Sustainable Forest Management Plan

Appendix 1: Annual Report and Indicators

June 2020

The Teal-Jones Group™

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CCFM Criterion 1: Conservation of Biological Diversity

Conserve biological diversity by maintaining integrity, function, and diversity of living organisms and the complexes of which they are part.

CSA SFM Element 1.1: Ecosystem Diversity

Conserve ecosystem diversity at the stand and landscape levels by maintaining the variety of communities and ecosystems that naturally occur in the DFA.

C1.1.1: Ecosystem Area by Type

BACKGROUND INFORMATION

Ecosystem conservation represents a coarse-filter approach to biodiversity conservation. It assumes that by maintaining the structure and diversity of ecosystems, the habitat needs of various species will be provided. For many species, if the habitat is suitable, populations will be maintained[1].

Terrestrial Ecosystems are classified and monitored at a landscape scale using the Biogeoclimatic Ecosystem Classification system (BEC system). The BEC system is a tool for classifying and mapping ecosystems (i.e., ecosystem types) based on similarities in climate, soils and vegetation. Geographic Information Systems (GIS) can be used to report on the current ecosystem area by BEC subzone and variant. There are 13 unique BEC subzones and variants found within the DFA.

The amount of ecosystem area in the DFA can be affected by converting productive forest soils supporting a specific ecosystem type into biologically non-productive areas.

Value	Objective	Indicator	Target	Acceptable Variance
Ecosystem Biodiversity	Conserve ecosystem diversity at the stand and landscape levels by maintaining the variety of communities and ecosystems that naturally occur in the DFA	Ecosystem Area by Type	Maintain current area by type	Forest Roads
Justification for Target	**Basis for the Target**	**Legal Requirements**	**Means of Achieving Objective & Target**	**Monitoring & Measurement**
Current ecosystems support the range of resources on the DFA.	Core Indicator CSA Z809-16 standard	N/A	Operational Planning monitor BEC	GIS

[1] Sustainable Forest Management CSA Standard Z809-16

STATUS & RESULTS

In 2019, the area by BEC subzone has changed in the FVO section of the DFA. With the addition of 7,795ha added in the West Harrison area 5 BEC subzones located within the FVO have subsequently increased in size.

Biogeoclimatic Zone / Subzone / Variant* Description		HBO	FVO	Target Met (Y/N)	Variance Met (Y/N)
CMA	Coast Mountain Alpine	-	112,105ha	Y	Y
CWH dm	Coastal Western Hemlock, dry maritime	-	72,426 ha		
CWH ds	Coastal Western Hemlock, dry submaritime	-	70,186 ha		
CWH ms	Coastal Western Hemlock, moist submaritime	-	157,844 ha		
CWH vm	Coastal Western Hemlock, very wet maritime	24,357 ha	120,658 ha		
CWH mm	Coastal Western Hemlock, moist maritime	22,501 ha	-		
CWH xm	Coastal Western Hemlock, very dry maritime, western	1,622 ha	-		
ESSF dc	Engelmann Spruce-Subalpine Fir, dry cold	-	58 ha		
ESSF mw	Engelmann Spruce-Subalpine Fir, moist warm	-	63,261ha		
IDF dk	Interior Douglas-fir, dry cool	-	77ha		
IDF ww	Interior Douglas-fir, wet warm	-	32,789ha		
IMA	Interior Mountain Alpine	-	37,440ha		
MH mm	Mountain Hemlock, moist maritime windward	1,890 ha	135,569ha		

TRENDS

The amount of Ecosystem Area by Type is not anticipated to change over time apart from negligible losses due to the construction of forest roads necessary for harvesting. Teal-Jones will not establish "plantations" as defined in the CSA standard. Therefore, it is anticipated that the indicator will continue to meet the target in the future.

HISTORY OF INDICATOR

Indicator is a core indicator created in 2011 as part of the new (CSA Z809-16) standard.

STRATEGY

The amount of ecosystem area can be reduced through the replacement of productive ecosystem area with non-productive area (i.e., catastrophic landslides or parking lot) or changing of the water table in extreme circumstances.

For the purposes of this indicator those forest roads necessary for harvesting will not be considered to change the area of the ecosystem.

MONITORING

Teal-Jones' GIS Department will monitor the amount of area by BEC zone/subzone level (e.g., area of Coastal Western Hemlock very moist maritime). GIS queries will be conducted to provide this information. In Honeymoon Bay this will be calculated using the boundary of TFL 46, and associated licenses, to determine ecosystem area. In Fraser Valley, this will be calculated using Forest Development Units (areas where Teal-Jones may potentially operate) because of operating area changes over time.

C1.1.2: Forest Area by Type or Species Composition

BACKGROUND INFORMATION

Currently, Teal-Jones' reforestation program includes planting only native and ecologically appropriate species (Teal-Jones does not use exotic species). In addition to Douglas fir and cedar, Teal-Jones is looking to maintain alder in areas where it grows well and in areas with high elk populations. Teal-Jones is also planting alder in recent slide areas.

An interest in maintaining a diversity of forest species types which exist naturally, has been expressed by the public advisory groups (PAGs) and First Nations.

In Honeymoon Bay, the public and First Nations are interested in Western Red Cedar (Cw) and Cypress/Yellow Cedar (Yc) which have been recognized as a locally significant tree species for economic, social, ecological and cultural reasons. In addition, Alder and Maple are common pioneer species in the stands throughout the TFL, while other species, such as cottonwood, cherry, willow, etc. may be present in minute quantities.

Species targets were set in discussions with the PAGs as follows:

Operation	Species	Target
HBO/FVO	Cedar/Cypress	Average planted is minimum 20% of total trees planted over a 5-year rolling average.
HBO only*	Hardwoods	Average number of hardwood stems per ha (sph) is a minimum of 25, measured on a 5-year rolling average over all cutblocks declared free-growing in each calendar year.

* Note: Due to differences in forest management strategies, Fraser Valley does not track hardwood on site and this target is therefore only applicable to HBO at this time.

Value	Objective	Indicator	Target	Acceptable Variance
Ecosystem Biodiversity	Conserve Ecosystem diversity at the stand and landscape levels by maintaining the variety of communities and ecosystems that naturally occur in the DFA	Forest Area by type or species composition	100% of species **targets** met (by Operation)	5%
Justification for Target	**Basis for the Target**	**Legal Requirements**	**Means of Achieving Objective & Target**	**Monitoring & Measurement**
PAG and First Nation interest in ecological tree species which may be less common but important for habitat and ecosystem health	Maintain species such as cedar, cypress, alder, maple, and other hardwood species for cultural, ecological and economic purposes	N/A	Operational Planning	Silviculture tracking/surveying, Phoenix

STATUS & RESULTS

Cedar (Cw)/Cypress (Yc)

Year	Operation	Total Cedar and Cypress Planted	Total Seedlings Planted	Percent Cedar or Cypress	5-year Average % of Cedar or Cypress
2019	HBO	148,240	365,100	40.6%	36.1%
2019	FVO	154,368	706,967	41.8%	21.8%

Hardwoods

Year	Operation	Annual Average Number of Hardwood sph	5-year Average sph
2019	HBO	70	88

In 2019, there were 148,240 Western red cedar (Cw) seedlings planted in Honeymoon Bay. Over a 5-year rolling average 36.1% of all seedlings planted in Honeymoon Bay are cedar or cypress trees.

In 2019, there were 154,368 Western red cedar (Cw) and 315 Yellow Cedar (Yc) seedlings planted in the Fraser Valley. Over a 5-year rolling average 24.7% of all seedlings planted in the Fraser Valley Bay are cedar or cypress trees. This is the second year of reporting for the 5-year rolling average for the Fraser Valley.

In 2019, there was an average 70 stems per hectare of hardwood recorded in blocks in Honeymoon Bay, with a 5-year average of 88 sph.

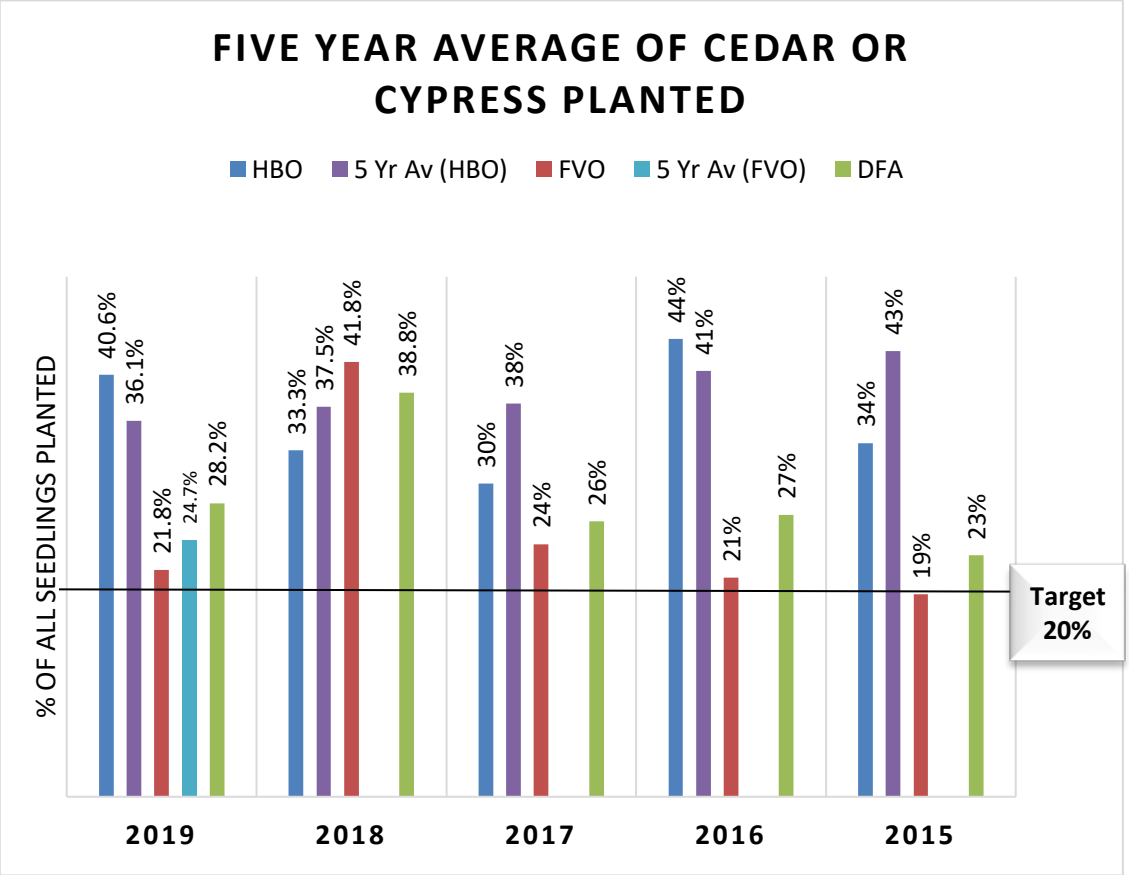
There was no hardwood planted in Fraser Valley in 2019. Although hardwood are not commonly planted in Fraser Valley, hardwood species are strongly associated with rich, moist microsites found throughout the area and are often present is regenerating stands and are considered acceptable species at free-growing on some sites.

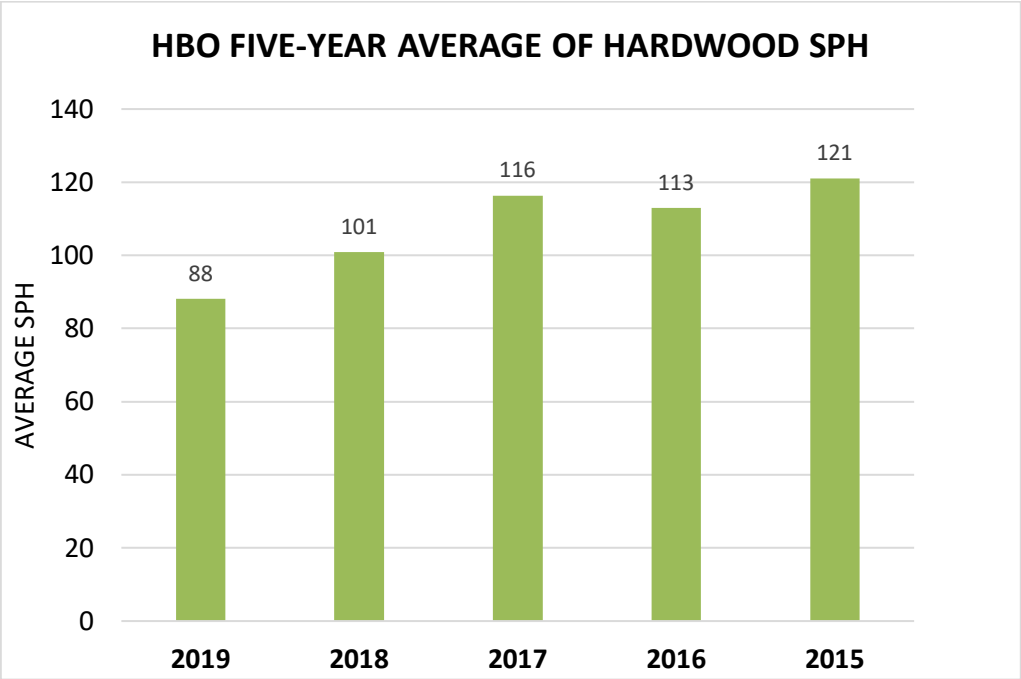
TRENDS

Cedar (Cw)/Cypress (Yc)

At least 20% of tree planted have been Cw and Yc across the DFA for the last 5-years. The only exception is FVO in 2015 at 19%; which is consistent with the acceptable variance. In HBO, the minimum annual sph of hardwood (25sph) across surveyed blocks has met the target for the last 5 years.

It is anticipated that the indicator will meet or exceed the target in future years. Based on past planting records, it is likely that the proportion of Cw and Yc planted will exceed the target. Currently, in the HBO portion of the DFA, the Forest Stewardship Plan permits management of hardwood species (Alder and Maple) on those portions of the land-base where the pre-harvest stand is primarily composed of hardwoods. These hardwood leading stands represent approximately 5% of the land-base of the TFL. It is expected that hardwood management will become more significant in the future throughout the DFA, as strategies around other values are integrated into planning (e.g., management of elk habitat).





HISTORY OF INDICATOR

As of 2015, this indicator includes the following indicators from previous SFMPs:

- CH1.1.2: Forest Area by Type or Species Composition Target: Regeneration with 100% ecologically appropriate and native species
    - Variance: Zero
- CF1.1.2: Forest Area by Type or Species Composition Target: Maintain current forest area by type
    - Variance: Zero
- H1-7: Cedar/ Cypress Trees Total Cedar/ Cypress trees planted by species Target: Average Cedar/ Cypress planted is minimum 20% of total trees planted over a 5-year rolling average
    - Variance: Zero
- H1-10: Hardwoods Number of hardwood stems per hectare (ha) Target: 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
    - Variance: 1.25sph (5%)

STRATEGY

Cedar/Cypress

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 economic 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 ecologically suitable, cedar and cypress trees are planted in addition to Douglas fir (Fd).

Hardwoods

Under the approved Forest Stewardship Plan in Honeymoon Bay, 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-Jones is required to cut the trees to prioritize the growing site for conifers. Under the current management regime, Teal-Jones spends a significant investment in brushing activities to reduce the component of hardwoods to assist stands in reaching free-growing status.

In 2017, stocking standards for the management of hardwood species (Dr, Mb, Atc and Ep) were approved under the latest Teal-Jones Forest Stewardship Plan (March 2017) in the Fraser Valley portion of the DFA. These hardwood stocking standards apply to standards units where significant damage to regeneration has been recorded as a result of elk browse in areas such as Pitt Lake and West Harrison.

MONITORING

Cedar/Cypress

Each year, the proportion of Cw or Yc planted versus the total trees planted for all planting programs is tallied. The proportion of Cw or Yc is calculated and reported under "Status and Results".

Hardwoods

The average number of hardwood stems per hectare is measured on a 5-year rolling average over all cutblocks declared Free-growing in each calendar year and reported under "Status and Results".

C1.1.3: Forest Area by Seral Stage or Age Class

BACKGROUND INFORMATION

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

Value	Objective	Indicator	Target	Acceptable Variance
Ecosystem Biodiversity	Conserve Ecosystem diversity at the stand and landscape levels by maintaining a variety of communities and ecosystems that naturally occur in the DFA	Forest Area by seral stage or age class	Meet Old Growth Management Area representation by Landscape Unit (LU) as defined in legally established Landscape Unit Plans or the Non-Spatial Old Growth Order	Zero
Justification for Target	**Basis for the Target**	**Legal Requirements**	**Means of Achieving Objective & Target**	**Monitoring & Measurement**
Legal requirements	Core Indicator CSA Z809-16 standard	N/A	Operational Planning monitor BEC	GIS

STATUS & RESULTS

Fraser Valley Old-Growth Management Areas							
Landscape Unit	**Area (ha)**	**Area Changed (ha)**	**Target / Variance Met (Y/N)**	**Landscape Unit**	**Area (ha)**	**Area Changed (ha)**	**Target Met? (Y/N)**
Ainslie	3,958	0	Y	Nahatlatch	6,124	0	Y
Anderson	1,471	0		Pitt	894	0	
Big Silver	3,176	0		Silverhope	3,017	0	
Chehalis	3,951	0		Spuzzum	1,655	0	
Coquihalla	4,297	0		Stave	5,108	0	
East Harrison	4,542	0		Tretheway	1,167	0	
Fraser Valley South	583	0		West Harrison	2716	570	
Hatzic	4,434	0		Widgeon	171	0	
Mehatl	2,694	0		Yale	1,967	0	

Honeymoon Bay Old-Growth Management Areas			
Landscape Unit	**Area (ha)**	**Additions or Deletions (ha)**	**Target/Variance Met (Y/N)**
Cayuse	1,216	0	Y
Gordon	1,881	0	
Nitinat	56	0	
San Juan	2,223	0	
Walbran	564	0	
Cowichan	18 (draft)	0	

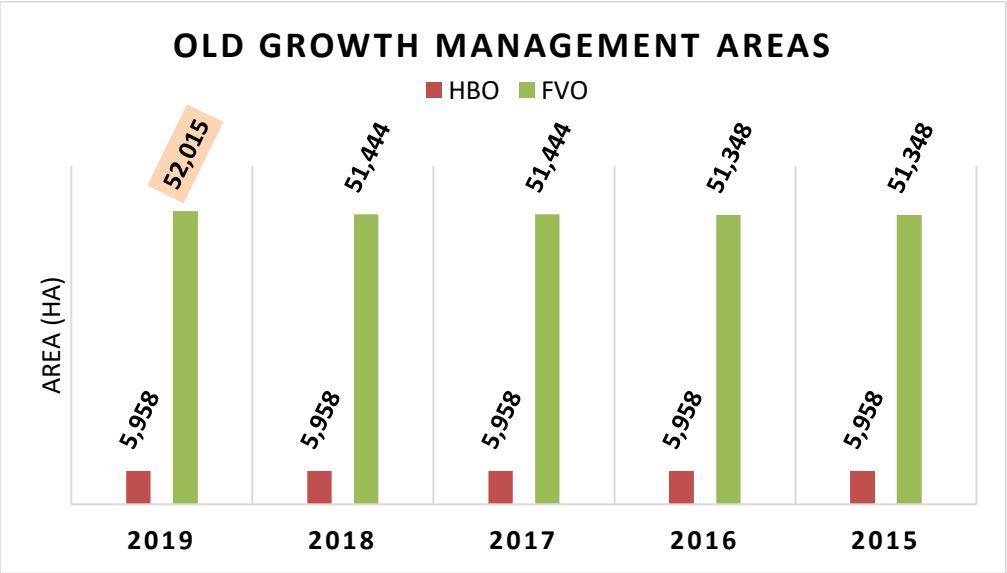
In 2019, there were three OGMA amendments in the Honeymoon Bay portion of the DFA, consistent with the approved OGMA amendment process, where a total of 0.5ha was amended and replaced with 0.5ha. In the Fraser Valley portion of the DFA, 570 hectares (ha) of OGMA were added into the West Harrison landscape unit which has led to a net total increase of 2716 hectares of OGMA within the West Harrison landscape unit. In November 2019 Teal-Jones Public Advisory Group meetings discussed the topic of Old Growth and had guest speakers from the provincial Old Growth Strategic Review Committee.

In all cases the areas of old-growth used to replace amended areas were of equal or better habitat values and had similar ecosystem and site characteristics consistent with the objectives for establishing the OGMA.

TRENDS

There have been a number of OGMA amendments completed across the DFA in the last five years. In all cases, the areas of old-growth used to replace original areas were of equal or better habitat values and in some cases overall old-growth areas increased in size.

Landscape Unit Plans are approved for almost all of the DFA. It is estimated that the retention targets for those portions of the DFA that are covered by Landscape Unit Plans will be met and remain stable throughout the future. It is not anticipated that government policies regarding retention of old forests will change in the near future. It is anticipated there will be continuous minor changes to the location of OGMA boundaries for operational reasons (where authorized), however, there will generally be no net area change therefore it is anticipated that the indicator will continue to meet the target in the future.



HISTORY OF INDICATOR

This indicator was developed in 2009 by combining three existing indicators: H1-1 Old Growth Representation (originally developed by SIPAG); F1-1 Retention of Old Forest and F1-18 Old Growth Management Areas (originally developed by FPAG). This indicator has been tracked since 2005 for the Renfrew Aggregate Landscape Units (Caycuse, Gordon, Nitinat, San Juan and Walbran) and since 2007 for all other Landscape Units.

STRATEGY

Representation of Old Forest (defined as greater than 250 years) within individual Biogeoclimatic (BEC)[2] zones (subzones and their variants) is an objective of the government of British Columbia and is completed through Landscape Unit Planning (LUP) processes. Coordination of LUP is the responsibility of the Ministry of Agriculture and Lands (Integrated Land Management Bureau). Teal-Jones worked in cooperation with government agencies in the development of the Landscape Unit Plans (LUPs) that overlap with the DFA.

Two LUPs incorporate the Honeymoon Bay portion of the DFA, including: the Renfrew Aggregate Landscape Unit Plan (legally established February 16, 2007) and Cowichan LUP (not yet approved).

LUP objectives have been finalized for the following Landscape Units that overlap portions of the Fraser DFA (the dates of the established objectives are shown in brackets): Ainslie (January 13, 2004); Anderson (January 13, 2004); Chehalis (March 15, 2006); Coquihalla (April 14, 2004); Nahatlatch (January 13, 2004); West Harrison (June 24, 2005), and Hatzic, Pitt, and Widgeon (February 14, 2013).

The strategy used to select OGMAs is detailed in each of the LUPs: selection criteria considered and prioritized those forest values considered most at risk. For example Marbled Murrelet habitat, 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

[2] The Biogeoclimatic Ecosystem Classification system is a tool for classifying and mapping ecosystems based on similarities in climate, soils and vegetation.

very large or Monumental Western Red Cedar trees) were considered of high importance to incorporate in the Renfrew Aggregate LUP.

For Landscape Units where planning is not yet completed, interim old growth objectives have been legally established under the *Order Establishing Provincial Non-Spatial Old Growth Objectives* (effective June 30, 2004). This Order specifies percentage targets of old growth representation to be retained within a specific BEC zone, subzone and variant according to the Natural Disturbance Type (frequency of natural stand initiating events such as fire). The Old Forest objectives within the Non-Spatial Old Growth Order are:" To contribute to the conservation of biodiversity, licensees must maintain Old Forest by biogeoclimatic variant within each Landscape Unit according to the age of Old Forest and the percentage of Old Forest retention that is specified[3]".

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). Geographic Information Systems (GIS) track OGMA boundaries and provide the main tool for monitoring OGMA management. Ground-truthing during cutblock layout and Site Planning is also done.

At the cutblock and road planning stages any boundary adjustments are made according to the objectives for OGMAs in each Landscape Unit and are tracked through the filing system (FSP Compliance Ledger, Block and Road files) and the GIS department.

GIS queries will be conducted to provide this information. In Honeymoon Bay this will be calculated using the boundary of TFL 46, and associated licenses, to determine OGMA area by landscape unit. In Fraser Valley, this will be calculated using Forest Development Units[4] (areas where Teal-Jones may potentially operate) because of operating area changes over time. Spatial information will also be confirmed from site plans as necessary.

Government agencies also do periodic inspections. Occasionally there will be changes in total area reported due to amendments made by other licensees. Teal-Jones will report on total area of OGMAs by Landscape Unit each year, as well as any amendments by Teal-Jones.

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[3] *Order Establishing Provincial Non-Spatial Old Growth Objectives* (effective June 30, 2004), Ministry of Sustainable Resource Management (see: http://ilmbwww.gov.bc.ca/ilmb/lup/policies_guides/oldgrowth/notice.htm)

[4] Following the Forest Planning and Practices Regulation definition "forest development unit" means an area identified in a forest stewardship plan (a) where forest development may occur during the term of the plan, and (b) within which, during the term of the plan, timber to be harvested or roads to be constructed are entirely located (http://www.bclaws.ca/Recon/document/ID/freeside/14_2004)

C1.1.4: Degree of Within-Stand Structural Retention

BACKGROUND INFORMATION

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

Value	Objective	Indicator	Target	Acceptable Variance
Ecosystem Biodiversity	Conserve Ecosystem diversity at the stand and landscape levels by maintaining the variety of communities and ecosystems that naturally occur in the DFA	Degree of Within-stand Structural Retention	Meet retention targets as specified in Teal-Jones' Forest Stewardship Plans (FSP)	Zero
Justification for Target	**Basis for the Target**	**Legal Requirements**	**Means of Achieving Objective & Target**	**Monitoring & Measurement**
Legal Requirements	Core Indicator CSA Z809-16 standard	N/A	Operational Planning	Phoenix, Government/Teal-Jones Inspections

STATUS & RESULTS

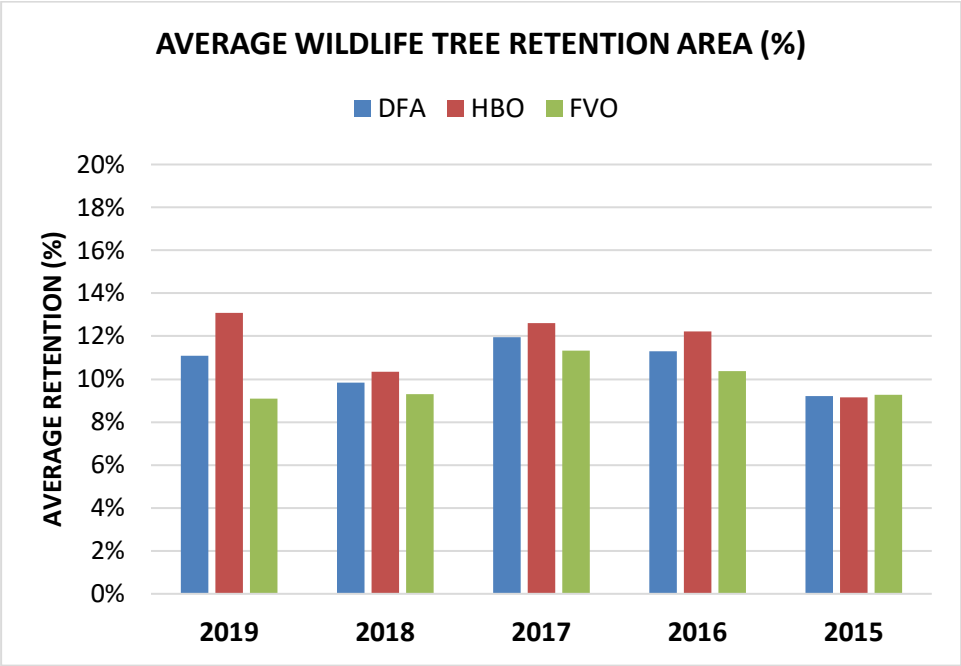
Year	Number of Cutblocks where Harvesting Commenced in Year of Report	Number of Cutblocks that Meet or Exceed Retention Requirements	Average Percent WTRA Retention	Target Met (Y/N)	Variance
2019	63	63	11.1%	Y	Y

In 2019, the average Wildlife Tree Retention Area (WTRA) was 13.1% in the Honeymoon Bay and in the Fraser portion of the DFA was 9.1% and 11.1% across the DFA. Wildlife Tree Retention Areas (WTRAs) met or exceeded retention requirements as outlined in the Site Plan for each block.

TRENDS

All Wildlife Tree Retention Areas (WTRAs) have met or exceeded minimum retention requirements as outlined in the Site Plan and associated FSP for each block for the last 5 years.

Landscape Unit Plans are approved for a large portion of the DFA. It is estimated that the stand level retention targets for those portions of the DFA that are covered by Landscape Unit Plans will be met and remain stable throughout the future. It is not anticipated that government policies regarding stand level retention will change in the near future therefore the indicator should continue to meet or exceed the target.



HISTORY OF INDICATOR

This indicator was developed in 2009 by combining two existing indicators: H1-2 Stand Level Retention (WTRA) (originally developed by SIPAG); and F1-2 Stand Level Retention (WTRA) (originally developed by FPAG). This indicator has been tracked for the Honeymoon Bay portion of the DFA since 2006 and Fraser portion of the DFA since 2007. However, it is important to note, the targets for stand level retention have changed over the years concurrent with changing government objectives. For example, the Honeymoon Bay FSP result or strategy for stand level biodiversity was amended in November 2008 to be consistent with the most recently established government objectives for the Renfrew Aggregate Landscape Units (Caycuse, Gordon, Nitinat, San Juan and Walbran). The Fraser FSP results or strategy for stand level retention were set in February 2007.

STRATEGY

Wildlife Tree Retention Areas (WTRAs) are chosen during cutblock design fieldwork. WTRAs 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., raptor nests, bear dens, etc.). Where possible, WTRAs 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.

There are currently two approved FSP within the DFA, one each for the Honeymoon Bay and Fraser portions. Targets for Wildlife Tree Retention Areas (WTRAs) are set either by legally established objectives in approved Landscape Unit Plans (which in turn must be incorporated into FSPs); or where Landscape Unit Planning is not completed, the FSP sets objectives for stand level retention that are consistent with the Forest and Range Practices Act. Targets are reviewed by a professional forester when the site plan is created to ensure consistencies with landscape unit plans and legal objectives.

All cutblocks where harvesting commences in the year of the report are reviewed and the percent of wildlife tree patches retained is reported. In addition, the average annual percent of WTRAs is reported (determined by dividing the area of WTRA by the total area harvested; including areas covered by permanent access structures and the net area to be reforested) for each of those blocks where harvesting

has commenced in the year of the report. Cutblock information is derived from the Phoenix database, Site Plans and Supporting Information or Engineering files as necessary.

MONITORING

The Forestry Department maintains the block files and Phoenix database which contains cut 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. In addition, Teal-Jones conducts regular inspections of all harvested blocks and government agencies also do periodic inspections.

D1-1: Invasive Species

BACKGROUND INFORMATION

The *Invasive Plants Regulation* under the Forest Range and Practices Act (FRPA) specifies invasive plant species must be addressed within a Forest Stewardship Plan to prevent their introduction or spread into new areas.

Invasive alien plants (also commonly referred to as "weeds") are non-native plants that have found their way into British Columbia without the insect predators and/or plant pathogens that help keep them in check as in their native habitats. Invasive plants often exhibit aggressive growth and typically out-compete native plant species in new habitats. As a result, invasive plants are difficult to control and can adversely affect BC's natural resources.

For interest of the Public Advisory Groups, Teal-Jones will report each year on the invasive species found on recently harvested blocks during regular surveys (regeneration and free growing).

Honeymoon Bay has asked for more information regarding gorse (in SIPAG meeting April 22, 2015) and may request changes to this indicator in the future, or an additional indicator to track the spread and treatment of this invasive species.

Invasive Plants within the Fraser Valley portion of DFA:

- Bull Thistle
- Canada Thistle
- Common Burdock/Burdock Spp.
- Diffuse Knapweed
- Dalmatian Toadflax
- Japanese Knotweed
- Hawkweed spp. (Orange, Smooth, Yellow, etc.)
- Scotch Broom
- Sulphur Cinquefoil
- St. John's Wort
- Spotted Knapweed
- Common Tansy
- Tansy Ragwort
- Oxeye Daisy

Invasive Plants within or near Honeymoon Bay portion of thee DFA:

- Bull Thistle
- Common Tansy
- Oxeye Daisy
- Scotch Broom
- St. John's-Wort
- Canada Thistle
- Giant Knotweed
- Gorse
- Japanese Knotweed

Value	Objective	Indicator	Target	Acceptable Variance
Maintain natural diversity of native flora and fauna	Protection of natural ecosystem resilience to disturbance from invasive species	Compliance with the Invasive Plants measures in the approved Forest Stewardship Plan (FSP)	100% Compliance	Zero
Justification for Target	**Basis for the Target**	**Legal Requirements**	**Means of Achieving Objective & Target**	**Monitoring & Measurement**
PAG input and legal requirements (FSP)	Forest Stewardship Plan	Forest and Range Practices Act	Operational Planning	Forest Stewardship Plan, inspections by government agencies

STATUS & RESULTS

Year	Number of Non-Compliances	Percent Compliance	Target Met (Y/N)	Variance Met (Y/N)
2019	0	100	Y	Y

In 2019, there were no non-compliances for invasive species from Compliance and Enforcement within the DFA. There were no invasive species found within cutblocks in HBO during 2019 free-growing surveys. There were no invasive species were found in blocks in FVO during 2019 free-growing surveys. In addition, there were no incident investigations generated following Teal-Jones inspections indicating non-compliance with invasive species.

