

Appendix 2a

Detailed Indicator Descriptions & Results

Honeymoon Bay

March 2010





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Summary of Changes

This section includes a summary of the changes to the SFM Plan Indicators, Targets and associated Variance that have been made since the last version:

Date	Indicator	Comment
Pending Changes	Core Indicators	Development of Core Indicators
March 2010	H1-8 Public Access	Removed from Criterion 1, retained under criterion 5 (repeat indicator) as H5-6
	Pacheedaht First Nation Cultural Cedar Strategy	New indicator
October 2008	H6-1 First Nations participation in SIPAG	Now measures actual participation in SIPAG as well as invitations extended
	H6-2 First Nations Operational Plan Reviews	Added review of SFMP
	H6-3 First Nations Responses to Plan referrals	New indicator
	H6-4 Cultural Heritage Resources	Correction to 2007 Annual Report and Monitoring sections
May 2008	H1-1 Old Growth	Added new Draft OGMA for the Cowichan Landscape Unit
	H1-5 Roosevelt Elk & Black Tailed Deer	Adjusted total UWR within TFL from 1219.6ha to 1215.3 (area recalculated following removal of Forest Revitalization take back areas removed from the TFL calculations)
	H3-2 Landslides in Recently Built Roads	Title change and modified reporting to include naturally caused landslides as well as those caused by management activities
	H3-3 Landslides in Recent Harvesting	Title change and modified reporting to include naturally caused landslides as well as those caused by management activities
	H3-5 Spill to Land & H3-7 Spills to Water	Modified the reporting tables to include type of product spilled as well as quantity
	H3-12 Bridge and Major Culvert	New indicator
	H4-5 Coarse Woody Debris	New indicator



Date	Indicator	Comment
May 2008 cont'd	H5-7 Full Time Jobs	New Indicator
	H5-13 Community Benefits	New indicator (merges indicator H5-8 Revenues paid to the crown, H5-9 Support of local resource projects and H5-11 Local Supplies and Services (H5-8, H5-9 and H5-11 deleted)
	H6-2 First Nations Plan Review	Updated indicator to include site level plan reviews (i.e., cutblock and roads)
	H6-3 Information Sharing Protocol	Delete (documents the same target as H6-2)
	Multiple Indicators	Slight revisions to terminology in order to provide clarification

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Summary of Results

This section of the SFM Plan has been modified to include the annual performance report information (Current Status & Results). The annual reporting period going forward will be January 1 to December 31, this has been changed from April to April which was indicative of when the first SFMP was published.

2009 Annual Report

For 2009, Teal was in conformance with the target and permitted variance for 46 of the 52 indicators. The indicators that were determined to be in non-conformance were as follows:

- Indicator H2-1 & H4-1: Successful Regeneration
- Indicator H3-3: Landslides in Recent Harvesting
- Indicator H4-5: Coarse Woody Debris
- Indicator H5-12 & 6-8: Training Requirements

Indicator H1-10 (Hardwoods) did not meet the target in 2009; however the target is measured over a 5 year rolling average, so the true results will not be available until 2011.

Indicators H1-9 (Invasive Plants), H2-3 (Industrial Caused Fire) and H6-3 (First Nations Response to Plan Referrals) reported values that were within the acceptable variances, but did not meet the targets. These were considered in conformance.

Explanations, analysis and rationale, including measures to address the deficiencies are included for each indicator section within Appendix 2.

2008 Annual Report

For 2008, Teal was in conformance with the target and permitted variance of 52 of the 53 indicators. Indicator H5-12 (Training Requirements) did not meet the target in 2008, however it is thought that the information currently available does not reflect the actual training that was completed in 2008.

Indicator H3-10 (Fisheries Sensitive Features) had values that were within the acceptable variance, but did not meet the targets. These were considered in conformance.

The information to determine the results for indicator H5-7 Full Time Jobs is not currently available due to unexpected shutdowns and shortages of office staff. This information is expected to be available in the near future and will be included in the report at the next revision. In addition indicator 5-13 one of the figures in Community Benefits is based on indicator 5-7.

Explanations, analysis and rationale, including measures to address the deficiencies are included for each indicator section within Appendix 2.



Indicator H1-1: Old Growth Representation

Old Growth Management Areas (OGMA) are areas that contain, or are managed to replace, specific structural old-growth attributes, and that are mapped out and treated as special management areas.¹

Value	Objective	Indicator	Target	Acceptable Variance
Variety and pattern of ecosystems and ecosystem processes at landscape level	Maintain representative ecosystems across the landscape	Old Growth Representation	Meet Old Growth Management Area representation by Landscape Unit (LU) as defined in the Landscape Unit Plan for Caycuse, Gordon, Nitinat, San Juan, and Walbran LUs and for the Cowichan LU	Zero

Current Status & Results

Year	Caycuse LU (ha)	Gordon LU (ha)	Nitinat LU (ha)	San Juan LU (ha)	Walbran LU (ha)	Cowichan LU (ha)	Total (ha)	Target Met (Y/N)	Variance
2009	2,319	2,639	6,854	3,709	4,149	18.2	19,688	Y	0
2008	2,506	2,756	6,836	3,949	4,268	24.4	20,315	Y	0
2007	2,506	2,756	6,836	3,949	4,268	24.4	20,315	Y	0
2006*	2,506	2,756	6,836	3,949	4,268	0	20,315	Y	0
2005*	2,506	2,756	6,836	3,949	4,268	0	20,315	Y	0

In 2009, there were no net changes to the areas of OGMSs. There were several minor amendments for boundary adjustments that were completed according to the OGMA Ministry of Agriculture and Lands (Integrated Land Management Bureau) Coast Region Policy. In 2009, a data clean up was completed: for the Renfrew Aggregate Landscape Unit Plan, the areas reported in 2009 differ from those areas reported in previous years as the original data supplied was based on the draft and areas have been updated to reflect the approved OGMA. In the draft Lake Cowichan Landscape Unit Plan the area has been reduced due to a deletion that was made as a result of the consultation process (government agencies refer the draft Landscape Unit Plans to all stakeholders and invite them to comment). Teal commented that a portion of the proposed OGMA was located in second growth timber (OGMA's target old growth areas). This area was deleted from the draft OGMA.

In 2008, there were no net changes to the areas of the OGMA. There were several minor amendments for boundary adjustments that were completed according to the OGMA Ministry of Agriculture and Lands (Integrated Land Management Bureau) Coast Region Policy.

¹ Forest Practice Code Biodiversity Guidebook September 1995



Strategy

Coordination of landscape unit planning is the responsibility of the Ministry of Agriculture and Lands (Integrated Land Management Bureau). Teal worked in cooperation with government agencies in the development of the Renfrew Aggregate Landscape Unit Plan and identification of candidates for established OGMAs.

The strategy used to select OGMAs in the Caycuse, Gordon, Nitinat, San Juan and Walbran Landscape Units is detailed in the Renfrew Aggregate Landscape Unit Plan. Selection criteria considered and prioritized Marbled Murrelet habitat (Marbled Murrelet Wildlife Habitat Areas were given a first priority over other values), Northern Goshawk Wildlife Habitat Areas, Archaeological/ heritage sites, Rare ecosystems (and site series), Special Management Zones, Karst features, Ungulate Winter Ranges, Forest Ecosystem Networks (originally established to provide connectivity across the landscape) and First Nation considerations. I.e., areas of very large or Monumental Western Red Cedar trees (input was provided by the Cowichan and Pacheedaht First Nations to provide criteria for retention, these site types often overlapped with sites with rare plant associations).

Monitoring

OGMA boundaries are not legally surveyed. Potential trespass across OGMA boundaries will be enforced to a reasonable standard of measurement. Wherever possible, OGMA boundaries are located in the field to reduce operational uncertainty. For example, using natural features wherever possible or using complete forest stands (forest cover polygons).

Boundary adjustments are permitted and are made according to the Ministry of Agriculture and Lands (Integrated Land Management Bureau) Coast Region Policy and tracked through the filing system and Geographical Information System (GIS) department.

The Engineers maintain a summary of amendments to OGMA areas within each landscape unit including areas added or deleted. Where required, areas are confirmed by the GIS department. These changes will be reported under "Current Status and Results" (above).

Government agencies (MoFR) also do periodic inspections (cross reference the Compliance Tracker or FS107 spreadsheet).

Forecast

It is not anticipated that there will be any material changes to the legally established OGMAs in the Renfrew Aggregate Landscape Unit Plan.

It is estimated that the draft OGMAs within the Cowichan Landscape Unit will be finalized and legally established in the near future. Significant changes to the draft OGMAs are not anticipated.



Indicator H1-2: Stand Level Retention (WTP)

A Wildlife Tree Patch is a retention area managed at the stand level and is used to maintain structural diversity within managed stands by retaining wildlife trees adjacent to, or within, cutblocks.

Value	Objective	Indicator	Target	Acceptable Variance
Variety & patterns of plants & ecosystem types at landscape level	Structural diversity at stand level	Stand level retention for each cutblock as a percent of the harvest area (Wildlife Tree Patch)	Single cutblock: 3.5% Group of cutblocks: 7%	Zero

Current Status & Results

This indicator was reviewed and revised in February 2007 to modify the target to be consistent with the recently approved Forest Stewardship Plan and the Forest and Range Practices Act (& associated regulation). On the ground practices were revised during 2006 to account for the change in the target.

Year	Total Gross Cutblock Area (ha)	Total WTP (ha)	Average WTP %	Target Met (Y/N)	Variance
2009	217.9	24.5	11.2	Y	+4.2
2008	234.9	20.3	8.6	Y	+1.6
2007	497.2	44.5	8.9	Y	+1.9
2006	503.4	43.7	8.7	Y	+1.7

In 2009, the range of WTP retention was 6.8 to 25.5% for cutblocks, where harvesting commenced. The average WTP retention calculated on a per cutblock basis was 11.2%. On April 29, 2009, the requirements for WTP retention were amended through the Forest Stewardship Plan to be consistent with the approved Renfrew Aggregate Landscape Unit Plan. The target WTP retention is now calculated for each individual Landscape Unit and each Biogeoclimatic subzone; as a total average amount between the period of April 29, 2009 and November 30, 2011, with the exception of the Cowichan Landscape Unit, which maintains the current target. These changes were discussed with the PAGs and the indicator has been updated for the next version of the SFM Plan. For the purposes of the 2009 annual report, the WTP retention was compared to the existing target.

In 2008, the range of WTP retention was 5 to 11% for all cutblocks harvested. The average WTP retention calculated on a per cutblock basis is 8.6%.



Strategy

Wildlife Tree Patches (WTPs) are chosen during cutblock design fieldwork. Wildlife Tree Patches are selected to: retain representative stands compared to those being harvested; to maintain structural characteristics (e.g., coarse woody debris, mature stand attributes, etc.); or target wildlife trees with potential habitat (e.g., eagle and northern goshawk nest trees, other raptor nests, bear dens, etc.). Where possible, WTPs overlap otherwise constrained areas such as Riparian Management Areas, terrain and visually sensitive areas, inoperable areas, Culturally Modified Tree Buffers, etc. to minimize impacts on the timber value.

Retention objectives are determined by the formula established in the Forest Practice Code Landscape Unit Planning Guidebook. The target levels of wildlife tree retention are set according to the Forest and Range Practices Act, Forest Planning and Practices Regulation.

The proportion of WTPs is determined by dividing the area of WTP by the total area harvested (including areas covered by permanent access structures and the net area to be reforested). Cutblock information will be derived from the Phoenix database.

Monitoring

The Forestry Department maintains the Phoenix database which contains block area information. The Environmental Department reviews those cutblocks where harvesting has commenced in each year and tallies the proportion of wildlife tree retention for each cutblock; then compares with the minimum WTP requirements. These results are cross referenced with the FSP obligation tracker. Results are summarized under “Current Status and Results”.

Government agencies (MoFR) also do periodic inspections (cross reference the Compliance Tracker or FS107 spreadsheet).

Forecast

It is anticipated that Teal will meet internal retention targets consistently.



Indicator H1-3: Wildlife Habitat Areas

Wildlife Habitat Areas are 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.

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.

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.

Regionally Important Wildlife includes 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.

Value	Objective	Indicator	Target	Acceptable Variance
Species at risk	Maintain/ enhance habitat needs for threatened or endangered species	Compliance with Wildlife Habitat Area (WHA) orders and objectives	Full compliance with Wildlife Habitat Area (WHA) orders and objectives (zero non-compliances)	Zero

Current Status & Results

Year	WHA #	Species	Hectares within TFL 46	Target Met (Y/N)	Variance
2009	1-003	Goshawk	2,103.0	Y	0
	1-007	Marbled Murrelet	47.9		
	1-097	Marbled Murrelet	230.2		
	1-099	Marbled Murrelet	124.6		
	1-100	Marbled Murrelet	603.8		
	1-101	Marbled Murrelet	330.4		
	1-102	Marbled Murrelet	128.4		
	1-103	Marbled Murrelet	171.1		
	1-197	Scouler's Corydalis	16.9		
	Total		3,756.3		

In 2009, Teal was 100% conformant with the WHA orders and objectives. Currently, there are 9 Wildlife Habitat Areas (WHA) legally established within TFL 46. In 2009, a data clean up was completed: for WHA 1-007, 1-099, 1-100 the areas reported in 2009 differ from those areas reported in previous years as the original data supplied was based on the draft WHAs and areas have been updated to reflect the approved WHAs. In WHA 1-197 (Scouler's Corydalis) the area of the WHA was reduced to allow for a road right of way, prior to the establishment of the WHA, as approved by the Integrated Land Management Bureau.



Year	WHA #	Species	Hectares within TFL 46	Target Met (Y/N)	Variance
2008, 2007 & 2006	1-003	Goshawk	2,103.0	Y	0
	1-007	Marbled Murrelet	48.1		
	1-097	Marbled Murrelet	230.2		
	1-099	Marbled Murrelet	124.7		
	1-100	Marbled Murrelet	604.5		
	1-101	Marbled Murrelet	330.4		
	1-102	Marbled Murrelet	128.4		
	1-103	Marbled Murrelet	171.1		
	1-197	Scouler's Corydalis	24.8		
Total			3,765.2		

In 2008, Teal was 100% in conformance with the WHA orders and objectives. Currently, there are 9 Wildlife Habitat Areas (WHA) legally established within TFL 46. (8 added areas from 2005). There is also one established WHA 1-108 that is located immediately adjacent to the TFL.

For more details on the WHA objectives, visit:

http://www.for.gov.bc.ca/dsi/Stewardship/Objectives_for_Wildlife.htm#WHA

Strategy

Establishment of Wildlife Habitat Areas is the responsibility of the government agencies. Teal has been working cooperatively with the government in order to produce Wildlife Habitat Area boundaries for the protection of Identified Wildlife (Species at Risk and Regionally Important Wildlife).

Monitoring

Wildlife Habitat Area boundaries are mapped by the GIS department. Non-compliances with WHA boundaries will be recorded internally with an incident investigation form (filed under E3-4). The Environmental Department will report any changes to the status of Wildlife Habitat Areas under "Current Status and Results".

Government agencies (MoFR) also do periodic inspections (cross reference the Compliance Tracker or FS107 spreadsheet).

Forecast

No further Wildlife Habitat Areas are expected to be legally designated in the future. It is not anticipated that there will be any material changes to the legally established Wildlife Habitat Areas. As the target relates to a legal requirement, the target is the forecast.



Indicator H1-4: Integrated Wildlife Management

Integrated Wildlife Management Strategies 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.

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.

Wildlife Habitat Features are 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.

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 and Range Practices Act.

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.

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

Value	Objective	Indicator	Target	Acceptable Variance
Species at risk	Manage activities to support survival and success of species at risk	Compliance with Integrated Wildlife Management Strategies	Full compliance with Integrated Wildlife Management Strategies (zero non-compliances)	Zero

Current Status & Results

Year	# of Established WHAs within TFL 46	# of Designated Wildlife Habitat Features in TFL 46	% Compliance	Target Met (Y/N)	Variance
2009	9	0	100	Y	0
2008	9	0	100	Y	0
2007	9	0	100	Y	0
2006	9	0	100	Y	0



Currently, there are no designated Wildlife Habitat Features in TFL 46.

