*CSA Z809-02 SFM: Requirements and Guidance*)

Preventative Action

Action to eliminate the cause of a potential non-conformity or other undesirable situation. Note: There can be more than one cause for a potential non-conformity. Preventative action is taken to prevent occurrence whereas corrective action is taken to prevent recurrence. (*CSA Z809-02 SFM: Requirements and Guidance*)

Productive Forest

Forest land that is capable of producing a merchantable stand of timber within a defined period of time. (*CSA Z809-02 SFM: Requirements and Guidance*)

Productivity

The natural ability of a forest ecosystem to capture energy, support life forms and produce goods and services. (*Canadian Council of Forest Ministers: Defining Sustainable Forest Management in Canada, Criteria and Indicators 2003*)

Protected Area

An area protected by legislation, regulation, or land-use policy to control the level of human occupancy or activities. Note; categories of protected areas include protected landscapes, national parks, multiple use management areas and nature (wildlife) reserves. (*The State of Canada's Forests 2001/2002*)

Protected Area Strategy

A strategy implemented in BC to develop and expand the provincial protected area system. The strategy includes representative examples of natural diversity, and special, natural, recreational, or cultural heritage features.

Provincial Heritage Site

Land, including land covered by water, that has heritage value to British Columbia, a community or an aboriginal people and designated under the Heritage Conservation Act s9 or established under s23. (*Heritage Conservation Act*)



Reforestation

Establishment of a new stand of trees after harvesting or natural disturbance by either planting or natural regeneration. Before harvesting on crown lands, a forester must prepare a plan (e.g., Site Plan) describing, among other things, the manner and time frame within which reforestation will be conducted. (*Forest and Range Practices Act*)

Regionally Important Wildlife

Species that are considered important to a region of British Columbia, rely on habitats that are not otherwise protected under the Forest and Range Practices Act, and may be adversely impacted by forest or range practices.

Regional Land Use Plans

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 (e.g., Vancouver Island Land Use Plan). (*Forest and Range Practices Act*)

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. (*CSA Z809-02 SFM: Requirements and Guidance*)

Registration Applicant

An organization that has applied to an accredited registrar for certification to the CSA standard. (*CSA Z809-02 SFM: Requirements and Guidance*)

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. (*CSA Z809-02 SFM: Requirements and Guidance*)

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. (*CSA Z809-02 SFM: Requirements and Guidance*)



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. (*CSA Z809-02 SFM: Requirements and Guidance*)

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. (*FPC Riparian Management Area Guidebook, December 1995*)

Riparian Management Area

Consists of a Riparian Management Zone and, where required by regulation, a Riparian Reserve Zone. Within the Riparian Management Zone management objectives for riparian or habitat attributes are considered. Within the Riparian Reserve Zone harvesting is restricted by legislation. The width of these zones is determined by characteristics of streams, wetlands or lakes, and adjacent terrestrial ecosystems. (*FPC Riparian Management Area Guidebook, December 1995*)

Road Deactivation

Seasonal, temporary or permanent activities performed to stabilize the road profile and application of techniques to stabilize the road prism, restore or maintain the natural drainage patterns, and minimize sediment transport to protect neighboring resources at risk from potential landslide and sedimentation events. Deactivation is not necessarily tied to road closure (i.e., roads may be impassable or restricted to 4 wheel drive, etc.). (*Forest Road Engineering Guidebook, June 2002*)

Road Maintenance

Activities intended to repair damaged or worn roads, may include repairing structures, grading, cleaning ditches, dust control, roadside brushing, etc. (*Forest Road Engineering Guidebook, June 2002*)

Road Rehabilitation

Restoration of the ability of the road location to grow trees. (*Forest Road Engineering Guidebook, June 2002*)

Sensitive Soils

Forest land areas that have a high to very high hazard (coastal forests) for soil compaction, erosion, or displacement. (*Forest and Range Practices Act*)