Invasive Species Found in the DFA			
Year	**Portion of DFA**	**Number of Blocks**	**Invasive Species**
2019	***Honeymoon Bay***	0	N/A
	Fraser Valley	0	N/A

TRENDS

Fraser Valley

Year	Number of Non-Compliances	Percent Compliance	Target Met (Y/N)	Variance Met (Y/N)
2007- 2018	0	100	Y	Y

Since 2007, there have been no non-compliances issued for invasive species in the Fraser Valley (HBO tracked this indicator differently until 2015).

Honeymoon Bay

Year	Portion of DFA	Invasive Species	Percent Site Occupation at Time of Free Growing
2015	Honeymoon Bay	Broom	0
2014	Honeymoon Bay	Broom	0
2013	Honeymoon Bay	Broom	5%
2012	Honeymoon Bay	None	0
2011	Honeymoon Bay	None	0
2010	Honeymoon Bay	Broom	0.1%
2009	Honeymoon Bay	Broom	0.1%
2008	Honeymoon Bay	None	0
2007	Honeymoon Bay	None	0

Since 2007, boom has been the primary invasive plant species periodically noted in Honeymoon Bay.

Compliance with Teal-Jones' FSP is a legal requirement; therefore, the indicator should continue to meet or exceed the target in the future.

HISTORY OF INDICATOR

This is a new indicator in 2015, and is an amalgamation of the following two indicators:

- H1-9: Invasive Plant Species:
  - Target 0% for Broom, Gorse, Knotweed 10% for Thistle, Tansy, Daisy, St. John's Wort
  - Variance: 5%
- F2-1 Compliance with the Invasive Plants measures in the approved Forest Stewardship Plan (FSP)
  - Target of 100%
  - Variance: 0%

STRATEGY

The Invasive Alien Plant Program - Map Display tool[5] is maintained by the government and provides a visual and spatially tracked database depicting known locations of invasive alien plants species listed under FRPA and other plants with invasive characteristics.

The Teal-Jones' FSP's for FVO and HBO prescribe measures that Teal-Jones will implement to limit the spread of prescribed invasive plants resulting from its forest development activities (refer to each FSP for more detail):

- Monitor the presence and spread of invasive plants during silviculture surveys and road inspections in the plan area.
- Report recorded invasive plant infestations annually to the Invasive Alien Plant Program (if there are no changes to occurrences then no reporting will take place).
- In locations where, invasive plants are known to occur, areas of exposed mineral soil (> 0.25ha) will be revegetated (grass seeding) with Canada Common #1 Forage grade seed.

[5] http://www.for.gov.bc.ca/hra/Plants/application.htm

MONITORING

The Ministry of Forests, Lands and Natural Resource Operations (MFLNRO) compliance and enforcement branch conducts inspections related to compliance with approved the Forest Stewardship Plans. Results of inspections are maintained internally. In addition, Teal-Jones regularly conducts harvest and road inspections.

Monitoring for the presence and spread of invasive plants will also be conducted during silviculture surveys and road inspections within cutblocks and along roads under obligation to Teal-Jones within the DFA. The Invasive Alien Plant Program - Map Display will record present and new infestations in the Fraser Valley.

The Forestry and Engineering Department maintains records of completed grass seeding.

CSA SFM Element 1.2 — Species Diversity

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

C1.2.1: Habitat Protection for Selected Focal Species

FULL INDICATOR NAME: Degree of Habitat Protection for Selected Focal Species, Including Species at Risk

BACKGROUND INFORMATION

Habitat protection in the DFA includes special management (including restrictions on harvesting and/ or road building in some cases) in Wildlife Habitat Areas (WHAs), as well as requirements to retain habitat features such as raptor nests under the BC Wildlife Act. WHAs are mapped areas established to meet the habitat requirements of:

- Selected wildlife species and plant communities identified as Species at Risk (SAR), and
- Regionally Important Wildlife designated by the Minister of Environment under BC's Forest and Range Practices Act

Wildlife Habitat Areas (WHAs) designate critical habitats where activities are managed to limit the impact on the Identified Wildlife for which the area was established. The purpose of WHAs is to conserve those habitats considered most limiting to a given Identified Wildlife species. WHAs are established by order of the Minister Responsible for the Wildlife Act and they may have legally established objectives. For the purposes of this indicator, '*selected focal species including species at risk*' are defined as Identified Wildlife, Species at Risk and Regionally Important Wildlife:

- ***Identified Wildlife*** refers to those Species at Risk and Regionally Important Wildlife that the Minister of Environment, designates as requiring special management attention under the Forest 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, that 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.

Ungulate Winter Ranges (UWR) are established in areas that contain habitat that is considered to be critical to meet the winter habitat requirements for an ungulate species (including deer, elk, moose and goat).

In addition to WHAs, some wildlife habitat features have legal protection under the ***BC Wildlife Act***:

- beaver house, den and dam
- a muskrat house or den, except on diked land
- raptor nests (eagle, peregrine falcon, gyrfalcon, osprey, heron or burrowing owl), and
- a bird or its egg, or the occupied nest of a bird

Under the ***Migratory Bird Convention Act***:

- Migratory birds, their occupied nest or eggs

If these features are encountered in the field during forestry activities, appropriate management strategies are developed.

Value	Objective	Indicator	Target	Acceptable Variance
Species at Risk	Maintain critical habitat as established by government	Degree of Habitat Protection for Selected Focal Species, Including Species at Risk	100% compliance with wildlife management as defined under Wildlife Act & associated Regulations (WHAs or other protected habitat features).	Zero
Justification for Target	**Basis for the Target**	**Legal Requirements**	**Means of Achieving Objective & Target**	**Monitoring & Measurement**
Legal requirements & PAG interest in wildlife protection	Core Indicator CSA Z809-16 standard	N/A	Operational Planning	GIS, Government Inspections

STATUS & RESULTS

The following table defines wildlife protection areas in the DFA.

Year	Location	Wildlife Feature	Species	Number of Blocks with Wildlife Management Strategies	Target Met (Y/N)
2019	HBO	WHA1-003	Goshawk	1	Y
		WHA 1-007, 1-097, 1-099, 1-100, 1-101, 1-102, 1-103, 1-028a, 1-058, 1-109, 1-255-257, 1-427-433, 1-435-439, 1-441, 1-443, 1-445-449, 1-453-455a, b,c, 1-458-468, 1-470, 1-471	Marbled Murrelet	1	
		WHA 1-197	Scouler's Corydalis	0	
		UWR	Roosevelt Elk & Black Tailed Deer	0	
		Raptor nest	Goshawk nests	2	
	FVO	WHA 2-102	Mountain Beaver	0	
		WHA 2-511, 2-512, 2-513	Coastal Tailed Frog	0	
		WHA 2-101, 2-102, 2-109, 2-195, 2-201,2-202, 2-203	Grizzly Bear	0	
		WHA 2-494 to 2-510	Spotted Owl	0	
		UWR U-2-006 (draft)	Deer	0	
		UWR U-2-001	Mountain Goat	0	

**DFA boundaries are: for Honeymoon Bay, boundary of TFL46 and timber licenses, and for Fraser Valley, the Forest Development Unit boundaries.*

In 2019, there were no blocks developed within WHAs in the Fraser Valley portion of the DFA; only one block was developed adjacent (immediately or up to 1km away) to deer and goat winter ranges (UWRs). This block was managed in consistency with applicable wildlife measures for conducting forestry activities adjacent to these wildlife habitats. For critical habitats which were identified outside of the established

wildlife habitat areas, Teal-Jones worked with Qualified Professionals and Government Agencies to ensure the identified habitat and features were protected and monitored appropriately.

In 2019, in Honeymoon Bay, the only access option to a block required road construction along the edge of a post pledging area (PFA) within a designated Wildlife Habitat Area associated with the Northern Goshawk (WHA-1-003). This same block is adjacent to Marbled Murrelet WHA (WHA # 1-101). Several blocks were developed adjacent (immediately or up to 1km away) to deer ranges (UWRs), Marbled Murrelet WHAs, and Goshawk WHAs.

These blocks were managed in consistency with applicable wildlife measures for conducting forestry activities within and adjacent to these WHAs.

TRENDS

In the past management strategies have been developed for wildlife features, including Goshawk, Elk and Black Tailed Deer, Coastal Tailed Frog, Mountain Goat and Deer and blocks are often established adjacent to WHAs. From time to time, Wildlife Habitat Areas are legally established within the DFA.

As the target is a legal requirement, it is anticipated that the indicator will continue to meet the target in the future. Teal-Jones is working cooperatively with appropriate government agencies to ensure that suitable areas for Marbled Murrelet and Goshawk are identified as part of the Species at Risk Implementation Plans for these species; this indicator may therefore incorporate additional areas in the future.

HISTORY OF INDICATOR

The target and variance for this indicator was (for the most part) C1.2.2: Degree of Suitable Habitat in the Long Term for Selected Focal Species, Including Species at Risk. Changed to fit better with this indicator and other wildlife features which have protection.

Indicator also amalgamates the following:

- CF1.2.1: Degree of Habitat Protection for Selected Focal Species, Including Species at Risk
  - Target: 100% Compliance with the Spotted Owl result and strategy in the approved Fraser Valley Operation Forest Stewardship Plan (FSP) section 7.2.2.2
  - Variance: Zero
- F1.8: Percentage of critical Mountain Beaver habitat that is identified and managed as per the strategy
  - Target: 100%
  - Variance: Zero
- F1.13: Percent of identified raptor nests that are protected
  - Target: 100%
  - Variance: Zero

This indicator was developed in 2009 by combining five existing indicators: H1-3 Wildlife Habitat Area; H1-4 Integrated Wildlife Management; and H1-5 Ungulate Winter Range (originally developed by SIPAG); F1-17 Wildlife Habitat Area and F1-19 Ungulate Winter Range (originally developed by FPAG).

STRATEGY

Establishment of WHAs and UWR is the responsibility of government agencies. Teal-Jones has been working cooperatively with the government to identify the WHA and UWR boundaries for the protection of Identified Wildlife (Species at Risk and Regionally Important Wildlife) for those species that have not met Wildlife Habitat Area targets.

Established and draft objectives specify what activities may or may not be undertaken within the WHAs and UWR. These objectives may prohibit any activities or specify parameters around modifying the individual WHA or UWR to facilitate timber harvesting, while also maintaining habitat characteristics. Where the Order provides operational flexibility to revise polygon boundaries, any drawdown of established WHAs require an equivalent replacement area (of greater or equal habitat value) to be added to the WHA or UWR to maintain the total original area.

WHA and UWR are mapped by the GIS department from government data sources (DataBC). Boundaries are not legally surveyed; potential trespass across boundaries will be enforced to a reasonable standard of measurement. Wherever possible, boundaries are located to reduce operational uncertainty. For example, using natural features wherever possible or using complete forest stands (forest cover polygons).

Teal-Jones Forestry and Engineering Department reviews locations of WHAs and UWR during development planning. In most cases, cutblocks and roads are established to avoid WHA and UWR locations. Where access cannot be avoided, and no other practicable option exists, exemptions and approvals are sought from the Ministry responsible (where permitted).

Where any protected wildlife (e.g. raptors nests) are identified through field planning, government inventories or other sources they will be protected. Progress and post-harvesting inspections monitor management of identified raptor nests in cutblocks.

MONITORING

Where permitted, boundary adjustments are made according to the parameters in each individual Order and are tracked through the filing system and Geographical Information System (GIS) department. The Environmental and GIS departments provide a summary of changes to WHAs and UWR hectares.

In Fraser Valley, this will be calculated using Forest Development Units (areas where Teal-Jones may potentially operate) because of operating area changes over time, while in Honeymoon Bay this will be calculated using the operating area boundaries (TFL 46).

Teal-Jones Environment Department tallies the number of blocks which had wildlife management strategies by reviewing operational planning documents and internal inspections as required, on an annual basis.

Government agencies also complete periodic inspections.

C1.2.2: Long-term Suitable Habitat for Selected Focal Species

FULL INDICATOR NAME: Degree of Suitable Habitat in the Long-term for Selected Focal Species, Including Species at Risk

BACKGROUND INFORMATION

Teal-Jones' Chilliwack Forest District Forest Stewardship Plan set out Results or Strategies for Species at Risk identified in Government Action Regulations (GAR) Orders. The (Northern) Spotted Owl (*Strix occidentalis)* is "Red Listed" in BC. It occurs in the south western mainland of BC, but its full range is still unknown.

The goal of management for the Spotted Owl is to stabilize and, if possible, increase populations in BC by maintaining suitable habitat. To achieve this goal, GAR Orders have established Wildlife Habitat Areas (WHAs) to preserve and maintain suitable owl habitat over the long-term. Teal-Jones' Chilliwack Natural Resource District FSP specifies Results or Strategies for maintaining habitat and habitat qualities in established WHAs.

This indicator currently applies only to Fraser Valley Operations, since there are no WHAs for Spotted Owl in TFL 46. At this time Honeymoon Bay Operations have no other strategies for wildlife other than those outlined for Indicators C1.2.1 and C1.4.2.

Value	Objective	Indicator	Target	Acceptable Variance
Focal Species and Species at Risk	Maintain critical habitat	Degree of Suitable Habitat in the Long-Term for Selected Focal Species, Including Species at Risk	100% Compliance with the Spotted Owl result/ strategy in the approved Fraser Valley Operation FSP section 8.2.2.4	Zero
Justification for Target	**Basis for the Target**	**Legal Requirements**	**Means of Achieving Objective & Target**	**Monitoring & Measurement**
Legal requirements and PAG interest	Core Indicator CSA Z809-16 standard	N/A	Operational Planning	GIS, Government Inspections

STATUS & RESULTS

Year	Percent Compliance with FSP R/S for FSP Section 8.2.2.4	Target Met (Y/N)	Variance Met (Y/N)
2019	100	Y	Y

In 2019, there were no Compliance and Enforcement non-compliances, or Teal-Jones Incident Investigations completed in relation to the Spotted Owl result/strategy in the approved Fraser Valley Operation Forest Stewardship Plan.

TRENDS

To date, Teal-Jones has been consistent with the Forest Stewardship Plan Result and Strategy for Spotted Owl in the Chilliwack Natural Resource District. There have been no Compliance and Enforcement non-compliances, or Teal-Jones Incident Investigations related to the Spotted Owl.

It is anticipated that the indicator will continue to meet the target in the future as Teal-Jones intends to fully comply with the requirements for Spotted Owl WHAs in the future. Where harvesting is permitted, it will be conducted in a manner consistent with the Results or Strategies within the FSP and applicable GAR Orders.

Year	Percent Compliance with FSP R/S for FSP section 7.2.2.2	Target Met (Y/N)	Variance Met (Y/N)
2007-2018	100	Y	Y

HISTORY OF INDICATOR

The target for this indicator was previously the target for C1.2.1. The focus of this indicator is maintaining habitat across portions of this landscape and aligns more consistently with this indicator. Currently, it is only applicable to the Fraser portion of the DFA. This indicator was originally developed by FPAG as F1-16 Spotted Owl.

STRATEGY

Establishment of WHA is the responsibility of government agencies. Teal-Jones has been working cooperatively with the government to identify WHA boundaries for the protection of Identified Wildlife (Species at Risk and Regionally Important Wildlife) for those species that have not met Wildlife Habitat Area targets.

Established and draft objectives specify what activities may or may not be undertaken within the WHAs. These objectives may prohibit any activities or specify parameters around modifying the individual WHA polygons to facilitate timber harvesting, while also maintaining habitat characteristics. Where the Order provides operational flexibility to revise polygon boundaries, any drawdown of established WHAs require an equivalent replacement area (of greater or equal habitat value) to be added to the WHA to maintain the total original area.

WHAs are mapped by the GIS department from government data sources (DataBC). Boundaries are not legally surveyed; potential trespass across boundaries will be enforced to a reasonable standard of measurement. Wherever possible, boundaries are located to reduce operational uncertainty. For example, using natural features wherever possible or using complete forest stands (forest cover polygons).

Teal-Jones' Forestry and Engineering Department reviews locations of WHA during development planning. In most cases, cutblocks and roads are established to avoid WHA locations. Where access cannot be avoided, and no other practicable option exists, exemptions and approvals are sought from the Ministry responsible (where permitted).

MONITORING

Where permitted, boundary adjustments are made according to the parameters in individual Orders and are tracked through the filing system and Geographical Information System (GIS) department. The Environmental and GIS departments provide a summary of changes to WHA hectares.

In Fraser Valley, this will be calculated using Forest Development Units (areas where Teal-Jones may potentially operate) because of operating area changes over time.

The Environment Department tallies the number of blocks which had wildlife management strategies by reviewing operational planning documents and internal inspections as required annually.

Road and harvesting inspections are completed for all blocks, a minimum of once when harvesting or road building is complete. If it is noted that Spotted Owl WHA areas were not managed in accordance with the current Forest Stewardship Plan an Incident Investigation may be initiated.

Government agencies also complete periodic inspections.

C1.2.3: Proportion of Regeneration Comprised of Native Species

Please note this indicator is also C2.1.2: Proportion of Regeneration Comprised of Native Species.

BACKGROUND INFORMATION

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 establishing criteria for the registration of seedlots and vegetative lots used to establish a stand and regulating the storage, selection, use and transfer of registered lots.[6]

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

Genetic class indicates the source of the seed or vegetative material. Class "A" seed originates from a seed orchard and has a certain level of genetic gain over natural stand seed. Class "B" seed or vegetative material originates from natural stands, plantations or vegetative material production facilities. Natural stands determined to have superior genetics are identified as "B+" seed class.

Value	Objective	Indicator	Target	Acceptable Variance
Healthy forests with genetic diversity; forest productivity and wood quality	Maintain genetic diversity of native tree species, forest productivity and wood quality	Proportion of Regeneration Comprised of Native Species	100% of seed used for reforestation registered according to the Chief Forester's Standards for Seed Use	Zero

Justification for Target	Basis for the Target	Legal Requirements	Means of Achieving Objective & Target	Monitoring & Measurement
Chief Forester's Standards for Seed Use	Core Indicator CSA Z809-16 standard	N/A	Operational Planning	Seed Planning and Registry System (SPAR), Phoenix, Government Inspections

STATUS & RESULTS

Year	Percent of Seed Used that is Registered	Target Met (Y/N)	Variance
2019	100	Y	0

All seed used across the DFA is registered; annual reporting indicates that this target has been consistently met, as it is in the 2019 reporting year.

TRENDS

All seedlots that have been planted since 2006 (HBO) and 2007 (FVO) are confirmed to be registered seed within the SPAR database.
Teal-Jones does not currently grow their own seedlings; rather they purchase seedlings 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 indicator will continue to meet the target in the future.

HISTORY OF INDICATOR

This indicator was developed in 2009 by combining two existing indicators:

- H1-11 Reforestation Seed Source (originally developed by SIPAG)
- F1-14 Registered Seed (originally developed by FPAG).

This indicator has been tracked since 2006 for the Honeymoon Bay portion of the DFA and 2007 for the Fraser portion of the DFA.

STRATEGY

Teal-Jones' Forestry Department purchases seedlings from independent tree nurseries that grow the seedlings with seed that is registered (legally required). Class B seed is used when Class A seed is not available.

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. Seedlots utilized in reforestation are recorded within the cutblock history in the Phoenix database. The provincial Seed Planning and Registry System (SPAR) database tracks registered seedlot information.

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 "Status and Results" using the provincial seed registry database SPAR, and compliance reports from Government agencies.

Government agencies also complete periodic inspections (cross reference the Compliance Tracker).

CSA SFM Element 1.3 – Genetic Diversity

There are no CSA core indicators specified for this element because genetic diversity is difficult to directly quantify. However, several indicators provide a surrogate measure of genetic diversity at the landscape level (across ecosystems for example) and at the stand level (regeneration for example), including:

- C1.1.1: Ecosystem Area by Type
- C1.1.2: Forest Area by Type or Species Composition
- C1.1.3: Forest Area by Seral Stage or Age Class
- C1.2.3: Proportion of Regeneration Comprised of Native Species

CSA SFM Element 1.4 — Protected Areas and Sites of Special Biological and Cultural Significance

Respect protected areas identified through government processes. Co-operate in broader landscape management related to protected areas and sites of special biological and cultural significance.

Identify sites of special geological, biological, or cultural significance within the DFA, and implement management strategies appropriate to their long-term maintenance.

C1.4.1: Protection of Sites of Special Significance

BACKGROUND INFORMATION

Sites of biological, heritage or cultural significance include critical areas for wildlife habitat, sensitive sites including spiritual, heritage and cultural sites, and unusual or rare forest conditions or communities. Teal-Jones will evaluate all potential sites, which may include for example: sites of biological significance (for example unique biological features that are not protected through current legislation e.g., salt licks, unclassified swamps or bear dens); special geographical features (e.g., caves, karst features); historically significant sites (e.g., a cultural heritage feature); or cultural significance, including Cultural Heritage Resources[7] (e.g., old cedar trees, a recreation trail).

The intent is to provide some form 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
Special sites	Manage rare or unique sites of ecological, geological, historical or cultural importance in a manner that recognizes and maintains their special qualities	Protection of Sites of Special Significance	Spatially track all sites of special significance identified and implement management strategies appropriate to their long-term maintenance	Zero
Justification for Target	**Basis for the Target**	**Legal Requirements**	**Means of Achieving Objective & Target**	**Monitoring & Measurement**
Maintenance of special sites, including tracking these sites spatially	Core Indicator CSA Z809-16 standard	N/A	Operational Planning	GIS

[7] Cultural Heritage Resources (CHR) are defined in the Forest Act 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'

STATUS & RESULTS

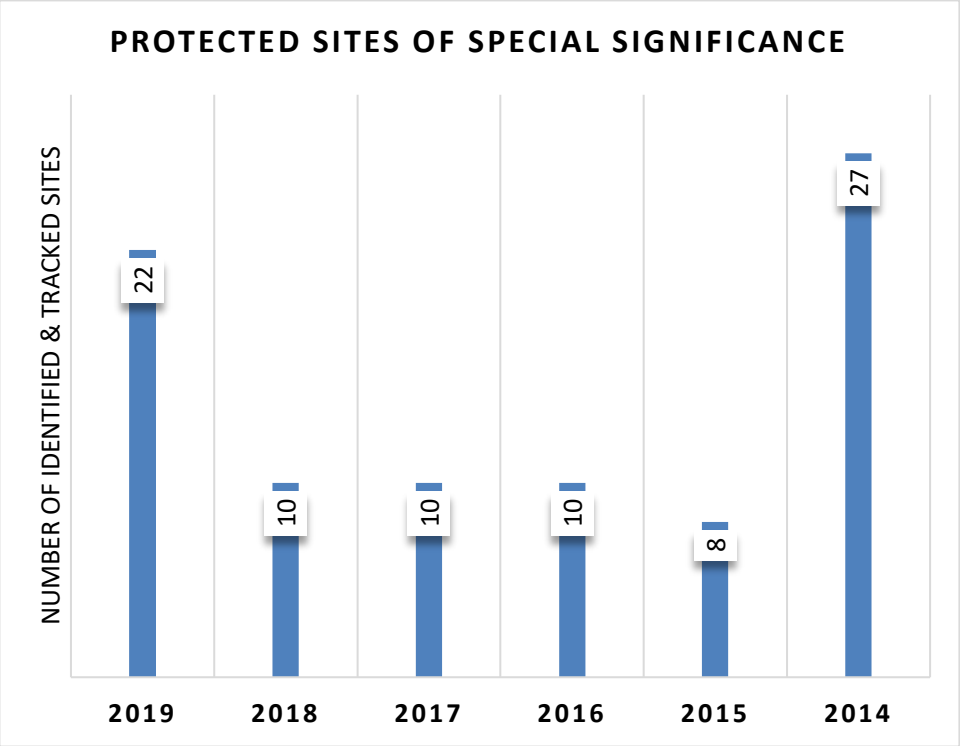
Year	Description of the Site	How was the Feature Addressed?	Site Spatially Tracked?	Target Met (Y/N)	Variance Met (Y/N)
2019	***Cedar trees and other tree species or small areas containing cedar trees that meet or will meet the size and quality parameters as specified in the Pacheedaht First Nation – Cultural Cedar Conservation Strategy***	There are 852 trees in current inventory (HBO); no new trees were added in 2019. Trees are marked in the field and tracked on maps with GPS coordinates.	NA (2019)	Y	Y
	Recreation Reserve Area	Cutblock layout was altered to exclude recreation reserve area (HBO).	Yes		
	Pacheedaht First Nation Treaty Lands	Cutblock layout was altered to exclude Pacheedaht Treaty Settlement Lands (HBO).	Yes		
	Culturally Modified Trees (CMTs)	3 post-1846 CMT were identified in FVO. Cutblock layout was altered to exclude the CMT and to ensure it would not be impacted by windthrow.	Yes		
	Areas of Potential (AOPs)	9 AOPs for subsurface materials were identified in blocks in 2019 (FVO); the areas were managed with machine free zones, or removed from cutblocks as per recommendations provided in the Archaeological Impact Assessment (AIA)	Yes		
	Northern Goshawk	Several Northern Goshawk nests were identified in cutblocks in 2019 (HBO and FVO). R. P. Bio completed a field assessment and recommendations were implemented into the cutblock layout.	Yes		
	Mountain Beaver Den	Several Mountain Beaver dens were identified in a cutblock in 2019 (FVO). An R. P. Bio completed a field assessment and recommendations were implemented into the cutblock layout.	NA		
	Bear Den	Several Bear dens were identified in a cutblock in 2019 (FVO). Sites were addressed in the field, with a buffer applied to the den and removed from the cutblock.	NA		

There were 22 special sites identified and tracked in the DFA in 2019.

In the HBO portion of the DFA, seven (7) special sides were identified including Northern Goshawk raptors nests, bear dens, a research plot, and 1 karst. Management strategies were formulated and implemented to ensure their long-term management; cutblock layout was altered to exclude these areas.

In the FVO portion of the DFA, fifteen (15) special sites were identified including three (3) culturally modified trees (CMTs), 9 Areas of Potential (AOP) for subsurface materials, and several Mountain Beaver Dens. Management strategies were formulated through the recommendations of an Archaeologist (Archaeological Impact Assessment) and a Registered Professional Biologist (R. P. Bio) and implemented to ensure their long-term management. The AOPs were managed with machine free zones or removed from the proposed cutblocks, as per recommendations provided in the Archaeological Impact Assessment (AIA), the Cultural Sites were situated on a decommissioned logging road expected to be reopened during forestry operations. After consulting with the First Nation it was determined that the most suitable course of action would be to have cultural workers move the cultural materials to another nearby location where they would not be impacted. Several Mountain Beaver dens were identified in a cutblock in 2019 (FVO). A Registered Professional Biologist (R. P. Bio) completed a field assessment and recommendations were implemented into the cutblock layout.

TRENDS



Historically, sites of special significance have included karst features, bear dens, archaeological sites, cultural resources, culturally modified trees, deer winter range, wildlife tree patch overlaps, research plots, Northern Goshawk sites and forage area, recreational sites, coastal tailed frog habitat and identification of Pacheedaht First Nation – Cultural Cedar Conservation Strategy trees that were either protected within or removed from associated blocks.

Identification of sites fluctuates depending on the areas of operation and therefore it is anticipated that the indicator will meet the target in the future.

HISTORY OF INDICATOR

In 2016 this indicator, which was C1.4.2, became C1.4.1, due to changes in the CSA Standard (CSA Z809-16).

In 2015 amalgamates:

- H1.6: Number of bear dens found during field work that are protected
- H6-9: Pacheedaht Cultural Cedar 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
- F3-12: Quality & Quantity of Potable Water. Number of licensed water intakes, wells and streams where the comparison of available and comparable information from pre and post harvesting indicates negative impacts to water quality and quantity.

This indicator was developed in 2010 by combining three existing indicators: H1-12 and H5-5 Sites of Special Significance (originally developed by SIPAG); and F1-20 Special Biological Sites (originally developed by FPAG).

STRATEGY

Cedar Trees

Teal-Jones has a protocol agreement with the Pacheedaht First Nation with the goal of identifying, mapping and documenting at least 800 specific cedar trees that meet or will meet the size and quality parameters as specified in the Pacheedaht First Nation – Cultural Cedar Conservation Strategy. This goal was met as requested by December 2014.

Teal-Jones incorporates cedar conservation into planning. Trees are preferably selected from previously constrained areas, such as Riparian Reserve areas or Old Growth Management Areas 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-Jones 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.

Bear Dens

Bear dens are considered critical habitat in landscapes with significant second growth stands. These are not legally protected, but Teal-Jones currently retains all dens (remove from the harvest block) as determined by a professional, considering the quality of the den as well as safety issues.

Water Intakes

During field work, water supply infrastructure and associated streams, etc. are located and assessed. In some cases, a qualified professional hydrologist or geotechnical expert may be consulted. Layout will take into consideration the water supply and any recommendations in order to provide adequate protection.

Other Resources

During cutblock and road planning activities, Registered Professional Foresters evaluate site specific values or conditions and where special sites that are encountered they develop appropriate management actions in conjunction with the site level planning (e.g., Logging Plan, Road Construction Map, and Site Plan).

Sites of special biological 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 such as karst; inventory and mapping. Some sensitivity exists around culturally important sites, and these areas may be tracked for mapping by the First Nation rather than Teal-Jones.

MONITORING

Teal-Jones tracks the number of cedar trees identified under the Pacheedaht First Nation – Cultural Cedar Conservation Strategy.

The purpose of this indicator is to track features which may or may not have legal protection but are outside the reporting scope of other indicators. For example, it tracks culturally modified trees, karst, and bear dens, but not Wildlife Habitat Areas or raptors nests which are reported as legally protected wildlife under Indicator C.1.2.1.

The Teal-Jones 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).

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

C1.4.2: Identified Sites with Management Strategies

FULL INDICATOR NAME: Proportion of Identified Sites with Implemented Management Strategies

BACKGROUND INFORMATION

The term "Identified" is defined within the CSA Standard as meaning sites that are known to government from prior inventories and processes. However, for the purposes of this indicator the term "identified" may also include sites which are identified as part of the planning process prior to harvesting and road planning.

Teal-Jones has two Forest Stewardship Plans (Fraser Valley and Honeymoon Bay) approved by Government agencies that specifies their commitments in Results or Strategies. These include objectives for wildlife, old growth, water & fish, biodiversity, water in community watersheds, cultural heritage resources, and visual quality.

Routinely, Teal-Jones uses qualified professionals to identify when management strategies are required to meet management objectives, and to carry out the assessments which are incorporated into Teal-Jones' planning.

Teal-Jones is legally required to meet the objectives in the Forest Stewardship Plan, therefore the target is 100%, with a variance of zero.

Value	Objective	Indicator	Target	Acceptable Variance
Identified Sites	Manage rare or unique sites of ecological, geological, historical, cultural or local community importance in a manner that recognizes their special qualities	Proportion of Identified Sites with Implemented Management Strategies	100% of identified sites within the DFA have implemented management strategies as per the approved FSP, including professional assessment reports	Zero
Justification for Target	**Basis for the Target**	**Legal Requirements**	**Means of Achieving Objective & Target**	**Monitoring & Measurement**
PAG indicators which focused on hiring experts for assessments and implementing recommendations from the plans	Core Indicator CSA Z809-16 standard	N/A	Strategic & Operational Planning	Third Party Audits, Government Inspections

STATUS & RESULTS

Year	Number Cutblocks Harvested 2018	Number of Bocks with Implemented Management Strategies as per the Approved FSP	Percent Compliance	Target Met (Y/N)	Variance Met (Y/N)
2019	28 (HBO) 35 (FVO)	63	100%	Y	Y

There were 63 cutblocks harvested in the Defined Forest Area in 2019; all blocks had applicable management strategies implemented as per the approved FSP, as evidenced by harvest and road inspections and internal audit. There were no non-conformances or non-compliances filed in 2019 regarding the implementation of management strategies as per approved FSPs in the DFA.

TRENDS

Historically, all blocks had management strategies implemented as per the approved applicable FSP, as evidenced by harvest and road inspections, except for one block in the Fraser Valley in 2014.

Teal-Jones anticipates that the indicator will continue to meet this target in the future for the following reasons:

- developing results and strategies within the FSP to implement the management strategies for identified sites is a legal requirement, and
- Teal-Jones will continue to incorporate the results from professional assessments into planning.

HISTORY OF INDICATOR

In 2016 this indicator, which was C1.4.1, became C1.4.2, due to changes in the CSA Standard (CSA Z809-16). As of 2015, this indicator incorporates two FVO indicators focussed on conformance to hydrological and terrain assessments near communities:

- F5-7: Conformance with Assessments Completion and conformance with site specific hydrological and/ or terrain stability assessment reports from qualified professionals (selected with input from the potentially affected community) where human safety, infrastructure, private or community property is at risk due to slides, debris torrents or flooding that can be attributed to harvesting or roads
  - Target: 100% conformance with recommendations from qualified professional reports
  - Variance: Zero
- F5-6: Reporting Terrain Related Threats. Percentage of identified stream or terrain related threats reported to the applicable Regional District.
  - Target: 100%
  - Variance: Zero

Also reported in D5-2 Public Safety.

- This indicator was initially developed in 2009 by SIPAG and FPAG.

STRATEGY

Objectives are set by Government for managing and protecting forest values. Teal-Jones must have a Forest Stewardship Plan approved by Government agencies that specifies their commitments as Results or Strategies that will ensure they implement the management objectives.

MONITORING

Registered Professional Foresters evaluate site specific values or conditions during the planning stages to determine if proposed activities meet objectives of the Forest Stewardship Plan. Other qualified professionals are contracted to do site level assessments as required, for example Archaeologists, Biologists, Geologists, etc.

After harvesting, internal inspections of harvesting and road building activities evaluate the implementation of the plans. All outstanding issues are tracked, and serious issues lead to an Incident Investigation internally. Reviews of Incident Investigations take place by Management Environment Review Committee. Third party auditors and Government agencies do periodic inspections, which would indicate any non-compliances issued.

- The Environmental Department will review audits and inspections and report under “Status and Results”

CCFM Criterion 2: Ecosystem Condition and Productivity

Conserve forest ecosystem condition and productivity by maintaining the health, vitality, and rates of biological production.