In 2009, there were zero non-compliances issued from Compliance & Enforcement inspections (Ministry of Forests and Range) related to General Wildlife Measures.

Strategy

Integrated Wildlife Management Strategies are the responsibility of government agencies. Teal works cooperatively with the government in order to incorporate General Wildlife Measures and Wildlife Habitat Features into landscape and stand level plans for the protection of Identified Wildlife (Species at Risk and Regionally Important Wildlife).

A number of General Wildlife Measures are designated in the TFL as part of the signed Wildlife Habitat Area orders. To view, visit: http://www.for.gov.bc.ca/dsi/Stewardship/Objectives_for_Wildlife.htm#GWM .

Monitoring

Non-conformances with IWMS will be recorded internally with an incident investigation form (filed under E3-4). The Environmental Department tallies the number of non-compliances with General Wildlife Measures issued by government agencies (MoFR and MoE), and reports on any new designations of Wildlife Habitat Features under “Current Status and Results”.

Government agencies (MoFR) also do periodic inspections (cross reference the Compliance Tracker or FS107 spreadsheet).

Forecast

It is anticipated that Wildlife Habitat Features will be provincially designated in the future. It is anticipated that Teal will be in compliance with Integrated Wildlife Management Strategies when they are designated.



Indicator H1-5: Roosevelt Elk & Black Tailed Deer

Ungulate Winter Range areas are established in areas that contain habitat that is considered to be critical to meet the winter habitat requirements for an ungulate species.

Value	Objective	Indicator	Target	Acceptable Variance
Critical habitat features for special interest species	Maintain Roosevelt Elk and Black Tailed Deer critical habitat	Area within TFL 46 managed for Roosevelt Elk and Black Tailed Deer winter range	Minimum of 1,215.3ha of the Timber Harvest Land Base managed as Ungulate Winter Range	Zero

Current Status & Results

Year	Established UWR within TFL 46 (ha)	Target Met (Y/N)	Variance
2009	1,215.3	Y	0
2008	1,215.3	Y	0
2007	1,215.3	Y	0
2006	1,219.6	Y	0

In 2009 and 2008 there were no compliance issues in relation to established UWR.

Currently, 1,215.3ha of Ungulate Winter Range (31 Winter Ranges for Black Tailed Deer and 1 Winter Range for Roosevelt Elk) have been established within the TFL. The total area was revised from 1,219.6ha in 2007 to account for the revised area of the TFL following the target government's Forest Revitalization (take back) initiatives.

Strategy

Teal works in cooperation with the Ministry of Environment to establish Ungulate Winter Ranges within TFL 46 for the protection of critical habitat of Ungulate species.

Monitoring

Ungulate Winter Range areas are mapped by the GIS department. Non-compliances with Ungulate Winter Ranges will be recorded internally with an incident investigation form (filed under E3-4). The Environmental Department reports any changes to the Ungulate Winter Range areas under "Current Status and Results".

Government agencies (MoFR and MoE), also do periodic inspections (cross reference the Compliance Tracker or FS107 spreadsheet).

Forecast

It is not anticipated that any additional ungulate winter ranges will be established in the near future. It is not anticipated that there will be any material changes to the legally established Ungulate Winter Ranges.



Indicator H1-6: Bear Dens

Bear dens are considered critical habitat in landscapes with significant second growth stands. The Bear Den Protection Key was developed in conjunction with the Ministry of Environment and Ministry of Forest and Range based on general habitat characteristics of bear dens (e.g., size of opening, signs of usage, location of the tree, etc.). The characteristics of the potential bear den are assessed and a value rating is determined based on criteria in the Bear Den Protection Key.

Value	Objective	Indicator	Target	Acceptable Variance
Critical habitat features for special interest species	Maintain existing and potential bear dens	Number of bear dens found during field work that are protected	Retain 100% 'high value' and 80% 'moderate value' bear dens as rated on the Bear Den Protection Key	10% per 5 year rolling average

Current Status & Results

Year	Value	#of Bear Dens Identified	# of Bear Dens Retained	% of Bear Dens Retained	Target Met (Y/N)	Variance
2009	Moderate	2	2	100	Y	0
	High	0	0	N/A		
2008	Moderate	3	3	100	Y	0
	High	0	0	N/A		
2007	Moderate	2	2	100	Y	0
	High	0	0	N/A		
2006	Moderate	0	0	N/A	Y	0
	High	1	1	100		

In 2009, two moderate value bear dens were located. Both were retained.

In 2008, three moderate value bear dens were located. All three were retained.

Strategy

During field work, potential bear dens are located and assessed using the Bear Den Protection Key. Generally, Teal staff do not have the expertise to make a final determination on dens, so all dens are referred to as 'potential'. All assessments are filed in the Bear Den Inventory.

Where possible, layout will take into consideration the potential bear den locations. Potential dens are not generally mapped as protection of wildlife may be an issue.

Where dens are located after harvesting commencement, crew will stop work in the area and contact their supervisor. In this case, plans will be altered to protect the den, where operationally feasible. The Forestry & Engineering Department note potential bear dens in the Bear Den Inventory file.



Monitoring

The Forestry & Engineering Department tallies the number of bear dens found, versus the number of high or moderate value bear dens retained and reports the information under “Current Status and Results”.

Forecast

It is anticipated that Teal staff will continue to find bear dens and protect them wherever operationally feasible. As the distribution of bear dens is not uniform it is not possible to predict the number located each year, however the target reflects an appropriate forecast of the operational feasibility of protecting the dens.



Indicator H1-7: Cedar/ Cypress Trees

Western Red Cedar and Cypress (or Yellow Cedar) have been recognized as a locally important tree species for economic, social, ecological and cultural reasons.

Value	Objective	Indicator	Target	Acceptable Variance
Cedar/ Cypress	Maintain Cedar/ Cypress population within TFL 46 for cultural, ecological and economic purposes	Total Cedar/ Cypress trees planted by species	Average Cedar/ Cypress planted is minimum 20% of total trees planted over a 5 year rolling average	Zero

Current Status & Results

Year	Total Cedar Planted	Total Cypress Planted	Total Cedar or Cypress Planted	Total Seedlings Planted	% of Cedar or Cypress	Target Met (Y/N)	Variance
2009	90,520	0	90,520	238, 840	38	Y	+18
2008	278,740	11,970	290,710	460,280	63.2	Y	+43.2
2007	274,890	0	274,890	658, 770	41.7	Y	+21.7
2006	359,460	0	359,460	613, 850	58.6	Y	+38.6

In 2009, one spring planting program was completed.

In 2008, planting programs were completed in the spring as well as the summer (higher elevation blocks).

Strategy

Planting species selection considers ecological criteria (i.e., ecosystem type which is based on site factors such as moisture and nutrient levels, existing stand and vegetation, aspect, elevation, etc.) and economical criteria (e.g., potential health risks to plantations, potential competition from other tree species, etc.). Other considerations are based on site specific and general resource values, such as wildlife habitat, visual quality, cultural values, etc.

Where required, cutblock information will be derived from the Phoenix database.

Monitoring

Each year, the Forestry Department tallies the proportion of Cedar or Cypress planted versus the total trees planted for all planting programs. The proportion of Cedar or Cypress is calculated and reported under "Current Status and Results".

Forecast

Based on past planting records, it is anticipated that the proportion of Cedar and Cypress planted will exceed the target.



Indicator H1-8 Public Access

Refer to [Indicator H5-6: Public Access](#) for further details.



Indicator H1-9: Invasive Plant Species

Invasive Plant Species are 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.²

The Invasive Plants Regulation provides a provincial listing of the plants that are considered “weeds” and have invasive habits. Only a portion of the plants on the list occur within, or near, TFL 46.

Plants occurring within TFL 46	Plants occurring near TFL 46
<ul style="list-style-type: none"> • Bull Thistle • Common Tansy • Oxeye Daisy • Scotch Broom • St. John's-Wort 	<ul style="list-style-type: none"> • Canada Thistle • Giant Knotweed • Gorse • Japanese Knotweed

The Majority of the TFL is ranked as low to moderate in terms of susceptibility to invasive plants, according to information provided in the Ministry of Water, Land and Air Protection discussion paper titled “Invasive Alien Species Framework for BC: Identifying and Addressing Threats to Biodiversity (May 2004).

To view a list of plants currently classified as ‘prescribed’ invasive plant species, visit:
<http://www.for.gov.bc.ca/tasb/legsregs/frpa/frparegs/invplants/ipr.htm#section2>

Value	Objective	Indicator	Target	Acceptable Variance
Maintain natural diversity of native flora and fauna	Mitigate spread of invasive species	% site occupation of invasive plant species at time of Free Growing	0% for Broom, Gorse, Knotweed 10% for Thistle, Tansy, Daisy, St. John's Wort	5%

Current Status & Results

Year	% Site Occupation at Time of Free Growing (Broom, Gorse, Knotweed)	% Site Occupation at Time of Free Growing (Thistle, Tansy, Daisy, St John's Wort)	Target Met (Y/N)	Variance
2009	0.1	0	N	-4.9
2008	0	0	Y	0
2007	0	0	Y	0
2006	0	0	Y	0

In 2009, Free Growing surveys indicated that Scotch Broom was present along the roadsides in 5 of the 15 cutblocks surveyed. In addition, broom was found to occupying less than 5% in two cutblocks. This species is not expected to spread beyond roadsides as it is shade intolerant and will not thrive in mature

² Source: <http://www.invasivespeciesinfo.gov/>



forests. Canadian Thistle was noted on the roadside of one cutblock, likewise, it is generally shade intolerant and not expected to thrive in mature forests.

In 2008, Free Growing surveys indicated that Scotch Broom was present along roadsides of 17 of the 21 cutblocks surveyed. Currently, the broom is not occupying the growing space of the cutblocks and this species is not expected to spread beyond roadsides as it is shade intolerant and will not thrive in mature forests.

Strategy

Teal's Forest Stewardship Plan outlines measures for the management of invasive plant species. The measures fall within three categories: training and education; prevention; and control.

Monitoring

The Forestry Department will report on the percentage of occupancy of invasive plants that is measured within cutblocks on an annual basis, averaged over all blocks declared Free Growing in each calendar year and report under "Current Status and Results". Site occupancy is a measure of percentage of occupancy within a cutblock.

Government agencies (MoFR) will also carry out monitoring activities during regular inspections (cross reference the Compliance Tracker or FS107 spreadsheet).

Forecast

Teal's FSP includes measures to prevent the spread of invasive plants within the TFL. Through the implementation of these measures, the current presence of invasive plant species within the TFL is not expected to increase significantly.



Indicator H1-10: Hardwoods

Alder and Maple are common components in the stands throughout the TFL, other species, such as cottonwood, cherry, willow, etc. may be present in minute quantities.

Value	Objective	Indicator	Target	Acceptable Variance
Maintain natural diversity of native flora and fauna	Retain a component of hardwoods within the stands	Number of hardwood stems per hectare (ha)	Average number of hardwood stems per ha is a minimum of 25, measured on a 5 year rolling average over all cutblocks declared Free Growing in each calendar year	1.25 stems per ha (5%)

Current Status & Results

Year	Annual Average # of Hardwood Stems per Hectare	5 Year Average	Target Met (Y/N)	Variance
2009	28.4	N/A	Y	+3.4
2008	27.9	N/A	Y	+2.9
2007	23.25	N/A	N	-1.75
2006	Not known	Not known	N/A	N/A

The results of this indicator cannot be determined until data is collected for 5 years (2011). It is expected that Teal will meet the target within the 5 year timeframe as alder is generally present along roadsides and commonly scattered throughout blocks.

In 2009, 14 out of 15 cutblocks surveyed for Free Growing contained Alder. In addition, one block contained willows and cherry.

Strategy

Under the approved Forest Stewardship Plan, Alder, Maple and Cottonwood are permitted as ghost tress up to a limit of 100, 30 and 20 per hectare of uniform distribution. These trees may remain on site without affecting the stand establishment commitments. If hardwood component of the stand exceeds these levels, Teal is required to cut the trees to prioritize the growing site for conifers. Under the current management regime, Teal spends a significant investment in brushing activities to reduce the component of hardwoods and assist stands in reaching Free Growing status.

Monitoring

The Forestry Department tallies average number of hardwood stems per hectare, measured on a 5 year rolling average over all cutblocks declared Free Growing in each calendar year and reports the result under "Current Status and Results".



Forecast

Under the current management regime, the target is the forecast. The Forest Stewardship Plan permits management of hardwood species (Alder and Maple) on those portions of the land-base where the present canopy includes mainly hardwoods. Teal is currently conducting a trial to examine feasibility of operating in these areas. These hardwood leading stands represent approximately 5% of the land-base of the TFL.



Indicator H1-11: Reforestation Seed Source

All seed used for reforestation of public forest lands is required to be registered according to the Chief Forester's Standards for Seed Use. The purpose of this standard is to maintain the identity, adaptability, diversity and productivity of the Province's tree gene resources by a) establishing criteria for the registration of seedlots and vegetative lots used to establish a stand and b) regulating the storage, selection, use and transfer of registered lots.³

The origin of seed from which tree seedlings are grown is tracked and tested to ensure seedlings are from a local source, therefore locally adapted to the site. The guidelines for transferring seed are based on ecological criteria, as well as, geographic and elevation ranges.

Teal purchases seedlings from independent tree nurseries who grow the seedlings with seed that is registered.

Value	Objective	Indicator	Target	Acceptable Variance
Genetically diverse species	Maintain genetic diversity of native species	Percent of seed used for reforestation registered according to the Chief Forester's Standards for Seed Use	100%	Zero

Current Status & Results

Year	% of Seed Used is Registered	Target Met (Y/N)	Variance
2009	100	Y	0
2008	100	Y	0
2007	100	Y	0
2006	100	Y	0

2009: Seedlot reports were reviewed from the provincial seed registry database (SPAR), and all three seedlots that were utilized were grown from registered seed (seedlots Fdc60394, Cw61173 and Cw45010). A review of the Compliance and Enforcement inspections conducted by Ministry of Forests and Range during 2009 show zero non-compliances related to seed use.

2008: Seedlot reports were reviewed from the provincial seed registry database (SPAR), the four seedlots that were utilized were grown from registered seed (seedlots 61173, 45010, 60394 and 46230). A review of the Compliance and Enforcement inspections conducted by Ministry of Forests and Range during 2008 show zero non-compliances related to seed use.

³ Chief Forester's Standard for Seed Use November 2004



Strategy

The Forestry Department orders seedlings from the nursery. Each seedling is tracked through a seedlot number that identifies the origin of the seed and proves registration according to the Chief Forester's Standards for Seed Use (through tracking within the provincial database "SPAR". Seedlots utilized in reforestation are recorded within cutblock history in the Phoenix database.

Monitoring

The Forestry Department records all seedlings planted (and their respective seedlots) within the Phoenix database. Compliance with the Chief Forester's Standards for Seed Use will be reported under "Current Status and Results" using the provincial seed registry database SPAR, and compliance reports from MoFR.

Government agencies also do periodic inspections (cross reference the Compliance Tracker or FS107 spreadsheet).

Forecast

Teal does not currently grow their own seedlings, rather they are purchased from local tree nurseries. Tree nurseries in BC are required by law to grow their seedlings from registered seed, in accordance with legislation and the Chief Foresters Standard for Seed Use. Therefore, it is anticipated that the target will be achieved in all cases.



Indicator H1-12: Sites of Special Significance

There is no definition of 'Sites of Special Significance', however Teal will evaluate all potential sites and may include for example: sites of biological significance (for example unique biological features that are not protected through current legislation e.g., salt licks or unclassified swamps); special geographical features (e.g., caves, karst features); historically significant sites (e.g., a cultural heritage feature); or cultural significance (e.g., a recreation trail). The intent is to provide some manner of protection for those features which are locally important, rare or unique, but do not have protection under the current legislated management regimes.

Value	Objective	Indicator	Target	Acceptable Variance
Rare or unique biological features such as karst topography, caves, mineral licks, etc.	Protection of rare or unique biological features at the local level	Number of special biological sites	Spatially track all special sites identified (outside of OGMA, WHA, etc.)	Zero

Current Status & Results

Year	# of special biological sites identified	Target Met (Y/N)	Variance
2009	6	Y	0
2008	3	Y	0
2007	6	Y	0
2006	31	Y	0

In 2009, several karst features were identified and harvest operations were modified in order to protect the sites (i.e., road location was moved or fall away yard away prescriptions). Other sites of special significance (i.e., karst, recreational reserve, CMT, etc.) were identified, however, they were not located within cutblocks where harvesting commenced in 2009.

