SFM Plan

Appendix 1:
2024 Detailed Indicator & Results

Mid Island Forest Operation
TFL 64

May 2025

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SFM Criteria, Values, Objectives, Indicators & Targets

This section of the SFM Plan describes Mid Island Forest Operation's SFM Values, Objectives, Indicators and Targets. As appropriate, an acceptable variance is provided for the performance level of each target and a forecasted future condition is provided for each indicator. This section is organized according to the Criteria for Sustainable Forest Management, which was developed by the Canadian Council of Forest Ministers and adapted for the Canadian Standards Association's Sustainable Forest Management standard (CAN/CSA-Z809-16).

Since 2022 the Programme for the Endorsement of Forest Certification Canada (PEFC Canada) has been in the process of transferring over the CSA-Z809-16 forest certification standard to their organization and developing a new Sustainable Forest Management Standard (SFM Standard). In 2023, PEFC Canada applied to PEFC International for endorsement of the SFM Standard. In April, 2025 endorsement of the new standard, PEFC Canada – Sustainable Forest Management Standard (PEFC CAN ST 1001:2025), occurred with a transition period set to conclude in 2026.

On March 28th, 2024 Western Forest Products (WFP) and the We Wai Kai, Wei Wai Kum, K'ómoks, and Tlowitsis First Nations entered into a newly formed limited partnership whereby the above listed First Nations acquired a 34% interest in the Mid Island Forest Operation (MIFO). The assets and liabilities of TFL 39-2 were transferred over to the newly created TFL 64, and the legal name was changed to 'La-kwa sa muqw Forestry Limited Partnership' (LP). A board of directors has been appointed consisting of 2 WFP representatives and 1 from the Nanwakolas council. The LP will continue to maintain the operation's sustainable forest management certification and have received an updated certificate reflecting the change in TFL number and legal entity name.

As further explanation of the organization of this section:

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

The subsidiary **Values**, **Objectives, Indicators, Targets**, **Acceptable Variances** and **Forecasts** were developed for this plan during discussions among MIFLAG members, La-kwa sa muqw Forestry LP staff and other Western Forest Products' staff.

As used in this plan:

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

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

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

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

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

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

Legal References are provided where they exist.

Performance Reporting

On an annual basis, the SFM Plan is updated to include performance reporting information. Most indicators are reported on an annual basis from January 1- December 31st. The monitoring report (Appendix 1) is completed by the Mid Island Silviculture Planner with assistance from additional operational staff. The indicator results are presented to the Mid Island Forest Lands Advisory Group (MIFLAG) for review in the Spring of each year. Internal audits also evaluate the quality, validity, and meaningfulness of the locally determined indicators and all targets.

Management Review

A management review of the SFM requirements is completed biannually as part of WFP's Environmental Management System Management Review process. The review considers all aspects of the SFM process, including the SFMP Plan, annual results, the public participation process, audit findings (internal and external) and corrective/ preventative action plans. The Management Review is scheduled each Spring and Fall to ensure the sustainable forest management process is functioning properly and being fully implemented.

Summary of Results

For 2024, the Mid Island Forest Operation was in conformance with the target for 41 of 42 reported indicators. Only indicator 2.1.3 Permanent Access did not meet the target/variance.

Parking Lot

The Parking Lot is intended to defer topics where consensus is not reached, but further discussion is desired. Parking Lot items are reviewed annually. There are no items currently in the parking lot.

Indicator 1.1.1: Ecosystem by Type

Element: 1.1 Ecosystem Diversity *Conserve ecosystem diversity at the stand and landscape levels by maintaining the variety of communities and ecosystems that naturally occur in the DFA. Establish forest plantations only in afforestation projects.*				
Value	**Objective**	**Indicator**	**Target**	**Variance**
Ecosystem types found on the DFA	Sustain ecosystem types over time	Ecosystem area by type	The ecosystem representation (%) by area for each type (BEC subzone) changes < 1% on a 5-year basis	0.5%

History

New Core Indicator under CSA Z809-08 (relates to old indicator 2). No change in CSA Z809-16.

The indicator target was modified at the February 21, 2019 meeting from % change in area to % change in ecosystem representation. This target will help to conserve ecosystem diversity at the stand and landscape level and will better measure the variety of ecosystems versus mapping changes. The variance will be 0.5% for all zones.

Justification

In conservation biology, ecosystem representation ensures that ecologically distinct ecosystem types are represented, especially in the non-commercial land base. This is a priority for the BC Conservation Data Centre (CDC). The CDC has developed red and blue lists, highlighting ecological communities that have particular threats, declining trends, or restricted distributions. Red and blue listed ecosystems can be either naturally rare or depleted due to human activities. Ecological communities on the red and blue list are often plant associations of the Biogeoclimatic Ecosystem Classification (BEC) system.