CSA SFM Element 2.1: Forest Ecosystem Condition & Productivity

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

C2.1.1: Reforestation Success

BACKGROUND INFORMATION

Reforestation or successful regeneration is defined within the applicable approved stocking standards. The standards vary for each biogeoclimatic subzone and variant, but in general the standards require a minimum number of well-spaced seedlings, measured in stems per hectare, of a commercially viable and ecologically suitable species, of good form and vigour. Stocking Standards are found in the approved Forest Stewardship Plan (FSP) or Forest Development Plan (FDP), as applicable and have been approved by Government.

Value	Objective	Indicator	Target	Acceptable Variance
Regeneration of Harvested Areas	Prompt and Successful Regeneration of Harvested Areas	Reforestation Success	Full Compliance with Regeneration Delay Requirements in Approved Stocking Standards	Zero
Justification for Target	**Basis for the Target**	**Legal Requirements**	**Means of Achieving Objective & Target**	**Monitoring & Measurement**
Legal Requirement	Core Indicator CSA Z809-16 standard	Forest and Range Practices Code	Operational Planning	Phoenix, RESULTS, Silviculture Surveys, Government Inspections

STATUS & RESULTS

Year	Operation	Number of Cutblocks with Regen. Expiring	Number of Cutblocks that Met Regen.	Percent Compliance	Target Met (Y/N)	Variance
2019	HBO	33	33	100%	Y	Zero
	FVO	59	59	100%	Y	Zero

In 2019, in the Honeymoon Bay portion of the DFA, there were 33 cutblocks with regeneration expiry dates within the year that were determined to have achieved the required stocking levels of well-spaced stems per hectare. This represents 100% compliance with the target for this indicator.

In the Fraser portion of the DFA, there were 59 cutblocks with regeneration expiry dates in 2019 and 59 were determined to have achieved the required stocking levels of well-spaced stems per hectare. This represents 100% compliance with the target for this indicator.

TRENDS

This indicator has been tracked for the Honeymoon Bay portion of the DFA since 2006 and Fraser portion of the DFA since 2007. With the exception of 2009, the Honeymoon Bay portion of the DFA has been 100% in compliance with the regeneration standards. The Fraser Valley portion of the DFA has been 100% in compliance with the regeneration standards. To date, there have been no non-compliances issued with respect to regeneration delay.

Teal-Jones implements a rigorous planting and survey program in order to ensure compliance and therefore it is anticipated that the indicator will continue to meet the target in the future.

HISTORY OF INDICATOR

As of 2015, the indicator incorporates Indicator F4-2: Time to Reforestation.

STRATEGY

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. Regeneration is assessed by field surveys conducted under the supervision of Teal-Jones' Forestry and Engineering Department. This assessment may be completed directly after planting and must be completed within the period prescribed in approved stocking standards. Approved stocking standards provide a maximum of 3 to 7 years (dependent on ecosystem) after harvest commencement before regeneration requirements must be met. Regeneration status may be assessed from immediately after planting completion up to the late regeneration date (i.e. the end of the regeneration delay window)

Where there has been selection type harvesting or where low numbers of trees are harvested and significant amounts of timber and/ or advanced natural regeneration is retained, regeneration may be assessed right after harvest completion to evaluate the number, species and health of trees retained. In most cases, this low level of harvest removal does not require re-stocking by planting.

MONITORING

Cutblocks are surveyed as per the Forest Practices Branch Stocking and Free Growing Surveys Procedures Manual (May 2002) to determine if they meet stocking standards. Cutblock regeneration status will be derived from the Phoenix database and/or the "RESULTS" electronic reporting database system by the Forestry Department.

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". In addition, PAGs have requested reporting of % of cutblocks which met regen requirements prior to the year of expiry. Government agencies also do periodic inspections (cross reference the Compliance Tracker).

C2.1.2: Proportion of Regeneration Comprised of Native Species

Please note that information on this indicator can be found in C1.2.3: Proportion of Regeneration Comprised of Native Species.

C2.1.3: Additions and Deletions to the Forest Area

BACKGROUND INFORMATION

Conversion of forest lands to other uses may include proposals for agriculture, urbanization, mining, industrial development, utility corridors, etc. which turn productive forest land into non-forest use. This indicator does not include forest land conversion to forest access roads for forestry.

Additions to forest lands could include afforestation (i.e., planting seeds or trees to create a forest on an area which was not previously forested or has not been a forest for a significant time period. In British Columbia, this is unlikely to occur. Crown owned forest lands are licenced based on the availability of timber and non-forest areas are not included in the timber harvesting landbase by definition. Afforestation is a different process from reforestation which is the reestablishment of a forest after removal or disturbance, for example from timber harvesting.

Value	Objective	Indicator	Target	Acceptable Variance
Minimize loss productive area	Minimize Conversion of Forests to Non-Forest uses	Additions and Deletions to the Forest Area	Evaluate and Respond to 100% of all Formal Proposals for Conversion of Forested Lands to Non-forest Uses	Zero
Justification for Target	**Basis for the Target**	**Legal Requirements**	**Means of Achieving Objective & Target**	**Monitoring & Measurement**
Teal-Jones generally responds to all proposals as it is in their best interest to minimize productive forest loss.	Core Indicator CSA Z809-16 standard	N/A	Operational Planning	Communication files

STATUS & RESULTS

Year	Number of Proposals for Conversion of Forested Lands	Number of Responses	Percent of Responses	Target Met (Y/N)	Variance
2019	0	0	N/A	Y	0

In 2019, there were no formal proposals for conversion of forested lands to non-forest uses in HBO or FVO.

TRENDS

Historically, there have been a few proposals for conversion of forest lands in the DFA, in 2017 in the Fraser Valley and in 2009 in Honeymoon Bay.

The DFA is a relatively stable area, however it is anticipated that Teal-Jones will continue to receive requests for minor area removals from the DFA over the long-term future (i.e., rights of way). There are no afforestation projects proposed so additions to the forest land area are not expected. As it is in the best interest of Teal-Jones to minimize forest land loss, it is anticipated that the indicator will continue to meet the target in the future.

HISTORY OF INDICATOR

In 2016 this indicator, which was C2.2.1, became C2.1.3, due to changes in the CSA Standard (CSA Z809-16).

This indicator was developed in 2011 by combining two existing indicators: H4-3 Conversion of Forest Lands (originally developed by SIPAG); and F4-7 Conversion of Forest Lands (originally developed by FPAG).

STRATEGY

Proposals referred to Teal-Jones will be reviewed by the Manager, Forestry and Engineering and responses will be sent within the time periods specified in the individual referrals. All proposal correspondence and their respective responses from Teal-Jones 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".

C2.1.4: Long-term Sustainable Harvest

FULL INDICATOR NAME: Proportion of the Calculated Long-term Sustainable Harvest Level that is Actually Harvested

BACKGROUND INFORMATION

The sustainable harvest level, referred to as Allowable Annual Cut (AAC), is determined by the Chief Forester and reviewed every 5 years after the date of the last determination in the Timber Supply Review. Under Section 7 of the Forest Act, 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, considering 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; and
- the economic and social objectives of the Crown, as expressed by the minister for the area, the general region and the Province.

Cut control rules under the Forest Act are continuously being updated, however in general there is flexibility built in so that within a five-year term licences can cut over or under their annual allowable cut

level if the five-year average is equivalent to the total cut for five years. Licensees may have an undercut at the five-year point without penalty; and an overcut of up to 10% without penalty. If the overcut is greater than 10% after the 5-year term, then the subsequent 5-year cut is reduced by that amount and licensees pay additional stumpage according to cut control regulations.

Value	Objective	Indicator	Target	Acceptable Variance
Timber	Sustainable Harvest Levels	Proportion of the calculated long-term sustainable harvest level that is harvested	100% compliance with Allowable Annual Cutover Cut Control Period	As allowed under the Forest Act cut control rules
Justification for Target	**Basis for the Target**	**Legal Requirements**	**Means of Achieving Objective & Target**	**Monitoring & Measurement**
As per Cut Control Regulations	Timber Supply Review	Forest Act	Operational Planning	Scaling Records, Waste & Residue Surveys, MOF Electronic Submissions, Inspections by Government Agencies

STATUS & RESULTS

Honeymoon Bay

In the Honeymoon Bay portion of the DFA the total timber harvested in 2019 resulted in a slight undercut of the allowable annual cut (AAC); this is the second year in the 5-year cut control period. There was 238,947m^3 of wood harvested in the Honeymoon Bay portion of the DFA (TFL 46) in 2019; this is 128,484 m^3 below the AAC (367,431m^3) for 2019. This is the second year of the cut control period, Teal-Jones anticipates this undercut will be balanced out in future years, consistent with historical harvest volume variability from year to year in HBO. Therefore, Teal-Jones is predicted to be in compliance with the Allowable Annual Cut Control Limit for the Cut Control Period from 2018 to 2022.

Honeymoon Bay Cut Control Summary						
Year	**HBO 5-year Cut Control (m^3)**	**HBO AAC (m^3)**	**HBO Harvested (m^3)**	**Percent Compliance with Cut Control***	**Target Met (Y/N)**	**Variance Met (Y/N)**
2019 (2018-2022)	1,837,155	**367,431**	**238,947**	100%	Y	n/a

Fraser Valley

In the Fraser Valley portion of the DFA the total timber harvested in 2019 resulted in a slight undercut of the allowable annual cut (AAC); this is the third year in the 5-year cut control period. In 2019, 274,628 m^3 were harvested In the Fraser Valley. This harvest level for 2019 is 39,752 m^3 under the allowable annual cut under FL A19201). Teal-Jones anticipates that this undercut will be balanced out in future years, consistent with historical harvest volume variability from year to year in FVO. Therefore, Teal-Jones is predicted to be in compliance with the Allowable Annual Cut Control Limit for the Cut Control Period from 2017 to 2021.

There is no AAC set for TL T0822, therefore, it is not included in the FVO AAC or volume harvested in the table above.

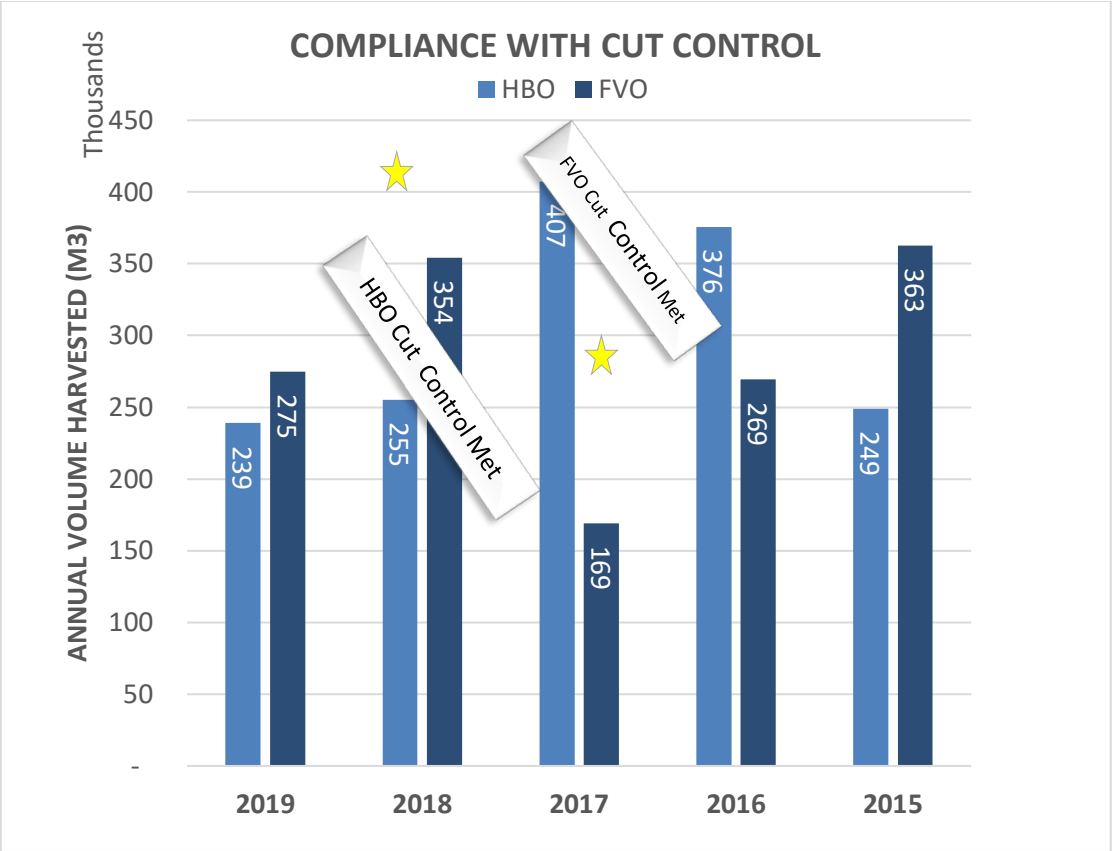
In the Fraser portion of the DFA, the current cut control period is 2017-2021. The current cut control period ends in 2021 and results for the five-year cut control period will be finalized by the MFLNRORD in summer 2022.

Fraser Valley Cut Control Summary						
Year	**FVO 5 year cut control (m^3)**	**FVO AAC (m^3)**	**FVO Harvested (m^3)**	**Percent Compliance with Cut Control**	**Target Met (Y/N)**	**Variance Met (Y/N)**
2019 (2017-2021)	1,571,900	**314,380**	**274,628**	100%	Y	n/a

TRENDS

Historically, Teal-Jones has been in compliance with the Allowable Annual Cut Control Limits.

It is likely that the Allowable Annual Cut will not have any further significant changes in the next Timber Supply Review for the Honeymoon Bay portion of the DFA (TFL 46) following the 2011 determination. The Timber Supply Review for the Fraser portion of the DFA has been set at approximately 1.2 million cubic meters since 1999, therefore, it is anticipated the Allowable Annual Cut will not have any significant changes in the future; it was set at 1 235 700 cubic meter in 2016. It is anticipated that the indicator will continue to meet the target in the future.



HISTORY OF INDICATOR

In 2016 this indicator, which was C2.2.2, became C2.1.4, due to changes in the CSA Standard (CSA Z809-16).

This indicator was developed by rewording an existing indicator: H5-1 Annual Harvest Levels (originally developed by SIPAG in 2006) and adopted by FPAG in 2010.

STRATEGY

Scaled volumes from the Dryland Sort and the Salvage Supervisor (as well as waste and residue volume) is reported electronically to Ministry of Lands and Natural Resource Operations. Annually, a cut control letter is also issued by the Ministry of Lands and Natural Resource Operations 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".

D2-1: Accidental Industrial Caused Fires

BACKGROUND INFORMATION

Accidental 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 preventable impacts resulting from Teal-Jones' forest activities and does not include '*acts of nature*' or unforeseeable circumstances (i.e., vandalism). The public advisory groups have asked for reporting requirements of this indicator to include events which impact riparian areas as well as events which occur upstream from licensed water intakes and wells.

Value	Objective	Indicator	Target	Acceptable Variance
Healthy Forests	Minimize stress associated with harvesting	Number of Accidental Industrial Caused Fires > ½ ha in size	Zero incidents	Average one incident per year over a five-year rolling average
Justification for Target	**Basis for the Target**	**Legal Requirements**	**Means of Achieving Objective & Target**	**Monitoring & Measurement**
The intent is to have zero incidents. Leeway given for small (< ½ ha) fires at request of SIPAG. Variance is to account for accidents which do occur from time to time.	Combining several previous indicators into one indicator, public concern	Wildfire Act	Operational Planning, Emergency Preparedness & Response Plans	Incident Investigations, Fire Reports

STATUS & RESULTS

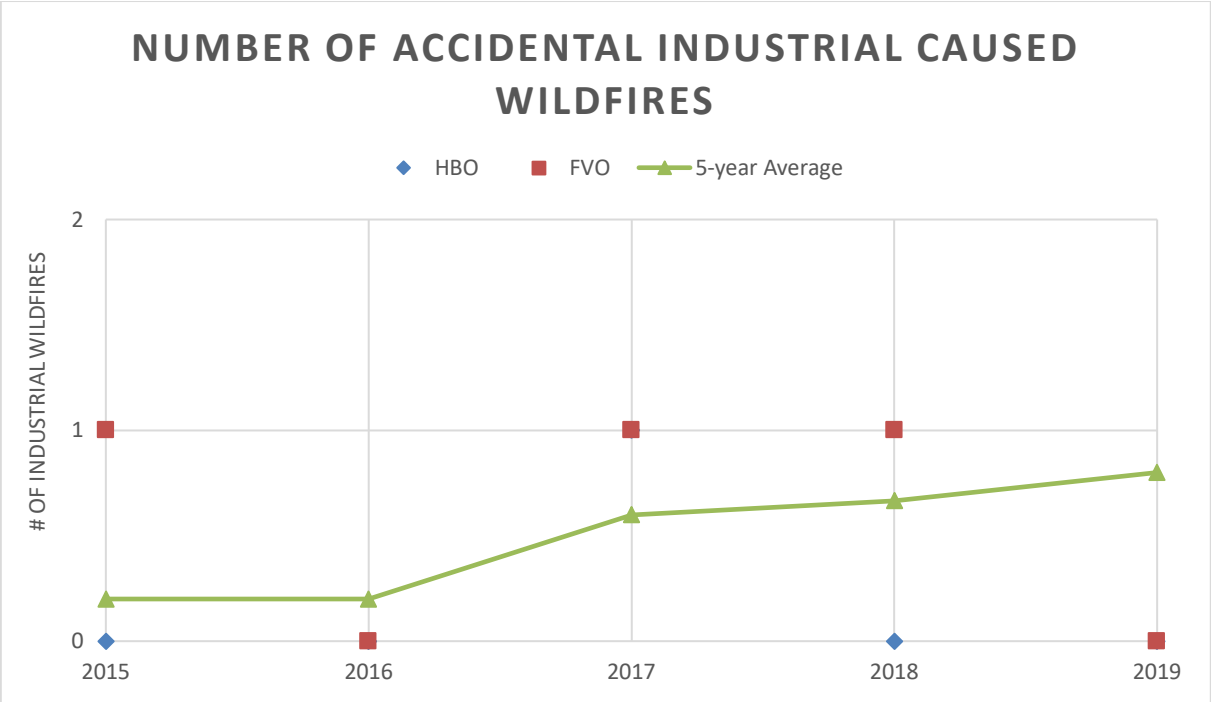
Year	HBO	FVO	Target Met (Y/N)	Variance
2019	0	0	N	Y 0.8/year over 5 years (< 1 incident/year over 5-year average)

There were no industrial caused wildfires in the Fraser Valley portion of the DFA in 2019 as well as the HBO portion of the DA. There was 1 document fire report in HBO which was caused by a campfire which was not properly extinguished by the Public which was reported by Teal-Jones.

TRENDS

Historically, on an annual basis, there has been no more than one accidental industrial caused wildfire across the DFA, based on a 5-year rolling average, consistent with the acceptable variance. There have been some years with zero industrial caused wildfires greater than ½ ha in size within the DFA.

Teal-Jones continues to do regular training, maintenance and inspections, follow Standard Operating Procedures and Emergency Preparedness and Response Procedures to prevent and respond appropriately to fires. Therefore, it is anticipated that while Teal-Jones will aim for zero incidents, there will continue to be some accidental caused fires within the DFA, the number generally within the allowable variance.



HISTORY OF INDICATOR

This indicator was developed in 2011, based on existing indicators:

- H2-3 Industrial Caused Fire (originally developed by SIPAG); and
- F2-5 Industrial Caused Fires (originally developed by FPAG)

It should be noted that this indicator has been tracked since 2006 for HBO (zero fires in HBO in 2006-2008) and since 2007 for FVO (one fire in FVO in 2008).

STRATEGY

On an on-going basis, Teal-Jones updates their Emergency Preparedness and Response Plan. The plan is implemented throughout the year and includes many strategies to prevent and prepare for injury, fires, heavy rainfall events, spills, landslides, etc. The Plan includes roles and responsibilities during an event, training requirements, response equipment requirements, emergency action plans, etc.

All fires are assessed, and details of the event recorded using the Teal-Jones Emergency Report Forms (i.e., Fire Report Form) to determine contributing factors and any action items required to mitigate the impact.

MONITORING

The Environmental Department tallies the number of incidents from the Emergency Report Forms or Incident Investigations and confirms with operational representatives. The Teal-Jones Environmental Department will also confirm whether the incident occurred in a riparian area or upstream from licensed water intakes and wells.

Government agencies also complete periodic inspections (cross reference the Compliance Tracker).

D2-2: Reportable Spills

BACKGROUND INFORMATION

The Province of BC's Spill Reporting Regulation[8] under the BC Environmental Management Act specifies the definitions and responsibilities of individuals and companies, etc. with respect to reporting spills of hazardous materials. It also specifies the quantities of individual classes of hazardous materials that must be reported to the Provincial Emergency Program (PEP). Spilled hazardous materials are a human safety concern, as well as, a concern for wildlife, water quality and soil productivity. A list of the materials typically used in forestry and their respective reportable quantities is summarized below. These amounts are reportable if spilled to land (any amount of hazardous material accidentally spilled into water must be reported). Thresholds for common hazardous materials products used in forestry operations:

- Petroleum Products >100L
- Pesticides (including herbicides) >5L
- Fertilizer >100kg
- Antifreeze >5L
- Explosives (any amount)

[8] See: http://www.qp.gov.bc.ca/statreg/reg/E/EnvMgmt/263_90.htm

The public advisory groups have asked for reporting requirements of this indicator to include events which impact riparian areas as well as events which occur upstream from licensed water intakes and wells.

Value	Objective	Indicator	Target	Acceptable Variance
Healthy Forests	Minimize Stress Associated with Harvesting	Number of Reportable Spills	Zero incidents	Average two incidents per year over a five-year rolling average
Justification for Target	**Basis for the Target**	**Legal Requirements**	**Means of Achieving Objective & Target**	**Monitoring & Measurement**
The intent is to have zero incidents. Variance is to account for accidents which do occur from time to time.	Combining several previous indicators into one indicator, public concern	Environmental Management Act, Environment Act, Fisheries Act, Wildfire Act	Operational Planning, Emergency Preparedness & Response Plans	Incident Investigations, Spill Reports

STATUS & RESULTS

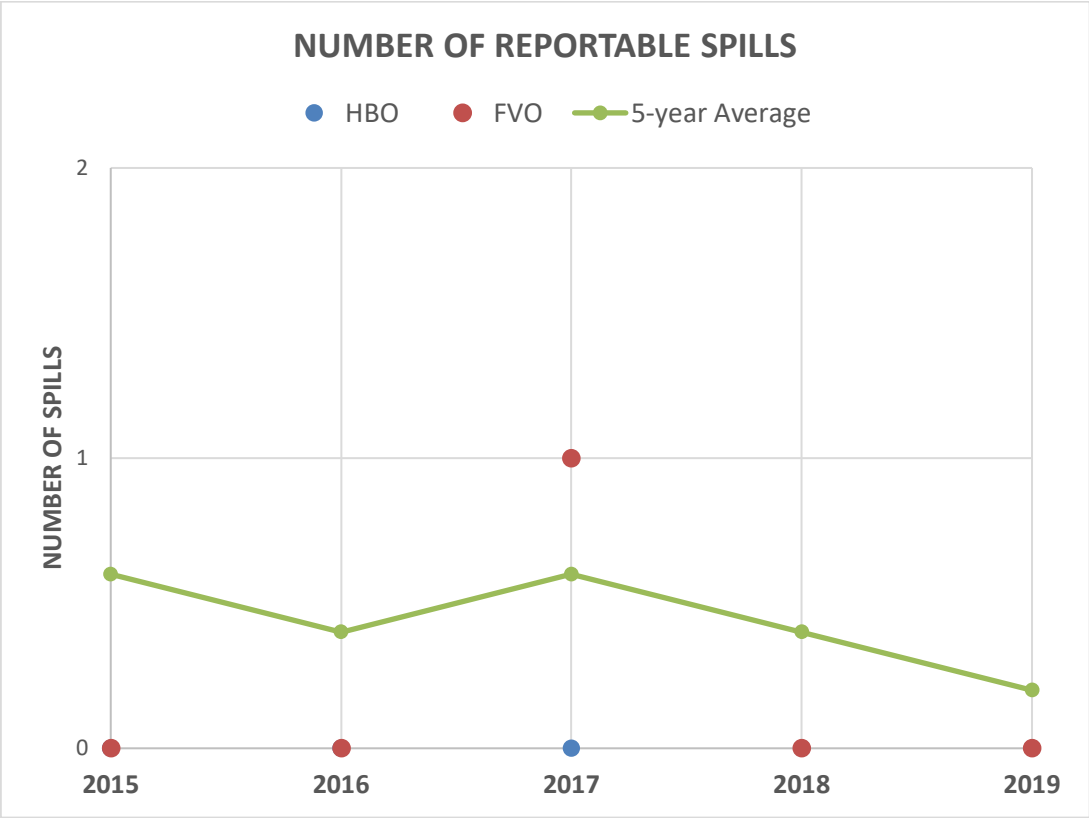
Year	HBO	FVO	Target Met (Y/N)	Variance Met (Y/N)
2019	0	0	Y	Y (< 2 incidents per year over 5-year average)

There were no reportable spills in the DFA in 2019.

TRENDS

Historically, on an annual basis, there have been no more than two reportable spills across the DFA, based on a 5-year rolling average, consistent with the acceptable variance. There have been some years with zero reportable spills within the DFA.

Teal-Jones continues to do regular training, maintenance and inspections, follow Standard Operating Procedures and Emergency Preparedness and Response Procedures to prevent and respond appropriately to spills. Therefore, it is anticipated that while Teal-Jones will aim for zero incidents, there will continue to be some accidental spills within the DFA, the number generally within the allowable variance.



HISTORY OF INDICATOR

This indicator was developed in 2011, based on existing indicators:

- H3-5 Reportable Spills to Land;
- H3-7 Reportable Spills to Water (originally developed by SIPAG); and
- F3-5 Reportable Spills to Land; and F3-9 Reportable Spills to Water (originally developed by FPAG).

It should be noted that these indicators have been tracked since 2006 for HBO and since 2007 for FVO.

STRATEGY

On an on-going basis, Teal-Jones updates their Emergency Preparedness and Response Plan. The plan is implemented throughout the year and includes many strategies to prevent and prepare for injury, fires, heavy rainfall events, spills, landslides, etc. The Plan includes roles and responsibilities during an event, 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 access all incidents, and where appropriate, record details of the event using the Teal-Jones Emergency Report Forms (i.e., Spill Report Form) to determine contributing factors and any action items required to mitigate the impact. Those spills where the material spilled exceeds the reporting thresholds are reported to PEP (a record of reporting to PEP is kept on file).

MONITORING

The Teal-Jones Environmental Department tallies the number of incidents from the Emergency Report Forms or Incident Investigations; and confirms with operational representatives.

Government agencies also complete periodic inspections (cross reference the Compliance Tracker).

D2-3: Landslides

BACKGROUND INFORMATION

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* (Cruden, D.M., 1991. A Simple Definition of a Landslide Bulletin of the International Association of Engineering Geology, No. 43, pp. 27-29). With respect to Sustainable Forest Management and consistent with the Forest Practice Board definition (FPB/SIR/14 July 2005), a landslide is considered to have a material adverse effect if it meets the following criteria:

- 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; or
- A landslide that destroyed more than 0.25 hectares of forest or plantation.

Landslides are commonly initiated by natural events including rainfall, wind throw, earthquakes, volcanic activity, changes in groundwater, or other disturbance. Avoiding landslides initiated by forest management activities is an important part of planning and operations. Landslides are undesirable for several reasons including the potential for impacting human safety, water quality, fish habitat, productive capacity and function of forest soils, visual quality of the forested landscape and infrastructure.

The intent of this indicator is to measure damage to the land base caused by forest management and implementation of harvesting or road activities (e.g., construction, maintenance or deactivation) and does not include '*acts of nature*'. However, 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). Landslides occur in both standing timber and developed areas and are difficult to predict. For the purposes of this indicator, roads constructed or cutblocks harvested after 1994, which are under Teal-Jones obligation, are considered 'recent'. This does not include roads currently under permit which were built prior to 1994. For the purposes of this indicator, an 'incident' or 'event' is reported as one landslide (for example if there are several small landslides within one block/ along one section of road then that incident is investigated as one event). Sloughs and other minor instability events that do not meet the definition above may be mentioned in the report but do not 'count' in the indicator.

The public advisory groups have asked for reporting requirements of this indicator to include events which impact riparian areas as well as events which occur upstream from licensed water intakes and wells.

Value	Objective	Indicator	Target	Acceptable Variance
Healthy Forests	Minimize Stress Associated with Harvesting	Number of Landslides within Recently Built Roads or Harvested Areas	Less than an Average of Four Incidents per Year Over a Five-year Rolling Average	+1

Justification for Target	Basis for the Target	Legal Requirements	Means of Achieving Objective & Target	Monitoring & Measurement
All landslides within recently build roads or harvested areas will be reported whether natural or not. Therefore, given unpredictability of weather events target is < 4/year over 5 year rolling average and was based on historical landslide data in the DFA.	Combining several previous indicators into one indicator, public concern	Forest and Range Practices Act, Fisheries Act	Operational Planning, Emergency Preparedness & Response Plans	Incident Investigations, Landslide Reports

STATUS & RESULTS

Year	HBO	FVO	Target Met (Y/N)	Variance Met (Y/N)
2019	0	0	Y (2.4 incidents on 5-year average)	Y

Honeymoon Bay

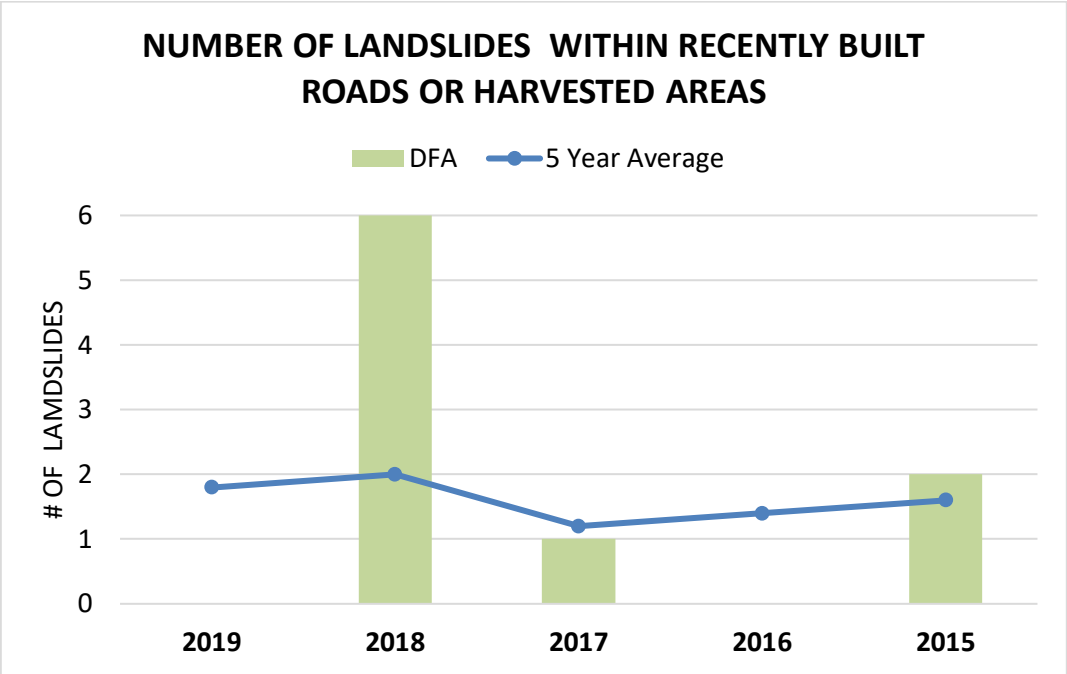
In 2019 in the Honeymoon Bay portion of the DFA there were zero slides associated with a recent cutblock/road.

Fraser Valley

In 2019 in the Fraser Valley portion of the DFA there were zero slides associated with a recent cutblock/road.

TRENDS

Historically, on an annual basis, there has been no more than four landslide incidents DFA associated with recent cutblocks or roads across the DFA, based on a 5-year rolling average, consistent with the acceptable variance. In 2015, there were 2 known slides within the DFA associated with recent cutblocks or roads.



HISTORY OF INDICATOR

This indicator was developed in 2011, based on existing indicators:

- H3-2 Landslides in Recently Built Roads;
- H3-3 Landslides in Recent Harvesting (originally developed by SIPAG); and
- F3-3 Landslides Resulting from Roads & Cutblocks (originally developed by FPAG).

It should be noted that these indicators have been tracked since 2006 for HBO and since 2007 for FVO.

STRATEGY

On an on-going basis, Teal-Jones updates their Emergency Preparedness and Response Plan. The plan is implemented throughout the year and includes many strategies to prevent and prepare for injury, fires, heavy rainfall events, spills, landslides, etc. The Plan includes roles and responsibilities during an event, training requirements, response equipment requirements, emergency action plans, etc.

Proposed roads and blocks located on or adjacent to potentially unstable areas are assessed by a qualified professional during the planning stages of 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, deleting an area from a cutblock or other measures to reduce the risk.

Incidents within cutblocks and roads are assessed and may be recorded using the Teal-Jones Emergency Report Forms (i.e., Landslide Report Form) to determine contributing factors and any action items required to mitigate the impact.

MONITORING

The Teal-Jones Environmental Department tallies the number of incidents from the Emergency Report Forms or Incident Investigations and confirms with operational representatives.

Government agencies also complete periodic inspections (cross reference the Compliance Tracker).