In 2008, there were three sites of special significance identified within three cutblocks harvested. Three karst features (sink holes) were protected from harvesting.

Sites of special significance are currently managed on a site by site basis as they are encountered. General protection measures in the past have included: placing no harvest zones or reserves around features; inventory and mapping.

Strategy

During cutblock and road planning activities, special sites that are encountered are identified on site level mapping and appropriate management actions are developed in conjunction with the site level plan (e.g., Logging Plan, Road Construction Map, Site Plan).



Monitoring

The Forestry & Engineering Departments will spatially track all identified sites of special significance that are located outside of OGMAs, WHAs, or other reserves, within the site level mapping (Logging Plans, Road Construction Maps and Site Plans). Correspondence files are also reviewed.

The Environmental Department will report the number of special biological sites that are identified within cutblocks under the Current Status and Results.

Forecast

When sites are discovered they are mapped on the site level map (unless there are confidentiality issues), therefore the target is the forecast.



Indicator H2-1: Successful Regeneration

Reforestation, or successful regeneration is defined within the approved stocking standards. The standards vary for each biogeoclimatic subzone and variant, but 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.

Value	Objective	Indicator	Target	Acceptable Variance
Ecosystem recovery from disturbance & stress	Forest management activities do not compromise the ability of the ecosystem to recover from disturbance and stress	Successful regeneration (average time required to reforest a cutblock)	Full compliance with regeneration delay requirements in approved stocking standards	Zero

Current Status & Results

Year	# of Cutblocks with Regen Expiring	# of Cutblocks that Met Regen	% Compliance	Target Met (Y/N)	Variance
2009	25	24	96	N	-4%
2008	24	24	100	Y	0
2007	38	38	100	Y	0
2006	32	32	100	Y	0

In 2009, all cutblocks were adequately restocked as per their respective stocking standards with one exception. One cutblock (508) was not surveyed in 2009, however, the Forester confirmed that the block will meet stocking standards when the survey is completed (planned for Spring 2010).

In 2008, all cutblocks were adequately restocked as per their respective stocking standards. One cutblock (4650) was surveyed two months after regen expiry due to weather conditions, however the block met stocking standards.

Strategy

Approximately 95% of reforested areas are planted and the balance utilizes natural regeneration. The major species planted have been Douglas-fir, Western Red Cedar and Cypress (Yellow Cedar). Natural regeneration is generally Western Red Cedar, Cypress and Western Hemlock and Amabilis fir with minor amounts of Grand Fir, Sitka Spruce, Mountain Hemlock, Alder and Douglas Fir. Generally, planting occurs within one to two years following harvesting. Planting is carried out as necessary to meet stocking requirements or to favour rapid early growth so that visual quality, hydrologic recovery and wildlife objectives are met.

Regeneration strategies are developed at the planning stages of the cutblock (prior to harvesting). After harvesting, the site is re-inspected to determine if any changes to the plan are required.

Each year, Teal puts in an order at a tree nursery to sow seedlings for the planned harvesting in the upcoming year. Seedlings generally take 1 year to grow.



The Forestry & Engineering Department examine harvest completion reports, outstanding regeneration reports, planting prescriptions and the number of seedlings successfully grown at the nursery to determine the action plan for the upcoming planting program. Where appropriate seedlings are not available, Teal will try to purchase them from other Forest Managers in the area.

Monitoring

Cutblocks are surveyed as per the Ministry of Forest and Range, Forest Practices Branch Stocking and Free Growing Surveys Procedures Manual (May 2002) to determine if they meet stocking standards. Cutblock and stocking information is maintained by the Forestry & Engineering Department in the Phoenix database.

The Environmental Department will examine the number of cutblocks successfully regenerated versus the total number of cutblocks with regeneration period expiring in that year, calculate and report under “Current Status and Results”.

Government agencies also do periodic inspections (cross reference the Compliance Tracker or FS107 spreadsheet).

Forecast

100% compliance with regeneration delay is the forecast. Teal implements a rigorous planting and survey program in order to ensure compliance.



Indicator H2-2: Stand Establishment

Free Growing is defined as 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.⁴

Value	Objective	Indicator	Target	Acceptable Variance
Ecosystem recovery from disturbance & stress	Forest management activities do not compromise the ability of the ecosystem to recover from disturbance and stress	Successful establishment of stands (cutblocks meet free growing criteria)	Full compliance with Free Growing requirements in approved stocking standards	Zero

Current Status & Results

Year	# of Cutblocks with FG Expiring	# of Cutblocks that Met FG	% Compliance	Target Met (Y/N)	Variance
2009	5	5	100	Y	0
2008	18	18	100	Y	0
2007	21	21	100	Y	0
2006	25	25	100	Y	0

In 2009 and 2008, all cutblocks where Free Growing expires met their respective stocking standards.

Strategy

A combination of activities are implemented in order to establish and maintain a new forest following harvesting and/ or other disturbances and aid the site in reaching the Free Growing standards. These activities are referred to as basic silviculture, and may include planting, brushing or site preparation.

Strategies to reach Free Growing are developed at the planning stages of the cutblock (prior to harvesting). After harvesting, the site is regularly re-inspected to determine if any changes to the plan are required.

Monitoring

Cutblocks are surveyed as per the Ministry of Forest and Range, Forest Practices Branch Stocking and Free Growing Surveys Procedures Manual (May 2002) to determine if they meeting Free Growing standards. Cutblock and Free Growing information is maintained by the Forestry & Engineering Department in the Phoenix database.

The Environmental Department will examine the number of cutblocks that successfully meet Free Growing standards and the total number of cutblocks where the late Free Growing Date expires in that year to calculate and report under “Current Status and Results”.

Government agencies also do periodic inspections (cross reference the Compliance Tracker or FS107 spreadsheet).

⁴ Source: Forest and Range Practices Act: Part 1 Definitions and Interpretation



Forecast

100% compliance with free growing requirements is the forecast. Teal implements a rigorous planting and survey program in order to ensure compliance. Treatments are prescribed as required (e.g., fertilization, brushing and weeding).



Indicator H2-3: Industrial Caused Fire

Industrial caused fires are those fires which are initiated by management activities (e.g., caused by equipment operating or controlled burns that escape and cause significant damage to timber or regenerated sites).

The intent is that this indicator measures impacts resulting from harvesting activities and does not include those fires resulting from natural causes.

Value	Objective	Indicator	Target	Acceptable Variance
Healthy Forests	Minimize stress associated with harvesting activities	Number of industrial caused fires	Zero accidental industrial caused fires	2 per year

Current Status & Results

Year	# of Industrial Caused Fires	Target Met (Y/N)	Variance
2009	1	N	-1
2008	0	Y	0
2007	0	Y	0
2006	0	Y	0

In 2009, there were two uncontrolled fires. One was caused by vandalism. The other was caused by a faulty tail block (flames and smoke were seen coming from the tailblock while yarding; yarding immediately ceased and upon further inspection no further fire was discovered).

In 2008, there were no uncontrolled fires.

Strategy

On an on-going basis, Teal updates their Emergency Preparedness and Response Plan – Wildfire Plan. The plan is implemented throughout the year and includes many strategies to prevent and prepare for accidental fires, including training requirements, fire fighting response equipment requirements, emergency action plans, etc.

Teal fills out a Fire Report Form for any accidental fires to determine root cause and any action items to mitigate the impact.

Monitoring

The Environmental Department tallies the number of accidental industrial caused fires using Fire Report Forms, and reports the results under “Current Status and Results”.

Government agencies also do periodic inspections (cross reference the Compliance Tracker or FS107 spreadsheet).



Forecast

Teal has procedures in place to mitigate potential for fires as a result of our activities (i.e., fire weather shutdown criteria, fire watch/ patrols in dry weather conditions). However, accidents do occur and as a result, the actual results may exceed the target.



Indicator H2-4: Catastrophic Windthrow Events

Catastrophic Windthrow Events are defined as: 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 to the event.

The intent is that this indicator measures impacts resulting from harvesting activities, and does not include natural occurrences.

Value	Objective	Indicator	Target	Acceptable Variance
Healthy Forests	Minimize impacts due to windthrow	Number of catastrophic windthrow events within Riparian Reserve Zones as a result of harvesting activities	Zero	Two

Current Status & Results

Year	# of Catastrophic Windthrow Events within RRZs	Target Met (Y/N)	Variance
2009	0	Y	0
2008	0	Y	0
2007	0	Y	0
2006	0	Y	0

In 2009 and 2008, there were no catastrophic windthrow events within RRZs that were identified or documented using an internal Incident Investigation Form. Internal inspections and MOFR Compliance & enforcement inspections did not identify any issues relating to windthrow within RRZs.

Strategy

Cutblocks are assessed for windthrow potential at the planning stages of layout. Where there is deemed to be a moderate or high hazard for windthrow in Riparian Reserves Zones, management strategies are implemented in order to minimize the risk. For example, buffers, pruning and/ or topping treatments are prescribed.

Post harvest inspections and surveys note any windthrow within cutblocks. Significant windthrow events are assessed and may be recorded using the Incident Investigation Form to determine root cause and any action items required to mitigate the impact.

Monitoring

The Environmental Department tallies the number of catastrophic windthrow events within Riparian Reserve Areas adjacent to managed areas using Incident Investigation Forms, and report under “Current Status and Results”.



Government agencies also do periodic inspections (cross reference the Compliance Tracker or FS107 spreadsheet).

Forecast

Local knowledge indicates that generally, significant storm events occur during the fall and winter, however, timing and location of windthrow damage is difficult to predict. In some years there is very little windthrow noted, in other years several areas with windthrow damage can be seen throughout the DFA. Riparian Reserve Zones are assessed for potential windthrow and managed accordingly. Therefore, it is anticipated that while there will continue to be windthrow damage within the DFA, catastrophic windthrow events will be very rare.



Indicator H2-5: Windthrow Treatments

The intent is that harvesting and road building activities are managed to avoid creating a situation where windthrow may impact the terrain in a manner that would create the potential for instability (e.g., a windthrown tree uplifts its root system, reducing stability in a gully sidewall).

Value	Objective	Indicator	Target	Acceptable Variance
Healthy Forests	Minimize impacts due to windthrow	Percentage of required windthrow treatments that are completed in a timely manner. (areas specified within site level plans as requiring edge treatments to address windthrow risk)	100%	Zero

Current Status & Results

This indicator was reviewed and revised in February 2007 (previous indicator details are below).

Year	# of Cutblocks Requiring Windthrow Treatments	# of Treatments Completed	% Completed	Target Met (Y/N)	Variance
2009	1	1	100	Y	0
2008	1	13	100	Y	0
2007	8	0	0	N	-100
2006	4	0	0	N	-100

In 2009, one block was prescribed and treated for windthrow (one boundary of block 8012 was located along a ridge break above a stream, there was a high risk for windthrow, therefore, a windthrow treatment was prescribed).

In 2008, block 4587 was pruned for prescribed windthrow treatment. In addition, outstanding pruning treatments for blocks identified in 2006 and 2007 were completed by hand as helicopter services are no longer available.

Strategy

Cutblocks are assessed for windthrow potential at the planning stages of layout. Where there is deemed to be a moderate or high hazard for windthrow in Riparian Reserves Zones, management strategies are implemented in order to minimize the risk. For example, buffers, pruning and/or topping treatments are prescribed.

In addition, areas with potentially unstable terrain are assessed to determine potential impacts of harvesting and road building activities, including potential impacts from windthrow events.

Post harvest inspections and surveys note any windthrow within cutblocks. Significant windthrow events are assessed and may be recorded using the Incident Investigation Form to determine root cause and any action items required to mitigate the impact.

“Timely manner” refers to treatments conducted before the first winter season following harvest completion, where they are operationally feasible. In some cases, there may be situations that are outside of Teal’s



control that prevent treatments being completed prior to the first winter season following harvesting. For example, poor weather conditions during planned treatment may prevent helicopter operations from being completed in a timely manner, or availability of the helicopter and/or pruning crews may also hinder treatment scheduling.

Monitoring

The Forestry & Engineering Department maintains a tracking system for windthrow treatments. The Environmental Department tallies the number of required windthrow treatments that are completed in a timely manner and reports the percentage under “Current Status and Results”.

Government agencies also do periodic inspections (cross reference the Compliance Tracker or FS107 spreadsheet).

Forecast

It is anticipated that all blocks prescribed for windthrow treatments will be treated. In the past Teal has had difficulty completing treatments within the optimal timeframe due to shortages in experienced crew. However, the current contractor is reliable, and therefore, it is anticipated future treatments will be completed within optimal timeframes.



Indicator H2-6: Soil Conservation

With respect to forestry operations, soil conservation legislation (in the Forest Practices Code Act and Forest and Range Practices Act) aims to:

- limit the extent of soil disturbance, caused by harvesting and silviculture activities that negatively affect the physical, chemical, and biological properties of the soil
- conduct forest practices in a manner that addresses the inherent sensitivity of a site to soil-degrading processes to minimize detrimental soil disturbance, landslides, soil erosion, and sediment delivery to streams
- limit the area of productive forest land that is occupied by permanent roads, landings, pits, quarries, and trails to the minimum necessary to safely conduct forest practices

There are legislated limitations for soil conservation with respect to areas occupied by permanent access structures; and areas occupied by soil disturbance within cutblocks.

Permanent access structures include 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.

Soil disturbance within cutblocks is categorized as the area occupied by trails, compacted areas, areas of dispersed disturbance (ruts and gouges), and un-rehabilitated temporary access structures.

Value	Objective	Indicator	Target	Acceptable Variance
Productive forest ecosystem	Conserve productivity of forests by minimizing disturbance due to harvesting activities	Compliance with soil conservation limitations (permanent access structures and soil disturbance limits)	100%	Zero

Current Status & Results

This indicator was revised slightly in February of 2007 in order to clarify the target value.

Year	# of Inspections	# of Inspections in Compliance	% Compliance	Target Met (Y/N)	Variance
2009	34	34	100	Y	0
2008	101	101	100	Y	0
2007	48	48	100	Y	0
2006	20	20	100	Y	0

In 2009, there were 34 internal inspections completed (18 Harvest Inspections and 16 Road Inspections). Soil disturbance was within allowable limits for all blocks and permanent access structures were within allowable limits (range of 0 to 9.8%, average 5.3%). Those blocks with greater than 7% permanent access structures had rationales in the block file. There were no compliance issues related to soil conservation identified by MoFR.

In 2008, there were 101 internal inspections completed (58 Harvest Inspections and 43 Road Inspections). Soil disturbance was within allowable limits for all blocks and permanent access structures were within



allowable limits (range of 0-9.8%, average 6.1%) Those blocks with greater than 7% permanent access structures had rationales in the block file. There were no compliance issues related to soil conservation identified by MoFR.

Strategy

For each cutblock, limits are set on the amount of site disturbance that is attributed to permanent access structures. The maximum proportion of an area that can be occupied by permanent access structures must either follow the limits set in legislation, or if the planned area exceeds the legislated limitations, the limits must be stated in either the FSP or the Site Plan and a rationale provided that meets one of the acceptable criteria (e.g., engineering constraints, safety of road users, the road is required for access beyond the cutblock, etc.)

For each cutblock, limits are set on the amount of soil disturbance that is acceptable as a result of harvesting activities. For example, where sensitive soils are identified, a maximum of 5% of the cutblock area may be disturbed. Units without sensitive soils have a maximum of 10% of the cutblock area that may be disturbed. Soil disturbance limits must be listed within the Site Plan.

Soil disturbance levels specified above may be exceeded on a temporary basis through the construction and use of temporary access structures. Soil disturbance levels will be reduced to within the above standards through the rehabilitation of these structures when they are no longer required.⁵

Soil hazard ratings and soil characteristics are assessed during field work to determine the sensitivity of the soil and if there are any restrictions on harvesting activities, for example ground based harvesting.