The CSA Z809 Standard recommends that representative ecosystem types should be summarized at a scale that is ecologically relevant and useful for management and suggests that the biogeoclimatic subzone level may be the most relevant scale in British Columbia. By using BEC for reporting, the results can also be compared to the CDC red and blue lists and management strategies for rare ecosystems.

The MIFLAG wants to sustain ecosystem types through time using biogeoclimatic subzones. The target is <1% change in ecosystem representation (%) for each subzone on a 5-year basis, with a 0.5% variance. The subzone reporting splits out area for old seral stages from early, mid and mature series because successional and stand developmental stages are important to CDC listing criteria.

Current Status & Interpretation

The target is met.

The reduction in total hectares is primarily associated with two larger polygons having been classified as productive forest incorrectly in 2020. Additionally, new roads and improved mapping of waterbodies has increased non-forest area.

BEC	Seral Stage	2020 HA	2024 HA	2020%	2024%	Difference
CWHmm1	Early, Mid, Mature	4583	4582	86%	86%	0.0%
	Old	743	743	14%	14%	0.0%
	Total	**5326**	**5325**	**4.19%**	**4.21%**	**0.02%**
CWHmm2	Early, Mid, Mature	132	154	59%	69%	10.7%
	Old	93	68	41%	31%	-10.7%
	Total	**225**	**222**	**0.18%**	**0.18%**	**0.00%**
CWHvm1	Early, Mid, Mature	38629	38823	78%	79%	0.7%
	Old	10934	10577	22%	21%	-0.7%
	Total	**49563**	**49400**	**38.97%**	**39.01%**	**0.04%**
CWHvm2	Early, Mid, Mature	21362	22746	56%	60%	3.9%
	Old	17000	15396	44%	40%	-3.9%
	Total	**38361**	**38143**	**30.16%**	**30.12%**	**-0.04%**
CWHxm2	Early, Mid, Mature	19865	19750	94%	94%	-0.1%
	Old	1338	1346	6%	6%	0.1%
	Total	**21203**	**21096**	**16.67%**	**16.66%**	**-0.01%**
MHmm1	Early, Mid, Mature	2797	3721	22%	30%	7.6%
	Old	9708	8715	78%	70%	-7.6%
	Total	**12506**	**12436**	**9.83%**	**9.82%**	**-0.01%**
Grand Total		127185	126622	100%	100.0%	

Biogeoclimatic Subzones

The CWHxm2 is located south of Sayward and north of the CWHxm1. It is included in Natural Disturbance Type (NDT) 2 where a more frequent fire history results in a greater mix of age classes under natural conditions, with less dominance of age classes 8-9 compared with the wetter variants. A significant forest harvesting history over the past century has resulted in extensive areas of younger second growth dominating much of the subzone. All 15 site series are either red (7) or blue (8) listed in this variant under CDC. As a result, the CWHxm2 ranks high for the management of rare ecosystems. 26% of the CWHxm2 is in the non-classified land base (NCLB) and is unlikely to be logged. Only 1% of the THLB is >250years, so there is limited opportunity to increase the protected area, specifically targeting rare ecosystems. Recruitment of older seral stages in rare site series will need to occur.

CWHmm1 is restricted to the leeward side of the Vancouver Island Ranges at middle elevations (450-750m). The CWHmm1 is also included in the NDT2, but it tends to have a higher natural proportion of age class 8 and 9 than the CWHxm2. Significant harvesting has occurred, limiting the older age classes. Due to the lack of older age classes, all except 2 site series are red-listed or blue-listed. This variant is high priority for the management of rare ecosystems. There may be

opportunity to increase the reserved area of older age classes during the establishment of new murrelet and goshawk reserves.
The CWHmm2 is the higher elevation variant above the CWHmm2 on the leeward slopes of eastern Vancouver Island. The CWHmm2 is rare for the DFA; however, it only represents 0.07% of the full extent of the variant in the Coast Forest Region. The impact of road construction or old growth logging is minimal at the regional level. Furthermore, 20% of the DFA mm2 is located within the NCLB and 41% remains old growth.

The CWHvm1 is the most extensive variant in the DFA, extending from sea level to 600m+ in elevation. Old forests dominate the natural CWHvm1 landscape which is included in NDT 1. However, significant harvesting has occurred and only 22% old growth remains. Of the 14 site series, six are blue listed and one is red listed. Opportunities for Mid Island to contribute to the provincial conservation of rare ecosystems in the CWHvm1 is high due to its abundance on the DFA (39%). 27% of the CWHvm1 is currently located within the NCLB.