D2-4: Stand Establishment

BACKGROUND INFORMATION

Free-growing requirements are defined within the approved stocking standards within the FSP or Forest Development Plan, as applicable. The standards vary for each biogeoclimatic subzone, variant and site series, but in general the standards require a minimum number of well-spaced stems per hectare (sph) of a commercially valuable and ecologically suitable species, of good form and vigour and free of brush competition.

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
Justification for Target	**Basis for the Target**	**Legal Requirements**	**Means of Achieving Objective & Target**	**Monitoring & Measurement**
Legal Requirements	Stocking standards, Site Plans or Silviculture Prescriptions	Forest Practices Code Act Forest and Range Practices Act	Operational Planning, Silviculture	Phoenix, RESULTS, Silviculture surveys, Government Inspections

STATUS & RESULTS

Year	Number of Cutblocks with Late FG Expiring	Number of Cutblocks in Compliance with FG Requirements	Percent Compliance	Target Met (Y/N)	Variance Met (Y/N)
2019	94	94	100%	Y	Y

In 2019, in the Honeymoon Bay portion of the DFA there were 22 blocks due for free-growing in 2019 and all were consistent with free-growing requirements.

In the Fraser portion of the DFA, there were 72 blocks due for free-growing in 2019 and all were following free-growing requirements.

There were no non-compliances issued for free-growing.

TRENDS

There have been 5 blocks in the Fraser Valley portion of the DFA that required corrective action or approval by government for extension of the free-growing date and/or a broader definition of preferred and acceptable species to meet free-growing requirements. These corrective actions were required due to wildfire damage in two blocks, due to the identification non-conforming portions in two cutblocks and due to remote access to one block. To date, there have been no Compliance and Enforcement non-compliances issued related to free-growing requirements

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

HISTORY OF INDICATOR

This indicator was developed in 2011 by combining two existing indicators:

- H2-2 Stand Establishment (originally developed by SIPAG); and
- F2-4 Free Growing (originally developed by FPAG).

This indicator has been tracked for the Honeymoon Bay portion of the DFA since 2006 and Fraser portion of the DFA since 2007.

STRATEGY

A combination of activities must be implemented 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.

The main factor with the potential to limit free-growing status of regenerating stands is brush competition. Brush competition is periodically assessed over the first few years of the regenerating stand. If brush competition is deemed to be compromising the freely growing status it is treated prior to the completion of the free-growing assessment period stated within the stocking standards. The free-growing 'window' is the period in which regenerated stands may be surveyed and assessed for adequate stocking of ecologically suited species, forest health and brush competition. The 'window' varies by ecosystem and is stated within stocking standards. The window typically starts after 8 years following harvest commencement and ends between 12 and 20 years following harvest. The window provides opportunity for the brush complex to express itself so that brush competition may be assessed. Stands that do not meet the standards for free-growing before the end of the assessment window are non-compliant and may be subject to government penalty.

Regeneration strategies are developed at the planning stages of the cutblock (prior to harvesting). Post-harvest, the site is re-inspected to determine if any changes to the plan are required. Stocking surveys carried out before the regeneration delay expires allow the Forestry and Engineering Department to assess stocking levels and brush competition. Brush treatment may be planned at this point.

MONITORING

Cutblocks are surveyed as per the Forest Practices Branch Stocking and free-growing Surveys Procedures Manual (May 2002) to determine if they are 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 complete periodic inspections.

CSA Criterion 3 — Soil and Water

Conserve soil and water resources by maintaining their quantity and quality in forest ecosystems.

CSA SFM Element 3.1 — Soil Quality and Quantity

Conserve soil resources by maintaining soil quality and quantity.

C3.1.1: Level of Soil Disturbance

BACKGROUND INFORMATION

With respect to forestry operations, soil conservation legislation (in the 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. These limitations are found in the Forest Stewardship Plan for each of the operation.

Permanent access structures include in-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. At the time of writing, the permanent access structure limitations were as follows:

- 7% of the cutblock unless an acceptable rationale is provided (e.g., there is no other practicable option on that cutblock, having regard to the size, topography and engineering constraints of the cutblock; safety of road users, they are required in selection harvesting systems for excavated or bladed trails or other logging trails, or they are necessary to provide access beyond the cutblock). Where this limit is exceeded, rehabilitation may be required.

Soil disturbance within the Net Area to be Reforested (NAR) is categorized as the area occupied by trails, compacted areas, areas of dispersed disturbance (ruts and gouges), and un-rehabilitated temporary access structures. At the time of writing, the soil disturbance limitations were as follows:

- 5% of the NAR for sensitive soils
- 10% of the NAR for non-sensitive soils
- 25% for roadside work areas (i.e., the area adjacent to a road where the following are carried out: decking, processing or loading timber; piling or disposing of logging debris
- These limits may be temporarily exceeded (and may be required to be rehabilitated) for the purposes of forest health (e.g., removing infected stumps, or windthrow salvage) or temporary access

Value	Objective	Indicator	Target	Acceptable Variance
Soil productivity: the natural elemental properties of forest soil function, nutrients and content	Conserve productivity of forests soils by minimizing disturbance due to harvesting activities	Level of Soil Disturbance	100% compliance with soil conservation limitations (permanent access structures and soil disturbance limits)	Zero
Justification for Target	**Basis for the Target**	**Legal Requirements**	**Means of Achieving Objective & Target**	**Monitoring & Measurement**
Minimize soil erosion and potential impacts on long term forest health	Core Indicator CSA Z809-16 standard	N/A	Operational Planning, Standard Operating Procedures	Inspections, Internal monitoring, Incident Investigation Forms, Phoenix database

STATUS & RESULTS

Year	Number of Non-Compliance Assessed Regarding Soil Disturbance	Number Incident Investigations Related to Soil Disturbance Limits Exceeded	Percent Compliance	Target Met (Y/N)	Variance Met (Y/N)
2019	0	0	100	Y	Y

In 2019, soil disturbance was within allowable limits for all blocks in both Honeymoon Bay and the Fraser Valley operations. There were no non-compliances related to soil conservation identified by government inspections.

In addition, permanent access structures were within allowable limits, ranging from 3.31% to 10.16% in Honeymoon Bay portion of the DFA with an average of 6.85% and ranging from 0% to 9.3%, with an average of 5.4% in the Fraser portion of the DFA. Blocks with greater than 7% permanent access structures have rationales on file and are often associated with smaller blocks.

TRENDS

Teal-Jones has been 100% in compliance with this indicator since tracking has been recorded (2006/2007).

Teal-Jones has an excellent record for road building activities and Standard Operating Procedures are in place to ensure continued compliance, therefore it is anticipated that the indicator will continue to meet the target in the future.

HISTORY OF INDICATOR

This indicator was developed in 2010 by combining two existing indicators:

- H3-1 Soil Conservation (originally developed by SIPAG); and
- F3-2 Soil Disturbance and F4-6 Permanent Access Structures (originally developed by FPAG).

This indicator has been tracked for the Honeymoon Bay portion of the DFA since 2006 and Fraser portion of the DFA since 2007.

STRATEGY

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.

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 if meets one of the acceptable criteria (e.g., engineering constraints, safety of road users, the road is required for access beyond the cutblock, etc.)

In addition, for each cutblock, limits are set on the amount of soil disturbance that is acceptable due to 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.[9] Teal-Jones Standard Operating Procedures specify that harvesting and road building activities are conducted in a manner that minimizes soil disturbance and protects slope stability.

Teal-Jones conducts a final harvest inspection procedure for all harvested areas as part of its Corporate Management System. This procedure includes an ocular assessment of the amount of soil disturbance within the NAR and compares that to the amount specified in the operational plan. Each cutblock is inspected internally during harvest progress inspections and at post harvest to ensure the plan is followed. External inspections may also be performed by government agencies. If soil disturbance limitations are exceeded, the cutblock is investigated in more detail, which may be recorded using the Teal-Jones Incident Investigation Form to determine contributing factors and any action items required to mitigate the impact and prevent the re-occurrence.

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 complete periodic inspections (cross reference the Compliance Tracker or FS107 spreadsheet).

[9] Forest Practice Code Soil Conservation Guidebook May 2001

C3.1.2: Level of Downed Woody Debris

BACKGROUND INFORMATION

'Downed Woody Debris', or as it is referred to in coastal BC, 'Coarse Woody Debris' is defined as sound and rotting logs and stumps that provide habitat for plants, animals, and insects and a source of nutrients and structure for soil development. Woody material is generally greater than 8–10 cm in diameter.

Teal-Jones must maintain the Coarse Woody Debris left on site within the legal limits, including the burning of roadside piles to abate fire hazard. However, internal discussions within Teal-Jones and with the Public Advisory Groups indicate a preference to disperse Coarse Woody Debris throughout the block or reduce roadside pile burning. This would minimize carbon emissions (from burning, see Indicator 4.1 Net Forest Carbon), maintain biodiversity/ habitat reduce fire hazard, and be more cost effective.

Second growth stands will be the focus of this indicator. Old growth stands tend to contain sufficient CWD on site due to the higher prevalence of snags, trees with health issues, and self-thinning of the canopy. Furthermore, maintaining sufficient CWD on site should be a priority in second growth stands where it is integral to soil and ecosystem health to leave enough CWD on site to break down over time, providing nutrients to the future forest after harvesting.

Value	Objective	Indicator	Target	Acceptable Variance
Natural Ecological Cycles	Minimize negative impacts of harvesting on natural global ecological cycles	Level of Downed Woody Debris	Maintain a minimum of 10 m^3/ha of dispersed CWD on all second growth sites harvested	Zero
Justification for Target	**Basis for the Target**	**Legal Requirements**	**Means of Achieving Objective & Target**	**Monitoring & Measurement**
PAGs agreed that the target should be the maximum amount that can be left on second growth blocks without being billed (stumpage) - 10m3/ha. Once the indicator has been tracked for a number of years this target may be revised.	Core Indicator CSA Z809-16 standard	Forest and Range Practices Act	Operational Planning, Standard Operating Procedures	Waste & Residue Surveys

STATUS & RESULTS

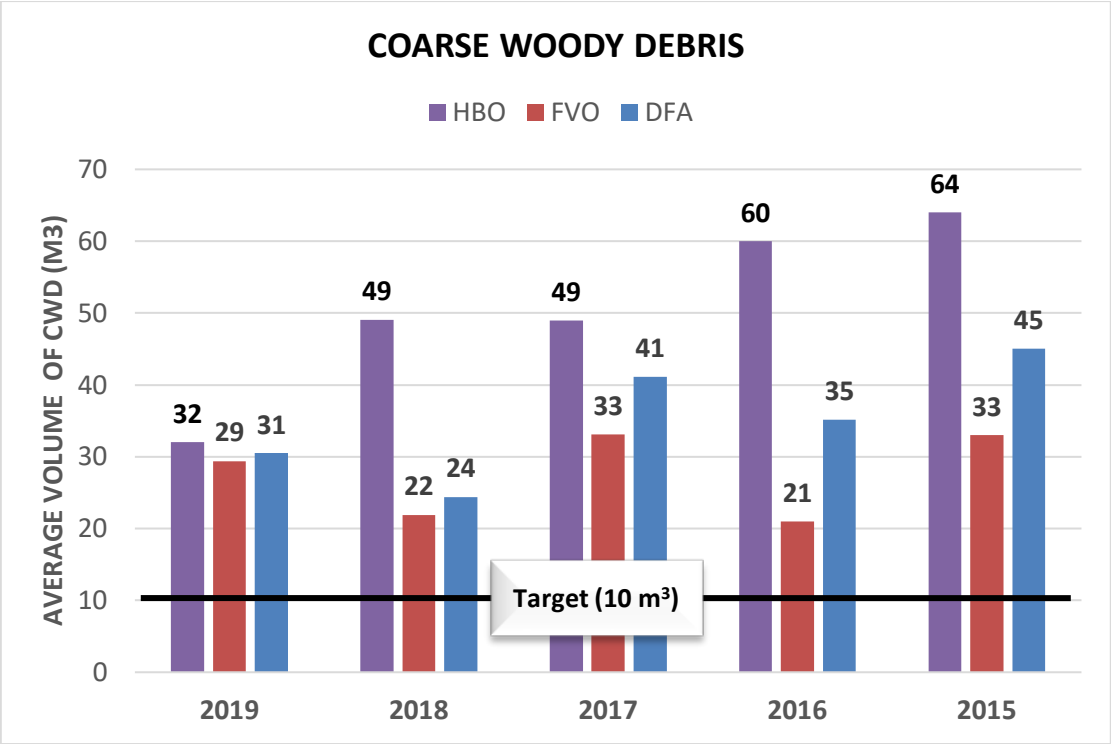
Year	Average volume (m^3/ha) of dispersed CWD	Target Met (Y/N)	Variance Met (Y/N)
2019	30.5	Y	Y

In 2019, there was an average of 30.5m^3/ha dispersed coarse woody debris retained across the DFA. In Honeymoon Bay an average of 32.0 m^3/ha was dispersed on site and in the Fraser Valley an average of 29.4m^3/ha was dispersed on site.

TRENDS

Teal-Jones has been consistent with the target for this indicator (to maintain a minimum of 10 m3/ha of dispersed CWD on all harvested second growth sites) since 2013.

It is anticipated that the indicator will continue to exceed the target; Teal-Jones anticipates that the target will be revised within the next 1-2 years as a sufficient trend data is available to set a new target. It is important to note that slash abatement and reduction of fire hazard is currently a legal requirement for licensees under the Wildfire Act. Teal-Jones is therefore limited in the options they can implement for reduction of burning levels (and related increase in CWD).



HISTORY OF INDICATOR

The Public Advisory Groups developed the target and variance in 2014.

STRATEGY

CWD values raised by PAG members include: loss of carbon storage through burning, build up of slash at roadsides and landings; impacts to the environment and wildlife as a result of burning to remove the slash; and reduced fire hazards.

Legislation in BC, primarily the ***Forest Act***, requires licensees such as Teal-Jones to carry out waste assessments in accordance with the *Provincial Logging Residue and Waste Assessment Manual* which sets strict utilization standards and limits the amount of Coarse Woody Debris (CWD) that may be left on site post-harvest.

In November 2008, a Teal-Jones Corporate Management System Program was developed and approved by Teal-Jones Management to address Coarse Woody Debris (CWD) values. Programs establish objectives and targets relating to a specific topic, set timelines and assign responsibility for completion of specific

actions in order to achieve the objective and targets. Programs are approved by the Teal-Jones Management Environmental Review Committee (MERC) and are reviewed on an annual basis.

With the approval of the indicator, the CWD program has concluded but Teal-Jones will continue to monitor the results of this indicator, and modify the target and variance as required in the future.

MONITORING

The Teal-Jones Environmental Department will review up to 10 waste and residue surveys from each operation every year and report on the average dispersed CWD volume left on second growth sites. The volume reported will be the cut control volume, not billing volume so as to include both avoidable and unavoidable waste. Because waste and residue surveys do not occur concurrently with block completion, this will include the 10 most recent surveys in second growth blocks from each operation whenever possible. No blocks will be duplicated in subsequent reporting.

Element 3.2 — Water Quality and Quantity

Conserve water resources by maintaining water quality and quantity.

C3.2.1: Watersheds with Stand-replacing Disturbance

FULL INDICATOR NAME: Proportion of Watershed or Water Management Areas with Recent Stand-replacing Disturbance

BACKGROUND INFORMATION

A Hydrological Impact Assessment or Watershed Assessment, is completed for Community Watersheds or in watersheds that have licensed domestic water users, significant sensitivity, significant downstream fisheries values or in a designated Fisheries Sensitive Watersheds[10].

A qualified professional will complete the assessment which that helps 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 development or restoration activities in that watershed. The assessment considers the cumulative effects of forest practices, including clearcut area and road density, on the aquatic environment and sensitive watershed specific factors such as points of diversion, rates of hydrological recovery, road density, fish bearing streams, sediment sources, etc. The assessment of hydrological impacts focuses on:

- the natural hydrological conditions, natural stream bed dynamics and integrity of stream channels
- the quality, quantity and timing of water flows
- cumulative hydrological effects of forestry activities
- interaction of all of these processes, an evaluation of the sensitivity of the watershed to further forest development

A hydrological impact assessment also draws attention to natural processes occurring in the watershed. Using the results of an 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.[11]

In the Honeymoon Bay portion of the DFA, there are three watersheds where Teal-Jones currently utilizes hydrological impact assessments to guide management decisions: ***Gordon River, Hemmingsen Creek and Hatton Creek.***

In the Fraser portion of the DFA there are twenty-eight watersheds where Teal-Jones currently utilizes or will utilize watershed assessments if operations are to proceed: ***Gurney, Deroche, Norrish, Elbow, Cohen, Domitian, Ichilaka, Kopp, Centre, Drachmann, Hallisey, Choate, Inkawthia, Skeemis, Coutlie, One & One Quarter, Jamieson, Stoyoma, Two Mile, Stormy, Edna, Sasquatch, Thunderbird, Yale, Pickney, Schkam Lake, Nevin and Trite.***

When proposed harvesting activities are planned to be located within these watersheds, the assessments are used to guide layout of the roads and cutblocks. For example, timing restrictions, size of the cutblock, location and amount of road and management of surrounding streams may be considered. There are

[10] The minister responsible for the Wildlife Act may designate a watershed, that requires special management to protect fish, that is not otherwise provided for under other legislation.
[11] Forest Practice Code Coastal Watershed Assessment Procedure Guidebook, April 1999

limitations on the area of disturbance, known as "Equivalent Clearcut Area" and density of roads may occur within the watersheds.

Value	Objective	Indicator	Target	Acceptable Variance
Water	Protection of Water resource	Proportion of Watershed or Water Management Areas with Recent Stand-replacing Disturbance	Plan and implement primary forest management activities within each Fisheries Sensitive Watershed and Community Watershed consistent with the recommendations of Qualified Professionals within the most recent Watershed Assessment	10%
Justification for Target	**Basis for the Target**	**Legal Requirements**	**Means of Achieving Objective & Target**	**Monitoring & Measurement**
Coastal Watershed Assessments	Core Indicator CSA Z809-16 standard	Forest Stewardship Plan, Forest and Range Practices Act	Operational Planning, Standard Operating Procedures	Consistency with Watershed Assessments, Inspections, Internal monitoring, Incident Investigation Forms

STATUS & RESULTS

Year	Watershed	Consistent with Watershed Assessment?	Target Met? (Y/N)	Variance Met? (Y/N)
2019	Gordon River	Yes	Y	Y
	Norrish Creek	Yes		

In 2019, in the Honeymoon Bay portion of the DFA, harvesting and road building associated with 12 cutblocks occurred in the Gordon Watershed, within the Upper Braden, Bugaboo, High Loup, Mid-Gordon and the Lower Gordon sub-basins and also within the Hemmingsen Creek watershed.

In the Fraser Valley portion of the DFA, harvesting and road building associated with 4 cutblocks occurred within the Upper Residual Area sub-basin of the Norrish Creek watershed.

All development was completed in consistency with the most up to date watershed assessment for each respective watershed.

There was no other harvesting in watersheds requiring a new or updated Hydrological Impact Assessment in 2019.

TRENDS

Teal-Jones has been consistent with the target for this indicator since 2011 (target wording updated in 2017).

Coastal Watershed Assessments are not a legislated requirement under the Forest and Range Practices Act, however, Teal-Jones continues to utilize these assessments as valuable tools to protect water resources. In the Honeymoon Bay portion of the DFA, it is a requirement under the approved Forest Stewardship Plan to complete a Watershed Assessment for Fisheries Sensitive Watersheds. In the Fraser Valley portion of the DFA, it is a requirement in the approved Forest Stewardship Plan to conduct a

Watershed Assessment for community watersheds. It is therefore anticipated that the indicator will continue to meet the target.

HISTORY OF INDICATOR

In 2017, the target for this indicator changed from "***Maintain an Equivalent Clearcut Area within the allowable limits of low peak flow hazard in designated Watersheds, including Gordon River, Harris/ Hemmingsen, Hatton Creek, Norrish Creek, Gurney Creek, and Jamieson Creek Watersheds***" to the target noted above. This change was made due to the site-specific differences between watersheds (points of diversion, rates of hydrological recovery, road density, fish bearing streams, sediment sources, etc.). The update broadens the indicator to reflect current practice and the importance of other indicators besides, Equivalent Clearcut Area, for individual watersheds. Additionally, in the Fraser Valley Operations, the Defined Forest Area was expanded to include several new Community Watersheds – the new target wording encompasses all Watersheds where Teal-Jones is active.

This is a new indicator in 2011, based on an existing indicator:

- H3-6 Coastal Watershed Assessments (originally developed by SIPAG).

This indicator was developed in 2006 by SIPAG, however the annual reporting was broader than Equivalent Clearcut Area and incorporated other criteria specified in the Coastal Watershed Assessments.

STRATEGY

When proposed harvesting activities are planned within community watersheds, or watersheds which have significant sensitivity, significant downstream fisheries values or in a designated fisheries sensitive watershed, a Hydrological Impact Assessment will be completed by a qualified professional. The assessment considers the cumulative effects of forest practices on the aquatic environment of each individual watershed and will assess the capacity of the watershed, based on a set of unique criteria, for proposed harvesting and road building activities.

For the Fraser portion of the DFA, all proposed developments must be incorporated in the calculations, including other forest companies operating within the watershed.

MONITORING

The Teal-Jones Forestry & Engineering Department determine conformance with the professional assessment prior to any new developments in the aforementioned watersheds. The Teal-Jones Environmental Department consults the most recent Watershed Assessment, the Teal-Jones Forestry and Engineering Department and, if necessary, site plans, annually to determine compliance with the Hydrological Impact Assessments. Information pertaining to updates or revisions to the plan are also reviewed with the Engineers. The results are reported under "Status and Results".

Government agencies also complete periodic inspections (cross reference the Compliance Tracker).

C3.2.2: Forest Management Activities Consistent with Water Resource Related Prescriptions

FULL INDICATOR NAME: Proportion of Forest Management Activities Consistent with Prescriptions to Protect Identified Water Features.

BACKGROUND INFORMATION

Riparian habitat occurs within the area adjacent to streams, lakes, and wetlands. It includes both the area dominated by continuous high moisture content (banks) and the influential adjacent upland vegetation. Management of riparian areas is an important subject for Public Advisory Groups. The intent of this indicator is to track the health and integrity of riparian areas impacted by harvesting. The health and integrity of riparian areas is also tracked in *D2-1 Accidental Industrial Caused Fires*, *D2-2 Reportable Spills*, and *D2-3 Landslides*.

The Riparian Management Area (RMA) consists of a legislated Riparian Management Zone and, where applicable, a Riparian Reserve Zone (see figure below[12]). In most cases, no harvesting is permitted within the Riparian Reserve Zone. The width of these zones is defined in the Forest Planning and Practices Regulation and within the Forest Stewardship Plan and are determined by characteristics of streams, wetlands or lakes, and adjacent terrestrial ecosystems.

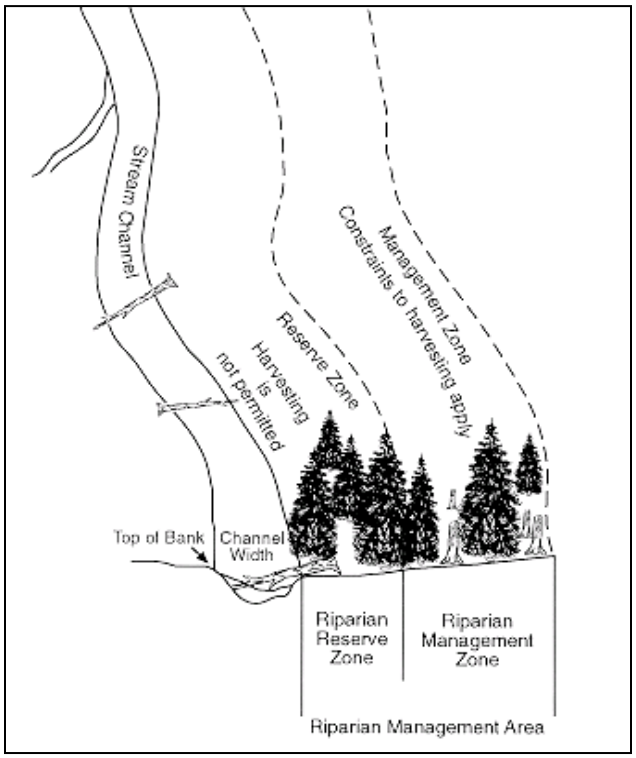


Figure 1: Riparian Management Area showing the application of a Riparian Management Zone and a Riparian Reserve Zone along the stream channel.

Management and tree retention prescriptions within the Riparian Management Area are determined by a qualified professional based on the following considerations (Forest Planning and Practices Regulation Schedule 1, Section 2):

- the need to buffer the riparian area to prevent the introduction of materials that are deleterious to water quality or fish habitat;
- the role played by trees and understory vegetation in conserving water quality, fish habitat, wildlife habitat and biodiversity;
- the need to maintain stream bank and stream channel integrity;
- the relative importance and sensitivity of different riparian classes of streams, wetlands and lakes;
- the type, timing or intensity of forest practices that can be carried out within the context of a management regime; and
- the role of forest shading in controlling an increase in temperature within a temperature sensitive stream, if the increase might have a deleterious effect on fish or fish habitat.

From time to time management strategies such as treatments to prevent windthrow are prescribed in riparian areas to protect the integrity of the riparian area after harvesting. Treatments are intended to

[12] Forest Practices Code Riparian Management Area Guidebook, December 1995

reduce the chance that prevailing winds will blow down any unharvested trees within a riparian area. In addition to impacts on the stream, windthrow can also 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
Natural aquatic habitat, PAG interest in windthrow	Maintain natural habitat and stream morphology for aquatic species	Proportion of forest management activities consistent with prescriptions to protect identified water features.	100%	Zero
Justification for Target	**Basis for the Target**	**Legal Requirements**	**Means of Achieving Objective & Target**	**Monitoring & Measurement**
PAG interest in riparian management and health	Riparian Management Areas	Forest Stewardship plan, Forest and Range Practices Act	Operational Planning, Standard Operating Procedures, Site level assessments	Harvest Assessments, Inspections by Government Agencies

STATUS & RESULTS

Year	Number of Incident Investigations with Respect to Riparian Areas & Windthrow	Number of Non-compliances with Respect to Riparian Areas & Windthrow	Target Met (Y/N)	Variance Met (Y/N)
2019	0	0	Y	Y

There were no non-compliances with respect to riparian area legal requirements in 2019. In 2019, there was no windthrow incident investigations in the DFA.

TRENDS

This indicator has been tracked for the Honeymoon Bay portion of the DFA since 2006 and Fraser portion of the DFA since 2007. From 2006/2007 to 2013, the DFA was 100% in compliance with the legal requirements for retention in the Riparian Management Areas. There have been two internal incident investigations initiated by Teal-Jones in the Fraser Valley portion of the DFA related to riparian area prescription and windthrow, one in 2014 (riparian area prescription) and one in 2016 (windthrow).

Riparian management is a legal requirement set out in the Forest Stewardship Plan, and it is therefore anticipated that Teal-Jones will follow prescriptions to protect identified water features, and that the indicator will continue to meet the target in the future.

For fish enhancement, Teal-Jones has helped to grass seed an area in the Hemmingsen Watershed in co-operation with the Pacific Salmon Foundation and the Pacheedaht First Nation. Honeymoon Bay Operations provided access to the Gordon River for the Living Rivers Group to remove rocks that impeded fish passage.

HISTORY OF INDICATOR

In 2016 this indicator, which was D3-1, became C3.2.2, due to changes in the CSA Standard (CSA Z809-16). Teal-Jones had previously tracked compliance with riparian management requirements and was able to adopt the new indicator wording under the indicator with approval of the PAGs.

As of 2015, amalgamates several indicators related to riparian management and habitat enhancement:

- H2-5: Windthrow Treatments 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
- H3-11: Fish Habitat Enhancement – Number of Fish Habitat Enhancement Projects completed throughout the DFA

This indicator was developed in 2011 by combining three existing indicators:

- H3-8 Riparian Reserve Zones and H3-9 Riparian Management Areas
  - originally developed by SIPAG
- F3-11 Riparian Management
  - originally developed by FPAG

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-Jones Field Marking Procedures. These reserves are also mapped, and maps are used to guide harvesting and other activities.

Additional management strategies such as windthrow treatments may be prescribed during the planning stages if there is the potential for windthrow in the area.

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 the plan is not followed an Incident Investigation Form is completed. At their discretion, a qualified professional and/or management may fill out an Incident Investigation Form if, despite the plan being implemented correctly, the intended outcome is not met. This may occur, for example, if a professional identified that significant windthrow occurred despite a detailed windthrow assessment and subsequent treatment in the riparian area.

MONITORING

The Teal-Jones Environmental Department reviews the results of inspections completed by Government agencies, and reports any non-compliance related to riparian management and windthrow in riparian areas. The Environmental Department also reviews the results of internal inspections and investigations (where applicable).

D3-1: Road Building & Maintenance

BACKGROUND INFORMATION

Roads, bridges and culverts can potentially cause negative impacts to water quality and quantity. Impacts may include sedimentation and restricting water flow (i.e., blocked culverts).

Teal-Jones is responsible for inspecting and maintaining all roads that were built post 1995. This includes regular inspections during construction of roads and crossings as well ongoing maintenance. Maintenance includes bridge and crossing safety hazards, checking for potential instability, and minimizing erosion hazards.

It should be noted that Teal-Jones has no obligation for roads built prior to 1995, unless they have a road permit.

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

Value	Objective	Indicator	Target	Acceptable Variance
Water	Protection of water resources	Roads and Bridges comply with legal requirements in the current year	100%	Zero
Justification for Target	**Basis for the Target**	**Legal Requirements**	**Means of Achieving Objective & Target**	**Monitoring & Measurement**
Legal requirements	Legislative requirement, public concern (FPAG)	Forest and Range Practices Act	Road inspections, Operational planning, Emergency Preparedness & Response Plan	Forest Stewardship Plan, Road Inspections, inspections by government agencies

STATUS & RESULTS

Year	Number of Incident Investigations with Respect to Roads & Bridges	Number of Inspections by C&E of Roads and Bridges	Number of Non-Compliances Issued by C&E	Target Met (Y/N)	Variance Met (Y/N)
2019	0	0	0	Y	Y

In 2019 there were no non-compliances issued with respect to roads and bridges by Compliance and Enforcement across the DFA. There were no incident investigations initiated by Teal-Jones with respect to road and bridges in 2019.

Compliance and Enforcement did not complete any inspections of roads or bridges within the Fraser Valley portion of the DFA in 2019. In the Honeymoon Bay portion of the DFA, Compliance and Enforcement did not complete any inspections of roads or bridges

Teal-Jones standard procedures require on-going monitoring of road and bridge construction. Existing roads and bridges under active permits are regularly inspected. In addition, Teal-Jones completes internal audits of their road construction, maintenance and deactivation planning and inspection processes.

TRENDS

Compliance and Enforcement regularly completes road and bridge inspections throughout the DFA; there have been no non-compliances issued related to roads and bridges since 2014. Teal-Jones also regularly performs inspections of roads and bridges. There have been no internal incident investigation with respect to roads and bridges since 2014. All required work to rectify issues identified during internal and Compliances and Enforcement inspections have been rectified.

Since the target related to a legal requirement, it is anticipated that the indicator will continue to meet the target in the future.

Year	Number Incident Investigations with Respect to Roads & Bridges	Number Inspections by C&E of Roads & Bridges	Number of Non-Compliances Issued by C&E	Target Met (Y/N)	Variance Met (Y/N)
2018	0	2	0	Y	Y
2017	0	2	0	Y	Y
2016	0	14	0	Y	Y
2015	0	4	0	Y	Y
2014	0	6	0	Y	Y

HISTORY OF INDICATOR

In 2016 this indicator, which was D3-2, became D3-2, due to changes in the CSA Standard (CSA Z809-16).

This is a new indicator in 2015 which amalgamates the following indicators:

- F3-10: Water Quality and Roads - Number of non-compliances on roads under permit which indicate an impact has occurred on water quantity or quality.
- H3-12: Bridge & Major Culvert Repairs
- H3-4: Minimizing Erosion Hazards Amount spent each year on road maintenance by backhoe & restoration

STRATEGY

Teal-Jones maintains Standard Operating Procedures for Roads and Crossings (e.g., Road and Planning SOP). This document provides guidance on road activities for road construction, bridge and culvert installation, maintenance, deactivation and rehabilitation and the hauling of road construction materials and equipment. Supervisors conduct regular inspections and complete Road Inspection Forms documenting the inspections. The general frequency of inspections is determined by considering the complexity of the plans, crew experience, potential environmental impacts, weather conditions and rate of progress. Teal-Jones also regularly conducts inspections of its permitted roads and crossings. Inspections are used to plan road maintenance in order to maintain the safety and environmental integrity of its roads and crossings. Maintenance may include grading, ditch cleaning, and clearing blocked culverts. Where ditches have the potential to transport sediment into streams, sediment control devices such as silt fences or hay bales are used to prevent deleterious materials from entering the stream.

The Forestry & Engineering Department tracks maintenance of bridges and major culverts within the DFA. Wood structures are inspected at least once per year (depending upon what the Professional Engineer inspecting the structure prescribes), 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 and entered into the operational tracking system as necessary. Repair priorities are based on safety, resources and volume of traffic.

MONITORING

The Ministry of Forests and Range, Compliance and Enforcement branch conducts inspections on Teal-Jones forest operations on a regular basis. The Manager, Forestry & Engineering receives and reviews all inspection reports from Ministry of Land and Natural Resource Operations and maintains a summary tracking spreadsheet. The Environmental Department reviews the compliance tracking spreadsheet and results of internal inspections (conducted to confirm that work was completed according to the plan) and reports any issues related to roads and water quality. Additional government agencies also conduct periodic inspections.

In addition, the Environment Department will review Incident Investigations to determine if any compliance issues were found during regular road and bridge inspections.