Each cutblock is inspected internally post harvest to ensure the plan was followed. External inspections may also be preformed by government agencies. If soil conservation limitations are exceeded, the cutblock is investigated in more detail, which may be recorded using the Teal Incident Investigation Form to determine root cause and any action items required to mitigate the impact.

Monitoring

The Environmental Department tallies the number of cutblocks that exceeded the soil conservation limitations using Internal Inspections and Incident Investigation Forms, and reports under "Current Status and Results".

Government agencies also do periodic inspections (cross reference the Compliance Tracker or FS107 spreadsheet).

Periodically, Teal may complete some post harvest measurements of site degradation caused by permanent access structure to examine results in comparison with planned site degradation limits. Measurements were completed in 2005/2006 and the formulas used to calculate the planned site degradation were modified to reflect the results of the measurements (e.g., the actual road surface widths were consistently lower than was planned, so the distance used in the planning calculations was reduced).

Forecast

Teal has an excellent record for road building activities and standard operating procedures, etc. are in place to ensure continued compliance. Therefore, the target is the forecast.

⁵ Forest Practice Code Soil Conservation Guidebook May 2001



Indicator H3-1: Soil Conservation

Value	Objective	Indicator	Target	Acceptable Variance
Soil	Protection of forest soils	Compliance with soil conservation limitations (permanent access structures and soil disturbance limits)	100%	Zero

This indicator was originally developed under the Ecosystem Resilience and Productivity Criterion, see indicator H2-6 for more details on the current status, strategy, monitoring and forecast for this indicator.



Indicator H3-2: Landslides in Recently Built Roads

There is no legal definition of a landslide with respect to forest management. Geographically, a landslide is defined as the movement of a mass of rock, debris, or earth down a slope.⁶ Landslides can be initiated by rainfall, earthquakes, volcanic activity, changes in groundwater, disturbance or change of a slope by man-made construction activities, or any combination of these factors.

For the purposes of the SFM Plan, the definition of a landslide is based on damage caused to forest resources. The following thresholds are used by the Forest Practices Board of British Columbia to define a landslide that causes a materially adverse effect on the environment:

- A landslide of 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
- A landslide of any size that caused a debris flow that scoured a portion of a fish stream
- A landslide that delivered in excess of 500 cubic meters of sediment to a stream directly tributary to a fish stream
- A landslide that destroyed more than 0.25 hectares of forest or plantation

For the purposes of this indicator, 'recently built roads' is interpreted as roads built within 5 years of the reporting date.

Value	Objective	Indicator	Target	Acceptable Variance
Soil	Protection of forest soils	Number of landslides in recently built roads	Zero	Two

Current Status & Results

This indicator was revised in 2007/ 08 in order to provide clarification. In some cases it is very difficult to determine the cause of a landslide, therefore, the reporting will include all landslides (natural and those caused by management activities). In addition, the acceptable variance was revised from zero to two to permit some flexibility for abnormal storm events that can trigger landslides.

Year	# of Landslides	Location	Target Met (Y/N)	Variance
2009	0	Caycuse (C4), Bugaboo	Y	0
2008	0	N/A	Y	0
2007	1	Caycuse M/L (1)	N	+1
2006	2	Lacey Creek/Caycuse M/L (1) Granite Creek (1)	N	+2

In 2009, there were two landslides with respect to roads; in the Caycuse road C4 (a legacy road from pre-Forest Practice Code standards) was fixed up for recent harvesting and the Bugaboo mainline (an older road) was reopened. In both cases, extreme weather conditions (i.e., very heavy rainfall) and blocked

⁶ Cruden, D.M., 1991. A Simple Definition of a Landslide. Bulletin of the International Association of Engineering Geology, No. 43, pp. 27-29.



ditches were factors. These roads are reported for information only, they are not considered as 'recently built roads' as both cases roads were older (greater than 5 years) and were established under different building standards than exist today.

In 2008, there were no slides in recently built roads.

Strategy

Proposed roads located on potentially unstable areas are assessed by a qualified professional during the planning stages of the road layout. Where proposed activities may increase the risk of landslides or other instability events beyond an acceptable level, the assessment will recommend an alternate road location or other measures to reduce the risk.

In addition, Teal tracks all roads under permit for scheduled and completed maintenance and inspections. For example a road that is rated as a higher risk (due to construction materials, downstream resources such as fish, or high landslide hazard ratings, etc.) will require more frequent inspections than a moderate risk ranking. Inspections determine the level of maintenance required and these planned activities are formally tracked.

Significant landslide events are assessed and may be recorded using the Teal Landslide Report Form to determine root cause and any action items required to mitigate the impact.

Road construction activities conducted by Teal include those activities conducted by contractor and sub-contractors within the TFL.

Monitoring

The Environmental Department tallies the number of landslide events from the Landslide Report Forms, and reports under "Current Status and Results".

Government agencies also do periodic inspections (cross reference the Compliance Tracker or FS107 spreadsheet).

Forecast

Local knowledge indicates that generally, landslides relating to recently built roads occur during the fall and winter when rainfall is the highest and soils are saturated, however, timing and location of landslides is difficult to predict. Teal continues to do regular inspections, Terrain Stability assessments and follow Standard Operating Procedures in order to prevent potential for contributing to events. Therefore, it is anticipated that while Teal will aim for zero landslides, there will continue to be landslides within the DFA, and the number generally within the allowable variance.



Indicator H3-3: Landslides in Recent Harvesting

There is no legal definition of a landslide with respect to forest management. Geographically, a landslide is defined as the movement of a mass of rock, debris, or earth down a slope.⁷ Landslides can be initiated by rainfall, earthquakes, volcanic activity, changes in groundwater, disturbance or change of a slope by man-made construction activities, or any combination of these factors.

For the purposes of the SFM Plan, the definition of a landslide is based on damage caused to forest resources. The following thresholds are used by the Forest Practices Board of British Columbia to define a landslide that causes a materially adverse effect on the environment:

- A landslide of 200 cubic metres 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 metres of fish habitat
- A landslide of any size that caused a debris flow that scoured a portion of a fish stream
- A landslide that delivered in excess of 500 cubic metres of sediment to a stream directly tributary to a fish stream
- A landslide that destroyed more than 0.25 hectares of forest or plantation

For the purposes of this indicator, 'recently harvested' is interpreted as cutblocks harvested within 5 years of the reporting date.

Value	Objective	Indicator	Target	Acceptable Variance
Soil	Protection of forest soils	Number of landslides in recently harvested blocks	Zero	Two

Current Status & Results

This indicator was revised in 2007/ 08 in order to provide clarification. In some cases it is very difficult to determine the cause of a landslide, therefore the reporting will include all landslides (natural and those caused by management activities). In addition, the acceptable variance was revised from zero to two to permit some flexibility for abnormal storm events that can trigger landslides.

Year	# of Landslides	Location	Target Met (Y/N)	Variance
2009	3	Hemmingsen, Reid Creek	N	-1
2008	0	N/A	Y	0
2007	2	Hawk Creek TR2C BD7110	N	+2
2006	1	Block 7130 (Bugaboo M/L)	N	+1

In 2009, there were three landslides reported in recently harvested cutblocks. In all cases events occurred during extreme high rainfall periods.

⁷ Cruden, D.M., 1991. A Simple Definition of a Landslide. Bulletin of the International Association of Engineering Geology, No. 43, pp. 27-29.



In 2008, there were no slides associated with new cutblocks.

Strategy

Potentially unstable areas within and immediately adjacent to proposed harvest areas are assessed by a qualified professional during the planning stages of the cutblock. Where proposed activities may increase the risk of landslides or other instability events beyond an acceptable level, the assessment will recommend no harvesting areas or other measures to reduce the risk.

Landslide events are assessed and may be recorded using the Landslide Report Form to determine root cause and any action items required to mitigate the impact.

Harvesting activities conducted by Teal include those activities conducted by contractor and sub-contractors within the TFL.

Monitoring

The Environmental Department tallies the number of landslide events from the Landslide Report Forms, and reported under “Current Status and Results”.

Government agencies also do periodic inspections (cross reference the Compliance Tracker or FS107 spreadsheet).

Forecast

Local knowledge indicates that generally, landslides relating to recently harvested blocks occur during the fall and winter when rainfall is the highest and soils are saturated, however, timing and location of landslides is difficult to predict. Teal continues to do regular inspections, Terrain Stability assessments and follow Standard Operating Procedures in order to prevent potential for contributing to events. Therefore, it is anticipated that while Teal will aim for zero landslides, there will continue to be landslides within the DFA, and the number generally within the allowable variance.



Indicator H3-4: Restoration of Erosion Hazards

Erosion hazards are rated 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., downslope resources such as human safety, fisheries/ water quality, and landbase). Reducing erosion hazards may include, but are not limited to, slope re-vegetation, road deactivation or rehabilitation.

Teal is responsible to inspect and maintain all roads built post 1995. However they have no obligation for roads built prior to 1995, unless they have a road permit. The government provides funding through the Forest Investment Account, which may be available to Teal for watershed restoration activities that result in the reduction of erosion hazards.

Value	Objective	Indicator	Target	Acceptable Variance
Soil	Protection of forest soils	Number of activities related to restoration of significant erosion hazards resulting from roads	Mitigate high erosion hazards on a priority basis	Activities completed as funding is available

Current Status & Results

Year	# of Restoration Activities	Location	Target Met (Y/N)	Variance
2009	1	Cheewhat	Y	0
2008	1	Project Evaluation	Y	0
2007	1	Project Evaluation	Y	0
2006	0	N/A	Y	0

In 2009, Teal, in partnership with BCTS, built a sediment basin on the Cheewhat (drainage contributes a lot of sediment to a valuable salmon area) and is conducting a multi-phase, multi-year project to improve conditions.

In 2008, the Effectiveness Evaluation project was completed.

Strategy

The majority of roads that are no longer under permit to Teal (and were built prior to 1995) have been risk ranked. Teal has been systematically treating high hazard roads to reduce the hazard rating, as funding permits.

Monitoring

Completed projects are inspected and tracked through the Forest Investment Account and the results are reported under "Current Status and Results".



Forecast

Teal is committed to continuing this work, provided government funding is available. At the current funding level, this work will require greater than 10 years to complete (budgets are in the millions of dollars), however, it is predicted that funding will be available in the future.

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Indicator H3-5: Reportable Spills to Land

Reportable Thresholds for common hazardous materials products used in forestry operations:

- Petroleum Products >100L
- Pesticides >5L
- Fertilizer >100kg
- Antifreeze >5L

Value	Objective	Indicator	Target	Acceptable Variance
Soil	Protection of forest soils	Number of reportable spills of hazardous materials to land	Zero	1 spill per year

Current Status & Results

Year	# of Reportable Spills to Land	Quantity of Product Spilled (L)	Type of Product	Target Met (Y/N)	Variance
2009	0	N/A	N/A	Y	0
2008	1	130L	Hydraulic Oil	N	+1
2007	3	200L	Hydraulic Oil	N	+3
		+/- 200L	Aviation Fuel (Jet B)		
		+/- 200L	Hydraulic Oil		
2006	1	+/- 160L	Hydraulic Oil	N	+1

In 2009, there were no reportable spills.

In 2008, there were two spills to land investigated, one was determined to be reportable. In both cases equipment failure was noted as the cause of the spill and hydraulic oil was spilled on the gravel surface of roads. All spills were cleaned up promptly and appropriate government agencies were notified for the reportable spill.

Strategy

On an on-going basis, Teal updates their Emergency Preparedness and Response Plan – Spill Contingency Plan. The plan is implemented throughout the year and includes many strategies to prevent and prepare for spills, including training requirements, response equipment requirements, emergency action plans, etc.

The Corporate Management System requires crews to report all spills to their supervisors. Supervisors are required to record details and make reports as required. All spills are assessed and may be recorded using the Spill Report Form to determine root cause and any action items required to mitigate the impact.



Monitoring

The Environmental Department tallies the number of reportable spills to land from the Spill Report Forms, and reports under “Current Status and Results”. Government agencies also do periodic inspections (cross reference the Compliance Tracker or FS107 spreadsheet).

Forecast

Teal continues to do regular maintenance and inspections, and follow Emergency Preparedness and Response Procedures in order to prevent and respond appropriately to events. Therefore, it is anticipated that while Teal will aim for zero spills, there will continue to be reportable spills within the DFA, the number generally within the allowable variance.



Indicator H3-6: Coastal Watershed Assessments

A Watershed Assessment is required before any Forest Development Plan is planned within a Community Watershed. A Watershed Assessment may also be required in watersheds that are determined to have significant sensitivity, significant downstream fisheries values, or licensed domestic water users.

The Watershed Assessment is an analytical procedure to help Forest Managers understand the type and extent of current water-related problems that may exist in a specific watershed, and to recognize the possible hydrological implications of proposed forestry or restoration activities in that watershed. The Watershed Assessment considers the cumulative effects of forest practices on the aquatic environment. The assessment of hydrological impacts focuses on:

- 1) potential for changes to peak stream flows
- 2) potential for accelerated landslide activity
- 3) potential for accelerated surface erosion
- 4) channel bank erosion and changes to channel morphology as a result of harvesting riparian vegetation
- 5) potential for change to the stream channel
- 6) interaction of all of these processes, an evaluation of which indicates the sensitivity of the watershed to further forest development

The Assessment also draws attention to natural processes occurring in the watershed. Using the results of a Watershed Assessment, Forest Managers can make recommendations to prevent or mitigate the impacts of forestry-related activities in the watershed. Results can also be used to guide watershed restoration activities.⁸

Value	Objective	Indicator	Target	Acceptable Variance
Water	Protection of water resource	Number of Coastal Watershed Assessments adhered to in operational planning	3 (Gordon River, Harris/Hemmingsen & Hatton Creek)	Zero

Current Status & Results

This indicator was revised slightly in February 2007 to provide clarification of the indicator. All proposed harvesting activities conform with the requirements of these Coastal Watershed Assessments (zero non-compliances have been issued).

Year	% Conformance with CWAPs	CWAPS	Target Met (Y/N)	Variance
2009	100	Gordon River, Hatton Creek	Y	0
2008	100	Gordon River	Y	0

⁸ Forest Practice Code Coastal Watershed Assessment Procedure Guidebook, April 1999



Year	% Conformance with CWAPs	CWAPS	Target Met (Y/N)	Variance
2007	100	Gordon River, Harris/Hemmingsen, Hatton Creek	Y	0
2006	100	Gordon River, Harris/Hemmingsen, Hatton Creek.	Y	0

In 2009, 3 blocks were assessed (5021 Hatton (Caycuse), 7262 Gordon and 7253 KRK Creek (Gordon). Hatton Creek Basin update of watershed assessment was also completed (Dec. 9, 2009)).

The Gordon CWAP is currently being updated to re-calculate the Equivalent Clearcut Areas.

Three Coastal Watershed Assessment Procedures (CWAP's) have been completed within TFL 46. They were updated in October 2004 to address proposed harvesting and road building activities under an FDP amendment.

- Gordon River CWAP (updated in November 2002, October 2004, in progress 2007/2008)
- Harris/ Hemmingsen CWAP (updated in December 2001, October 2004)
- Hatton Creek CWAP (updated in July 2001, October 2004)

Strategy

When proposed harvesting activities are planned to be located within these watersheds, the Coastal Watershed Assessments are used to guide layout of the cutblock, for example, timing restrictions and size of the cutblock, management surrounding streams, etc.

Teal will continue to utilize Coastal Watershed Assessments to guide management decisions in these watersheds.

Monitoring

The Forestry & Engineering Department determine conformance with Coastal Watershed Assessment by tallying the number of Coastal Watershed Assessments adhered to in operational planning and development. Information pertaining to updates or revision dates to the plan is also reported. The results are reported under "Current Status and Results".

Government agencies (MoFR) also do periodic inspections (cross reference the Compliance Tracker or FS107 spreadsheet).

Forecast

Coastal Watershed Assessments are not a legislated requirement under the Forest and Range Practices Act, however, Teal continues to utilize these assessments as valuable tools. It is therefore anticipated that the target is the forecast.



Indicator H3-7: Reportable Spills to Water

Any amount of hazardous material accidentally spilled into water must be reported.