SFM Performance

The assessable results of SFM as measured by the level of achievement of the targets set for the DFA. (CSA Z809-02 SFM: *Requirements and Guidance*)

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. (CSA Z809-02 SFM: *Requirements and Guidance*)

SFM Requirements

The public participation, performance, and system requirements found in Clauses 4-7 of the CSA standard. (CSA Z809-02 SFM: *Requirements and Guidance*)

SFM System

The structure, responsibilities, practices, procedures, processes and time frames set by a registrar for implementing, maintaining and improving SFM. (CSA Z809-02 SFM: *Requirements and Guidance*)

Short-term Operational Plans

Annual or five-year plans. (CSA Z809-02 SFM: *Requirements and Guidance*)

Silviculture

Managing forest vegetation by controlling stand establishment, growth, composition, quality and structure, for the full range of forest resource objectives. (*Silviculture Systems Guidebook, April 1995*)

Silviculture 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 reserve, patch-cut, coppice, seed tree, shelterwood, retention and selection. (*Silviculture Systems Guidebook, April 1995*)

Site Disturbance

Within cutblocks, the area occupied by trails, compacted areas, areas of dispersed disturbance (ruts and gouges), and un-rehabilitated temporary access structures. (*Forest and Range Practices Act*)

Site Plan (SP)

A site-specific plan (under FPC or FRPA). Content requirements are specified in regulation. Site Plans must identify the approximate locations of cutblocks and roads; be consistent with the FSP and



current legislation; and identify how the intended results or strategies described in the FSP apply to the site. (*Forest and Range Practices Act*)

Sites of Special Significance

Features which are locally important but do not have protection under the current legislated management regimes. May include sites of biological significance (for example unique biological features e.g., salt licks or unclassified swamps), special geographical features (e.g., caves), historically significant sites (e.g., a cultural heritage resource) or cultural significance (e.g., a recreation trail).

Snag

A large, standing dead tree.

Special Resource Management Zones (SMRZ)

The primary goal of SRMZs is to integrate spotted owl management and forest management taking environmental, social, and economical concerns into account. To achieve this goal a minimum of 67% suitable owl habitat will be maintained over the long-term within each SRMZ. This will help stabilise the owl population while being able to apply silviculture and harvesting systems that will create, enhance and maintain owl habitat. This strategy is designed to provide short- and long-term forestry employment and timber supply. (*Source: Ministry of Environment: <http://wlapwww.gov.bc.ca/sry/fwh/wildlife/srmz.htm#SpecialResourceManagementZones>*)

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. (*Vancouver Island Land Use Plan*)

Species diversity

The number and relative abundance of species in an area. (*Canadian Council of Forest Ministers: Defining Sustainable Forest Management in Canada, Criteria and Indicators 2003*)

Species at Risk

Includes endangered, threatened, or vulnerable species of vertebrates and invertebrates, and endangered or threatened plants and plant communities that are negatively affected by forest or range management on Crown land and are not adequately protected by other mechanisms. (*Forest and Range Practices 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, that 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. (CSA Z809-02 SFM: *Requirements and Guidance*)

Standard Operating Procedures (SOP) and Emergency Preparedness & Response Plans (EPRP)

Procedures established for forest management activities as control measures to prevent, prepare for, and respond appropriately to activities and incidents that have the potential for significant negative impacts to the environment or jeopardize personnel safety.

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.

Stocking Standard

Approved stocking standards may be different for each biogeoclimatic subzone and variant; forest district and/ or tenure holder. In general the standards require a minimum number of well spaced stems per hectare of a commercially viable and ecologically suitable species, of good form and vigour.

Strategy

A coordinated action set designed to meet established targets. (CSA Z809-02 SFM: *Requirements and Guidance*)

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 levels involve 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. (CSA Z809-02 SFM: Requirements and Guidance)

Sustainable Forest Management Performance

The results of SFM, as measured by the achievement or lack thereof of established objectives for the defined forest area.