For informational purposes, the public advisory groups have asked Teal-Jones to report the number of repairs made to bridges or major culverts each year.

The results are reported under “Status and Results”.

D3-2: Pesticide Free Zones

BACKGROUND INFORMATION

Pest Management Plans (PMPs) authorize pesticide use on public lands and some types of private lands, including those used for forestry purposes. Teal-Jones’ PMP addresses the use of herbicides for the control of problem brush. PMPs ensure that pesticides are used only in the context of an Integrated Pest Management (IPM) program that uses a combination of approaches to control or mitigate the adverse effects of pests in order to not solely rely on pesticides for vegetation control.

After an area is logged, there is an immediate increase in light, moisture, and nutrients available for plant growth. This abundance of resources is used by both the established crop trees and by other plant species including those species (i.e., brush) that present negative competition to the crop trees. PMPs list problem species within the PMP plan area and the herbicides that may be used under the plan. Not all plant species are considered “pests”. These other plant species are generally beneficial. They aid in nutrient cycling, provide food and habitat for wildlife, and are valued by society for many reasons, such as First Nation’s traditional use, berry picking and aesthetic values. However, in some cases these plants are pests and have the potential to out-compete crop trees. Therefore, they require treatment in order to meet regeneration objectives and a freely growing stand. The PMP prescribes buffers for streams (fish and non-fish) and other water bodies. The PMP also prescribes application methods that may be used.

PMP buffers include Pesticide Free Zones and a buffer. Under the PMP, the Pesticide Free Zones must not be treated with herbicides or be inadvertently treated. The buffer area ensures that herbicides do not enter the Pesticide Free Zone inadvertently.

Value	Objective	Indicator	Target	Acceptable Variance
Water quality	Protect water resources from pesticides	Compliance with approved Pest Management Plan Pesticide Free Zones	100%	Zero
Justification for Target	**Basis for the Target**	**Legal Requirements**	**Means of Achieving Objective & Target**	**Monitoring & Measurement**
PAG interest and legal requirements	Pest Management Plan, public concern (PAG)	Integrated Pest Management Act Forest and Range Practices Act	Operational planning	Post treatment inspections, inspections by government agencies

STATUS & RESULTS

Year	Area of Chemical Brushing (ha) FVO	Area of Chemical Brushing (ha) HBO	Number of Non-Compliance with PFZ	Target Met (Y/N)	Variance Met (Y/N)
2019	105	0	0	Y	Y

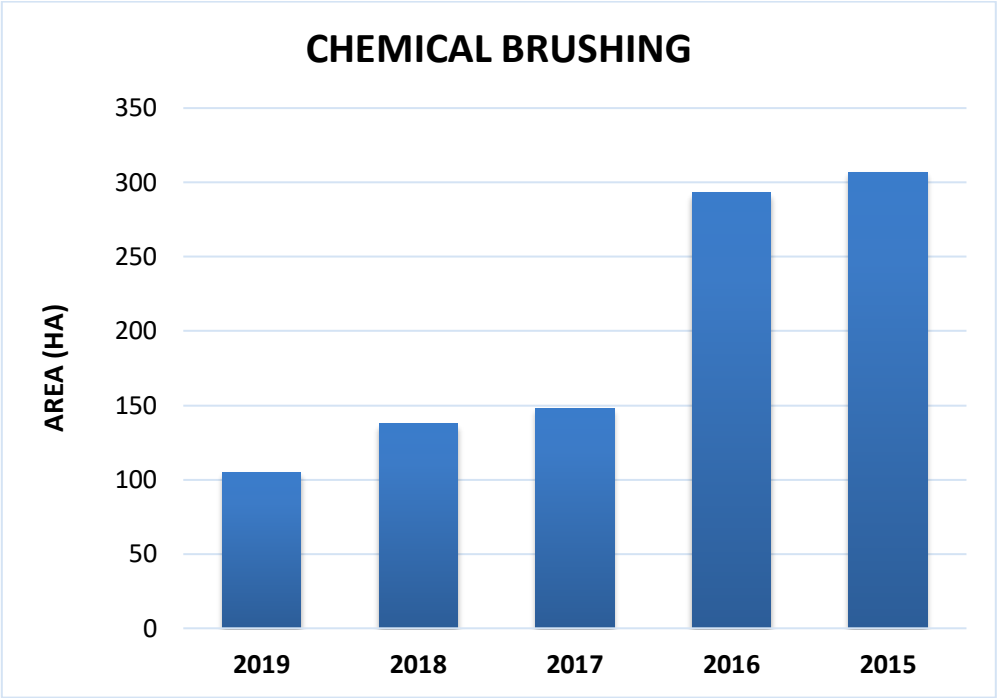
In 2019, 105 ha were treated with herbicide through basal bark treatments (105.0 ha). There was no chemical brushing treatments applied in Honeymoon Bay in 2019.

There were no non-compliances identified by Teal-Jones or issued by Compliance & Enforcement regarding Pesticide Free Zones around streams or water in 2019. All treatments were appropriately applied by certified herbicide applicators.

TRENDS

There have been no non-compliance was issued to Teal-Jones regarding Pesticide Free Zones around streams or water bodies since 2009; Teal-Jones has been in Compliance with approved Pest Management Plan Pesticide Free Zones. The amount of chemical brushing within the Fraser Valley portion of the DFA varies from year to year. This indicator applies to DFA, although HBO generally does not use chemical brushing.

As the target is based on legislated requirements, it is anticipated that the indicator will continue to meet the target in the future.



HISTORY OF INDICATOR

In 2016 this indicator, which was D3-3, became D3-2, due to changes in the CSA Standard (CSA Z809-16).

Previously was Indicator F3-8 Pesticide Free Zones for FVO only. Now applies to DFA, although HBO generally does not use chemical brushing.

STRATEGY

Brush control projects using herbicides are implemented annually or as brush competition and budgets warrant. Projects may include ground-based applications or aerial spray programmes. The number of hectares treated each year is dependent on the number of hectares exhibiting brush competition problems that pose a threat to the regenerating forest and free-growing status of a given block.

Teal-Jones hires contractors for herbicide brush control projects carried out under the supervision of personnel with a Pesticide Applicators Certificate. Chemical brushing projects are conducted under Teal-Jones' Silviculture Standard Operating Procedures which detailed Chemical Brushing Procedures. These procedures specify pre-work meetings with brushing crews, documentation of pre-work meetings (Pre-work checklist) and how chemical brushing activities are to be conducted in order to identify and manage safety and environmental concerns.

Pesticide Free Zones and buffers are marked on treatment plan maps and are field marked prior to treatment. Field marking is left in the field after the treatment has been applied. Post treatment assessments can readily be verified where Pesticide Free Zones have been compromised due to vegetation exhibiting signs of herbicide treatment within the PFZ and are typically completed the year following treatment (once treated vegetation can be clearly distinguished from the non-treated areas).

MONITORING

Pre-work checklists are completed before each chemical brushing project. Checklists and treatment plan documents are kept on file. Teal-Jones Forestry and Engineering Department staff monitor the contractor periodically during treatment. Pesticide application must be conducted under the supervision of personnel with a valid Pesticide Applicator Certificate.

Pesticide Free Zones and buffers are field marked prior to treatment. Post treatment inspections are typically completed by Teal-Jones' Forestry and Engineering Department to ensure treatment effectiveness and conformance with treatment plans and stream buffers, prior to issuing payment to contractors. Post treatment assessments can readily verify where buffers and Pesticide Free Zones (PFZs) have been compromised due to treated vegetation exhibiting signs of herbicide treatment. If any portion of a PFZ is determined to be compromised, an Incident Investigation is completed.

Government agencies also complete periodic inspections.

CSA Criterion 4 — Role in Global Ecological Cycles

Maintain forest conditions and management activities that contribute to the health of global ecological cycles.

CSA SFM Element 4.1 — Carbon Uptake and Storage

Maintain the processes that take carbon from the atmosphere and store it in forest ecosystems.

C4.1.1: Net Carbon Uptake

BACKGROUND INFORMATION

Forests are a source of carbon storage as well as carbon emissions. During younger regenerative stage, vigorous tree growth results in a net storage of carbon on site. As the forest ages, storage decreases over time through: stand thinning, decomposition, and small disturbance events, but trees continue to be a critical carbon storage sink. Both small and large forest disturbances result in carbon emissions. These include disease, insect infestations, timber harvesting and wildfire. In addition, forest operations can contribute carbon emissions through the use of fossil fuels. Emissions can be reduced a number of ways, including: prompt regeneration after disturbance, minimizing conversion to non-forests on roads and landings and other non-forest sites, switching vehicles to more fuel-efficient makes/models, or fuel sources, and, if possible, reforesting areas that previously did not contain trees.

The intent of this indicator is to report on a potential increase to the net balance of carbon stocks within the DFA by rehabilitating and/or reforesting sites which are currently non-forested. By replanting trees on site, carbon storage will be increased overall in the DFA. These non-forested sites may include old gravel pits, roadsides, and landings. These are sites which are not included in the harvestable landbase and are were previously not contributing to carbon storage within the DFA.

There are many other indicators related to 4.1.1 already being tracked to assess other targets that directly and/or indirectly impact carbon uptake and storage including:

- Forest land conversion (C2.1.3)
- Forest area by seral stage or age class (C1.1.3)
- Level of soil disturbance (C3.1.1)
- Reforestation success (C4.1.2)
- Level of downed woody debris (C3.1.2)
- Long-term products (D4-1)
- Accidental industrial caused fires (D2-1)

Value	Objective	Indicator	Target	Acceptable Variance
Global Ecological Cycles	Minimize carbon emissions and maximize carbon storage	Net Carbon Uptake	Increase carbon storage on non-forest sites by rehabilitating/reforesting 2 ha over 5 years where disturbed sites have been previously withdrawn from the timber harvesting landbase.	1 ha over 5 years

Justification for Target	Basis for the Target	Legal Requirements	Means of Achieving Objective & Target	Monitoring & Measurement
At request of PAGs to track an increase in carbon storage across DFA (reforestation of non-forest sites)	Core Indicator CSA Z809-16 standard	N/A	Operational Planning, Standard Operating Procedures	Silviculture Tracking

STATUS & RESULTS

Year	Hectares of Disturbed Sites which had been Previously Withdrawn from the Timber Harvesting Landbase that were Rehabilitated or Reforested	5 Year total (ha)	Target Met (Y/N)	Variance Met (Y/N)
2019	0	0 ha	N	N

In 2019, there were no disturbed sites which had been previously withdrawn from the timber harvesting land base that were rehabilitated or reforested. There has been 0 ha rehabilitated in a 5-year period; therefore, the target has not been met, the variance has not been met either. There are currently 7 existing indicators noted above that relate directly to carbon uptake. The target for this indicator will be discussed with the Public Advisory Groups to determine if there is a more appropriate approach to tracking this indicator in the future.

TRENDS

There were no disturbed sites which had ben previously withdrawn from the timber harvesting land base that were rehabilitated or reforested within the last 5 years. Since the establishments of the indicator only 1 hectare in 2014 was withdrawn from the timber harvesting land base and rehabilitated or reforested.

HISTORY OF INDICATOR

This is a new indicator in 2014.

STRATEGY

Occasionally Silviculture foresters will plant non-forest sites. Non-forest sites are areas which have not recently been treed and have not been contributing to the harvestable land base. This may include old gravel pits, roadside berms, and old landings.

Silviculture foresters plant non-forest sites as time and money permits. The Environmental Department will confirm additional planting on non-forest areas annually.

MONITORING

Silviculture foresters plant non-forest sites as time and money permits. The Environmental Department will confirm additional planting on non-forest areas annually.

C4.1.2: Reforestation Success

Please note that information on this indicator can be found in C2.1.1: Reforestation Success.

D4-1: Long-Term Products

BACKGROUND INFORMATION

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. Long-term products will therefore release carbon into the atmosphere slower that short-term products.

The target of 80% was discussed by the PAGs to be a reasonable target given utilization over the past few years and the focus of Teal-Jones on milling products rather than producing pulp. If the product/mill objectives change in the future this target may need to be lowered.

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%
Justification for Target	**Basis for the Target**	**Legal Requirements**	**Means of Achieving Objective & Target**	**Monitoring & Measurement**
PAG concern and interest	Public concern	N/A	Modern and dynamic wood processing facilities	Log sales and manufacturing, accounting records

STATUS & RESULTS

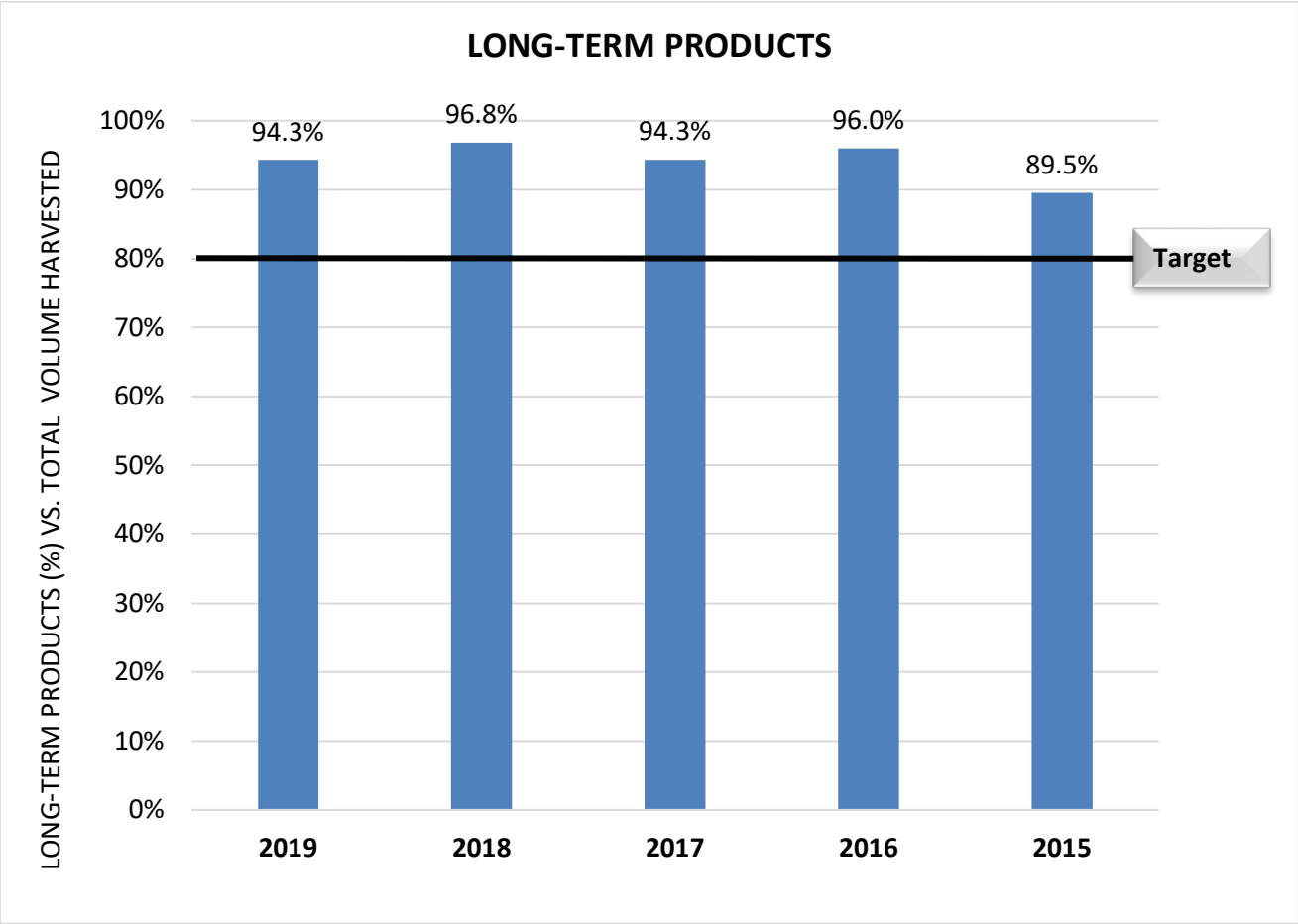
Year	Volume of Long Term Products (m^3)	Total Volume Harvested (m^3)	Percent (%)	Target Met (Y/N)	Variance
2019	378,669.97	401,475.78	94.3%	Y	0

In 2019, 94.3% of the wood harvested from the DFA was converted to long-term products; the remaining 5.7% was converted to pulp. In Honeymoon Bay, 91.9% of the wood was converted to long-term products, while 98.3% of the wood in the Fraser Valley was converted to long-term products.

TRENDS

Teal-Jones has been consistent with the target for this indicator (80%) since 2011.

Provided the economic conditions allow for business expansion, Teal-Jones' long-term future goal is to further increase utilization to a diameter of 2 inches by purchasing new equipment for the mills. It is therefore anticipated that the indicator will continue to meet or exceed the target in the future.



HISTORY OF INDICATOR

Previously a SIPAG indicator only (H4-2 Long-term Products), now applicable to DFA (2015).

STRATEGY

On a corporate level, Teal-Jones is continually aiming to improve utilization of the timber resource. They have, for example, 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-Jones 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. Only a small portion of the logs are shipped for pulp.

MONITORING

The Accounting and Log Departments review the log sales and reports the results under “Status and Results”.

CSA SFM Element 4.2 — Forest Land Conversion

Protect forest lands from deforestation.

C4.2.1: Additions and deletions to the forest area.

Please note that information on this indicator can be found in C2.1.3: Additions and Deletions to the Forest Area.

Criterion 5 — Economic and Social Benefits

Sustain flows of forest benefits for current and future generations by providing multiple goods and services.

Element 5.1 — Timber and Non-timber Benefits

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

C5.1.1: Diversity of Timber & Non-timber Resources Produced in the DFA

FULL INDICATOR NAME: Documentation of the Diversity of Timber & Non-Timber Resources, Including Products and Services Produced in the DFA.

BACKGROUND INFORMATION

Managed minor forest products include post harvest material and damaged timber. Harvesting of these products is tracked and Teal-Jones is required to pay stumpage on the volume harvested. Post-harvest material is fibre recovered following primary harvesting and is generally material that was left on site due to uneconomical circumstances (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.

Non-timber benefits are unmanaged and include: outdoor activities; maintenance of viable hunting, fishing, and trapping activities; firewood cutting; opportunities for ecotourism; protection, management, and sustainable use of cultural and heritage resources; and opportunities for development of ecological goods and services and other non-timber forest products. For the most part, these products and services are unregulated or are not regulated by Teal-Jones at the level of the DFA (e.g., hunting and fishing are regulated at the District level by government). Products such as mushroom and salal picking do occur on the DFA but Teal-Jones allows full unregulated access to these resources. Over picking of the resources or an impact on the quality of the resource from forest harvesting and road building has not been an issue of concern on the DFA in the past. If staff or forest users notice a decline in these resources in the future, Teal-Jones can work towards an alternate solution, which may include regulation and permitting.

While most of these activities depend upon participation of other parties, Teal-Jones' main role in providing opportunities is to provide access to the DFA. Teal-Jones regularly receives requests for access (e.g., keys distributed, maps, directions, etc.). Special access may be requested by First Nations, for example for bark stripping opportunities or other special interest groups such as Wilderness Watch for firewood permits.

Firewood cutting is the sole non-timber forest product administered by Teal-Jones on the DFA. Wilderness Watch issues firewood cutting permits on behalf of Teal-Jones in the Honeymoon Bay portion of the DFA. The Fraser portion of the DFA currently does not issue permits.

Value	Objective	Indicator	Target	Acceptable Variance
Non-timber benefits	Maintain or enhance opportunities for minor forest products and non-timber benefits derived from the DFA	Documentation of the diversity of timber and non-timber resources, including products and services produced in the DFA	Report annually on: volume of salvage, requests for access, firewood permits issued, and beekeepers within the DFA	Public access is restricted where safety, vandalism or sensitive ecological sites are concerns; special access may be required by First Nations and special interest groups
Justification for Target	**Basis for the Target**	**Legal Requirements**	**Means of Achieving Objective & Target**	**Monitoring & Measurement**
PAG discussion on monitoring non-timber forest products, open access to public lands, safety & interest in salvage	Core Indicator CSA Z809-16 standard	N/A	Operational Planning, External Communications	External Communications file

STATUS & RESULTS

Year	Salvage (m^3)	Number of Requests for Access	Number of Beekeepers	Other Non-timber Resources	Number of Firewood Permits Issued	Target Met (Y/N)	Variance Met (Y/N)
2019	2232	5 (HBO) 3 (FVO)	2 (HBO)	Firewood (Teal-Jones does not issue permits)	N/A	Y	Y

In 2019, in the Honeymoon Bay Operation there were 5 requests for access. Teal-Jones continues to maintain arrangements with two beekeepers to have a yard set up on TFL lands. Teal-Jones received a request for access to the Gordan River area from a National Geographic film crew who were filming a documentary on the Gordan River Caves. Additionally, a proposed bus service wishing to apply for a Licence of occupation through the Ministry of Forests, Lands and Natural Resource Operations (MFLNRO) to accommodate camping and vehicle parking within the TFL 46 land base. The last request for access was for a biking event called the Cowichan Crusher Gravel Ride for having access to a road under Teal's Road Permit within the Honeymoon Bay Operation's TFL 46 land base.

In the Fraser Valley, there were 3 requests for access in 2019. Teal-Jones has an ongoing cooperative relationship with the Southwestern All Terrain Trails Association (SWATT) to provide information and access including keys for locked gates in the West Harrison area. Teal-Jones also received a request for information on road conditions and access to the Hudson's Bay Company (1849) Heritage Trail in Sowaqua Creek. Sts'ailes First Nation requested access for bark stripping opportunities, Teal-Jones provided maps and directions to cedar stands where harvesting took place in 2019. Teal-Jones provided the Katzie First Nation a pickup for use in Pitt Lake for hunting purposes. There was an access request by the Trans Mountain Pipeline ULC. There was a request to rent a portable bridge; which Teal-Jones was unable to provide.

In Honeymoon Bay, there was 1,475 m3 of wood salvaged (Windthrow) in 2019. 757 m3 of shake and shingle blocks were recovered from areas previously harvested as well.

TRENDS

Since 2010, Teal-Jones has addressed and granted access and provided information regarding access to the DFA for many purposes including: beekeepers in Honeymoon Bay, salvage opportunities, private land, hunting, information on road conditions, West Coast Trail, students for high elevation study areas, to treat invasive plants, for cave exploration, fertilizer application, recreation, rock and mineral prospectors and claims, gold miners, bark stripping, moss collection, provided notice to First Nations of gate lock changes in specific areas of the DFA, ATV access and provided keys to individuals with private land, wood salvage permits, access to firewood and First Nations.

It is anticipated that the indicator will continue to meet the target for the following reasons:

- Teal-Jones maintains a full public access policy in the DFA. However, public access may be restricted where safety, vandalism or sensitive ecological sites are concerns (through the use of locked gates). Conservation or other special interest groups may be given keys to closed gates as requested, on a case by case basis. Teal-Jones is committed to responding to all reasonable requests for access to the forest.
- It is predicted that the annual volume of minor forest products harvested will remain relatively constant in the short-term, however over the long-term the volume available may decrease to reflect changes in harvesting methods.
- Teal-Jones anticipates that firewood permits will be issued each year whenever possible in the Honeymoon Bay portion of the DFA. It is not likely that Teal-Jones will issue firewood permits in the Fraser portion of the DFA due to safety concerns.

Year	Salvage (m^3)	of Requests for Access	Number of Beekeepers	Number of Firewood Permits Issued	Target Met (Y/N)	Variance Met (Y/N)
2018	9644.4	1 (HBO) 5 (FVO)	2 HBO	0	Y	Y
2017	5,008	11	2 HBO	0	Y	Y
2016	7,072	2	2 HBO	0	Y	Y
2015	4,529	4	2 HBO	0	Y	Y
2014	4,828	3	1 HBO	0	Y	Y
2013	4,557*	4 HBO/3 FVO	1 HBO	0	Y	Y
2012	6,073	0 HBO/7 FVO	1 HBO	2 FVO**	Y	Y
2011	7,042	0 HBO/3 FVO	1 HBO	0	Y	Y
2010	11,214	3 HBO/3 FVO	2 (HBO)	0	Y	Y

** All salvage has been from Honeymoon Bay historically, FVO has not had any salvage opportunities since reporting salvage indicators.*

*** Firewood and logs were donated by Teal-Jones, but no permit issued.*

HISTORY OF INDICATOR

This indicator now includes salvage in addition to non-timber forest products.
Amalgamates/Incorporates:

- F2-2: Salvage of Damaged Timber**.** Salvage of economically accessible damaged/ diseased or threatened merchantable timber as a percent of the total amount identified.
    - Target**:** 100% within 2 years of id
    - Variance: 100% within 3 years
- H5-2: Managed Minor Forest Products Annual volume (cubic metres) of Managed Minor Forest Products harvested (Douglas fir and cedar salvage)

How this changes reporting:

Now includes reporting of salvage in this indicator. Previously salvage was reported in two separate indicators. There is no target except to report salvage volume.

STRATEGY

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

Wilderness Watch issues all firewood cutting permits for Teal-Jones in the Honeymoon Bay portion of the DFA. There is a record of these permits each year. Whenever possible, Teal-Jones will allow firewood cutting by permit on the DFA, however in some years firewood permits may not be issued.

Teal-Jones currently maintains an open gate policy with the following exceptions: gates may be closed for safety, to protect sensitive ecological sites (e.g., at the request of Government agencies to aid in protecting Elk populations) or in active areas to prevent vandalism (where logging equipment is parked).

Teal-Jones is committed to working cooperatively with volunteer organizations (e.g., Wilderness Watch), communities (e.g., the city of Abbotsford controls the gate into the Norrish Creek community watershed) and First Nations to ensure that keys, maps, etc. are provided as requested, through on-going communication.

Through formal and informal processes, Teal-Jones receives public and First Nation input with regards to forest management in the DFA. Teal-Jones is committed to responding to all reasonable requests for access to the forest that are brought forward by the public and local First Nations.

Written correspondence is filed in the external communications file. Where possible, verbal communications are summarized in note form and filed within the same file.

MONITORING

The Stumpage Supervisor reviews the annual volume harvested through Minor Forest Products and reports under “Current Status and Results”. Government agencies also do periodic inspections (cross reference the Compliance Tracker).

The Environment Department will request information regarding the number of firewood permits issued each year from appropriate organizations. They will also review external communications in the corporate and operational files annually to determine if there has been any correspondence with respect to access in the DFA.

In addition, the Environmental Department will contact volunteer groups operating within the DFA to confirm the groups are provided with resources they are required. Comments will be reported under "Current Status and Results".

C5.1.2: Communications on Local Non-Timber Resources

FULL INDICATOR NAME: Evidence of Open and Respectful Communications with Forest Dependent Businesses, Forest Users and Local Communities to Integrate Non-Timber Resources into Forest Management Planning: When Significant Disagreement Occurs, Efforts Towards Conflict Resolution Are Documented.

BACKGROUND INFORMATION

Sites of Special Significance (SSS) are defined as known Community Watersheds (legally recognized watersheds) and areas immediately upslope and/or upstream of, or within one kilometre of private land, Indian Reservations, and communities, or areas where a higher level of referral is necessary in order to identify and respond to the concerns and interests of the interested or affected parties. Values and concerns may include: visual quality, water quality and quantity, Species at Risk (SAR), including locally important species, ecological values, flora (plants) and fauna (animals), noise, etc.

Interested or affected parties may hunt, pick berries and mushrooms, hike, photograph or otherwise generally appreciate the diversity of natural life that occurs in the site of special significance and its contribution to their way of life.

The following Sites of Special Significance have been identified (Teal-Jones may add to this list from time to time):

Site of Special Significance	Reason	Operation
Boston Bar	Harvesting immediately upslope/ up-Stream or within 1km of Communities	FVO
East Anderson		
Hatzic Valley		
East Stave Lake		
Steelhead Community		
Gurney Creek	Harvesting in community watersheds	
Jamieson Creek		
Norrish Creek		
Upper Pitt River	Wilderness fishing lodge: visuals and access to fishing grounds	
Walbran Valley, Gordon River, Avatar Grove	Harvesting in area with high recreation and old-growth values	HBO
Port Renfrew COC	Harvesting in area with high recreation and old-growth values	HBO

A SSS Communications Plan (Figure 3 below) has been created to guide the information sharing between Teal-Jones and the interested or affected parties. It includes protocols for community meetings, field reviews, and integrating issues of concern into planning.

Field reviews form an invaluable part of the information exchange between Teal-Jones and interested or affected parties. Field reviews ensure that critical values such as water intakes, private property lines, unmapped trails, unique forest features, caves, important streams, mushrooming areas, etc. are identified in the field and managed appropriately. By conducting field reviews, interested or affected parties can be confident that that forest development adequately considers and addresses their specific, identified issues and values and balance these with other forest uses and objectives.

Interested or affected parties expect assurance that their concerns are being heard and that they are addressed during forest management planning. Specific examples of identified concerns of stakeholders include: hydrology and flooding, slope stability; including debris torrents, wildlife habitat, drinking water quality and quantity and endangered species (including Oregon Spotted Frog), potential location of logging roads near or through private property and noise from helicopter logging.

Interested or affected parties' confidence in forest management is an important part of building an open, constructive relationship. Interested or affected parties' confidence in forest management planning can be improved through SSS by conducting initial meetings to gather specific, identified issues and values, following through with any required assessments and then incorporating the recommendations into the final forest planning.

In subsequent open community or group meetings, reviewing a summary of the identified issues and values, and if applicable, the associated assessments that were completed and how the recommendations from these assessments and other considerations were incorporated into final forest planning of cutblocks and roads allowing interested or affected parties to evaluate if their values and concerns were addressed.

Teal-Jones strives to achieve community confidence during the SSS process but may not always to meet all the needs of the interested or affected parties. Where disagreement between Teal-Jones and the interested or affected parties continues to be expressed at the end of the SSS process, Teal-Jones will present their evidence to the District Manager, who may then request additional input before making a final decision on whether or not to allow the harvesting and/or road building activities to occur.

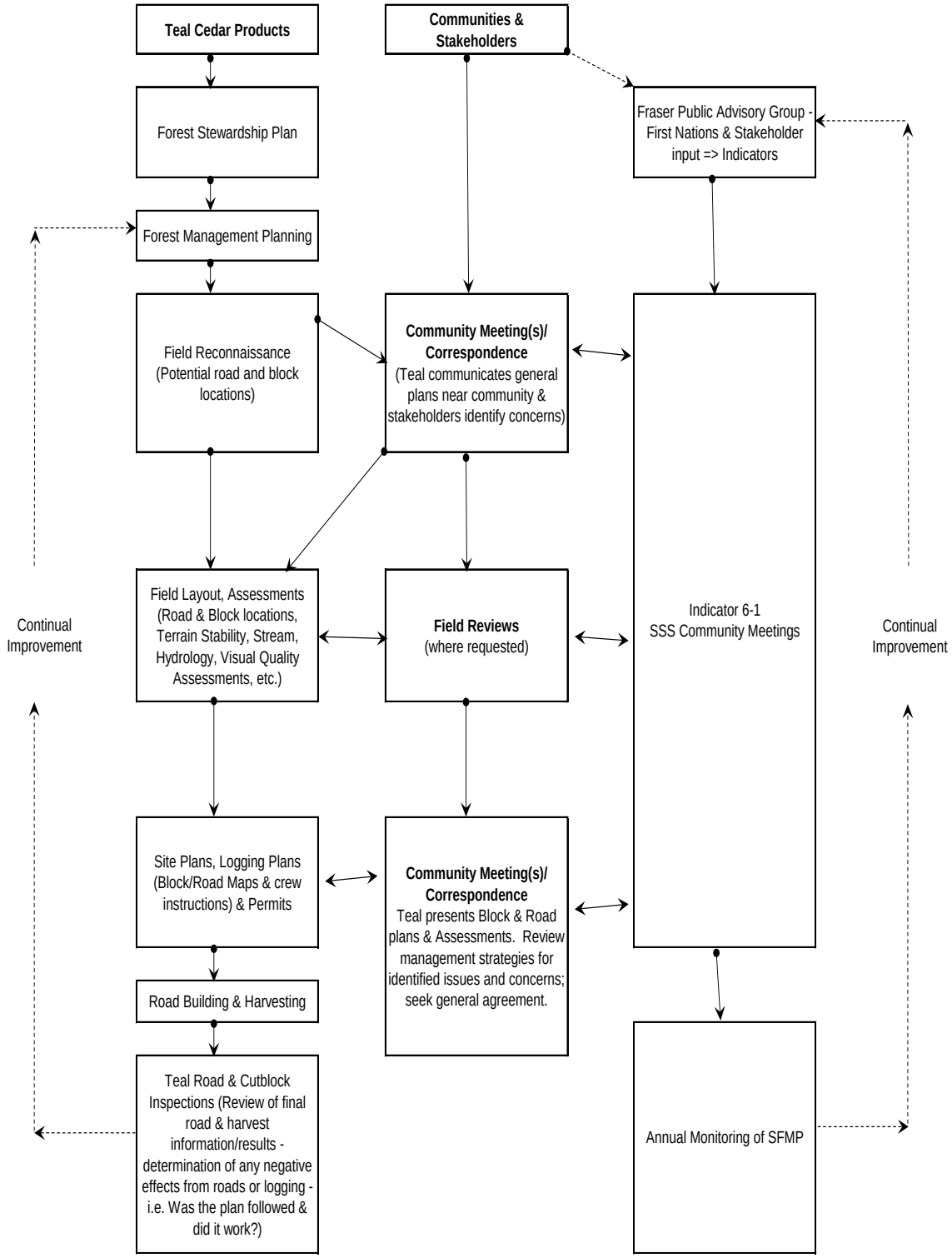


Figure 2: Sites of Special Significance (SSS) Communications Plan

Value	Objective	Indicator	Target	Acceptable Variance
Sites of Special Significance (SSS) and community trust	General stakeholder confidence that forest management plans and assessments adequately address specific, identified issues and values within SSS in order to build local communities' trust in Teal's forest management through public meetings	Evidence of open and respectful communications with forest dependent businesses, forest users and local communities to integrate non-timber resources into forest management planning. When significant disagreement occurs, efforts towards conflict resolution are documented	100%	Communications Protocol requirements may be postponed where forest planning is curtailed for operational reasons
Justification for Target	**Basis for the Target**	**Legal Requirements**	**Means of Achieving Objective & Target**	**Monitoring & Measurement**
Development of the Communications Protocol with FPAG.	Positive working relationships with communities	N/A	Meetings, field reviews, on-going communication, operational planning	Communications Plan, External communication file, Community meeting minutes

STATUS & RESULTS

The Fraser Valley Regional District is included in Information Sharing Referrals as per the FVRD Crown-Community Interface Policy, as well as local communities such as District of Kent, Village of Harrison Hotsprings.