Value	Objective	Indicator	Target	Acceptable Variance
Water	Protection of water resource	Number of reportable spills of hazardous materials to water	Zero	1 spill per year

Current Status & Results

Year	# of Reportable Spills to Water	Quantity of Product Spilled (L)	Type of Product	Target Met (Y/N)	Variance
2009	0	N/A	N/A	Y	0
2008	0	N/A	N/A	Y	0
2007	0	N/A	N/A	Y	0
2006	0	N/A	N/A	Y	0

To date, Teal has not had any reportable spills to water within TFL 46.

The Corporate Management System requires crews to report all spills to their supervisors. Supervisors are required to record details and make reports as required.

Strategy

On an on-going basis, Teal updates their Emergency Preparedness and Response Plan – Spill Contingency Plan. The plan is implemented throughout the year and includes many strategies to prevent and prepare for spills, including training requirements, response equipment requirements, emergency action plans, etc.

All spills are assessed and may be recorded using the Teal Spill Report Form to determine root cause and any action items required to mitigate the impact.

Monitoring

The Environmental Department tallies the number of reportable spills to water from the Spill Report Forms, and reports under “Current Status and Results”.

Government agencies (MoFR) also do periodic inspections (cross reference the Compliance Tracker or FS107 spreadsheet).

Forecast

Teal continues to do regular maintenance and inspections, follow Emergency Preparedness and Response Procedures and take extra precaution around waterbodies in order to prevent and respond appropriately to events. Therefore, it is anticipated that while Teal will aim for zero spills, there will continue to be reportable spills within the DFA, the number generally within the allowable variance.



Indicator H3-8: Riparian Reserve Zones

Riparian habitat occurs next to the banks of streams, lakes, and wetlands; it includes both the area dominated by continuous high moisture content and the adjacent upland vegetation that exerts an influence on it. The Riparian Management Area consists of a legislated Riparian Management Zone and, where required, a Riparian Reserve Zone (see figure below). In most cases, no harvesting is permitted within the Riparian Reserve Zone. The width of these zones are set in regulation or within the Forest Stewardship Plan and are determined by characteristics of streams, wetlands or lakes, and adjacent terrestrial ecosystems.

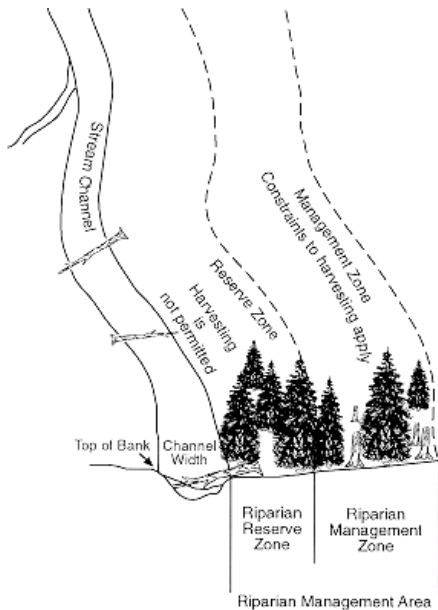


Figure 1: Riparian Management Area showing the application of a Riparian Management Zone and a Riparian Reserve Zone along the stream channel.⁹

Value	Objective	Indicator	Target	Acceptable Variance
Fisheries	Protection of fisheries resources	Retention of Riparian Reserve Zones	Full retention of Riparian Reserve Zones adjacent to fish bearing streams	Zero

Current Status & Results

Year	% Retention of RRZ	Target Met (Y/N)	Variance
2009	100	Y	0
2008	100	Y	0
2007	100	Y	0

⁹ Forest Practices Code Riparian Management Area Guidebook, December 1995



2006	100	Y	0
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In 2009 and 2008, there were no issues with retention of RRZ reported under any of the internal or C&E inspections.

Strategy

During the planning stages of cutblock development, streams are mapped, classified and their characteristics are assessed. Prescriptions are developed based on these classifications, assessments and legislated requirements. Where Riparian Reserves Zones are required, they are marked in the field according to the Teal Field Marking Procedures. These reserves are also mapped and maps are used to guide harvesting and other activities.

Each cutblock is inspected internally post harvest to ensure the plan was followed. External inspections may also be performed by government agencies. If any portion of a Riparian Reserve Zone for a fish bearing stream was harvested (not including road right of ways) an Incident Investigation Form is completed.

Monitoring

The Environmental Department reviews the Incident Investigation Forms and reports the results under "Current Status and Results".

Government agencies (MoFR) also do periodic inspections (cross reference the Compliance Tracker or FS107 spreadsheet).

Forecast

It is anticipated that Teal will always retain the full Riparian Reserve Zone, therefore, the target is the forecast.



Indicator H3-9: Riparian Management Zones

Riparian habitat occurs next to the banks of streams, lakes, and wetlands; it includes both the area dominated by continuous high moisture content and the adjacent upland vegetation that exerts an influence on it. The Riparian Management Area consists of a legislated Riparian Management Zone and, where required, a Riparian Reserve Zone (see figure below). In most cases, no harvesting is permitted within the Riparian Reserve Zone. The width of these zones are set in regulation or within the Forest Stewardship Plan and are determined by characteristics of streams, wetlands or lakes, and adjacent terrestrial ecosystems.

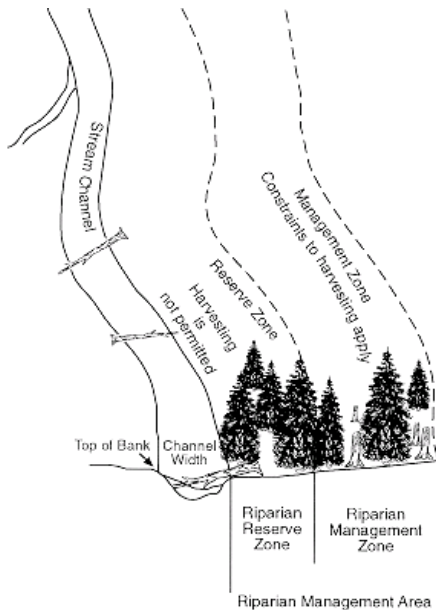


Figure 1: Riparian Management Area showing the application of a Riparian Management Zone and a Riparian Reserve Zone along the stream channel.¹⁰

Value	Objective	Indicator	Target	Acceptable Variance
Fisheries	Protection of fisheries resources	Percent retention in Riparian Management Zones	25-100% basal area retention within the RMZ of all streams class S1-S4	Zero

Current Status & Results

Year	% Retention of RMZ	Target Met (Y/N)	Variance
2009	25-100	Y	0
2008	25-100	Y	0
2007	25-100	Y	0

¹⁰ Forest Practices Code Riparian Management Area Guidebook, December 1995



2006	25-100	Y	0
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In 2009 and 2008, there were no issues with retention of RMZ reported under any of the internal or C&E inspections. Currently, Teal tracks RMZ retention on a per cutblock basis and ensures that the target retention levels are met for each cutblock.

Strategy

During the planning stages of cutblock development, streams are mapped, classified and their characteristics are assessed. Prescriptions are developed based on these classifications, legislated requirements and assessments (including terrain stability and risk of windthrow). Where Riparian Management Zones are required, they are marked in the field according to the Teal Field Marking Procedures. These RMZs are also mapped and maps are used to guide harvesting and other activities.

Each cutblock is inspected internally post harvest to ensure the plan was followed. If any portion of a Riparian Management Zone for a fish bearing stream was not harvested according to the plan (not including road right of ways), an Incident Investigation Form is completed. External inspections may also be performed by government agencies.

Monitoring

The Environmental Department reviews the Incident Investigation Forms and reports the results under "Current Status and Results".

Government agencies (MoFR) also do periodic inspections (cross reference the Compliance Tracker or FS107 spreadsheet).

Forecast

It is anticipated that Teal will always retain a portion of the Riparian Management Zone (i.e., to protect the Riparian Reserve Zone from windthrow, provide buffers to harvesting, etc.), therefore, the target is the forecast.



Indicator H3-10: Fisheries Sensitive Features

Fisheries Sensitive Zones include: 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.¹¹

For the purposes of this indicator, fisheries related projects refers to any projects related to water quality, watershed restoration, gully restoration, fish inventories, hydrometric station measurements, stream mapping and classification or riparian treatments.

Value	Objective	Indicator	Target	Acceptable Variance
Fisheries	Protection of fisheries resources	Management of Fisheries Sensitive Features	Minimum of 20% of the annual FIA budget for TFL 46 to be spent on fisheries related projects	-10% (no restrictions on upper limit)

Current Status & Results

Year	Total Annual FIA Budget (\$)	Total Spent on Fisheries Related Projects (\$)	% of Budget	Target Met (Y/N)	Variance
2009/2010 Fiscal	341,000	110,000	32	Y	0
2008/2009 Fiscal	220,167	27,608	13	N	-7
2007/2008 Fiscal	284,164	131,116	47	Y	0
2006/2007 Fiscal	257,989	61,318	24	N/A	N/A

In 2009, Teal spent 32% of the FIA budget on fisheries related projects, including the Cheewhat Sediment Basin, Harris Creek maintenance (increase rearing and spawning habitat for Coho and Chinook) and maintenance of the Renfrew Hydrometric/ climatic stations.

In 2008, Teal spent only 13% of the FIA budget on fisheries related projects, which does not meet the target, however is within the allowable variance. In association with BCTS there is a fish passage project currently being pursued within the TFL. In addition further work on the Harris Creek project is required in the next few years so it is expected that Teal will meet the target in the near future.

Strategy

Current management of fisheries sensitive features within TFL 46 is on a case by case basis (i.e., each feature is considered as they are located). In general, management strategies include leaving buffers, implementing timing constraints or specific road construction methods, etc. Note: these features are not that common within the TFL.

¹¹ Source: Forest and Range Practice Act, Forest Planning and Practices Regulation, Part 1 Interpretation



Annually, a Land Based Investment Rationale is completed for the TFL which establishes the priorities for FIA related projects. Teal will continue to place priority on completion of fisheries related projects.

Monitoring

The Environmental Department reviews the summary of annual Forest Investment Account projects completed in a given year reports the results under “Current Status and Results”.

Forecast

It is anticipated the target will be consistently met (provided there are no significant changes to the FIA program) as fisheries is a high priority in the DFA.



Indicator H3-11: Fish Barriers

In some cases, old road building methods created barriers to fish passage in fish streams.

Value	Objective	Indicator	Target	Acceptable Variance
Fisheries	Protection of fisheries resources	Number of fish barriers resulting from old road building methods (e.g., steep culverts) addressed as referrals received from outside sources	Fish barriers are addressed where operationally feasible	Zero

Current Status & Results

Year	# of Fish Barriers	# of Fish Barriers Addressed	Target Met (Y/N)	Variance
2009	0	0	Y	0
2008	0	0	Y	0
2007	12	0	Y	0
2006	0	0	Y	0

In 2009, there were no fish barriers noted.

A project was completed in 2002-2003 under the former tenure holder to identify fish barriers on old roads. The report was reviewed in 2006 and it was determined that the project identified twelve sites that represented a barrier to fish migration. The sites were given a priority ranking of high, medium or low. Teal will review the assessment report to determine the number of fish barriers that are located in the TFL (i.e., all 12 that have been identified within the report may not be located within TFL 46), and is committed to allocating FIA funds to address the barriers, where available.

There have been no fish barriers from old roads that were identified through referrals from outside sources since Teal has operated in the TFL.

Strategy

Fish barriers caused by old road building methods are discovered during internal assessments or referrals from outside sources. When fish barriers are discovered, they are mapped and/ or added to the inventory and included in future Forest Investment Account, Watershed Restoration projects.

Monitoring

The Environmental Department summarizes the completed Forest Investment Account projects related to fish barriers and reports the results under "Current Status and Results".



Forecast

A project was completed in 2002-2003, under the former tenure holder, to identify all fish barriers on old roads within the TFL. Based on this information it is anticipated that very few external referrals will be received that identifies additional sites.



Indicator H3-12: Bridge & Major Culverts

The intent of this indicator is to ensure water quality is maintained through the regular inspection and prompt maintenance on bridges and major culverts.

Value	Objective	Indicator	Target	Acceptable Variance
Water	Protection of water resource	Bridge & Major Culvert repairs	All structures with a high risk of damage to the environment or safety are repaired within the next weather (fisheries) window	Zero

Current Status & Results

Year	# Structures at high risk of damage to the environment or safety issues	# Repairs made to structures with high risk of failure	Target Met (Y/N)	Variance
2009	2	2	Y	0
2008	2	2	Y	0

In 2009, bridge and culvert inspections revealed two bridges where guardrails needed to be replaced (HBS95-C and HBS95-D). Teal repaired these soon after they were discovered (within the same operating season as they were identified).

In 2008, bridge & culvert inspections revealed two major culverts on McClure Mainline where stringers were separating and causing some sedimentation to the creeks (also a road safety issue). Teal repaired these culverts soon after they were discovered (within the same operating season as they were identified).

Strategy

The Forestry & Engineering Department maintains an inventory of bridges and major culverts within the TFL. Wood structures are inspected at least once per year, steel structures are inspected at least once per every 3 years, but usually once per year. Inspections forms are used to record information, including pictures. Any required repairs/ replacements are noted on the form and entered into the operational tracking system. Repair priorities are based on resources and volume of traffic.

Monitoring

The Environmental Department summarizes the number of repairs made to bridges or major culverts each year, and compares with the number of structures that were deemed to be a high risk in inspections. The results under “Current Status and Results”.

Forecast

In all cases where there is either a high risk to the environment or safety concerns repairs are a top priority, therefore, it is anticipated that the target is the forecast.



Indicator H4-1: Successful Regeneration

Value	Objective	Indicator	Target	Acceptable Variance
Natural ecological cycles	Accelerate forest growth to maximize carbon absorption	Successful regeneration (average time required to reforest a cutblock)	Full compliance with regeneration delay requirements in approved stocking standards	Zero

This indicator was originally developed under the Ecosystem Resilience and Productivity, see indicator H2-1 for more details on the current status and results, strategy, monitoring and forecast for this indicator.



Indicator H4-2: Long Term Products

Wood products such as lumber, shake and shingles, etc. are considered 'Long Term Products' as they do not break down as quickly as short term products, such as paper.

Value	Objective	Indicator	Target	Acceptable Variance
Natural ecological cycles	Minimize negative impacts of harvesting on natural global ecological cycles	Percent of volume harvested converted to long term products (e.g., solid wood) versus short term products (e.g., pulp)	80% per year	10%

Current Status & Results

Year	Volume of Long Term Products (m ³)	Total Volume Harvested (m ³)	%	Target Met (Y/N)	Variance
2009	176,813.7	208,340.1	84.9	Y	+4.9
2008	272,038.2	306,073.5	89.0	Y	+9.0
2007	291,177.6	296,940.4	98.0	Y	+18.0
2006	367,334.7	373,724.5	98.3	Y	+18.3

From May 2004 until December 2005, approximately 93% of the volume of wood harvested from the TFL was converted to long-term products (Teal has operated within the TFL since May 2004).

Strategy

On a corporate level, Teal is continually aiming to improve utilization of the timber resource. They have recently built a sawmill in the lower mainland that enables them to mill logs with a diameter of 4 inches into long-term products such as lumber.

Wherever possible, Teal utilizes timber harvested from TFL 46 in their own lumber mills in the lower mainland, or commonly they sell specific products to local mills on Vancouver Island.

Monitoring

The Accounting and Log Departments review the log sales and reports the results under "Current Status and Results".

Forecast

It is estimated that this target will be exceeded. Provided the economic conditions allow for business expansion, Teal's long term future goal is to further increase utilization to a diameter of 2 inches by purchasing new equipment for the mills.



Indicator H4-3: Conversion of Forest Lands

Conversion of forest lands to other uses may include proposals for mining, industrial development, utility corridors, etc.

Value	Objective	Indicator	Target	Acceptable Variance
Forest Land	Minimize conversion of forests to other uses	Review and respond to proposals for conversion of forested lands to non-forest uses	Evaluate and respond to 100% of all formal proposals	Zero

Current Status & Results

Year	#of Proposals for Conversion of Forested Lands	# of Responses	% of Responses	Target Met (Y/N)	Variance
2009	0	0	N/A	Y	0
2008	0	0	N/A	Y	0
2007	0	0	N/A	Y	0
2006	0	0	N/A	Y	0

In 2009 and 2008, there were no changes to the status of the forest lands in the TFL.