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. (CSA Z809-02 SFM: Requirements and Guidance)

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. (CSA Z809-02 SFM: Requirements and Guidance)

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 affects of management options on timber and forest values availability. (Forest Act)

Top Management

Persons with decision-making authority regarding SFM policy, resource allocation and planning within the DFA. (CSA Z809-02 SFM: Requirements and Guidance)

Tree Farm License (TFL)

A form of tenure under the Forest Act. TFLs are privately managed sustained yield 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. A TFL is renewable and has a term of 25 years.

Ungulate Winter Range

Areas established that contain habitat that is considered to be critical to meet the winter habitat requirements for an ungulate species (e.g., deer, elk, goat, etc.). (*Forest and Range Practices Act*)

Unmanaged Minor Forest Products

Any forest products in which the harvesting is not formerly tracked through government agencies and stumpage fees are not paid. May include mushrooms, salal, firewood, medicinal plants, etc.

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. (*CSA Z809-02 SFM: Requirements and Guidance*)

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.

Wildlife Habitat Area (WHA)

Mapped areas that are established to meet the habitat requirements of selected wildlife species and plant communities that have been identified as Species at Risk and Regionally Important Wildlife. Wildlife Habitat Areas designate critical habitats in which activities are managed to limit the impact on the Identified Wildlife for which the area was established. The purpose of Wildlife Habitat Areas is to conserve those habitats considered most limiting to a given Identified Wildlife. Wildlife Habitat Areas are established by order of the Minister Responsible for the Wildlife Act and they may have legally established objectives. (*Forest and Range Practices Act*)

Wildlife Habitat Feature

Specific features of wildlife habitat that require special management. A Wildlife Habitat Feature must not be damaged or rendered ineffective by activities such as timber harvesting, silviculture treatments, road construction, road maintenance or road deactivation. It is intended that Wildlife Habitat Features associated with all Identified Wildlife will be protected under this designation. (*Forest and Range Practices Act*)

Wildlife Tree

A standing live or dead tree with particular values, such as old-growth characteristics, tree size or structure that provides or recruits valuable



habitat for the conservation or enhancement of wildlife. (*Forest and Range Practices Act*)

Wildlife Tree Patch (WTP)

Wildlife trees retained in or around cutblocks to achieve stand level biodiversity strategies. (*Forest and Range Practices Act*)

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 log sort. Yarding methods include cable yarding, ground skidding, and aerial methods such as helicopter yarding.



5.2 List of Acronyms

AAC	Allowable Annual Cut
CCFM	Canadian Council of Forest Ministers
CDC	Conservation Data Center
CHR	Cultural Heritage Resource
CMS	Corporate Management System
COSEWIC	Committee on the Status of Endangered Wildlife in Canada
CSA	Canadian Standards Association
CWAP	Coastal Watershed Assessment Procedure
DFA	Defined Forest Area
EPRP	Emergency Preparedness and Response Plans
EMZ	Enhanced Management Zone
FDP	Forest Development Plan
FIA	Forest Investment Account
FPAG	Fraser Public Advisory Group
FPC	Forest Practices Code
FRPA	Forest Range and Practices Act
FSP	Forest Stewardship Plan
GMZ	General Management Zone
GIS	Geographic Information System
LUP	Landscape Unit Plan
MoE	BC Ministry of Environment
MoFR	BC Ministry of Forests and Range (formerly Ministry of Forests)
MoF	BC Ministry of Forests
OGMA	Old Growth Management Area
RMA	Riparian Management Area
RMZ	Riparian Management Zone
RRZ	Riparian Reserve Zone
SP	Site Plan
SIPAG	Southwest Island Public Advisory Group
SMZ	Special Management Zone
SARA	Species at Risk Act
SOP	Standard Operating Procedure
SFM	Sustainable Forest Management
TFL	Tree Farm License
VQO	Visual Quality Objective
WHA	Wildlife Habitat Area
WTP	Wildlife Tree Patch