Hatzic Community

The Hatzic community joined Teal-Jones employees, other FPAG members and local First Nation in a field tour on Hatzic ridge to view the status of regenerating stands.

Guide Outfitters and Trapline Holders

In 2019, outreach was continued for registered trapline holders and guide outfitters throughout the Fraser portion of the DFA that indicated an interest in receiving information. Those that indicated interested were included in local Information Sharing (e.g., guide outfitter in East Anderson).

East Stave Lake

Throughout 2019, ongoing correspondence was continued with Stave Lake Cabin Owners association. The cabin owners were included in the local Information Sharing Referral and they were notified when forestry operations were active in the area. Additionally, a salvage operator was included in the local information sharing process.

Pitt River

Throughout 2019, ongoing correspondence was continued with local residents and commercial operators.

Canadian Cave Conservancy

In 2019, the Honeymoon Bay portion of the DFA continued support of the local Cowichan Valley Cave Community in their initiative to develop a recreation site at the local cave sites. Teal noted there are other management options that would provide protection for the area if a recreation site is not established.

Gordon River and Avatar Grove

In 2019, inquiries were made by Ancient Forest Alliance about the status of forestry activities in the vicinity of Eden Grove (Gordon River) and Avatar Grove near Port Renfrew.

TRENDS

Since 2009, Teal-Jones has established SSS communications protocols or has invited associations, communities and stakeholders across the DFA to work together to develop SSS communications protocols or has arranged other commitments for communications with:

- East Stave Lake Stave Lake Cabin Owners Association
- Upper Pitt River owners of a fishing lodge in the upper Pitt River area
- Ancient Forest Alliance and Western Canada Wilderness Committee
- Community of Boston Bar
- Community of North Ainslie
- Community of Norrish Creek
- Hatzic Valley and Steelhead Communities

Planning and forest management activity is expected to shift between operations within the DFA; operations will shift from year to year across the DFA and activity will not occur within or near SSS every year. Where specific parties have arranged for communication and referral outside of this process, community meetings will not be required (e.g., Norrish Creek Community Watershed). It is therefore anticipated that the indicator will continue to meet the target in the future.

HISTORY OF INDICATOR

In 2016 this indicator, which was D6-1 (Sites of Special Significance), became C5.1.2, due to changes in the CSA Standard (CSA Z809-16). This was a new core indicator, but Teal-Jones already had been tracking their management of these sites and ongoing discussions with local communities under D6-1.

All 4 SSS indicators have been combined into one. Reporting requirements remain the same, with the exception of the last indicator on confidence.

Amalgamates/Incorporates:

- F6-10: SSS Community Meetings The percentage of public meetings held according to the SSS Community Communications Plan
    - Target: 100%
    - Variance: Meetings may be postponed where forest planning is curtailed for operational reasons
- F6-11: SSS Field Reviews. Percent of requested field reviews within SSS from stakeholders completed with stakeholder(s) during forest management planning
    - Target: 100%
    - Variance: Zero

- F6-12: SSS Stakeholder Issues. Percent of specific, identified stakeholder issues and values within SSS addressed in forest management planning and assessments.
    - Target: 100%
    - Variance: Zero
- F6-13: SSS Stakeholder Confidence.
    - Target: Seek general consensus (100%)
    - Variance: Zero

Teal-Jones will continue to report on:

- Public meetings
- Field reviews
- Integration of values/interests in planning
- Feedback from community on the plans (to address confidence)

STRATEGY

Community Meetings

Unless another process for referrals has been established and agreed to by all parties involved, open community meetings will be held when planning in Sites of Special Significance is initiated.

The communications plan (Figure 3) illustrates the typical forest management planning timeline, the corresponding timeline for conducting initial open community meetings and how the associated SFMP indicators are linked to these activities. Annually, Teal-Jones will specify any proposed forest management activity within Sites of Special Significance and develop a specific communication plan with potential dates for community meetings, field reviews, etc. where required (i.e., unless a previous agreement for communication outside of meetings has been agreed to by both parties such as with Norrish Creek Community Watershed).

In respect to this indicator, forest management planning means site specific (field) road and cutblock planning in areas of Sites of Special Significance. At the initial open community meetings, Teal-Jones will gather stakeholder input and initiate any requested field reviews, followed by incorporating stakeholder input into assessments and field layout. When assessments have been completed and a majority of the field layout has been completed, open community meetings, to review assessments as well as road and cutblock designs, can be held to advise stakeholders how their concerns and values have been incorporated into the development. At this point, Teal-Jones will be able to evaluate the level of stakeholder satisfaction that their values and concerns were adequately addressed.

Field Reviews

Stakeholders have the opportunity to request field reviews of forest management planning within Sites of Special Significance through the community meetings held in accordance with the SSS communication plan (refer to Figure 1, Indicator 6-10) or through correspondence with Teal-Jones' Engineering Department.

Teal-Jones' Engineering Department will converse with the stakeholder regarding their concerns. If a field review is deemed to be necessary in order to satisfactorily review the stakeholder's issues in the field, a field review will be conducted at the appropriate time in the planning cycle.

Requests for field reviews will be documented in public meeting notes or within specific block files as well as within the external communications file. Field notes and post field review correspondence will be documented and filed in the same locations.

Areas of Concern

Stakeholders have the opportunity to identify concerns and values in regard to forest management planning within Sites of Special Significance through the community meetings held in accordance with the SSS communication plan (refer to Figure 3, Indicator C5.1.2) or through correspondence with Teal-Jones' Engineering Department.

Stakeholder issues and values should be presented to Teal-Jones as early as possible in the forest management planning timeline in order to ensure efficiencies with layout. At the early stages of planning, there is typically a general idea of where cutblocks and associated roads may be located.

As planning develops and assessments are completed, the specific, identified issues and areas of concern will be addressed prior to finalizing plans. At, or prior to completion of forest management planning activities, Teal-Jones will meet with concerned stakeholders to present the plans for the area, discuss how specific, identified issues and values were addressed and to review any professional assessments that address these concerns. Whenever possible, the authors of any professional reports will be available to directly respond to questions from stakeholders about their concerns in regard to these assessments and planning.

Where Teal-Jones has built an open, constructive relationship with local communities and/or stakeholders, conducting community meetings may not be necessary. For example, for residents near Norrish Creek, the referral process between Teal-Jones and the stakeholders is conducted by referring planning proposals in letter form (often including maps) to a community representative for stakeholder comments, conducting field reviews and follow up communications, where required.

The Teal-Jones' Forestry and Engineering Department will conduct information gathering meetings or planning referrals with the associated communities and/or stakeholders when forest development is anticipated for SSS. Concerns will be documented in public meeting notes or within specific block files as well as within the external communications file. Follow-up correspondence will be documented and filed in the same locations.

Forecast: Teal-Jones will strive to adequately respond to each of the specific identified issues and values associated with SSS.

MONITORING

The Teal-Jones' Forestry and Engineering Department reviews the internal communication file (and referral binder) for records relating to the number of public meetings and referrals each year where forest management issues were discussed, in relation to SSS.

Field reviews were defined by the FPAG[13] as an opportunity for a concerned stakeholder to have an on-site examination of proposed road and harvest plans; an opportunity to provide input and ask questions. In respect to this indicator, "reasonable" is defined as a rational and practical number of requests to discuss and examine forest development plans as they relate to specific identified areas of concerns. The Teal-Jones Divisional Engineer will determine if the request for a field review is reasonable.

[13] "Field Review" & "reasonable" definitions developed with input of the Fraser Public Advisory Group in 2007 (see Meeting Minutes June 12, 2007)

During forest management planning in SSS, stakeholders that are concerned about how the proposed forest development may affect their values may ask to accompany field engineers to review the proposed development.

Requests for field reviews may be made at any time during the field layout phase of forest development as well as at the completion of field layout to confirm that area of concern and values are adequately addressed.

D5-1 Visual Quality Management

BACKGROUND INFORMATION

Visual quality management involves meeting Visual Quality Objectives (VQO) for known scenic areas. A Visual Quality objective is a resource management objective established by Government agencies or contained in Higher-Level Plans; these objectives reflect the desired level of visual quality based on the physical characteristics and social concern for the area.[14] The Visual Quality Objectives provide parameters around the alteration of the visual landscape by forest harvesting and roads. These objectives strive to limit the negative appearance of human activities on the landscape. VQOs are established in Higher Level Plans or by government agencies and reflect public concern for viewscapes.

Value	Objective	Indicator	Target	Acceptable Variance
Recreation and Tourism	Maintain visual quality	Cutblocks designed to meet the Visual Quality Objectives	100 % of cutblocks within visually sensitive areas meet or exceed the requirements for Visual Quality management specified in Teal-Jones' Forest Stewardship Plans (FSP)	Zero
Justification for Target	**Basis for the Target**	**Legal Requirements**	**Means of Achieving Objective & Target**	**Monitoring & Measurement**
Public concern for Visually Sensitive Areas	Forest Stewardship Plan	Forest and Range Practices Act	Operational Planning, Visual Impact Assessments	Inspections by government agencies, Harvest Inspections, external communications files

STATUS & RESULTS

Year	Number of Cutblocks Located in Scenic Areas	Number of Cutblocks Meeting VQO	Percent of Cutblocks that Meet or Exceed VQO	Target Met (Y/N)	Variance Met (Y/N)
2019	1 HBO 1 FVO	2	100%	Y	Y

[14] Forest Practice Code Guidebook Visual Impact Assessment January 2001

In 2019 there were 2 blocks in visual areas and 100% of cutblocks meet or exceed VQO. There were no incident investigations with regards to visuals and no non-compliances issued by Compliance & Enforcement for failure to meet visual quality objectives in 2019.

TRENDS

Since 2009 Teal-Jones has met the target for this indicator; 100% of cutblocks meet or exceed VQO.

Year	Number of Cutblocks Located in Scenic Areas	Number of Cutblocks Meeting VQO	Percent of Cutblocks that Meet or Exceed VQO	Target Met (Y/N)	Variance Met (Y/N)
2018	3 HBO/4 FVO	7	100	Y	Y
2017	3 HBO/7 FVO	10	100	Y	Y
2016	2 HBO/11 FVO	13	100	Y	Y
2015	2 HBO/9 FVO	11	100	Y	Y
2014	3 HBO/11 FVO	14	100	Y	Y
2013	8 HBO/18 FVO	26	100	Y	Y
2012	8 HBO/26 FVO	33	100	Y	Y
2011	16 HBO/21 FVO	37	100	Y	Y
2010	10 HBO/12 FVO	22	100	Y	Y
2009	30	30	100	Y	Y

HISTORY OF INDICATOR

This is a new indicator, based on existing indicators:

- H5-4 Visual Quality Objectives (originally developed by SIPAG); and
- F5-1 Visual Quality Management (originally developed by FPAG).

STRATEGY

Within Visually Sensitive Areas, visual design concepts and principles are incorporated into cutblock 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 set limits. Where proposed cutblock size and shapes do not meet Visual Quality Objectives, cutblock design is modified. Registered Professional Foresters (RPFs) evaluate site specific values or conditions during the planning stages to determine if proposed activities meet the objectives of the applicable Forest Stewardship Plan.

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

MONITORING

The Teal-Jones Forestry & Engineering Department reviews the cutblock and area files (operational planning documents, assessments, and internal inspection reports) for compliance with Visual Quality Objectives and will report the results annually.

Government agencies also complete periodic inspections.

Element 5.2 — Communities and Sustainability

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

C5.2.1: Participation & Support in Community Sustainability

FULL INDICATOR NAME: Level of Participation and Support in Initiatives that Contribute to Community Sustainability.

BACKGROUND INFORMATION

The intent of this indicator is to measure and report on financial benefits going into communities associated with Teal-Jones operations. The target is a combination of initiatives (such as Memorandums of Understanding or protocol agreements with communities), in kind contributions, and financial donations. Examples include revenues paid to the crown (stumpage and taxes), contributions to local resource projects and purchasing of supplies and services from local businesses.

Further benefits are explored under other indicators (*C5.2.3 measures wages paid to Teal-Jones personnel, C5.1.1 measures non-timber benefits* and *6.3.1 measures employment and contracting*).

Value	Objective	Indicator	Target	Acceptable Variance
Contributions to society (including local community)	Assess the level of investment in initiatives that contribute to community sustainability	Level of participation and support in initiatives that contribute to community sustainability	Ongoing contributions to the local economy and community sustainability, including initiatives (e.g., MoUs), in kind donations and financial contributions	The intent of this indicator is to provide a general idea of the dollars contributed to the local economy by harvesting activities within the DFA, results will fluctuate over time
Justification for Target	**Basis for the Target**	**Legal Requirements**	**Means of Achieving Objective & Target**	**Monitoring & Measurement**
Developed by PAGs	Core Indicator CSA Z809-16 standard	N/A	Corporate Administration	Corporate and accounting files

STATUS & RESULTS

Year	Description	Financial Contributions	In Kind Contribution (Description or Approximate $)	Target Met (Y/N)
2019	Community Groups	$2,280.00	$3934.91	Y
	Fish Enhancement (or other Habitat Enhancement) Projects	$3990	Participation in the San Juan River Roundtable	
	MoUs	N/A	N/A	
	First Nations Communities & Projects	$10700	$45,700	
	Funding of Public Advisory Groups*	$14,670.00	N/A	
	Taxes & other fees	$14,427,491.42	N/A	
	TOTAL	**$14,459,131.42**	**$49,634.91**	

** Funding of PAGs not tracked directly. A conservative estimate is made based on 5 days of consultant time/meeting, and 1 day of staff time/meeting for each meeting held by SIPAG and FPAG each year (usually ~ 4 meetings/year).*

In 2019, over 14.46 million dollars was spent in the communities associated with the DFA on initiatives which contribute to the local community.

Donations to Community Groups in Honeymoon Bay totalled $760 and included:

- Valley Fish and Game Club ($500)
- Cowichan Lake District Chamber of Commerce ($185)
- Royal Canadian Legion ($75 – Remembrance Day wreath)

Donations to Community Groups in Fraser Valley totalled $1520 and included:

- Sumas Chamber of Commerce ($520)
- Canadian Institute of Forestry (BC National Forest Week - $500)
- Fraser Valley Elementary School – ($500 Silent Auction Gift Certificate)

Honeymoon Bay operation provided donations providing the Community of Mesachie Lake in kind donation of logs and machinery to replace the "Welcome to Mesachie Lake" sign ($1148 Value), and donated firewood to the Chemanius Minor Hockey team ($1820 Value). Honeymoon Bay continues to send a representative to participate in the San Juan River Roundtable (in kind donation of $1200).

The Fraser Valley operation provided assistant in the Blue Creek Rehab project for the Katzie First Nations ($3990 Value) for a fish enhancement project, provided the Nakusp's Rail Society with a In kind donation of Teal-Jones Shingle ($716 Value), a firewood donation was made to a local First Nation ($23300 Value), and provided a donation to the Katzie First Nations for a new roof for a long house ($8400 Value).

In the DFA, approximately $14,670 was spent on funding the two public advisory groups. More than $14.43 million dollars was spent in taxes and other fees in 2019.

There continues to be two memorandum of understanding the in the Fraser Valley, with the cities of Abbotsford and Mission for the Norrish Creek Watershed.

TRENDS

Since 2011, Teal-Jones had contributed over $23,000 of in kind contributions across the DFA and over 35 million in financial contribution for community groups, fish (or other habitat) enhancement projects, First Nations communities and projects, funding of PAGs and other taxes and fees.

HISTORY OF INDICATOR

As of 2015, the indicator now includes reporting requirements on community MOUs or community log retrieval agreements, incorporating the following indicators:

- F5-5: Economic Benefits to Local Communities. The progress (Memorandum of Understanding – MoU) made by the community representatives and Teal-Jones representatives towards creation of economic activity and employment in the central Fraser Canyon.
- F5-4: Community Log Retrieval Agreements. Progress towards individual signed protocol agreements for Community Log Retrieval with interested individuals or groups from Communities.

This indicator has not been reported prior to 2010 for Fraser portion of the DFA. Contributions to the community in the Honeymoon Bay portion of the DFA have been reported since 2007, however the strategy was slightly different than the current strategy (wages and local supplies and services were included). See SFMP annual report from March 2010 version for more details.

STRATEGY

Contributions to local resources projects are filed by the corporate office and Operational staff. Local resource projects are any project that goes above and beyond harvesting practices that contribute in perpetuity to community sustainability. Examples include in kind or financial support of:

- the Public Advisory Groups,
- maintenance to public facilities or structures such as docks and roads,
- initiatives such as fish habitat restoration, inventory projects, fertilization projects,
- donations to First Nations, and
- support of community groups such as Wilderness Watch

Taxes and other fees paid to the government include contributions to the Canadian Pension Plan (Employer & Employee Contributions), Employment Insurance (Employer & Employee Contributions), Income Tax (Employee Contributions), Workers Compensation Benefits, Stumpage Fees, Goods & Services Tax, Property Tax, Annual Rent, Metro Vancouver Port and Nanaimo Port Authority.

MONITORING

The Teal-Jones Accounting Department provides an annual summary of taxes (pre-adjustment) and other fees paid to the government.

The Teal-Jones Environment Department will request from management the number of fish enhancement projects which may have been carried out within the year.

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

C5.2.2: Level of Participation & Support in Training & Skills Development

BACKGROUND INFORMATION

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 DFA Workers	Opportunities for workforce training and skill development	Level of participation and support in training and skills development	100% conformance with internal mandatory training requirements	20%
Justification for Target	**Basis for the Target**	**Legal Requirements**	**Means of Achieving Objective & Target**	**Monitoring & Measurement**
Corporate Management System	Core Indicator CSA Z809-16 standard	N/A	Corporate Administration	Corporate and accounting files

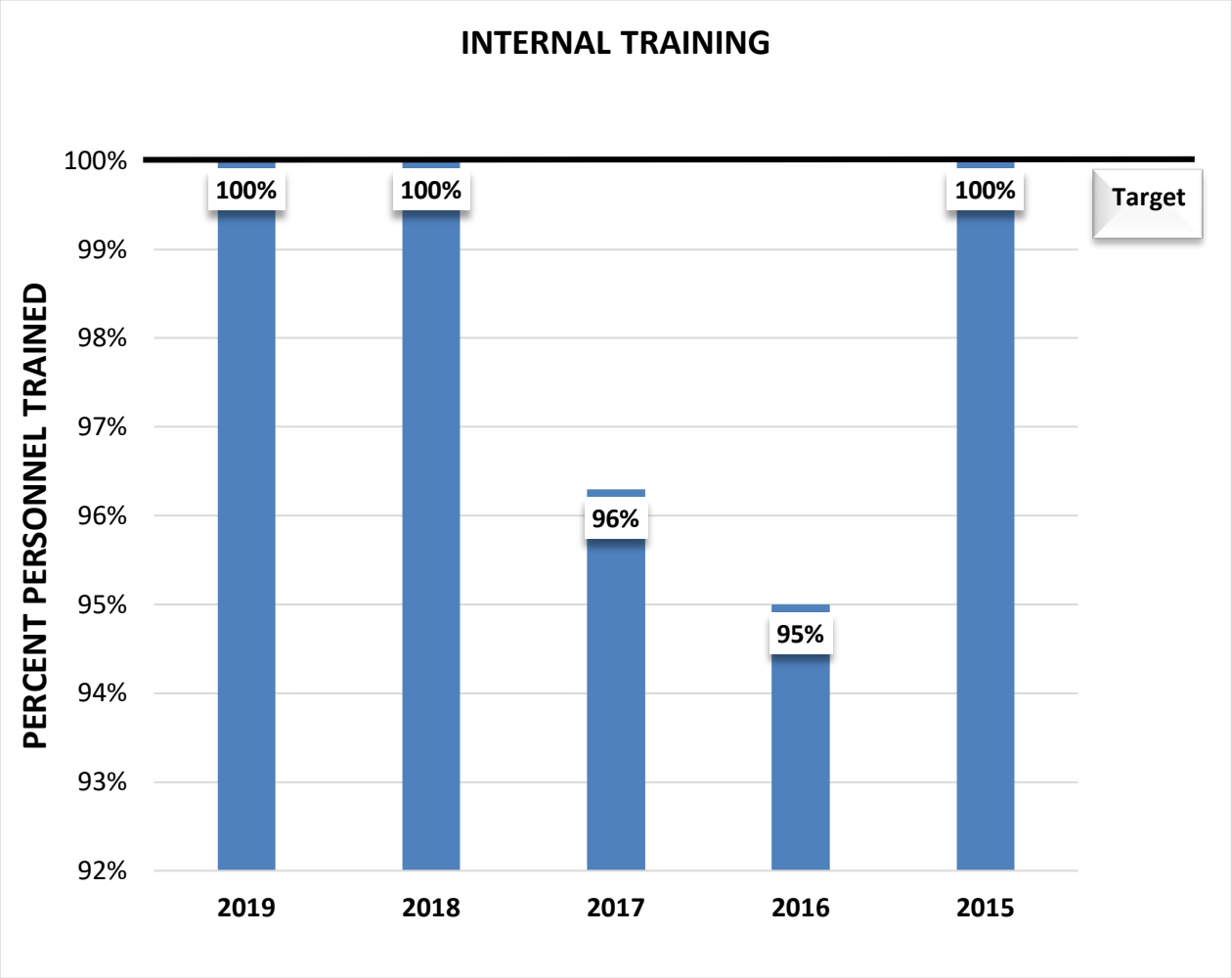
STATUS & RESULTS

Year	Number of Personnel	Number of Personnel with Current Training	Percent of Personnel who Completed Internal Training Requirements	Target Met (Y/N)	Variance Met (Y/N)
2019	19	19	100	Y	Y

In the Fraser Valley portion of the DFA eleven (11) Teal-Jones employees completed internal training requirements and eight (8) employees completed internal training requirements in the Honeymoon Bay portion of the DFA (a total of 19 employees). Teal-Jones has hired two new engineers in the Fraser Valley portion of the DFA. Additionally, several contractual employees (consultants) also completed internal training with Teal-Jones employees at annual training sessions. On an annual basis those internal employees who require training are invited to a training seminar in the applicable operating area (FVO/HBO).

TRENDS

Teal-Jones has been consistent with the target or the variance for this indicator since 2011, except for 2013. Teal-Jones continues to develop strategic methods to track training of staff and contractors and anticipates that training requirements will continue to be within the acceptable variance annually. Teal-Jones' goal is to have everyone trained each year but recognizes that there have been gaps in the past. As Teal-Jones improves its training methods and tracking systems it is anticipated that the indicator will meet the target consistently over time.



HISTORY OF INDICATOR

This is a new indicator in 2011, based on a previous indicator: H5-12 Training Requirements (originally developed by SIPAG). It should be noted the method for monitoring this indicator has been changed significantly from the original indicator, to better reflect how training is tracked.

STRATEGY

Key Environmental Personnel includes Teal-Jones staff and Contractor Managers/ Supervisors (i.e., those who have roles in the Corporate Management System or supporting documents, Emergency Preparedness and Response Plan, etc.). Training for these personnel is recorded in Teal-Jones' Key Personnel Training Tracker. Internal training requirements are those requirements that are additional to the legally required training, including, but not limited to, the following courses:

- Sustainable Forest Management Awareness Training (all staff, employees and contractors)
- Standard Operating Procedures (all staff, employees and contractors)
- Corporate Management System Workshop (Key Environmental Personnel only)

Contractors are responsible for maintaining their own training records, but also must complete the first two training courses above.

MONITORING

The Environmental Department will review the Teal-Jones Key Personnel Training Tracker annually to determine if key personnel have any outstanding training requirements for internal training. Contractor training records are also reviewed during audits to determine compliance with internal training requirements. Comments will be reported under "Current Status and Results".

C5.2.3: Level of Direct and Indirect Employment

BACKGROUND INFORMATION

Indirect employment is defined a "*jobs in other businesses or industries supplying goods and services to a selected industry that provides direct employment*". Jobs providing goods and services to the direct employees and indirect employees, known as induced employment, are not included. For example, a sawmill providing direct employment in the forest industry also provides indirect employment to retailers, accountants and various trades for special jobs which the sawmill employees are not trained to handle, to produce the direct outputs of the sawmill. The directly and indirectly employed workers buy goods and services for their own use, creating induced employment. Induced employment is not included in indirect employment, to avoid double-counting.[15]

Collecting data for and calculating indirect employment can be onerous, especially if complex models are required. However, Teal-Jones monitors its spending to local business and suppliers that provides employment to those businesses in the community.

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	Level of direct and indirect employment	Report on total dollars contributed to direct and indirect employment	The intent of this indicator is to provide a general idea of the dollars contributed to indirect and direct employment in the DFA, and results will fluctuate over time.
Justification for Target	**Basis for the Target**	**Legal Requirements**	**Means of Achieving Objective & Target**	**Monitoring & Measurement**
Interest from PAGs	Core Indicator CSA Z809-16 standard	N/A	Corporate Administration	Corporate and accounting files

STATUS & RESULTS

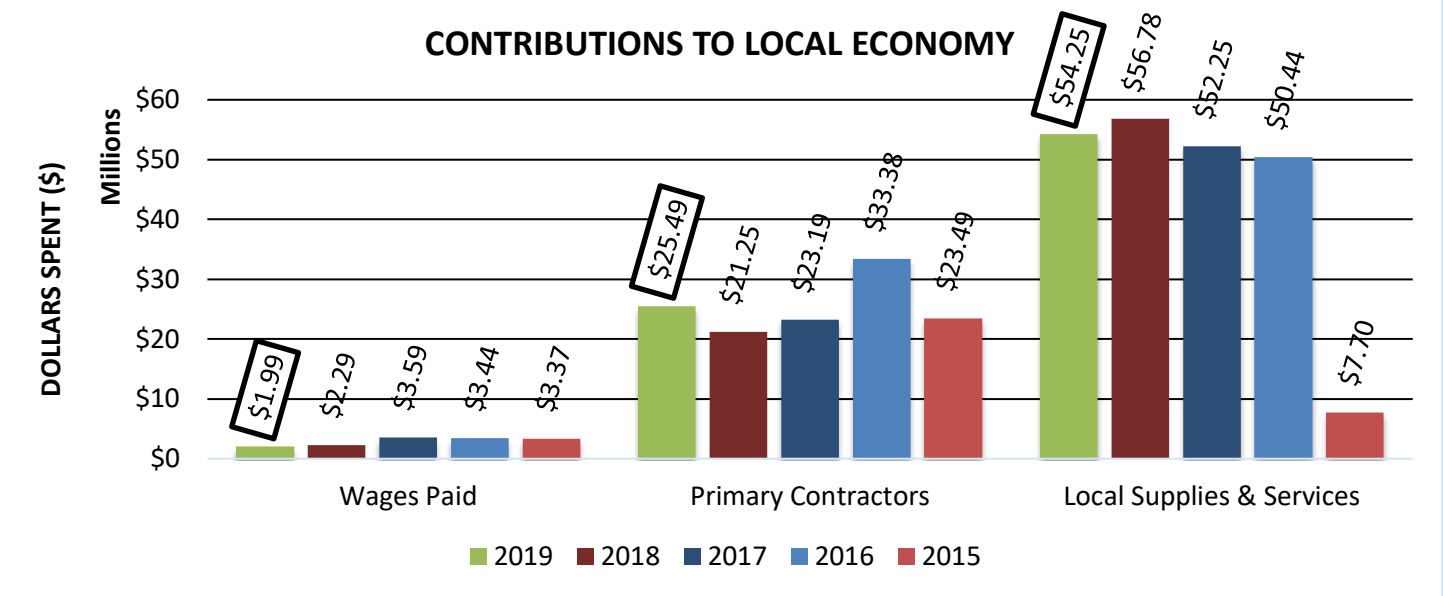
In 2019, the Honeymoon Bay portion of the DFA wages for staff and crewing totalled $897,797.79 primary contractors totalled $19,347,290.97 and the operation also spent $41,884,315.99 on local supplies and services.

[15] The State of British Columbia's Forests (2006)

In the Fraser portion of the DFA wages for staff and crewing totalled $1,096,880.47, primary contractors totalled $6,140,736.13 and the operation spent $12,366,997.38 on local supplies and services.

TRENDS

Since 2011, Teal-Jones has been reporting on total dollars contributed to direct and indirect employment. Since 2011, Teal-Jones has paid out over $22.8 million in wages, $188 million to primary contractors and $190 million for local supplies and services.



**As of 2016 the Accounting Department is tracking Local Supplies and Services. Prior to this time, it was informally tracked by operation. This number has increased as a result of more accurate tracking of expenses for each operation.*

HISTORY OF INDICATOR

This is a new indicator in 2011, based on previous indicators:

- H5-13 Community Benefits; and
- H5-7 Full Time Jobs (originally developed by SIPAG).

STRATEGY

Total wages paid are supplied by the Teal-Jones Corporate Administration and Accounting departments.

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

MONITORING

The Teal-Jones Administrative Department provides information on total wages paid.

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

D5-2: Public Safety

BACKGROUND INFORMATION

Occasionally there are risks to human safety and threats to private and community property which are noted by Teal-Jones Engineering Staff during regular planning or inspections of field work. For example, an area which is prone to significant rock fall activity might pose a threat to road users, so Teal-Jones would place signage indicating a no-stopping zone. Similarly, in areas where there is high avalanche risk, if a road is open and active, signs would be posted to warn the public of the potential avalanche zone. The intent of this indicator is to track activities which are beyond the scope of normal day to day safety precautions.

Criminal behaviour is a common problem in the Fraser portion of the DFA where public access is unrestricted or cannot be restricted (Crown land). Criminal behaviour includes poaching, illegal firearms discharge, vandalism, environmental damage from off-road vehicles, damage to recreation sites and First Nation's cultural features, illegal dumping, etc. This behaviour, as discussed at PAG meetings, impacts a wide breadth of DFA stakeholders and PAG sectors including First Nations, local residents, naturalists, public utilities, Regional Districts and Teal-Jones.

One of the most effective methods of reducing this behaviour in forest lands is to observe and report criminal or suspicious behaviour to law enforcement authorities. Some volunteer outdoor recreation groups actively train and patrol forested areas of concern in order to observe and report this kind of behaviour. Assisting these established, trained and active groups, where they have expressed a need, will help to provide a stronger, consistent and more effective approach to this issue.

Value	Objective	Indicator	Target	Acceptable Variance
Community safety and environmental protection	Ensure community and environmental sustainability during ongoing harvest and road building activities	Public is notified of significant public safety issues (outside standard practice) and all significant criminal activities are reported	100%	Zero
Justification for Target	**Basis for the Target**	**Legal Requirements**	**Means of Achieving Objective & Target**	**Monitoring & Measurement**
PAG concern over public safety, and criminal activities on public lands near communities	PAG concern over public safety, and criminal activities on public lands near communities	N/A	Road and harvest inspections, Operational planning, Emergency Preparedness & Response Plan	Forest Stewardship Plan, Road and Harvest Inspections, inspections by government agencies, ongoing monitoring (criminal activity)

STATUS & RESULTS

In 2019, the public was notified of a bridge removal in the Fraser Valley portion of the DFA and were notified of active logging, blasting and road building throughout the DFA in 2019.

There were no reported criminal or illegal behaviour in the DFA in 2019.

TRENDS

Since 2014, Teal-Jones has been consistent with the target for this indicator; the public has been notified of specific instances of rockfall hazards, active logging, unsafe bridges and forest fire hazard across the DFA. Appropriate action was taken to notify the public of these safety issues in each situation (signs posted). In addition, and all significant criminal activities have been reported since 2014 (reported to Compliance & Enforcement and/or RCMP).

The indicator will continue to meet the target for the following reasons:

- Safety is a key priority for Teal-Jones. Teal-Jones received SAFE certification in 2016 and will continue to implement actions which consider public safety on the DFA in the future; and
- Significant criminal activity is always reported when observed.

HISTORY OF INDICATOR

As of 2015, this is a new Indicator which amalgamates FPAG indicators regarding public safety and criminal behaviour as follows:

- F5-6: Reporting Terrain Related Threats
    - Percentage of identified stream or terrain related threats reported to the applicable Regional District.
- F5-12: Observing / Reporting Criminal Behaviour
    - Provision of reasonable support, where requested, to volunteer groups to facilitate observing and reporting of criminal behaviour in the Fraser DFA.

STRATEGY

During regular planning or inspection activities, threats to public safety may be noticed occasionally in the field. Once identified, Teal-Jones staff assesses the threat and takes appropriate measures to inform the public and keep the area safe.

Contractors are encouraged to report all criminal behaviour. When significant criminal activity is observed in the field Teal-Jones is involved in reporting to the RCMP or local police. In addition, it may be reported to groups such as Wilderness Watch (and vice versa).

MONITORING

The Teal-Jones Forestry & Engineering Departments will track all sites with potential public safety threats. The Environmental Department will report the number of threats to public safety and the methods used to notify them of the issue.