Strategy

All proposal correspondence and their respective responses from Teal are filed in the external communications file.

Monitoring

The Environmental Department reviews the external communications file and any proposals for conversion of forest lands are summarized under "Current Status and Results".

Forecast

As it is in the best interest of Teal to minimize forest land loss, it is anticipated that the target is the forecast.



Indicator H4-4: Soil Conservation

Value	Objective	Indicator	Target	Acceptable Variance
Access structures are built and maintained for long term uses to support forest maintenance/silviculture, fire protection, recreation while also protecting the soil resource	Annual percent of opening areas in permanent access structures	Compliance with soil conservation limitations (permanent access structures and soil disturbance limits)	100%	Zero

This indicator was originally developed under the Ecosystem Resilience and Productivity Criterion, see indicator H2-6 for more details on the current status, strategy, monitoring and forecast for this indicator.



Indicator H4-5: Coarse Woody Debris

Teal must maintain the Coarse Woody Debris left on site within the legal limits, including the burning of roadside piles to abate the fire hazard. However, the dispersal of Coarse Woody Debris throughout the block or reduction of roadside pile burning is preferable. The intent of this indicator is to document improvement over the course of several years through various initiatives. In addition to minimizing the carbon emissions, the goals include maintenance of biodiversity/ habitat, cost effective operations and a reduction in fire hazard.

Value	Objective	Indicator	Target	Acceptable Variance
Natural Ecological Cycles	Minimize negative impacts of harvesting on natural global ecological cycles	Coarse Woody Debris Program	Report on status of Coarse Woody Debris Program a minimum of once per year	Zero

Current Status & Results

This indicator was developed in 2007 and 2008.

Year	Report on status of CWD program (Y/N)	Target Met (Y/N)	Variance
2009	N	N	0

The Coarse Woody Debris Program was reviewed at the February 24th, 2010 meeting.

Strategy

In 2008, a program will be developed for Coarse Woody Debris. After approval by Teal management, the program will be reviewed with SIPAG members. Each year following a summary of the status of the program will be reported to SIPAG.

Monitoring

The Environmental Department will review the SIPAG meeting minutes to ensure reporting has been completed within the calendar year. Results will be reported under the Current Status and Results.

Forecast

It is anticipated that Teal will report on the status of the Coarse Woody Debris program annually, therefore, the target is the forecast.



Indicator H5-1: Annual Harvest Levels

The sustainable harvest level (referred to as Allowable Annual Cut) is determined by the Chief Forester and reviewed every 5 years after the date of the last determination in the Timber Supply Review. Under the Forest Act, section 7, the Chief Forester must consider ecological, social, economic and cultural factors in his/ her determination, for example:

- the rate of timber production that may be sustained on the area, taking into account the current state, prescribed management regime and expected future conditions
- the short and long term implications to the Province of alternative rates of timber harvesting from the area
- the nature, production capabilities and timber requirements of established and proposed timber processing facilities
- the economic and social objectives of the Crown, as expressed by the minister for the area, the general region and the Province

Value	Objective	Indicator	Target	Acceptable Variance
Timber	Sustainable harvest levels	Annual harvest levels relative to the volume of harvesting determined to be sustainable in the Allowable Annual Cut Determination	100% compliance with Allowable Annual Cut over Cut Control Period	Harvest levels may exceed AAC by 10% per Cut Control Period, however the excess amount is subtracted from the following Cut Control Period. Where harvest levels are below AAC in a Cut Control Period, un-harvested portions may be assigned to other licensees

Current Status & Results

The current cut control period is 2008-2012 (January 1-December 31).

Year	AAC (m ³)	Harvested (m ³)	% Compliance with Cut Control	Target Met (Y/N)	Variance
2009	367,363	225,780	61%	Y	-39%
2008	367,363	324,802	88%	Y	-12%
2003-2007	2,083,286	2,080,755	99.9%	Y	-0.01%



Strategy

Scaled volumes from the Dryland Sort and the Salvage Supervisor (as well as waste and residue volume) is reported electronically to the Ministry of Forest and Range (MoFR), Forest Analysis Branch. Annually, a cut control letter is also issued by MoFR that includes calculations of volume harvested versus AAC and percentage compliance with cut control.

Monitoring

This Operations Manager determines compliance with the Allowable Annual Cut by comparing the actual annual harvest volume, over a five year period with the Allowable Annual Cut for that time period. Results will be summarized under “Current Status and Results”.

Government agencies also do periodic inspections (cross reference the Compliance Tracker or FS107 spreadsheet).

Forecast

It is anticipated that the Allowable Annual Cut will not have any further significant changes in the next Timber Supply Review. While markets for timber products continue to be a challenge, it is anticipated that Teal will continue at a reduced cut rate until markets improve.



Indicator H5-2: Managed Minor Forest Products

Managed Minor Forest Products include post harvest material and damaged timber. Harvesting of these products is tracked and Teal is required to pay stumpage on the volume harvested.

Post harvest material is material recovered following primary harvesting and is generally material that was left on site due to economics (i.e., the cost of yard and hauling is greater than the value of the material using primary harvest methods), or may be material resulting from bridge or culvert deactivation. These products are generally recovered in the form of: shakes and shingles; blocks and bolts; cants; fence rails; hop poles; etc.

Damaged timber generally consists of timber felled to eliminate safety hazards or timber damaged by natural disturbances (e.g., wind, insects, snow, etc.). These products are generally recovered in the form of logs.

Value	Objective	Indicator	Target	Acceptable Variance
Minor Forest Products	Improve utilization of forest through Minor Forest Products harvesting	Annual volume (cubic metres) of Managed Minor Forest Products harvested (Douglas fir and cedar salvage)	Provide opportunities for Managed Minor Forest Products as requested and as available	Zero

Current Status & Results

Year	Total Salvage volume harvested (m ³)	Target Met (Y/N)	Variance
2009	7,096.0	Y	N/A
2008	12,625.3	Y	N/A
2007	4,281.74	Y	N/A
2006	3,261.97	Y	N/A

In 2009, total special forest products volume was 3,195m³ (includes shake & shingle, cants, firewood, bolts/ blocks/ blanks) and windthrow/ danger tree log salvage volume was 3,400m³. In addition, a small road right of way project with the Pacheedaht First Nations was completed in 2009: the alder and conifer trees where salvaged along the Harris Creek Mainline right of way to abate possible hazards (205m³ of alder and 295m³ of conifer where salvaged).

In 2008, total special forest products volume was 496m³ (includes shake & shingle, cants, firewood, bolts/ blocks/ blanks) and windthrow/ danger tree log salvage volume was 12,129m³.

Strategy

Minor Forest Products are scaled and the volume harvested is reported electronically to the Ministry of Forest, Forest Analysis Branch.



Monitoring

The Stumpage Supervisor reviews the annual volume harvested through Minor Forest Products and reports under “Current Status and Results”.

Government agencies (MoFR) also do periodic inspections (cross reference the Compliance Tracker or FS107 spreadsheet).

Forecast

It is predicted that the annual volume of Minor Forest Products harvested will remain fairly constant in the short-term, however, over the long term the volume available may decrease to reflect changes in harvesting methods.



Indicator H5-3: Unmanaged Minor Forest Products

Unmanaged Minor Forest Products may include mushrooms, salal, firewood, etc. any products in which the harvesting is not formerly tracked through government agencies.

Value	Objective	Indicator	Target	Acceptable Variance
Minor Forest Products	Improve utilization of forest through Minor Forest Products harvesting	Opportunities for Unmanaged Minor Forest Products harvesting initiatives	Provide support for Unmanaged Minor Forest Products harvesting initiatives as requested and as available	Local ecology, wildlife habitat, biodiversity, etc. are considerations with any harvesting proposal

Current Status & Results

Year	# of Requests	# of Responses	Target Met (Y/N)	Variance
2009	0	0	Y	0
2008	1	1	Y	0
2007	26	26	Y	0
2006	24	24	Y	0

In 2009, no requests were received for minor forest products. Wilderness Watch did not administer any firewood permits.

In 2008, Teal received one inquiry with regards to mushroom picking. Wilderness Watch was unable to sell any firewood permits due to administrative delays.

Strategy

Where Teal is aware of Unmanaged Minor Forest Product harvesting projects they will provide support as requested and as available. Often support takes the form of provision of maps, issuing permits (firewood) or verbal discussions.

Monitoring

The Environmental Department reviews the external communications file and confirms with Wilderness Watch representative (for firewood permits). Requests for Unmanaged Minor Forest Products harvesting opportunities are reported under "Current Status and Results".

Forecast

Generally, the public does not issue requests for unmanaged minor forest products to Teal, however, in those cases where they are made, it is anticipated that Teal will assist however possible (i.e., provide maps, etc.).



Indicator H5-4: Visual Quality Objectives

A Visual Quality objective is a resource management objective established by the Ministry of Forests and Range or contained in a Higher-Level Plan; these objectives reflect the desired level of visual quality based on the physical characteristics and social concern for the area.¹²

Value	Objective	Indicator	Target	Acceptable Variance
Recreation & Tourism	Visual Quality	Compliance with Visual Quality Objectives in visually sensitive areas	100% (Zero non-compliances)	1 non-compliance

Current Status & Results

Year	# of Blocks Located Within Scenic Areas	% Compliance with VQOs	Target Met (Y/N)	Variance
2009	3	100	Y	0
2008	3	100	Y	0
2007	0	N/A	Y	0
2006	13	100	Y	0

In 2009, there were three harvested cutblocks located within scenic areas. Zero non-compliances were issued in relation to visual quality objectives.

In 2008, there were three harvested cutblocks located within scenic areas. Zero non-compliances were issued in relation to visual quality objectives.

Strategy

Within Visually Sensitive Areas, visual design concepts and principles are incorporated into block and road design. Each proposed cutblock is assessed using modeling tools to predict the impact of proposed cutblock design on the landscape and determine if the visual impact is within the objective limits. Where proposed block size and shapes do not meet Visual Quality Objectives, cutblock design is modified.

In some cases, Teal also carries out post harvest assessments of visual impact following harvesting to determine whether the objective was achieved. When completed, these are filed within the area files.

Monitoring

The Forestry & Engineering Department reviews the cutblock and area files for compliance with Visual Quality Objectives, and report the results under “Current Status and Results”.

Government agencies (MoFR) also do periodic inspections (cross reference the Compliance Tracker or FS107 spreadsheet).

¹² Forest Practice Code Guidebook Visual Impact Assessment January 2001



Forecast

Teal assess all blocks located within Visually Sensitive Areas, and design blocks to meet Visual Quality Objectives. Therefore, it is anticipated that the target is the forecast.

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Indicator H5-5: Sites of Special Significance

Value	Objective	Indicator	Target	Acceptable Variance
Special sites	Manage rare or unique sites of ecological, geological, historical or cultural importance in a manner that recognizes their special qualities	Number of special biological sites	Spatially track all special sites identified (outside of OGMA, WHA, etc.)	Zero

This indicator was originally developed under the Biological Diversity Criterion, see indicator H1-12 for more details on the current status, strategy, monitoring and forecast for this indicator.



Indicator H5-6: Public Access

Value	Objective	Indicator	Target	Acceptable Variance
Wildlife, Hunting & Fishing	Provide access to hunting and fishing grounds while minimizing risk to wildlife	Public Access	Public has full access to TFL (open gate policy)	Public access is restricted where safety, vandalism or wildlife poaching are concerns. Wilderness Watch volunteers or other conservation groups may be given keys to closed gates as requested, on a case by case basis

Current Status & Results

Year	Access to TFL (open gate policy)	Target Met (Y/N)	Variance
2009	Yes	Y	0
2008	Yes	Y	0
2007	Yes	Y	Keys and updated maps will be provided to Wilderness Watch by March 2008
2006	Yes	Y	0

In 2009 and 2008, keys and maps were provided to Wilderness Watch representatives, as requested.

Strategy

Teal currently maintains an open gate policy. Gates are closed in the Tuck Lake area (at the request of the Ministry of Environment to aid in protecting Elk populations) and in active areas (where logging equipment is parked).

Teal is committed to working cooperatively with Wilderness Watch volunteers to ensure that keys, maps, etc. are provided as required. On-going communication will ensure that keys and maps are provided as required.

Monitoring

The Environmental Department will contact Wilderness Watch annually (at a minimum) to confirm the group is provided with keys for gates within the TFL. Correspondence with other parties is filed in the corporate file system. Comments will be reported under "Current Status and Results".



Forecast

Teal maintains a full public access policy on the TFL. However, public access may be restricted where safety, vandalism or wildlife poaching are concerns (through the use of locked gates). Wilderness Watch volunteers or other conservation groups may be given keys to closed gates as requested, on a case by case basis.



Indicator H5-7: Full Time Jobs

A full time equivalent calculation is used to measure this indicator due to the nature of jobs in the forest industry (i.e., there are commonly shutdowns due to high fire hazards, heavy rainfall, snow or other weather factors). For the purposes of the SFM, a full time equivalent job is defined as 1700 hours per year (or 210 working days per year, 8 hours per day), which is estimated to reflect the average number of operating days in a normal year.

This indicator measures only direct employment, spin-off (or indirect) employment is not included at this time.

Value	Objective	Indicator	Target	Acceptable Variance
Employment	Stable, full time jobs provided from TFL 46	Number of full time, direct jobs (employees and full phase contractors)	110	The intent of this indicator is to provide a general idea of the number of people employed by harvesting within the TFL, results will fluctuate over time.

Current Status & Results

This indicator was reviewed at multiple meetings in 2006 and finalized in October 2007.

Year	# of Full Time Jobs	Target Met (Y/N)	Variance
2009	8 (Teal-HBO) 2 (Teal-Corporate) 96 (IPL) 19 (other contractors) 8 (short term contracts) Total = 133	Y	N/A
2008	16 (Teal-HBO) 2 (Teal-Corporate) 109 (IPL) 33 (other contractors) 19 (short term contracts) Total = 179	Y	N/A
2007	7 (Teal-HBO) 2 (Teal-Corporate) 76 (IPL) 22 (other contractors) 4 (short term contracts) Total = 111	Y	N/A
2006-2005	156	N/A	N/A

In 2009, a significant clean up of the INTRAC data base was completed which would partially account for the reduction in the number of full time jobs. The number of full time jobs for Teal and Primary Contractors



is an estimate, based on training records, not on the 'full time equivalent' formula used in previous years. Invoicing information was utilized to determine full time equivalent (based on the formula) for contractors. It was also noted that some contractors are hired via the corporate office, and therefore, are not accounted for in the contractors. This will be improved in next year's report.

In 2008, the number of full time jobs for full phase and subcontractors appeared to be higher than previous years, however this number is an estimate based on training records for contractors, not on the 'full time equivalent' formula used in previous years. At the time of the report invoicing information was not available due to extended shutdowns of Teal staff. Results for this indicator will be reconsidered when this information becomes available.

Strategy

The number of full time jobs for Teal Staff and hourly employees is calculated using the total number of hours worked divided by the full time equivalent calculation, or the number of full time employees that are recorded within the training database (INTRAC). Only operational staff are included, however it is assumed that two full time jobs could be attributed to the Honeymoon Bay Operation from the Corporate Staff (one accountant and one time keeper).

The number of full time jobs for other short term contractors is calculated by tallying the number of days invoiced or the number of days recorded by the Contract Supervisor where invoicing is by production. In cases where this information is not available, an estimate will be determined based on average daily production.

Monitoring

The Administrative Department provides information on total number of active employees for Teal, Island Pacific Logging, Hayes and other contractors. The Forestry and Engineering Departments tally the local short term contractors and full time equivalents based on hours or person days within the excel spreadsheet designed to track this indicator (via invoicing or Supervisor tracking). Training records are used to confirm the number of full time Teal and primary contractors.

The Environmental Department summarizes results and reports under "Current Status and Results".

Forecast

The target is based on current employment numbers available within the INTRAC database for employees and full phases contractors (seniority lists). It is anticipated that the number of employees will change from current estimates as the database is improved and clarified.



Indicator H5-10: Hiring from Local Communities

For the purposes of the SFM, local is generally defined as those communities most directly impacted by Teal's forest management, including Lake Cowichan, Port Renfrew, Honeymoon Bay, Lake Mesachie, Youbou, and Nitinat.