The Teal-Jones Environmental Department communicates with the Manager, Forestry and Engineering (reviews the external communication file) and summarizes any criminal activity within the DFA. Criminal activity within the DFA is often actively discussed at PAG meetings under “Current Business”.

Criterion 6 — Society's Responsibility

Sustainable forest management includes society's responsibility for worker and community safety, and the requirement for fair, equitable, and effective forest management decisions.

Element 6.1 — Fair and Effective Decision-making

Demonstrate that the SFM public participation process is designed and functioning to the satisfaction of the participants and that there is general public awareness of the process and its progress.

C6.1.1: Level of Participant Satisfaction with the Public Participation Process

BACKGROUND INFORMATION

The purpose of the Member Satisfaction questionnaire is to help Teal-Jones improve the Public Advisory Group process and identify priorities/focus for future PAG meetings. The questionnaire provides opportunities to rate meeting facilities, facilitator and speakers, information provided, and the general public advisory process.

Value	Objective	Indicator	Target	Acceptable Variance
Public participation	Improve the public participation process	Level of participant satisfaction with the public participation process	Each item on the annual PAG Evaluation form scores Satisfactory or better	Steps are taken to discuss and remedy, where possible, 'Poor' or 'Unsatisfactory' scores during a PAG meeting
Justification for Target	**Basis for the Target**	**Legal Requirements**	**Means of Achieving Objective & Target**	**Monitoring & Measurement**
PAGs input – scores which are unsatisfactory, or poor should be addressed	Core Indicator CSA Z809-16 standard	N/A	PAG meetings, Evaluation Form	Meeting minutes

STATUS & RESULTS

Year	Number of Items Poor or Very Poor (Unsatisfactory)	Number of Poor or Very Poor (Unsatisfactory) Items Addressed	Target Met (Y/N)	Variance Met (Y/N)
2019	1	1	N	Y

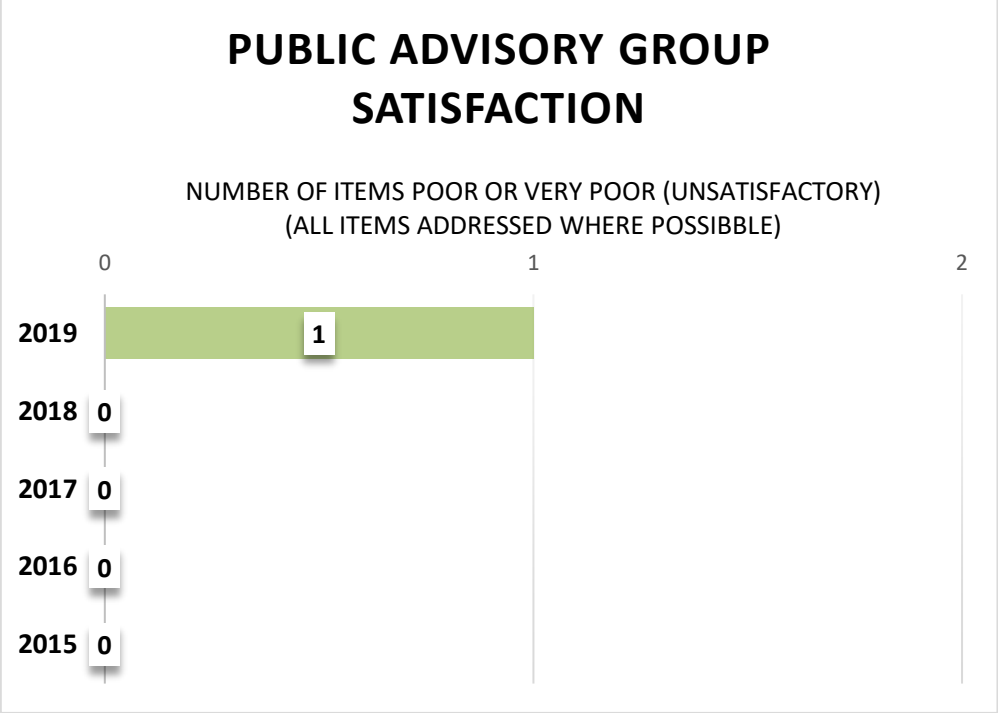
In 2019, evaluation forms were distributed to members and 7 responses were received in Honeymoon Bay, and 9 were received in Fraser Valley. There was one item which scored poor or unsatisfactory related to food quality. The poor rating lead to a change in venue for the Fraser Valley Public Advisory Group in the fall of 2019 which members have expressed satisfaction with the new venue.

TRENDS

Teal-Jones has distributed evaluation forms to PAG members annually, since 2010. In 2010, 2012, 2013 and 2014 there have been "poor" or "unsatisfactory" scores reported on evaluation forms. In each situation, Teal-Jones has made every reasonable effort to addressed and/or improve on the areas where

PAG members have identified room for improvement such as location, timing of the meetings, distractive noise, food selections and meeting content and visual presentation.

Meeting evaluations are distributed to the PAG members on an annual basis. Evaluations that include 'unsatisfactory' or 'poor' results will be discussed with PAGs and addressed as appropriate in a timely manner, therefore it is anticipated that the indicator will continue to meet the target.



HISTORY OF INDICATOR

This indicator is based on a previously developed indicator:

- F6-9 FPAG Member Satisfaction (originally developed by FPAG)
- Surveys completed by SIPAG outside of the SFMP.

STRATEGY

A PAG questionnaire will be distributed to each PAG member at a minimum of once per year (completed on a voluntary basis) in order to assess member satisfaction with the process. The PAG questionnaire asks members to rate facilities, facilitator/speakers, information provided and the general process by indicating a score of Very good, Good, Average, Poor or Very poor (unsatisfactory).

Comments and feedback will be reviewed by the Teal-Jones Environmental Department and reviewed with members at the following meeting. Measures to address any deficiencies (where very poor-unsatisfactory or poor results are indicated) will be developed as appropriate.

MONITORING

The Teal-Jones Environmental Department reviews the meeting minutes and tallies the number of meetings throughout the year where distribution and completion of a PAG questionnaire occurred; reviews the results of the questionnaire and provides a summary of results.

C6.1.2: Promotion of Capacity Development and Meaningful Participation

FULL INDICATOR NAME: Evidence of Efforts to Promote Capacity Development and Meaningful Participation in General

BACKGROUND INFORMATION

Members of the public are widely considered to have the right to be involved in the management of publicly owned forests. Through the participation in the process, citizens can enhance their knowledge of Sustainable Forest Management in general and of other interests and values related to local forests. They also gain a valuable opportunity to be involved in the decision-making process for local forests[16].

Educational outreach, community meetings, and public consultation and participation opportunities are also integral to the sustainable management of forests for local communities in and around the DFA. These opportunities provide a venue for further learning about the DFA and allow the public as an opportunity to provide input and become involved in the forest planning process.

Examples of outreach opportunities include:

- Community Meetings
- Field Tours
- Participation in Forestry Week at local schools
- Teaching local university and college students on field tours
- Field tours with First Nations
- Articles on the Teal-Jones website or in the local paper
- Emails to community leaders updating them on Teal-Jones progress
- Trade show or conference displays highlighting Teal-Jones recent activities

The intent of this indicator is to track public outreach in addition to participation of the public in the Public Advisory Groups.

Value	Objective	Indicator	Target	Acceptable Variance
Ongoing and meaningful public advisory group participation and community involvement/ education	Provide adequate opportunities to increase the background information and resources to Public Advisory Groups and other Community Groups	Evidence of efforts to promote capacity development and meaningful participation in general	PAG members invited to participate in at least 1 opportunity outside regular PAG meetings & a minimum of 3 educational outreach activities each year	Zero

[16] CSA Z809-16 Sustainable Forest Management Standard (December 2008)

Justification for Target	Basis for the Target	Legal Requirements	Means of Achieving Objective & Target	Monitoring & Measurement
PAGs agreed target is achievable and that ongoing monitoring may indicate that the target can be increased in the future	Core Indicator CSA Z809-16 standard	N/A	Invitations to audit field tours, PAG meetings, External Communications	Meeting minutes & Communication Records

STATUS & RESULTS

Year	Number of Invitations to Internal/External Audit Field Tours	Number of Guest Speakers/Topics of Interest	Number of Field Tours	Number of Outreach Activities	Target Met (Y/N)	Variance Met (Y/N)
2019	1	5	3	3	Y	Y

The South Island Public Advisory Group members were invited to attend the field portion of the third-party audit for the CSA Z809 Sustainable Forest Management Standard. On May 1st Fraser Public Advisory Group members including representatives from the People of the Matsqui First Nation, People of the River Referrals Office, Stave Lake Cabin owners, and Hatzic community members were invited to attend Teal's Hatzic field tour.

There was one guest speaker; a Forester in Training at the June 18th FPAG meeting, who spoke about the FireSmart BC program. At the November 21st FPAG meeting, there were two guest speakers both Teal-Jones employees one being a Registered Professional Forester and a Forester in Training presenting on the topic of Old Growth Management Areas. There was a guest speaker at the June 19th SIPAG meeting presenting on the topic of Silviculture and Ecosystem identification. At the November 22nd a Registered Professional Forester from Teal-Jones presented to the SIPAG group on the topic of Old Growth Management Areas.

In 2019 Teal-Jones completed the following educational outreach activities:

- **Camosun College:** presentation to the Environmental Studies faculty and class
- **Selkirk College (Castlegar):** field tour was given to forestry students
- **San Juan Working Group Roundtable:** planning and funding habitat restoration projects in the San Juan river system

First Nation Field Tours

In 2019, Teal-Jones facilitated the following First Nation field tours:

- Matsqui First Nation representative field tour in Hatzic.
- People of the River representative field tour in Hatzic.
- Leq'a:mel First Nation representatives field tour in East Stave and Norrish Creek
- Leq'a:mel First Nation representatives mill tour in Surrey

TRENDS

Teal-Jones participates and volunteers in and continually encourages PAG members to participate in events and outreach opportunities. Teal-Jones regularly completes educational outreach opportunities at career fairs, schools and colleges. Teal-Jones also invites members to attend field tours for external and internal audits and hosts guest speakers and discusses topics of interests at meetings, on a regular basis.

It is anticipated that the indicator will continue to meet the target for the following reasons:

- PAG members will continue to be invited to audit field tours
- facilitators will continue to provide guest speakers whenever possible, and

Teal-Jones generally has multiple opportunities to reach the General Public or special interest groups through public outreach activities.

Year	Number of Invitations to External or Audit Field Tours	Number of Guest Speakers/ Topics of Interest	Number of Field Tours	Number of Outreach Activities	Target Met (Y/N)	Variance Met (Y/N)
2018	1	5	2	3	Y	Y
2017	1	3	0	7	Y	Y
2016	2	4	0	6	Y	Y
2015	2	2	0	6	Y	Y
2014	3	4	0	n/a	Y	Y

HISTORY OF INDICATOR

In 2016 this indicator, which was C6.4.2, became C6.1.2, due to changes in the CSA Standard (CSA Z809-16). In addition, C6.5.1 Number of People Reached Through Educational Outreach was incorporated into this indicator in order to report on Teal-Jones' continued efforts on educational outreach.

As of 2015, the target is new, and now reports on capacity building activities such as field tours, audit tours, guest speakers, mill tours etc.

This was a new indicator in 2011, based upon a practice that has been in existence from the inception of the PAGs (2006 for SIPAG and 2007 for FPAG).

STRATEGY

All PAG members invited to participate in activities which will increase their knowledge of, and participation in, sustainable forest management on the DFA. This might include planned field tours, mill tours, internal or external audit field tours, audit interviews, and attendance during PAG meetings where a guest speaker is planned.

From time to time Teal-Jones participates in outreach activities as they arise in the community.

MONITORING

The Teal-Jones Environmental Department reviews PAG meeting minutes, internal and external audit reports, and other events as they arise to determine the number of opportunities for PAG members.

The Environment Department will tally the number of educational outreach opportunities held each year.

C6.1.3: Availability of Summary Information on Issues of Concern to the Public

BACKGROUND INFORMATION

Understanding and responding to concerns brought forward by the public is a priority to Teal-Jones. Teal-Jones strives to address such concerns and develop good relationships with local communities. This is achieved by responding to public inquiries and developing a good relationship with their Public Advisory Groups. Teal-Jones has two public advisory groups (PAG): Southwest Island Public Advisory Group (Honeymoon Bay portion of the DFA) and Fraser Public Advisory Group (Fraser portion of the DFA).

Value	Objective	Indicator	Target	Acceptable Variance
Information and Decision Making	To summarize issues of concern to the public and make these available	Availability of summary information on issues of concern to the public	Respond to direct public inquiries where contact information is provided and ensure Teal-Jones website is updated with previous PAG Meeting Minutes	Zero
Justification for Target	**Basis for the Target**	**Legal Requirements**	**Means of Achieving Objective & Target**	**Monitoring & Measurement**
Good relationships with communities, including ensuring topics discussed in meetings are shared publicly	Core Indicator CSA Z809-16 standard	N/A	External Communications	External Communications files

STATUS & RESULTS

Year	Number of Public Inquiries	Number of Inquiries Responded To	PAG Minutes Posted to the Website	Target Met (Y/N)	Variance Met (Y/N)
2019	5	5	Y	N	N

In 2019 Public Advisory Group approved meeting minutes were posted on the website for recent meetings:

- Southwest Island Public Advisory Group meeting #41 CSA External Audit Results, Biodiversity & Wildlife Presentation & Discussion November 14, 2018
- Southwest Island Public Advisory Group meeting #42 Annual Report and Silviculture & Ecosystem Presentation June 19, 2019
- Fraser Public Advisory Group meeting #42 CSA External Audit Results, Silviculture & Ecosystem Identification Presentation and Discussion November 6th, 2018.
- Fraser Public Advisory Group meeting #42 Fire Smart June 18, 2019

In 2019, in the Fraser Valley portion of the DFA a cedar salvage contractor made inquiries around access. Ongoing communications were continued with SouthWest All Terrain (SWATT) club regarding access. Teal-Jones also provided access information and access support to several local First Nations for cultural purposes (i.e., medicinal plants, cedar bark, hunting) and discussion for ongoing protection of red ochre collection site. A German citizen inquiry to provide an opportunity to fall a tree in the wilderness was denied due to safety reasons.

In Honeymoon Bay portion of the DFA, Teal worked with the BC Aviation Museum to provide information on an Avro Anson L7056 plane crash site for a display in the museum. The plane and crew went missing October 30, 1942 and the wreckage was located in 2014 by Teal engineers in TFL 46.

TRENDS

Since 2014, Teal-Jones has reported on their response to public inquires across the DFA, which have included questions and concerns over specific sites or resource values such as recreation, biodiversity, water quality and visual quality. Teal-Jones' response to these concerns was to actively participate in PAG meetings to discuss sustainable forest management in the areas of concern. Teal-Jones has also addressed concerns from other stakeholders with regard to specific cutblocks and associated visual impacts. Teal-Jones has ongoing conversations with SouthWest All Terrain Trails (SWATT) regarding access and operating areas. Teal-Jones strives to post finalized PAG meeting minutes on the Teal-Jones website for public access in a timely manner.

It is anticipated that Teal-Jones will continue to respond to all correspondence in a timely manner and to post all meeting minutes within 2 months of the meeting for each Public Advisory Group therefore the indicator will continue to meet the target.

Year	Number of Public Inquiries	Number of Inquiries Responded To	PAG Minutes Posted within 2 months?	Target Met (Y/N)	Variance Met (Y/N)
2018	**9**	**7**	**9**	**9**	**9**
2017	39	39	N (1 not posted for SIPAG, 1 not posted for FPAG)	N	N
2016	0	0	Yes	Y	Y
2015	3	3	N (1 not posted in 2 months)	N	N
2014	2	2	Y (2 for SIPAG, 2 for FPAG)	Y	Y

HISTORY OF INDICATOR

In 2017 this indicator was updated to remove the requirement on the timeline for posting the previous meeting minutes (previously said within 2 months of the meeting).

In 2016 this indicator, which was C6.5.2, became C6.1.3, due to changes in the CSA Standard (CSA Z809-16).

As of 2015, this indicator includes reporting of public inquiries in this indicator as well as the PAG meeting minutes, and incorporates:

- H6-7: Response to Correspondence
  - Target: Responses to correspondence received from general public
  - Variance: Zero

This was a new indicator in 2011, which had not been reported upon previously, but the target is a current practice.

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.

The target was created by both public advisory groups and involved in depth discussions of how best to share information with the public above and beyond direct inquiries. It was acknowledged that the public advisory groups in effect represent public interest and that this is the primary means Teal-Jones uses to communicate directly with the public.

Meeting minutes are recorded during each PAG meeting. Relevant issues of concern brought forward to Teal-Jones by the public are discussed at these meetings, and members also bring up issues of concern for discussion. Meeting minutes are then sent out for review by the PAG and are approved (with changes if necessary) during the subsequent PAG meeting. Approved meeting minutes are posted on the Teal-Jones website and are in effect available to all of the public at this time.

The public advisory groups also acknowledged that any member of the public could ask for specific information at a Teal-Jones office (by walking in person, phoning or by email). Teal-Jones makes summary information available to the public and all inquiries to Teal-Jones are logged. This includes email to environment@tealjones.com, written correspondence and phone calls from the public received by both Forestry Operations and the Mills. Public inquiries and feedback from the referral process are also tracked and filed. These documents are available at the Teal-Jones office for review by the public except those considered confidential. Where Teal-Jones has knowledge of specific user groups or communities with interest in areas proposed for future or ongoing forestry activities, they strive to contact representatives as early as possible during the planning phase.

MONITORING

The Teal-Jones Environment Department will check with the Operations and management to determine if any public inquiries or concerns have been made. They will also request to have meeting minutes posted to the website within 2 months of the meeting. This will be tracked on the Corporate Tracker and a date will be noted when complete.

Element 6.2- Safety

Demonstrate that the organization is providing and promoting safe working conditions for its employees and contractors.

C6.2.1: Co-operation with Workers and their Unions to Improve and Enhance Safety

FULL INDICATOR NAME: Evidence of Co-operation with DFA-related Workers and their Unions to Improve and Enhance Safety Standards, Procedures, and Outcomes in all DFA-Related Workplaces and Affected Communities

BACKGROUND INFORMATION

Teal-Jones recognizes health and safety as a priority. As per the Teal-Jones Occupational Health & Safety Policy, Teal-Jones is committed to providing a healthy and safe workplace for all personnel by establishing and maintaining safe work practices through adequate procedures and direction.

Value	Objective	Indicator	Target	Acceptable Variance
A healthy and Safe Work Place for all personnel	Establish and maintain safe work practices and environment through adequate procedures and direction	Evidence of co-operation with DFA-related workers and their unions to improve and enhance safety standards, procedures, and outcomes in all DFA-related workplaces and affected communities	Teal-Jones ensures Primary Contractors undergo a Prime Contractor Review at a minimum annually	Zero
Justification for Target	**Basis for the Target**	**Legal Requirements**	**Means of Achieving Objective & Target**	**Monitoring & Measurement**
SAFE certification is a focus for PAGs and important to them as participants in the forest economy and in local communities in which logging takes place	Core Indicator CSA Z809-16 standard	Workers Compensation Act, Occupational Health and Safety Regulation	Safety Meetings	Primary Contractor Evaluation Form, Safety meeting attendance records and meeting minutes

STATUS & RESULTS

Year	Operation	Company	SAFE Certified? (Y/N)	Prime Contractor Checklist Completed? (Y/N)	Target Met? (Y/N)	Variance Met? (Y/N)
2019	HBO	Coastal Bridge & Construction Ltd.	Y	Y	N/A	N/A
		Evergreen Forest Services Ltd.	Y	Y		
		R&C Roads	Y	Y		
		Gemini Falling Contractors Ltd.	Y	Y		
		Iverson Forest Management	Y	Y		
		Mount Sicker Timber Company Ltd.	Y	Y		
		North View Timber Ltd.	Y	Y		
		Pacheedaht Forestry Ltd.	Y	Y		
		Stone Pacific Forest Services Ltd.	Y	Y		
	FVO	Atlas Information Management *(517568 BC Ltd.)*	Y	Y		
		D Lind Contracting Ltd.	Y	Y		
		Gentry Contracting Ltd.	Y	Y		
		Interwest Fibre Ltd.	Y	Y		
		Shelterwood Enterprises Ltd.	Y	Y		
		Tulameen Contracting Ltd.	Y	Y		
		Nessy Contracting	Y	Y		
		Simpson's Falling Ltd.	Y	Y		
		Dunham and Associates	Y	Y		
		Coastal Natural Resource Management Ltd.	Y	Y		
		Platinum Stone Contracting Ltd.	Y	Y		
		IOTA	Y	Y		

In 2019, there were 22 contractors acting as prime in the DFA, 9 in Honeymoon Bay, and 12 in the Fraser Valley. All of these contractors were reviewed as part of the Prime Contractor Evaluation Form in 2019.

TRENDS

Teal-Jones has been consistent with the target for this indicator since its inception in 2015.Teal-Jones asks all logging contractors acting as prime to be SAFE certified or to use all commercially viable means to become certified as part of their contract with Teal-Jones. Therefore, it is anticipated that the indicator will continue to meet the target in the future.

HISTORY OF INDICATOR

In 2016 this indicator, which was C6.3.2, became C6.2.1, due to changes in the CSA Standard (CSA Z809-16).

New target developed in 2015, amalgamates:

- CF6.3.2: Evidence of Co-operation with DFA-related Workers and their Unions to Improve and Enhance Safety Standards, Procedures, and Outcomes in all DFA-Related Workplaces and Affected Communities

  - Target: Teal-Jones Manager/ Supervisor to attend Primary Contractor Safety Meetings a minimum of 3 times per year, or review Safety meeting minutes for meetings not attended
  - Variance: Zero
- CH6.3.2: Evidence of Co-operation with DFA-related Workers and their Unions to Improve and Enhance Safety Standards, Procedures, and Outcomes in all DFA-Related Workplaces and Affected Communities
  - Target: Teal-Jones Manager/ Supervisor to attend Primary Contractor Safety Meetings a minimum of 3 times per year, and review Safety meeting minutes for meetings not attended
  - Variance: Zero

STRATEGY

As required, Teal-Jones will hold a Prime Contractor Workshop with the BC Forest Safety Council for all contractors acting as prime on the DFA. In addition, Teal-Jones will complete a Prime Contractor Review with each contractor acting as prime.

In contracts with prime contractors on the DFA Teal-Jones has required that the company be SAFE certified or to use all reasonable efforts to become so as soon as commercially reasonable.

MONITORING

Once per year, the Teal-Jones Environmental Department will request the Prime Contractor Review from Managers annually, check contractor SAFE certification on the BC Forest Safety Council website, and report under "Status and Results".

C6.2.2: Implementation, Review & Improvement of Worker Safety Programs

FULL INDICATOR NAME: Evidence that a Worker Safety Program has been Implemented and is Periodically Reviewed and Improved

BACKGROUND INFORMATION

As part of all contractual agreements with contractors, Teal-Jones requires contractors to have a Worker Safety Program in place that is consistent with Federal and Provincial legislated requirements. In addition, Teal-Jones has requested all contractors acting as prime achieve SAFE certification by the BC Forest Safety Council as soon as possible.

The SAFE Companies program is a certification program that distinguishes BC forestry employers who meet industry safety standards and demonstrate leadership and commitment to building a culture where the health and safety of all workers is an overriding priority. Developed by the BC Forest Safety Council, in collaboration with industry, the SAFE Companies program provides forest companies with clear, practical and achievable standards so they can establish and maintain successful health and safety programs[17]. For more information on SAFE certification see http://www.bcforestsafe.org/index.html.

[17] BC Forest Safety Council Backgrounder (September 2008)

Value	Objective	Indicator	Target	Acceptable Variance
A healthy and Safe Work Place for all personnel	Establish and maintain safe work practices and environment through adequate procedures and direction	Evidence that a worker safety program has been implemented and is periodically reviewed and improved	All contractors acting as prime working in the DFA are SAFE certified or are using all commercially reasonable efforts to become so as soon as commercially reasonable	Zero
Justification for Target	**Basis for the Target**	**Legal Requirements**	**Means of Achieving Objective & Target**	**Monitoring & Measurement**
PAG interest in contractors being SAFE certified.	Core Indicator CSA Z809-16 standard	Workers Compensation Act, Occupational Health and Safety Regulation	Contracts and internal correspondence	BC Forest Safety website (SAFE certification)

STATUS & RESULTS

Year	Company	SAFE Certified (Y/N)	Target Met (Y/N)	Variance Met (Y/N)
2019	Coastal Bridge & Construction Ltd.	Y	**Y**	**Y**
	Evergreen Forest Services Ltd.	Y		
	R&C Roads	Y		
	Gemini Falling Contractors Ltd.	Y		
	Iverson Forest Management	Y		
	Mount Sicker Timber Company Ltd.	Y		
	North View Timber Ltd.	Y		
	Pacheedaht Forestry Ltd.	Y		
	Stone Pacific Forest Services Ltd.	Y		
	Atlas Information Management *(517568 BC Ltd.)*	Y		
	D Lind Contracting Ltd.	Y		
	Gentry Contracting Ltd.	Y		
	Interwest Fibre Ltd.	Y		
	Shelterwood Enterprises Ltd.	Y		
	Tulameen Contracting Ltd.	Y		
	Nessy Contracting	Y		
	Simpson's Falling Ltd.	Y		
	Costal Natural Resources Management Ltd.	Y		
	Dunham and Associates	Y		
	Platinum Stone Contracting Ltd.	Y		
	IOTA	Y		

In 2019, all 22 contractors acting as prime on the DFA (9 in HBO and 12 in FVO) were SAFE certified.

TRENDS

Since 2014, all contractors acting as prime on the DFA were SAFE certified (see C6.2.1 for those acting as prime).

Since SAFE certification is an industry-wide standard in BC, and a contract requirement for working with Teal-Jones, it is anticipated that all contractors acting as prime will maintain their SAFE certification annually.

HISTORY OF INDICATOR

In 2016 this indicator, which was C6.3.3, became C6.2.2, due to changes in the CSA Standard (CSA Z809-16).

The target was modified in 2015 to reflect the same requirements as written into logging contracts.

STRATEGY

In contracts with prime contractors on the DFA Teal-Jones has required that the company be SAFE certified or to use all commercially reasonable efforts to become so as soon as commercially reasonable.

MONITORING

The Teal-Jones Environmental Department will review the BC Forest Safety website annually to determine if contractors acting as prime have obtained SAFE certification and report under “Status & Results”.

Criterion 7 – Aboriginal Relations

Element 7.1 — Aboriginal and Treaty Rights

Recognize and respect Aboriginal title and rights, and treaty rights. Understand and comply with current legal requirements related to Aboriginal title and rights, and treaty rights.

C7.1.1: Evidence of a Good Understanding of the Nature of Aboriginal Title and Rights

BACKGROUND INFORMATION

Aboriginal title and rights are stated in Section 35 of the Constitution Act as follows: "*The existing aboriginal and treaty rights of Aboriginal Peoples of Canada are hereby recognized and affirmed.*" Teal-Jones recognizes that this SFMP in no way affects ongoing or future negotiations of these legal rights.

This indicator is intended to demonstrate Teal-Jones' recognition, understanding, and respect for Aboriginal title and rights. Teal-Jones strives to ensure the protection of Aboriginal title and rights through:

- Meeting all legislative requirements (see applicable Forest Stewardship Plans)
- Providing opportunities for involvement in the forest economy (e.g., Indicator C7.2.1)
- Entering into Protocol Agreements with interested First Nations (e.g., Indicator 7.1.1)
- Addressing all informal requests and issues of concern brought forward by First Nations (e.g., Indicator 7.1.1 and 7.1.2)
- Protecting cultural resources (e.g., Indicators 7.1.2 and 7.2.3)
- Requesting input on management plans and proposed activities (e.g., Indicators 7.1.2 and 7.2.2)
- Incorporating First Nations knowledge into the planning process (e.g., Indicators 7.2.2 and 7.2.3)

Teal-Jones has effective working relationships with Aboriginal communities within the DFA and strives to continually improve and build upon these relationships in both formal and informal ways.

Teal-Jones has a process in place to develop protocol agreements, where an interest has been expressed by a particular First Nation within the traditional territories of the DFA. Protocol agreements between First Nations and Teal-Jones are often targeted towards the current set of relevant issues concerning these two parties and may not be a comprehensive agreement addressing all potential issues. These agreements are an important tool for recognizing and respecting Aboriginal and Treaty rights of First Nations associated within the DFA. It is recognized that there are two parties involved in the development of protocol agreements and that Teal-Jones cannot be held accountable for the participation level of the second party.

Teal-Jones also receives and responds to informal requests from First Nations. These are often similar issues as discussed in protocol agreements, but no formal process has yet been put in place. Although not a formal process, Teal-Jones responds to all such requests with equal consideration.

Value	Objective	Indicator	Target	Acceptable Variance
Aboriginal Title & Rights	Understand and respect Aboriginal title and rights	Evidence of a good understanding of the nature of Aboriginal title and rights	Report annually on the status and results of 1) individual protocol agreements with First Nations who have an expressed interest, and 2) other requests from First Nations	Zero
Justification for Target	**Basis for the Target**	**Legal Requirements**	**Means of Achieving Objective & Target**	**Monitoring & Measurement**
PAGs, which included Aboriginal PAG members' input and agreement	Core Indicator CSA Z809-16 standard	Constitution Act, Forest Stewardship Plan	External communications	Meeting minutes

STATUS & RESULTS

Year	Operating Area	Individual Protocol Agreements with First Nations Who Have an Expressed Interest	Other Requests	Target Met (Y/N)	Variance Met (Y/N)
2019	HBO	7	0	Y	Y
	FVO	9	2	Y	Y

In 2019, the Honeymoon Bay portion of the DFA had the following agreements in place:

- Referral procedures Pacheedaht First Nation (PFN)
- Referral procedures Ditidaht First Nation (DFN)
- Referral procedures Cowichan Tribes
- Memorandum of Understanding (MoU), Ts'uubaa-asatx Nation (formerly Lake Cowichan First Nation)
- Cedar Conservation Strategy Pacheedaht First Nation
- Delivery of wood (through Free Use Permit) Pacheedaht First Nation
- Log marketing agreement with the Pacheedaht First Nation

In 2019, the Fraser portion of the DFA the following agreements were agreed to in the past and continue as long-standing practices or are new agreements:

- Memorandum of Understanding with the Boothroyd Band through Teal-Jones' Prime Contractor Interwest Forest Management for access (2017).
- Memorandum of Understanding with the Nlaka'pamux Nation Tribal Council through Teal-Jones' Prime Contractor Interwest Forest Management for referral procedures (2017).
- Service Agreement with Nicola Tribal Association through Teal-Jones' Prime Contractor Interwest Forest Management for referral procedures
- Service Agreement with Esh kn am through Teal-Jones's Prime Contractor Interwest Forest Management.
- New Service Agreement with Nicola Tribal Association for referral procedures with Teal-Jones
- Sts'ailes Road Use Agreement with Sts'ailes First Nation (renewed July 2, 2018)
- Sts'ailes First Nation verbal agreement and consistent comment received in Information Sharing to use Sts'ailes Development Corporation to assess all blocks and roads for archaeological and cultural heritage values.
- Boston Bar First Nation Road Use Agreement (renewed June 7, 2019).
- Katzie First Nation and Teal-Jones are in the process of signing a protocol agreement. At this time, it is a verbal agreement and consistent comment received in Information Sharing to use Katzie Development Corporation-Archaeology to assess blocks and roads for archaeological and cultural heritage values.
- Teal-Jones complies with the Referral procedures for Sto:lo Nation through the People of the River Referrals Office outlined in the newly updated S'ólh Téméxw Stewardship Alliance SEA Amendment 4 between Sto:lo First Nations and British Columbia (June 28, 2019 replacement).
- Teal-Jones complies with the Referral procedures for the Lower Nicola Indian Band outlined in the Interim Forestry Agreement between Lower Nicola Indian Band and British Columbia
- Boothroyd Band has an informal agreement for access to their Traditional Territory (considered as an "***Other request***").
- Kwantlen First Nation, Leq'a:mel First Nation, Sq'ewlets First Nation, Matsqui First Nation, Lower Nicola Indian Band, and Chawathil First Nation do not have any formal agreements but are included in archaeological field work within their traditional territory (considered as an "***Other request***"). First Nations with asserted interest are provided with an opportunity to provide comment through information sharing and opportunity to join assessments.
- Teal-Jones continues to work with Nlaka'pamux Nation Tribal Council on their request for a MOU for information sharing and Archaeological field work methodology.
- Teal-Jones continues to work with Leq'a:mel First Nation on their request for a MOU for information sharing and access.

TRENDS

Since 2011, when this indicator was originally developed Teal-Jones has entered into a number of individual protocol agreements with First Nations who have expressed interest. Some agreements still remain unsigned, however, Teal-Jones respects the process and abides by all conditions and requirements; all agreements are considered formal agreements by Teal-Jones.

It is the intention of Teal-Jones to develop protocol agreements for 100% of requests and respond to 100% of requests from First Nations, therefore, it is anticipated that the indicator will meet the target in the future.

Year	Operating Area	Individual Protocol Agreements with First Nations Who Have an Expressed Interest	Other Requests	Target Met (Y/N)	Variance Met (Y/N)
2018	HBO	7	0	Y	Y
	FVO	10	2	Y	Y
2017	HBO	9	0	Y	Y
	FVO	8	2	Y	Y
2016	HBO	6	0	Y	Y
	FVO	8	2	Y	Y
2015	HBO	6	0	Y	Y
	FVO	7	2	Y	Y
2014	HBO	5	0	Y	Y
	FVO	6	2	Y	Y
2011-2013	HBO	5	0	Y	Y
	FVO	4	2	Y	Y
2010	HBO	5	0	Y	Y
	FVO	3	3	Y	Y

HISTORY OF INDICATOR

In 2016 this indicator, which was C6.1.1, became C7.1.1, due to changes in the CSA Standard (CSA Z809-16).

In 2015, the PAGs agreed to formally report the ***Pacheedaht Cultural Cedar Strategy*** in this indicator and drop H6-5: Cultural Cedar 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**.**

This was a new indicator in 2011, which is similar to a previous indicator F6-5 Progress towards individual signed protocol agreements with First nations that have expressed interest (originally developed by FPAG). However, the indicator has additional tracking requirements of Informal Requests made by First Nations that were not included in previous indicators.

STRATEGY

Teal-Jones will work in cooperation with each local First Nation to develop Protocol agreements that are acceptable to both parties, as requested by interested First Nations. Teal-Jones has an open invitation to meet with First Nations that have expressed an interest in Protocol agreements.

Teal-Jones will ensure that efforts are made to communicate with those First Nations that have expressed an interest in development of Protocol Agreements and where possible, will work with the First Nations to complete agreements.

Teal-Jones will continue to respond to request from First Nations outside the Protocol Agreement process.

MONITORING

The Teal-Jones Environmental Department will communicate with the Engineering Department, and review First Nation correspondence files to:

- tally the number of Protocols with local First Nations that are either under development, or have been completed (signed), and
- tally the number of informal requests and responses from First Nations including those that address economic development, employment and access to timber for cultural use.

C7.1.2: Open and Respectful Communications with Aboriginal Communities

FULL INDICATOR NAME: Evidence of Ongoing Open and Respectful Communications with Aboriginal Communities to Foster Meaningful Engagement, And Consideration of the Information Gained About Their Aboriginal Title and Rights Through this Process. Where there is Communicated Disagreement Regarding the Organization's Forest Management Activities, this Evidence Would Include Documentation of Efforts Towards Conflict Resolution.

BACKGROUND INFORMATION

The Honeymoon Bay portion of the DFA is located within the traditional territories of the Pacheedaht First Nation, Ditidaht Band First Nation, Cowichan Tribes First Nation and Ts'uubaa-asatx Nation (formerly Lake Cowichan First Nation). A small portion of the TFL overlaps the traditional territories of the Penelakut and Stz'uminus First Nations.

The Fraser portion of the DFA is located within the traditional territories of 36 First Nations and 11 Tribal Councils/Associations.

Management plans include: Landscape Level Plans (i.e., TFL Management Plan, Forest Stewardship Plans, and Sustainable Forest Management Plan); and Site Level Plans (i.e., Logging Plans and site level plans which show where harvesting is planned; reserves; terrain and water bodies; roads and any other site-specific features).

Value	Objective	Indicator	Target	Acceptable Variance
Aboriginal values	Provide opportunities for input into planning	Evidence of ongoing open and respectful communications with Aboriginal communities to foster meaningful engagement, and consideration of the information gained about their Aboriginal title and rights through this process. Where there is communicated disagreement regarding the organization's forest management activities, this evidence would include documentation of efforts towards conflict resolution.	100% of landscape level plans are accessible for review by local First Nations, 100% site level plans are provided as mutually agreed upon in information sharing	Zero

Justification for Target	Basis for the Target	Legal Requirements	Means of Achieving Objective & Target	Monitoring & Measurement
PAGs, which included Aboriginal PAG members' input and agreement	Core Indicator CSA Z809-16 standard	Constitution Act, Forest Stewardship Plan	Operational Planning	External Communications file

STATUS & RESULTS

Year	Percent of Landscape level Plan Referrals	Percent of Site Level plan Referrals	Target Met (Y/N)	Variance Met (Y/N)
2019	HBO - 100	HBO 100	Y	Y
	FVO – 100	FVO 100		

In 2019, in the Honeymoon Bay portion of the DFA 28 blocks where harvesting commenced in 2019 were referred to the appropriate local First Nations. Some blocks required field reviews or Archaeological Impact Assessments and required field modifications. Pacheedaht First Nation, Ditidaht First Nation, and Cowichan Tribes conduced Archaeological Reconnaissance Assessments for harvest and road construction proposals within their asserted Traditional Territory. In all cases Teal-Jones addressed comments and concerns prior to commencing harvesting.

In 2019, the Fraser Valley portion of the DFA 35 blocks where harvesting commenced in 2019 were all referred to the appropriate First Nations. Blocks require field reviews for Cultural and Archaeological Impact Assessments and where areas were identified field modifications or other management strategies were applied consistent with discussions with local First Nations. Teal-Jones continues to employ local archaeological firms including Katzie Development Limited Partnership and Sts'ailes Development Corporation. First Nation members and representatives participation in archaeological field work included Boston Bar First Nation, Katzie First Nation, Leq'amel First Nation, Matsqui First Nation, Scw'exmx Tribal Council, Sts'ailes First Nation, and Esh-kn-am Cultural Resources Management with Teal-Jones archaeological consultant (Golder Associates Corporation).

TRENDS

Since 2010, Teal-Jones has to provide opportunities for input into planning to all First Nations with traditional territory in the DFA including the development of Forest Stewardship Plans and operating plans. First Nations have also been invited to attend PAG meetings and access was provided to the Sustainable Forest Management Plan for comment and review.

Teal-Jones also completes referral with First Nations for all planned blocks in each operating area. In all cases Teal-Jones addressed comments and concerns prior to commencing harvesting. Some blocks require field reviews or Archaeological Impact Assessments and some required field modifications.

Teal-Jones also periodically sends out letters to all First Nations with an interest in the DFA extending an invitation to discuss any comments or concerns that interested First Nations would have with regard to the management DFA.

In 2010, Teal-Jones assisted in the presentation and approval of a Forest Stewardship Plan prepared on behalf of Ditidaht First Nation and Pacheedaht First Nation (for their Forest Licences and Timber Supply Licences).

Teal-Jones will continue to provide opportunities for input into planning to all First Nations with traditional territory in the DFA, therefore it is anticipated that the indicator will continue to meet the target.

Year	Percent of Landscape level Plan Referrals	Percent of Site Level plan Referrals	Target Met (Y/N)	Variance Met (Y/N)
2010-2019	HBO - 100	HBO - 100	Y	Y
	FVO - 100	FVO - 100		

HISTORY OF INDICATOR

In 2016 this indicator, which was C6.1.2, became C7.1.2, due to changes in the CSA Standard (CSA Z809-16).

This was a new indicator based on an existing indicator in 2011, H6-2 First Nations Plan Reviews (originally developed by SIPAG). This indicator has been approved by SIPAG. It should be noted that it was approved by FPAG, on the condition that First Nations representatives are given the opportunity to review and comment on the indicator as soon as possible. This indicator was discussed over several meetings, there were no issues noted, however FPAG members noted there was not adequate First Nations representation present at the meetings to approve the indicator (it was discussed at length with FPAG over four meetings, at the first meeting those First Nations representatives that were present indicated that in general they agree with this referral process, one First Nation felt it was adequate and the other First Nation wished to explore a potential protocol agreement to develop a referral process that would be more meaningful for them). In general, First Nations throughout the DFA have indicated that this referral process works well, and where issues exist they are addressed through other indicators.

This indicator was originally developed in 2006, for the Honeymoon Bay portion of the DFA; and the target has been met each year since monitoring began (2006).

STRATEGY

First Nations are given the opportunity to review all Landscape Level Plans (e.g., Forest Stewardship Plans, TFL Management Plans, Sustainable Forest Management Plans, etc.) when they are new or when there are significant amendments.

Opportunities are also provided for First Nations to review Operational Plans whenever there is a proposed development (e.g., roads or blocks) within the asserted traditional territory.

Information sharing protocols differ for each First Nation, however, the general approach is consistent with the following: draft plans (where relevant including maps and descriptions) are emailed, mailed or hand delivered to those First Nations' whose traditional territory have proposed developments or those First Nations who may be impacted by the plan, along with a letter inviting comment and requesting a meeting to review the plan together. Depending on the follow up requested, an Archaeological Impact Assessment may be completed, more meetings may be scheduled, or correspondence exchanged until all concerns are addressed.

MONITORING

Teal-Jones personnel contact individual First Nations generally by letter, email and meetings. Referrals, responses and other correspondence are filed in the Corporate filing system.

The Teal-Jones Environmental Department provides an annual summary of formal invitations for Management Plan reviews and reports under "Current Status and Results".

Element 7.2 — Respect for Aboriginal Forest Values, Knowledge & Uses

Respect traditional Aboriginal forest values, knowledge, and uses as identified through the Aboriginal input process.

C7.2.1: Capacity Development and Meaningful Participation for Aboriginals

FULL INDICATOR NAME: Evidence of Efforts to Promote Capacity Development and Meaningful Participation for Aboriginal Individuals, Communities and Forest-Based Companies.

BACKGROUND INFORMATION

The Honeymoon Bay operation TFL is located within the traditional territories of the Pacheedaht First Nation, Ditidaht Band First Nation, Cowichan Tribes First Nation and Ts'uubaa-asatx Nation (formerly Lake Cowichan First Nation). A small portion of the TFL overlaps the traditional territory of the Penelakut First Nation, Stz'uminus, Halalt and Lyackson First Nation. Lake Cowichan, Stz'uminus and Penelakut First Nations are represented by the Hul'qumi'num Treaty Group.

The Fraser Operation (Forest Development Units) overlaps the traditional territories of 36 First Nations and 11 Tribal Councils/ Associations. The First Nations associated with the Fraser portion of the DFA can change over time as Forest Licence chart areas are amended and as First Nations re-define the boundaries of their respective traditional territories or areas of interest.

From time to time, Teal-Jones has opportunities for First Nations to participate in the forest economy through employment or contract work. This arrangement may have been established in part through protocol agreements, as well as, through discussions and meetings with First Nations.

Value	Objective	Indicator	Target	Acceptable Variance
Aboriginal and Treaty Rights	Provide effective opportunities for First Nations to communicate Aboriginal issues	Evidence of efforts to promote capacity development and meaningful participation for Aboriginal communities	Report on efforts to enhance Aboriginal participation in Sustainable Forest Management	Zero
Justification for Target	**Basis for the Target**	**Legal Requirements**	**Means of Achieving Objective & Target**	**Monitoring & Measurement**
First Nations input during PAG meetings	Core Indicator CSA Z809-16 standard	N/A	PAG meetings, ongoing communications, forestry opportunities	Meeting minutes, call logs, external communications files

STATUS & RESULTS

Year	Number of Invitations to PAG FN Members to Attend PAG Meetings	First Nation Attendance	Number of PAG Meetings	Number Employment or Contract Opportunities Provided	Other Efforts	Target Met? (Y/N)	Variance Met? (Y/N)
2019	2 invites per meeting	HBO Meeting June- 0 HBO Meeting November - 0	4	1 HBO 10 FVO	Notification to First Nations SFM annual report, invitation for field tour, Meetings with individual First Nations (16)	Y	Y

In 2019, at least two invitations per meeting were sent to First Nations members of the public advisory groups and those who have expressed interest in the PAG. In 2019 First Nations members attended PAG meetings. An invitation to attend a FVO field tour was extended to First Nations in the Fraser portion of the DFA and there was participation by Matsqui First Nation and People of the River representatives.

Employment contracts were completed by the Pacheedaht First Nation for cedar banding, road side flagging, planting and brushing in Honeymoon Bay in 2019.

In the Fraser Valley, 5 First Nations employment contracts were active in the saw log mill in Surrey, British Columbia for the Teal Jones Group. Sts'ailes Development Corporation, Katzie Development Limited Partnership, and Nlaka'pamux National Tribal Council were hired for Archaeological and Cultural Assessments. Teal Jones continues to have a member of the Chawathil First Nation as a full-time engineer crew member and a member of the Boston Bar First Nation continues to work as a full time engineer crew member. Two Boothroyd First Nation members were hired to do debris pile burning and grass seeding. Teal provided technical support to the Leq'a:mel First Nation GIS staff.

Archaeological surveys were also completed by several First Nations; these are reported under C7.2.2.

In 2019, all PAG members and First Nations who expressed interest were informed that the SFMP was updated on the Teal-Jones website.

Regular meetings were held in 2019 with several First Nations including: Pacheedaht, Boothroyd, Nlaka'pamux Nation Tribal Council, Leq'a:mel, Kwikwetlem, and Boston Bar.

The Pacheedaht, Ditidaht, and Cowichan Tribes provided feedback on harvest and road construction proposals and conducted Archaeological Reconnaissance Assessments in correlation with their feedback.

Teal-Jones is cooperating in the Pacheedaht First Nations' economic initiative for their new mill by supporting log supply agreement for their mill. Teal-Jones representatives have made a number of on-site visits to provide technical aid and further demonstrate their support. Additionally, Teal-Jones and Qala:yit Forest General Partnership Ltd. (a joint business held by Pacheedaht First Nation and the Lake Cowichan Community Forest) submitted a proposal for Gordon Landscape unit Stewardship Timber Harvest Land Base Stabilization Project. The project was accepted by the Ministry of Forest Lands and Natural Resource Operations and Rural Development and work has commenced on the project.

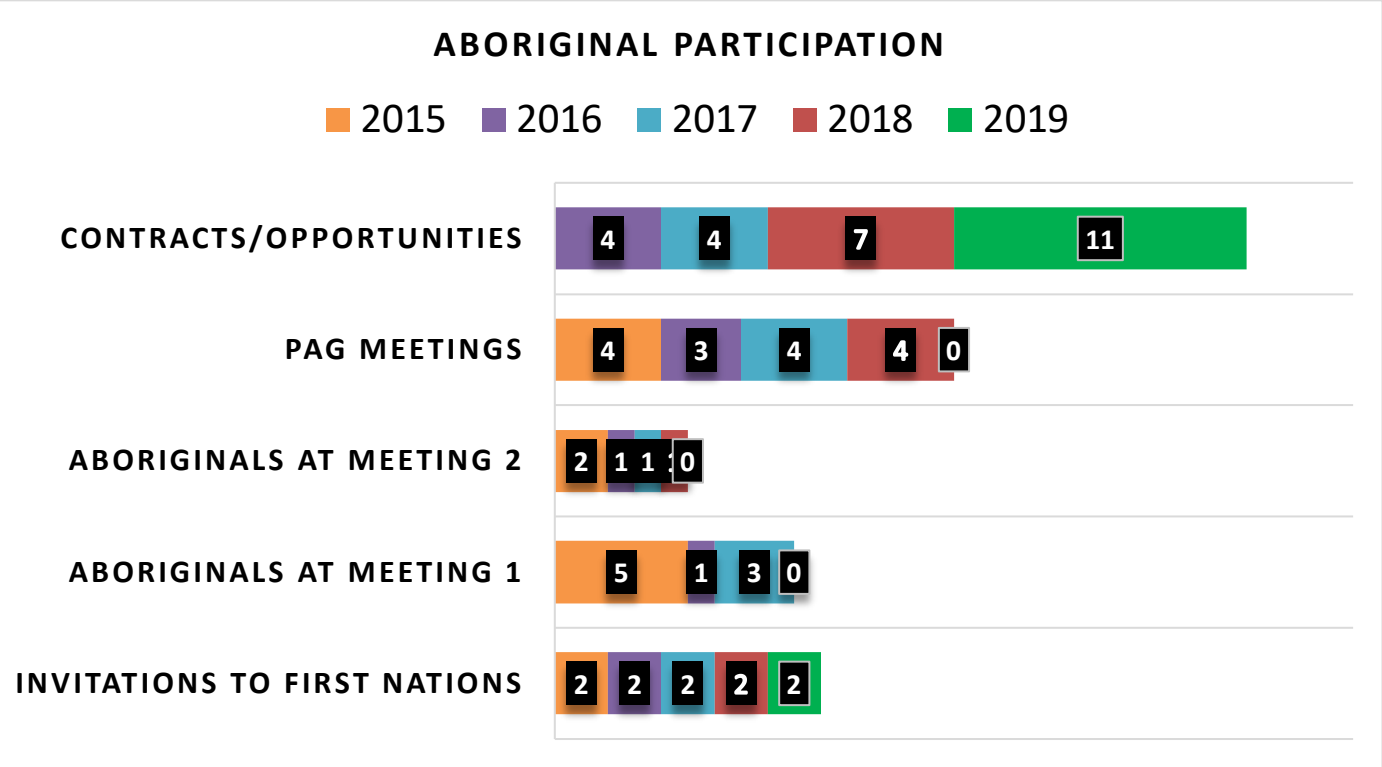
TRENDS

Since 2011, Teal-Jones has extended at least one, most often two, invitations to First Nations to attend PAG meetings. Except due to unforeseen, Teal-Jones hosts two PAG meetings per year, per group (Fraser Valley & South Island). Teal-Jones also tracks and reports on the number of aboriginals attending PAG meetings; which varies from meeting to meeting. First Nations are also invited to attend PAG field tours.

Since 2011, a number of employment contracts have been fulfilled by First Nations across the DFA. Archaeological surveys are also completed by several First Nations; these are reported under C7.2.2.

In addition, Teal-Jones also periodically sends out a SFM Questionnaire to all First Nations who have traditional territory within or near Teal-Jones' operating areas and who may be affected by any potential activity in the area and as necessary, provides notification of a public review and comment period for revisions to the CSA standard. Teal-Jones regularly participates in meetings with individual First Nation bands across the DFA.

In 2010, Teal-Jones assisted in the presentation and approval of a Forest Stewardship Plan prepared on behalf of Ditidaht First Nation and Pacheedaht First Nation (for their Forest Licences and Timber Supply Licences).



It is anticipated that the indicator will continue to meet the target for the following reasons:

- Teal-Jones will continue to extend invitations to First Nations who have traditional territory within the DFA to participate in the sustainable management of the forests within the DFA. Participation will depend upon the individual First Nations, however from the interests that have been expressed, it is anticipated that participation may increase.
- Opportunities for direct employment or contracting will continue to arise for different First Nations within the DFA.

HISTORY OF INDICATOR

In 2016 this indicator, which was C6.4.3, became C7.4.3, due to changes in the CSA Standard (CSA Z809-16).

This is a new indicator in 2011, based on previous indicators:

- H6-1 First Nations Participation (originally developed by SIPAG);
- F6-1 First Nations Participation in FPAG; and
- H6-2 First Nation Attendance at FPAG (originally developed by FPAG).

STRATEGY

At a minimum of once per year, all First Nations with traditional territory overlapping the DFA are invited to join the PAG meetings. In addition, there is on-going communication with First Nations through regular meetings with the PAGs and the communication in relation to the meetings (e.g., reminder calls, emails, meeting minutes, etc.). Where First Nations are unable to participate in the Public Advisory Group meetings, they are provided with alternate methods of reviewing Teal-Jones' Sustainable Forest Management Plan or any general sustainable forest management issues.

Where First Nation attendance is lacking, the Teal-Jones Environmental Department will explore options and ideas for improving attendance. One solution used in the past has included holding a meeting at a First Nation location with focus directed towards First Nations issues.

The First Nations associated with the Fraser and the Honeymoon Bay portions of the DFA can change over time as Forest Licence chart areas are amended and as First Nations re-define the boundaries of their respective asserted traditional territories. As these changes are made, the SFMP will be updated to reflect the changes.

Teal-Jones currently has good working relationships local First Nations. Communication and information sharing has been achieved through many formal and informal processes.

Teal-Jones works in cooperation with each local First Nation and responds to requests for specific forest resources. Teal-Jones will also provide, whenever possible, opportunities for employment or awarding of contracts to interested First Nations.

MONITORING

The Teal-Jones Environmental Department records correspondence and invitations extended (through call logs and emails), reviews meeting minutes for attendance and provides an annual summary and reports under "Status and Results".

The Environment Department will review First Nations correspondence files and communicate with the Forestry and Engineering Departments to determine how many opportunities were provided. Protocol agreements will be reviewed for monitoring Indicator C7.1.1 and information on economic opportunities and employment will be extracted.

C7.2.2: Understanding and Use of Aboriginal Knowledge to Identify and Manages Culturally Important Resources and Values

FULL INDICATOR NAME: Evidence of Understanding and Use of Aboriginal Knowledge through the Engagement of Willing Aboriginal Communities, using a Process that Identifies and Manages Culturally Important Resources and Values

BACKGROUND INFORMATION

Special effort is required to encourage meaningful relationships with Aboriginal communities and to incorporate Aboriginal participation into the DFA. Teal-Jones has a number of processes in place to develop strong working relationships with First Nations, including: encouraging participation of First Nations in Public Advisory Group meetings and field tours, soliciting input and feedback into management plans, identification and protection of cultural resources, responding to all requests and meetings from First Nations and the development of Protocol Agreements which may include information sharing. The information sharing process is therefore already well developed between Teal-Jones and the many First Nations within the DFA, especially as related to cultural heritage resources (e.g., Indicator 6.1.3). Other examples of information sharing leading to short and long-term management planning of resources important to First Nations are listed below.

Teal-Jones also continues to be open to alternate information sharing options other than those listed above. This may include formal information agreements or memorandums of understanding, as well as the use of Traditional Ecological Knowledge for conservation of specific resources at the site and landscape-level. If a First Nation expresses interest for such an agreement, Teal-Jones will agree to such a request whenever possible.

Teal-Jones recognizes that the information sharing process is not one sided; either Teal-Jones or the First Nation may make the request for information sharing, especially in areas known to have cultural heritage resources or other important cultural, historical, or ecological features.

Value	Objective	Indicator	Target	Acceptable Variance
Respect for Aboriginal forest values, knowledge and uses	To incorporate Aboriginal knowledge into the planning process through information sharing arrangements	Evidence of understanding and use of Aboriginal knowledge through the engagement of willing Aboriginal communities, using a process that identifies and manages culturally important resources and values	All requests for information sharing are addressed in a manner mutually acceptable to Teal-Jones and the First Nation	Zero
Justification for Target	**Basis for the Target**	**Legal Requirements**	**Means of Achieving Objective & Target**	**Monitoring & Measurement**
First Nations input at PAG meetings	Core Indicator CSA Z809-16 standard	Forest Stewardship Plan	Operational Planning, External communications	External Communications File

STATUS & RESULTS

Year	Number of Information Sharing Requests	Number of Requests Addressed	Target Met (Y/N)	Variance Met (Y/N)
2019	5	5	Y	Y

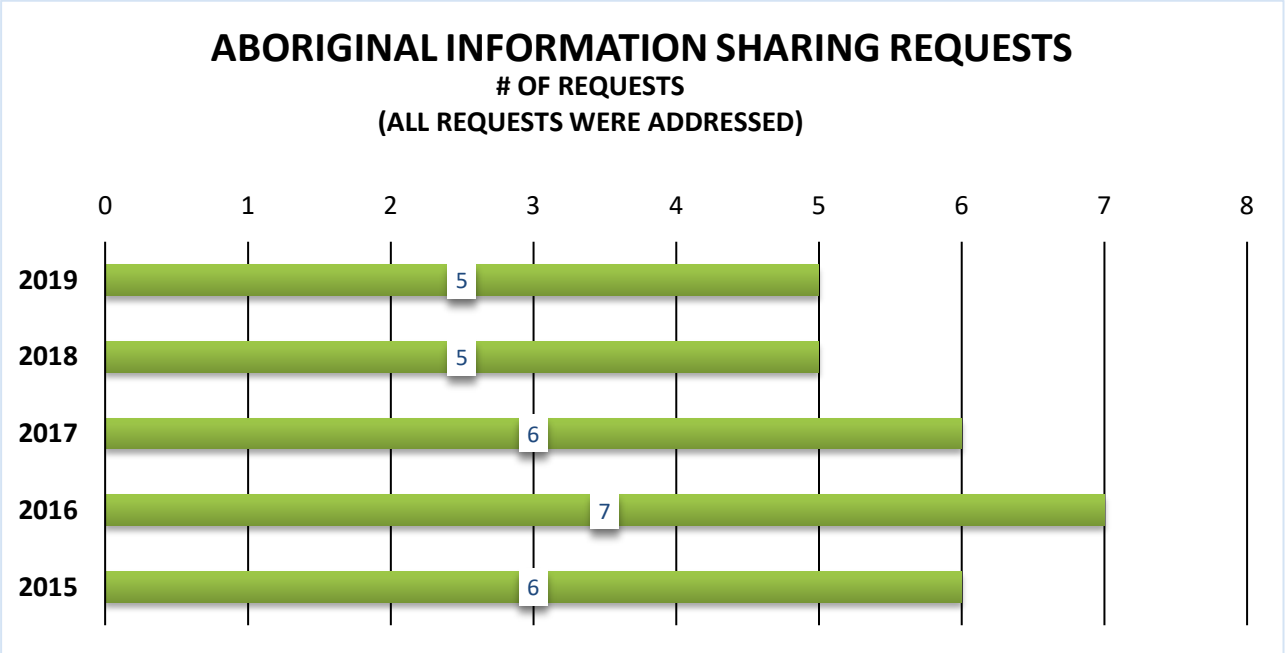
In 2019, Teal-Jones participated in several information sharing initiatives:

1. ***Landscape Level Planning:*** Discussion with Pacheedhat were continued regarding a joint Stewardship Timber Harvest Landbase Stabilization project in the Gordon Landscape Unit.
   In the Fraser portion of the DFA, Teal-Jones provided information for Kwikwetlem First Nation regarding the renewal of Pitt Lake Camp Special Use Permit. Additionally, the Ministry of Forest, Lands and Natural Resource Operations and Rural Development initiated consultation on a number of Pitt Lake Lease/ Licence Tenure Renewals and Application; Teal-Jones provided information to aid in the consultation.
2. ***Referrals:*** In the Honeymoon Bay portion of the DFA, comments were received on information sharing for harvest proposals from Pacheedaht First Nation, Cowichan Tribes, and Ditidaht First Nation. Comments received from First Nations as a result of information sharing primarily involved retention of cedar as part of traditional use, management of deer hunting areas and reporting and retention of archaeological significance if found.
   In the Fraser Valley portion of the DFA, comments were received on information sharing for harvest proposals from: People of the River Referral Office (on behalf of the 16 signatory First Nations), Boothroyd First Nation, Katzie First Nation, Scw'exmx Tribal Council (on behalf 3 Indian Bands), Esh-kn-am (on behalf of 4 First Nations), Lower Nicola Indian Band, Kwikwetlem First Nation, Sts'ailes First Nation Leq'a:mel First Nation, Scowlitz First Nation, and Matsqui First Nation. Teal-Jones followed up all comments with meetings and/or further information as requested by each of the First Nations. In some cases, changes were made to proposed blocks or roads, or other accommodations were made, including deferral of forestry activities, notifications of commencement of forestry activities or delivery of carving wood or firewood, etc. as detailed in indicators C7.2.3 and C5.1.1.
3. ***Public Advisory Group:*** Meeting attendance by First Nations members facilitates discussions of importance to different First Nations' Groups. Pacheedaht First Nation attended meetings in 2019 in the Honeymoon Bay portion of the DFA. Chawathil First Nation, Leq'a:mel First Nation, and People of the River Referral Office attended meetings in 2019 in the Fraser Valley portion of the DFA.
4. ***Archaeological Impact Assessments:*** Information sharing referrals with several First Nations resulted in the involvement of Aboriginal representatives with the assessment process, including: Boston Bar First Nation, Boothroyd First Nation, Katzie First Nation., Le'a:mel First Nation, Matsqui First Nation, Scw'exmx Tribal Council, Esh-kn-am (on behalf of 4 First Nations, Nlaka'pamux Nation Tribal Council, Sts'ailes First Nation, Seyem' Qwantlen First Nation., Sto:lo Nation, Sto:lo Resource and Research Management, Pacheedaht First Nation, Ditidaht First Nation, and Cowichan Tribes.
5. Ditidaht Forestry Ltd and the Ts'uubaa-asatx Nation (formerly Lake Cowichan First Nation) are co-signatories to the Honeymoon Bay replacement Forest Stewardship Plan (2017).

TRENDS

Since 2011, Teal-Jones has been reporting on the number requests and actions taken to address information sharing requests. Requests have been received through referrals and PAGs and have resulted in the involvement of Aboriginal groups with the Archaeological Impact Assessment (AIA) process and Preliminary Field Review (PFR) process, changes to proposed blocks or roads, or other accommodations, identification of old-growth cedar and cypress trees, co-signatories to the Honeymoon Bay Forest

Stewardship Plan (2017), developing Memorandums of Understanding (MoUs) and formal referral protocols.



It is anticipated that all opportunities for information sharing will be completed in the future, therefore, it is expected that the indicator will continue to meet the target.

HISTORY OF INDICATOR

In 2016 this indicator, which was C6.2.1, became C7.2.2, due to changes in the CSA Standard (CSA Z809-16).

Core Indicator from CSA Z809-16 Standard.

STRATEGY

The strategy for this indicator is similar to that of Indicator 6.1.3 and can be completed at the same time. Evidence of information sharing for management of culturally important resources will be gathered from, but not limited to, the following:

- Management Plan reviews (e.g., TFL Management Plans, Forest Stewardship Plans, Landscape Unit Plans, Vancouver Island Land Use Plan, etc.);
- Site Level Plan reviews (e.g., Logging Plan referrals);
- 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;
- Public Advisory Group meetings; and
- Informal discussions

MONITORING

The Teal-Jones Environmental Department tallies the number of identified information sharing requests and arrangements from internal records as outlined above.

C7.2.3: Management and/or Protection of Culturally Important Areas

FULL INDICATOR NAME: Level of Management and/or Protection of Areas where Culturally Important Practices and Activities Occur

BACKGROUND INFORMATION

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, 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). Government agencies are 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.'[18]

The Forest Stewardship Plan strategies for both Operations, in relation to Cultural Heritage Resources, can be summarized into the following components:

- protect and conserve Cultural Heritage Resources; and
- maintain information

In addition, for the Fraser Operations portion of the DFA:

- develop protocol agreements for the protection of CHR where an interest is made by a First Nation
    - See indicator F6-5 Protocol Agreements

For the Honeymoon Bay Operation portion of the DFA:

- establish a protocol for identifying a current and/or future supply of western red cedar and cypress trees suitable for traditional use
    - See indicators C6.1.1 Evidence of a Good Understanding of the Nature of Aboriginal Title and Rights and C1.4.2: Protection of Identified Sacred and Culturally Important Sites)

[18] Forest Act

Value	Objective	Indicator	Target	Acceptable Variance
Cultural Heritage Resources	Manage Cultural Heritage Resources in a manner that adequately reflects the associated First Nation's goals	Level of management and/or protection of areas where culturally important practices and activities occur	100% Compliance with Teal-Jones' Forest Stewardship Plans (FSP) results and strategies for Conservation and Protection of Cultural Heritage Resources, and the Heritage Conservation Act	Zero
Justification for Target	**Basis for the Target**	**Legal Requirements**	**Means of Achieving Objective & Target**	**Monitoring & Measurement**
Legal Requirements and PAG agreement, including First Nation member feedback	Core Indicator CSA Z809-16 standard	Constitution Act, Forest Stewardship Plan	Operational Planning	External Communications file

STATUS & RESULTS

Year	Number of Non-Compliances Related to Cultural Resources from C&E	Number of Potential Non-compliances related to Cultural Resources from Incident Investigations	Target Met (Y/N)	Variance Met (Y/N)
2019	0	0	Y	Y

In 2019, there were no non-conformances from Compliance and Enforcement or potential non-compliances from Incident Investigations related to Cultural Resources.

TRENDS

Year	Number of Non-Compliances Related to Cultural Resources from C&E	Number of Potential Non-Compliances Related to Cultural Resources from Incident Investigations	Target Met? (Y/N)	Variance Met? (Y/N)
2018	0	0	Y	Y
2017	0	0	Y	Y
2016	0	0	Y	Y
2015	0	0	Y	Y
2014	1	2	N	N
2010-2013	0	0	Y	Y

Since 2010, there has been one reported non-compliance related to Cultural Resources issued by Compliance & Enforcement and two internal incident investigations initiated by Teal-Jones related to the same incident.

Teal-Jones currently has good working relationships with the majority of the First Nations with Traditional Territory overlapping with the DFA. Communication and information sharing has been achieved through many formal and informal processes. Cultural Heritage Resources have been identified on an on-going

basis and it is anticipated that these types of communications will continue to improve over time. Therefore, it is anticipated that the indicator will continue to meet the target in the future.

HISTORY OF INDICATOR

In 2016 this indicator, which was C6.1.3, became C7.2.3, due to changes in the CSA Standard (CSA Z809-16).

This is a new indicator based on existing indicators:

- H6-4 Cultural Heritage Resources (originally developed by SIPAG); and
- F6-4 Cultural Heritage Resources (originally developed by FPAG).

The value, objective, target and variance were not changed from the original indicators (only the indicator was changed). The revised indicator has been approved by SIPAG. It should be noted that it was approved by FPAG, on the condition that First Nations representatives are given the opportunity to review and comment on the indicator as soon as possible. This indicator was discussed over several meetings, there were no issues noted, and the indicator is consistent with legislation and the approved Forest Stewardship Plan (which was referred to all First Nations within the DFA and no issues were noted), therefore, in general First Nations throughout the DFA have not indicated any issues with this indicator.

This indicator has been tracked since 2006 in the Honeymoon Bay Operation portion of the DFA; and since 2007 in the Fraser Operations portion of the DFA.

STRATEGY

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

- Management Plan reviews (e.g., TFL Management Plans, Forest Stewardship Plans, Landscape Unit Plans, Vancouver Island Land Use Plan, etc.);
- Site Level Plan reviews (e.g., Information Sharing Referrals);
- 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 and/ or Cultural Heritage Assessments (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 assessment identifies and assesses all impacts on archaeological and/ or cultural resources that may result from proposed developments);
- Traditional Use Studies;
- Information Sharing Protocols;
- Public Advisory Group meetings; and
- Informal discussions

MONITORING

The Environmental Department tallies the number of identified non-compliances with the FSP strategy for Cultural Heritage Resources that are issued by Government agencies (inspections are tracked and recorded by the Manager, Forestry & Engineering).

Internal records relating to Incident Investigations also will be reviewed.