Value	Objective	Indicator	Target	Acceptable Variance
Contributions to society (including local community)	Employment opportunities for local communities	Number of new employees hired from local communities	Prioritize hiring from local communities	Experience, education, and references are also considered in choosing candidates for employment

Current Status & Results

Year	# of New Hires - local	# of New Hires	Target Met (Y/N)	Variance
2009	33	34	Y	0
2008	1	1	Y	0
2007	0	0	Y	0
2006	0	0	Y	0

In 2009, one internal position was filled (Operations Manager) from Langly; this is a specialized position requiring a high level of expertise and experience. In addition a primary contractor was hired from Lake Cowichan which will be responsible for harvesting 1/3 of the allowable annual cut (estimated 33 positions based on previous years' calculations of full time equivalent jobs).

In 2008, one temporary part time position was hired from the local communities (Youbou).

Strategy

Where new employees are required, Teal will prioritize hiring from local communities. Each year the number of new employees hired and their primary residence will be tallied.

As Teal does not have any control over the hiring criteria of contractors, this indicator only applies to Teal staff and hourly employees.

Monitoring

The Administrative Department keeps records of all new employees and their primary residence within employment records. An annual summary of new employees and their resident communities will be reported under "Current Status and Results".



Forecast

Teal does not anticipate any significant number of new jobs in the near future as the Allowable Annual Cut is not expected to change significantly.



Indicator H5-12: Training Requirements

Internal training requirements are those requirements that are additional to the legally required training, including, but not limited to, the following courses:

- Job Safety Breakdowns (all staff, employees and contractors)
- Sustainable Forest Management Awareness Training (all staff, employees and contractors)
- Standard Operating Procedures (all staff, employees and contractors)
- Corporate Management System Summary (Supervisors and Managers only)

Value	Objective	Indicator	Target	Acceptable Variance
Investment in TFL Workers	Opportunities for workforce training and skill development	Percent conformance with internal mandatory training requirements	100%	10%

Current Status & Results

Year	Total # of Expired Cases*	Total # of Employees	% Conformance	Target Met (Y/N)	Variance
2009	106	124	14	N	-86
2008	116	179	35	N	-65
2007	14	165	91.5	N	-8.5
2006	30	105	71.4	N	-28.6

In 2009, the data entered into INTRAC indicated that the majority of active employees and contractors did not receive training. Discussions with Managers and Supervisors confirmed training was scheduled for Nov 2009, however, due to weather shut down it was delayed until spring. The INTRAC database was cleaned-up in 2009, however more work is required. The Management Environment Review Committee determined that the most efficient way to track training in the future is to use INTRAC for Teal staff and key primary contractor positions, and have contractors record their crew's training (to be forwarded to Teal upon request). Changes to the requirements for training have also been made (tailgate training for temporary or low risk contractors) which should help to achieve training targets.

In 2008, the data entered into INTRAC indicated that the majority of active employees and contractors did not receive training, however discussions with Managers and Supervisors indicate that training was completed. It appears that the training records are not being entered into the INTRAC database likely due to the lack of administrative staff. This indicator will be revisited and recalculated when more accurate information becomes available.

*If a person is recorded as expired for one or any combination of the required training courses, they were tallied as a single case of expired training. For example, if an employee has complete two of the three



courses required then that employee would be tallied once. If another employee didn't complete any training then they would be tallied only once.

Strategy

Those responsible for determining, controlling and maintaining job specific training requirements are identified in the Corporate Management System, Section 7.0 Structure & Responsibilities.

A Training Needs Assessment is produced from the INTRAC System database to determine and plan for training sessions as required to ensure training requirements are met.

Monitoring

Job Safety Breakdown (JSB) training is tracked by Teal for their employees and for their main contractor, Island Pacific Logging (IPL) only. Therefore, the JSB number reported above refers only to Teal and IPL employees. The Administrative Department provides an annual summary of outstanding internal training requirements and reports the summary under "Current Status and Results".

Forecast

The target has not been met in the 4 years since the indicator was developed. Teal has planned improvements for the tracking of training records which will aid in continual improvement. It is anticipated as enhancements are made to the training database and new methods of training are employed, the results will improve.



Indicator H5-13: Community Benefits

The intent of this indicator is to measure and report on money going into the community. The target is a combination of wages paid to Teal personnel and contractors, revenues paid to the crown (stumpage and taxes), contributions to local resource projects and purchasing of supplies and services from local businesses.

Value	Objective	Indicator	Target	Acceptable Variance
Contributions to society (including local community)	Assess the monetary benefits to the local community as a result of harvesting in TFL	Total dollars contributed to the local economy	Report on total dollars contributed to the local economy	The intent of this indicator is to provide a general idea of the dollars contributed to the local economy by harvesting within the TFL, results will fluctuate over time

Current Status & Results

This indicator was developed in 2007 by combining three previously developed indicators (H5-8 Revenues Paid to Crown; H5-9 Support of local resource projects; and H5-11 Local Supplies and Services and adding the wages earned by Teal personnel. Members of SIPAG expressed that they are interested in viewing the total contributions to the local economy, but are not concerned about developing a specific target or variance at this time. At over 20 million dollars, Teal provides a significant input into the local economy.

Year	Description	Total Contributions to the Local Economy	Target Met (Y/N)
2009	Revenue to the Crown or local Government	\$2,666,145	Y
	Wages paid ¹	\$11,615,762	
	Support of local Resource Projects (corporate ¹)	\$ 3,820	
	Support of local Resource Projects (FIA funded ²)	\$109,000	
	Local Supplies and Services ³	\$296,364	
	TOTAL	\$12,557,216	

Notes for 2009: ¹ Donations were made to the following: Nanaimo-Ladysmith Schools Foundation; Cowichan Arena (Lake Cowichan); and Remembrance Day Ceremony (Lake Cowichan).

² Projects include Harris Creek maintenance project (increase rearing and spawning habitat for Coho and Chinook), SIPAG meetings, and Renfrew hydrometric stations (monitoring of 5 stations)

³ An additional \$368,788 was spent on supplies & services on Vancouver Island (\$79,138 was spent on supplies and services originating elsewhere)



Year	Description	Total Contributions to the Local Economy	Target Met (Y/N)
2008	Revenue to the Crown or local Government	\$ 8,132,594	Y
	Wages paid ¹	\$8,677,920	
	Support of local Resource Projects (corporate ²)	\$ 2,520	
	Support of local Resource Projects (FIA funded ³)	\$40,528	
	Local Supplies and Services ⁴	\$280,120	
	TOTAL	\$17,133,682	
2007	Revenue to the Crown or local Government	\$ 14,319,935	Y
	Wages paid ¹	\$ 5,332,800	
	Support of local Resource Projects (corporate ²)	\$ 2,225	
	Support of local Resource Projects (FIA funded ³)	\$131,116	
	Local Supplies and Services ⁴	\$ 426,260	
	TOTAL	\$ 20,212,336	

Notes for 2008: ¹Total wages paid is estimated for all TFL employees and contractors and is based on Statistics Canada, Labour Market Information, Wages and Salaries for Logging and Forestry Labourers on Vancouver Island (2007), average hourly wage of \$25.25 (range 15.00-38.75) – due to confidentiality of wage reporting in relation to specific contracts. Calculations based on 8 hour workday, 5 days per week, 48 weeks per year, and 179 employees in TFL (see Indicator 5-7, this figure may need to be revisited).

² Donations were made to the following: Lake Days Society (Lake Cowichan); National Forestry Week; Honeymoon Bay Volunteer firefighters; Remembrance Day Ceremony (Lake Cowichan) and Lake Cowichan First Nations.

Strategy

The contribution from total wages is based on current employment numbers available within the INTRAC database for employees and full phase contractors (seniority lists).

Revenues paid to the crown generally include stumpage and taxes. Taxes are pre-adjustment figures.

Contributions to local resources projects are filed by the Corporate office and Operational staff.

Generally, Teal currently does hire local suppliers and services. However, opportunities are limited as the local communities are relatively small and frequently they are unable to meet Teal's needs. Where possible, supplies and services are hired from Southern Vancouver Island; experience, competitive pricing and capacity are also considered when choosing suppliers and services.

Total dollars contributed to the local economy is based on Statistics Canada, Labour Market Information, Wages and Salaries for Logging and Forestry Laborers on Vancouver Island (2007), average hourly wage of \$25.25 (range 15.00-38.75). Calculations based on 8 hour workday, 5 days per week, 48 weeks per year, and 110 employees in TFL.



Monitoring

The Administrative Department provides information on total number of active employees for Teal, Island Pacific Logging, Hayes and Benson View contractors. The Forestry and Engineering Departments tally the local short term contractors and full time equivalents based on hours or person days within the excel spreadsheet designed to track this indicator (via invoicing or Supervisor tracking).

The Accounting Department provides an annual summary of revenues paid to the government and these values are reported under “Current Status and Results”. Government agencies also do periodic inspections (cross reference the Compliance Tracker or FS107 spreadsheet).

Corporate staff and the Forest Investment Account coordinator provide an annual summary of contributions to resource projects.

The Accounting and Administrative Departments provide an annual summary of local suppliers and services utilized.

The Environmental Department summarizes results and reports under “Current Status and Results”.

Forecast

Teal has always been committed to making contributions to local communities and will continue to do so.



Indicator H6-1: First Nations Participation

The TFL is located within the traditional territories of the Pacheedaht First Nation, Ditidaht Band First Nation, Cowichan Tribes First Nation and Lake Cowichan First Nation. A small portion of the TFL overlaps the traditional territory of the Penelakut First Nation. Lake Cowichan, Chemainus and Penelakut First Nations are represented by the Hul'qumi'num Treaty Group.

Value	Objective	Indicator	Target	Acceptable Variance
Aboriginal and Treaty Rights	Coordinate and manage activities to maintain a good working relationship with local First Nations	Number of invitations extended to local First Nations and participation in SIPAG	Minimum of one per meeting, per First Nation member; increase participation	Zero

Current Status & Results

Year		# meetings per year	Pacheedaht	Cowichan Tribes	Dididaht	Hul'qumi'num	Target Met (Y/N)	Variance			
2009	Invitations extended/ meeting	Attendance	2	4 (2 per mtg)	1	4(2 per mtg)	0	4 (2 per mtg)	0	Y	+2
2008	Invitations extended/ meeting	Attendance	4	8 (2 per mtg)	4	8 (2 per mtg)	2	8 (2 per mtg)	0	Y	+4
2007	Invitations extended/ meeting		4	2	2	2	2	2	Y	+4	
2006	Invitations extended/ meeting		4	2	2	2	2	0	N	-1	

In 2009, attendance by First Nations decreased in comparison to last year; however, interest was expressed by several members. All First Nations with traditional territory overlapping the DFA were contacted to extend invitations to scheduled meetings at least twice per meeting (via telephone and email). In addition to the SIAPG meetings, First Nations were invited to discuss Sustainable Forest Management and the SFM Plan at an annual general meeting.

In 2008, this indicator was changed to track actual attendance as well as initiations extended. All participating First Nations were contacted to extend invitations to scheduled meetings at least twice per meeting. Communications for meetings typically include one email approximately one month prior to the meeting and one follow up phone call roughly two weeks before the meeting. In addition to the SIAPG meetings, First Nations were invited to discuss Sustainable Forest Management and the SFM plan at an annual general meeting. Early in 2008 members of SIPAG requested holding a meeting at one of the First Nation's villages in order to provide a better opportunity for input and information sharing (as it was noted that one of the main reasons for poor participation was a lack of resources to attend meetings). SIPAG members traveled to the Pacheedaht village in September for a meeting. It is hoped that each First Nation



village will be visited in future years. In fall of 2008 it was determined that the Chemainus Band should also be consulted in the future as they have a small overlap in asserted traditional territory

Strategy

Prior to each meeting, all SIPAG members including First Nations are contacted roughly one month and two weeks prior to remind them of the upcoming meeting as well as confirm attendance. Past meeting minutes are sent out to those members that have provided email addresses. For those that are unable to attend the meeting, copies of the meeting packages are emailed or mailed following the meeting. Communications are documented within the “Call Logs”, on file.

Where First Nations are unable to participate in Southwest Island Public Advisory Group meetings, they may request alternate methods of reviewing Teal’s Sustainable Forest Management Plan or any general Sustainable Forest Management issues.

Annually, the SIPAG will review the active members and representative sectors to determine whether any sectors are missing from the table (per the Terms of Reference).

Monitoring

The Southwest Island Public Advisory Group recording secretary records emails and phone call invitations and takes attendance at each meeting. The Environmental Department provides an annual summary of invitations extended to First Nations for Southwest Island Public Advisory Group meetings and reports under “Current Status and Results”.

Forecast

Teal will continue to extend invitations to First Nations who have traditional territory within the DFA for all future SIPAG meetings. Participation will depend upon the individual First Nations, however, from the interests that was expressed it is anticipated that participation may increase for future meetings.



Indicator H6-2: First Nations Plan Reviews

The TFL is located within the traditional territories of the Pacheedaht First Nation, Ditidaht Band First Nation, Cowichan Tribes First Nation and Lake Cowichan First Nation. A small portion of the TFL overlaps the traditional territory of the Penelakut First Nation.

Landscape Level Plans generally include Forest Development Plans and Forest Stewardship Plans. These plans outline harvesting and road construction planned over the next few years (generally 5 years), as well as outlining the forest resources and respective management strategies. Site level plans include logging plans which show where harvesting is planned; reserves; terrain and waterbodies; roads and any other site specific features.

Value	Objective	Indicator	Target	Acceptable Variance
Aboriginal values	Provide opportunities for input into planning	Documented opportunities provided to local First Nations for review of operational plans	SFMP is provided annually; 100% of landscape level plans are accessible for review by local First Nations, site level plans are provided as requested	Zero

Current Status & Results

Year	Type of Plan	# of Submitted Plan Reviews						Target Met (Y/N)	Variance
		Pacheedaht	Cowichan Tribes	Dididaht	Lake Cowichan	Penelakut	Chemainus		
2009	Mgmt, FSP, Site Level Plans, SFM Plan	7	2	2	2	2	3	Y	0
2008	FSP, Site Level Plans, SFM Plan	1	1	1	1	1	N/A	Y	0
2007	Site Level Plans	3	1	1	1	1	N/A	Y	0
2006	Site Level Plans	6	1	8	1	2	N/A	Y	0
	FDP Major Amendment	0	0	4	0	0	N/A	Y	0
	Forest Stewardship Plan	1	1	1	1	1	N/A	Y	0



In 2009, all First Nations were invited to comment on potential developments in their asserted traditional territory as well as forest management, the TFL 46 Management Plan, and the SFM Plan. Two First Nations met with Teal and several letters were received (see Indicator 6-3 First Nations Response to Plan Referrals for more details).

In 2008, the SFM plan was added to the target. All First Nations were invited to comment on potential developments in their asserted traditional territory as well as forest management and the SFM plan. In fall of 2008 it was determined that the Chemainus Band should also be consulted in the future as they have a small overlap in asserted traditional territory

Strategy

First Nations are given the opportunity to review all Landscape Level Plans (e.g., Forest Development Plans and Forest Stewardship Plans, Management Plans, Sustainable Forest Management Plans, etc.) and provide comments.

Information sharing protocols differ for each First Nation. Some of the First Nations prefer to view more detailed plans of cutblocks and roads proposed within their traditional territories. Where desired by the First Nation, proposed logging plan maps are forwarded for review and comment.

Monitoring

The Environmental Department provides an annual summary of formal invitations for Landscape Level Plan reviews and reports under “Current Status and Results”.

Forecast

Teal will continue to provide opportunities for input into planning to all First Nations with traditional territory in the DFA; therefore, the target is the forecast.



Indicator H6-3: First Nations Response to Plan Referrals

The TFL is located within the traditional territories of the Pacheedaht First Nation, Ditidaht Band First Nation, Cowichan Tribes First Nation and Lake Cowichan First Nation. A small portion of the TFL overlaps the traditional territory of the Penelakut First Nation.

Landscape Level Plans generally include Forest Stewardship Plans. These plans outline harvesting and road construction planned over the next few years (generally 5 years), as well as outlining the forest resources and respective management strategies. Site level plans include logging plans which show where harvesting is planned; reserves; terrain and waterbodies; roads and any other site specific features.

Value	Objective	Indicator	Target	Acceptable Variance
Aboriginal values	Provide opportunities for input into planning	Number of responses to plan referrals received from local First Nations	60%	-10%

Current Status & Results

This indicator was developed in 2008. In fall of 2008 it was determined that the Chemainus Band should also be consulted in the future as they have a small overlap in asserted traditional territory.

Year	Type of Plan	# of Responses Received from Invitations for Plan Reviews						Target Met (Y/N)	Variance
		Pacheedaht	Cowichan Tribes	Dididaht	Lake Cowichan	Penelkut	Chemainus		
2009	Mgmt, FSP, Site Level Plans, SFM Plan	7/7	1/2	2/2	0/2	0/2	0/2	N	-10%
2008	FSP, Site Level Plans, SFM Plan	1	1	1	0	0	N/A	Y	0

In 2008 and 2009, Pachedaht First Nation, Cowichan Tribes and Ditidaht First Nation all responded to initiations for plan reviews. In 2009, a total of 55% of the plans referred received responses.



Strategy

First Nations are given the opportunity to review all Landscape Level Plans (e.g., Forest Development Plans and Forest Stewardship Plans, Management Plans, Sustainable Forest Management Plans, etc.) and provide comments.

Information sharing protocols differ for each First Nation. Some of the First Nations prefer to view more detailed plans of cutblocks and roads proposed within their traditional territories. Where desired by the First Nation, proposed logging plan maps are forwarded for review and comment. Some of the First Nations provide written responses to the referrals.

Monitoring

The Environmental Department reviews the First Nations referral binders and reports under “Current Status and Results”.

Forecast

Teal will continue to provide opportunities for input into planning to all First Nations with traditional territory in the DFA. Responses will depend upon the individual First Nations, however, from past correspondence, it is anticipated that responses will hit the target.



Indicator H6-4: Cultural Heritage Resources

Protection of cultural values during Forest Management activities within BC is covered either by the Heritage Conservation Act or through Forest Management Legislation (i.e., Forest Act, Forest Practices Code Act and the Forest and Range Practices Act).

The Heritage Conservation Act clearly establishes definitions for heritage sites that require conservation or protection (e.g., Culturally Modified Trees modified prior to 1846). The Ministry of Integrated Land Management is responsible for tracking and maintaining the Provincial registry of sites that are protected under the Heritage Conservation Act (including archaeological, culturally modified tree and traditional use sites).

Forest Management Legislation provides for the conservation of cultural heritage resources and does not include sites that are already protected under the Heritage Conservation Act. Resources may include values that are currently present, desired future conditions or historical areas that are not protected under the Heritage Conservation Act.

A Cultural Heritage Resource (CHR) is defined in legislation as ‘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.’¹³

The TFL is located within the traditional territories of the Pacheedaht First Nation, Ditidaht Band First Nation, Cowichan Tribes First Nation and Lake Cowichan First Nation. A small portion of the TFL overlaps the traditional territory of the Penelakut First Nation.

Value	Objective	Indicator	Target	Acceptable Variance
Aboriginal values	Actively investigate and plan for the management of cultural heritage resources	Management of cultural heritage resources, as they are located	In consultation with First Nations, identify and manage cultural heritage resources	Exceptions are permissible, in consultation with First Nations, where worker safety or operability are management factors

Current Status & Results

Year	# of CHR Located	Target Met (Y/N)	Variance
2009	1	Y	0
2008	5	Y	0
2007	2	Y	0
2006	18	Y	0

¹³ Forest Act



In 2009, a potential CMT was discovered in a block and this tree was reserved.

In 2008, one of the First Nations Bands requested logs for cultural purposes. Teal assisted in delivery of these logs to the band. Two blocks identified potential CMT and these trees were reserved. Two opportunities for bark stripping were also provided.

Strategy

Several strategies will provide input into the identification of cultural heritage resources, including but not limited to:

- Landscape Level Plan reviews (Forest Development Plans, Forest Stewardship Plans, Landscape Unit Plans, Vancouver Island Land Use Plan, etc.)
- Archaeological Inventories (Archaeological Overview Assessments are generally done on a landscape or watershed level. They categorize areas based upon the potential for archaeological sites and evaluate existing archaeological resources)
- Archaeological Assessments (Archaeological Impact Assessments are completed, as required, on the stand level where the potential for archaeological sites is rated at moderate or high or at the request of First Nations. The Archaeological Impact Assessment identifies and assesses all impacts on archaeological resources that may result from proposed developments)
- Traditional Use Studies
- Information Sharing Protocols
- Southwest Island Public Advisory Group meetings
- Informal discussions

Monitoring

The Forestry & Engineering Department tallies the number of identified cultural heritage resources that are managed and summarizes the results under “Current Status and Results”. CHRs are tracked within the Logging Plan and Site Plan maps. Going forward, they may be tracked spatially within GIS. The Environmental Department reviews the correspondence files and report under “Current Status and Results”. The government agencies also do periodic inspections.

Forecast

Teal will continue to provide opportunities for input into planning to all First Nations with traditional territory in the DFA. Responses will depend upon the individual First Nations, however, from past correspondence, it is anticipated that responses will hit the target.



Indicator H6-5: Cultural Cedar

Protection of cultural values during Forest Management activities within BC is covered either by the Heritage Conservation Act or through Forest Management Legislation (i.e., Forest Act, Forest Practices Code Act and the Forest and Range Practices Act).

The Heritage Conservation Act clearly establishes definitions for heritage sites that require conservation or protection (e.g., Culturally Modified Trees modified prior to 1846). The Ministry of Integrated Land Management is responsible for tracking and maintaining the Provincial registry of sites that are protected under the Heritage Conservation Act (including archaeological, culturally modified tree and traditional use sites).

Forest Management Legislation provides for the conservation of cultural heritage resources and does not include sites that are already protected under the Heritage Conservation Act. Resources may include values that are currently present, desired future conditions or historical areas that are not protected under the Heritage Conservation Act.

A Cultural Heritage Resource (CHR) is defined in legislation as ‘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’¹⁴

The TFL is located within the traditional territories of the Pacheedaht First Nation, Ditidaht Band First Nation, Cowichan Tribes First Nation and Lake Cowichan First Nation. A small portion of the TFL overlaps the traditional territory of the Penelakut First Nation.

One of the key concerns identified by the local First Nations is ensuring the future supply of Western Red Cedar and Cypress for cultural use.

Value	Objective	Indicator	Target	Acceptable Variance
Cultural Cedar	Work with First Nations to identify a current and/or future supply of Cedar and Cypress suitable for traditional use and not cause, as a result of road construction or timber harvesting activities, this supply to become unavailable for their continuing extent of use by an aboriginal people up to the extent of historical use	Number of First Nations requests that are responded to for establishing a protocol for identifying a current and/or future supply of Cedar and Cypress trees suitable for traditional use within TFL, consistent with the extent of historical use	100%	Zero

Current Status & Results

Teal currently has good working relationships with each of the local First Nations. Communication and information sharing has been achieved through many formal and informal processes. Cultural Heritage Resource are identified on an on-going basis.

This indicator was developed in February 2007 and is consistent with the commitments made within the Forest Stewardship Plan.

¹⁴ Forest Act



Year	# Requests for Protocol	# of Responses to Requests	Target Met (Y/N)	Variance
2009	1	1	Y	0
2008	1	1	Y	0
2007	1	1	Y	0
2006	1	1	Y	0

Teal continues to work with Pacheedaht First Nation to reach their cedar conservation goals (see Indicator 6-9 Pacheedaht Cultural Cedar for more information).

Teal has been working with the Pacheedaht First Nation to address the bands concern with regard to long term availability of Western Red Cedar. An inventory of western red cedar within TFL that may be of potential use for cultural purposes has been created. The Pacheedaht has requested a formal agreement to document a commitment to provide a specified volume of cultural wood, this is still in progress.

Strategy

Several strategies will provide input into the identification of cultural heritage resources, including but not limited to:

- Landscape Level Plan reviews (Forest Development Plans, Forest Stewardship Plans, Landscape Unit Plans, Vancouver Island Land Use Plan, etc.)
- Archaeological Inventories (Archaeological Overview Assessments are generally done on a landscape or watershed level. They categorize areas based upon the potential for archaeological sites and evaluate existing archaeological resources)
- Archaeological Assessments (Archaeological Impact Assessments are completed, as required, on the stand level where the potential for archaeological sites is rated at moderate or high or at the request of First Nations. The Archaeological Impact Assessment identifies and assess all impacts on archaeological resources that may result from proposed developments)
- Traditional Use Studies
- Information Sharing Protocols
- Southwest Island Public Advisory Group meetings
- Informal discussions

Monitoring

The Forestry & Engineering Department tallies the number of requests that are responded to for establishing a Cultural Cedar Protocol and reports the percentage under “Current Status and Results”. Requests can be documented under the FSP review and comment process or within the Communications file.

Government agencies (MoFR) also do periodic inspections.

Forecast

Teal will continue to provide opportunities for input into planning to all First Nations with traditional territory in the DFA. Requests for protocols will depend upon the individual First Nations, however, from past



correspondence, it is anticipated that at least one First Nation will continue to request protection of the cedar resource.

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Indicator H6-6: Number of SIPAG Meetings per Year

The number of Southwest Island Public Advisory Group (SIPAG) meetings held each year is dependent upon several factors, including: current Forest Management issues; concerns raised by members or Teal; and commitments of the Sustainable Forest Management Plan.

Value	Objective	Indicator	Target	Acceptable Variance
Informed, fair, inclusive and timely decision making	Public values are incorporated into forest management planning	Number of SIPAG meetings per year to review the Sustainable Forest Management Plan and any issues relevant to forest management within TFL	Minimum 2 meetings per year	Zero

Current Status & Results

Year	# of SIPAG Meetings	Target Met (Y/N)	Variance
2009	2	Y	0
2008	4	Y	+2
2007	4	Y	+2
2006	4	Y	+2

Generally, the group meets every two months with the exception of a longer break during the summer months as well as over the Christmas holidays. In 2009 the number of meetings was reduced due to a delay in budget approval.

Strategy

Future Southwest Island Public Advisory Group meetings will be scheduled as required to review the Sustainable Forest Management Plan, address any Forest Management issues in the TFL and maintain a dialogue between Teal and the local communities. Generally, the next meeting date and proposed agenda will be set at the previous meeting, however where significant concerns arise, members will be notified for unscheduled meetings.

Meeting minutes for each Southwest Island Public Advisory Group meeting are filed in the Public Advisory Group file (E2-1).

Monitoring

The Environmental Department will tally the number of meetings from the meeting minutes and report under "Current Status and Results".



Forecast

It is anticipated that the target will be exceeded in most years, provided funding is available.



Indicator H6-7: Response to Correspondence

Periodically, Teal receives verbal or written comments or concerns from the general public.

Value	Objective	Indicator	Target	Acceptable Variance
Informed, fair, inclusive and timely decision making	Public values are incorporated into Forest Management planning	Responses to correspondence received from general public	Respond to all public inquiries/ comments where contact information is provided	Zero

Current Status & Results

Year	# of Correspondence Received	# Responded to	Target Met (Y/N)	Variance
2009	0	0	Y	0
2008	2	2	Y	0
2007	3	3	Y	0
2006	17	17	Y	0

In 2009, there were no inquiries or correspondence received from the general public.

In 2008, there was one inquiry with regards to Teal's certification status and another request for a donation. All correspondence was followed up and responded by Teal.

In 2007, there were two requests from First Nations for cultural wood (firewood, carving). The requests were made by the members of the Cowichan Tribes and the Coast Salish (Employment and Training program). The other correspondence received was inquiries into planned activity within the Walbran area. All correspondence was followed up and responded to by Teal.

During 2006, there were 17 documented cases of correspondence received from the public and First Nations. There was a request from a First Nation for some firewood for a ceremonial fire that was not resolved within the year. However, communication was on-going and follow up was conducted in late 2006 and early 2007 and arrangements are in progress for delivery of the firewood.

Through formal and informal processes, Teal receives public input with regards to Forest Management in TFL. Teal has an internal policy to respond to all public inquiries or comments where contact information is provided.

Strategy

Written correspondence is filed in the external communications file (File E4 and FSP Binder). Where possible, verbal communications are summarized in note form and filed within the same file.



Monitoring

The Environmental Department reviews the external communications file and the FSP Review & Comment Binder, and summarizes the number of correspondence received by the general public and the respective number of responses and reports the results under “Current Status and Results”.

Forecast

Teall will continue to follow up all correspondence; therefore, the target is the forecast.



Indicator H6-8: Training Requirements

Value	Objective	Indicator	Target	Acceptable Variance
Investment in TFL Workers	Opportunities for workforce training and skill development	Percent conformance with internal mandatory training requirements	100%	+/-10%

This indicator was originally developed under the Economic and Social Benefits Criterion, see indicator H5-12 for more details on the current status, strategy, monitoring and forecast for this indicator.



Indicator H6-9: Pacheedaht Cultural Cedar

Value	Objective	Indicator	Target	Acceptable Variance
Cultural Cedar	Work with First Nations to identify conserve and manage over the long term a current and future supply of Cedar and other tree species, suitable for traditional use and not cause, as a result of road construction or timber harvesting activities, this supply to become unavailable for their continuing extent of use by an aboriginal people up to the extent of historical use	Identification, mapping and documentation of specific cedar trees and other tree species or small areas containing cedar trees that meet or will meet the size and quality parameters as specified in the Pacheedaht First Nation – Cultural Cedar Conservation Strategy	700 trees within 3 years (Dec 31, 2012); 800 trees within 5 years (Dec 31, 2014)	Zero

Current Status & Results

Year	# trees identified	# total trees	Target Met (Y/N)	Variance
2009	568	568	Y	0

In 2009, a total of 568 trees were identified and approved by Pacheedaht First Nation for the Cultural Cedar Conservation Strategy.

This indicator was developed throughout 2008 and 2009 and finalized in September 2009. It is the result of multiple discussions with SIPAG members, Pacheedaht First Nation and Teal, including a field trip to the Pacheedaht village.

Teal has been actively locating cultural cedar since January 2006. At the time of writing the inventory was estimated to be over 500 trees.



Strategy

Teal incorporates cedar conservation into planning. Trees are preferably selected from previously constrained areas, such as Riparian Reserve areas or Old Growth Management Areas in order to limit the impact on the timber resource and minimize constraints on harvesting in the present and future. Future, long term accessibility is considered when trees or areas are selected. Teal's layout crews incorporate cedar conservation into field planning. Where potential candidates are located in the field, they are measured and marked with a unique numbering system. Individual trees or small areas located near cutblocks are generally selected.

Alternatively, where resources can be obtained, a Pacheedaht field crew locates trees and small areas where large cedar timber types are indicated in constrained areas, such as Old Growth Management Areas or Parks.

Monitoring

All trees are assessed and recorded using the Pacheedaht Cultural Tree Inventory field card. All trees located within the DFA portion of Pacheedaht traditional territory are then recorded in the Pacheedaht First Nation Cedar Inventory (excel spreadsheet). Pacheedaht First Nation is notified of selected trees.

As funding is available, Pacheedaht field crews monitor selected trees and areas to ensure trees meet the specified size and quality parameters. They may either accept or reject trees, and notify Teal of the status.

Forecast

In the past four field seasons, Teal crews have identified over 500 trees (approximately 120 trees per field season). It is reasonable to expect similar progress towards the first (3 year) target of 700 trees.

The location of the last 100 trees (to meet the 5 year target of 800 trees) is anticipated to require more resources as some trees in the inventory may be rejected and need to be replaced, and selection criteria may become more precise in order to meet all the trees specified in the size and quality parameters.

The Pacheedaht First Nation has requested a minimum of 1,400 trees throughout their traditional territory. The DFA encompasses a large portion of Pacheedaht traditional territory, and therefore, a large portion of the trees will be located within the DFA. A target of 800 trees within the DFA has been set, however, this number may need to be adjusted where resources outside the DFA, combined with the inventory inside the DFA, do not meet the overall target (i.e., an additional 600 trees must be located within Pacheedaht traditional territory).