The CWHvm2 is the montane variant occurring above the CWHvm1 (600m+) and covers a significant area (30% of DFA). Old seral stages dominate the natural CWHvm2 (NDT1) landscape. There is a comparatively more recent harvesting history, so a larger old forest component remains (45% >250years). 30% of the CWHvm2 is located in the NCLB, and 71% of the NCLB is >250years. 5 out of11 of the vm2 site series are blue-listed; however, these rare ecosystems should be sufficiently protected within the NCLB and the extensive old growth. There will also be opportunities to locate high quality element occurrences of specific blue-listed site series in reserves being planned for the preservation of habitat for murrelets under SARA.

The MHmm is the forested subalpine subzone occurring above the CWH throughout the DFA. At Mid Island, 45% of the MHmm1 is in the non-classified land base and is unlikely to be logged, and 80% of the MHmm1 remains as old growth. Mid Island's area of the MHmm1 will help contribute to the provincial conservation/management of rare ecosystems in the subzone. It ranks low in priority for the management of rare ecosystems.

Strategies & Implementation

At the landscape level, there are many reserve types that encompass and thereby protect rare ecosystems, including old growth management areas, wildlife habitat areas, ungulate winter ranges, ecological reserves, and parks. At the stand level, there are wildlife tree retention areas, riparian reserve zones, and reserves to protect special resources. WFP's Stewardship and Conservation Plan also focuses on in-block retention, thereby contributing to rare ecosystem protection. Prescribing foresters pay attention to plant communities listed by the BC CDC when designing in-block reserves and wildlife tree patches.

The CDC has developed red and blue lists for plant communities. The red and blue lists highlight ecological communities that have threats, declining trends, or restricted distributions that indicate they require special attention. Red and blue listed ecosystems can be either rare or depleted and thereby rare due to human activities (land conversion). LKSM intends to locate high quality element occurrence (EO) reserves to protect these rare ecosystems. LKSM expects

the bulk of the EO reserves to be established within existing permanent reserves or in additional reserves planned to accommodate required habitat for murrelets and goshawks under SARA. Reserve targets for each subzone are set in the Management of Rare Ecosystems within Western Forest Products' Vancouver Island and Sunshine Coast Forest Operations report by Allen Banner, Terence Lewis, and Del Meidinger.

Forecasts

It is not anticipated that the overall ecosystem representation of the DFA will change significantly over the short-term, though the proportion of old growth will decrease given LKSM's efforts to harvest the full profile.

There are upcoming changes to the BEC system within the Ministry of Forests that may be rolled out during 2025, these are likely to have a long transition period until full adoption, at which time we will update this indicator to reflect those changes.

In the long term, climate change will have a significant impact on ecosystem representation. The projection of future climate zones and vegetation change will be an ongoing task facilitated by modeling and direct measurement of change.

Monitoring

The WFP Corporate Inventory & Analysis Department provides the Silviculture Planner with a summary report that details the BEC zones, seral stages, and sum of hectares in each. The Silviculture Planner then compares that to the data from 5 years prior.

Indicator 1.1.2: Forest Area by Species

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. Establish forest plantations only in afforestation projects.*				
Value	**Objective**	**Indicator**	**Target**	**Variance**
Species composition of forests on the DFA	The overall species composition of the DFA remains stable over time	Forest area by type or species composition	The species composition by area (ha) remains within 2% on a 5-year basis.	Species that represent less than 5,000ha of the DFA are reported for informational purposes only; species that represent >5,000ha on the DFA may vary by +/- 2%

History

New Core Indicator under CSA Z809-08 (relates to old Indicator 5 and 6). No change in CSA Z809-16.

The target was revised at the March 15, 2018 MIFLAG meeting, from change in area by species to change in species composition by area. Due to frequent corporate spatial updates, the total area was changing annually, and it was impossible to determine whether the change in area by species was due to management practices or GIS projects.

Justification

The target aims for stable species composition over time to conserve ecosystem diversity at the stand and landscape levels by maintaining the variety of communities and ecosystems that naturally occur in the DFA.

The target is loosely based on the timber supply analysis and historical reporting of 2009 SFM Plan Indicator 5. From 2005 to 2009, the average difference in species composition was 1.84%. The 2% deviation from the baseline allows for subtle species shifts for climate change or due to poor survival (ex. elk related challenges reforesting Cw and Yc). The variance related to minor species was developed in 2014 due to the increased use of browse resistant species, such as Western white pine and Sitka spruce.

Current Status & Interpretation

Difference in Species Composition by Area from 2020-2024

Year	Balsam (%)	Cedar (%)	Cypress (%)	Fir (%)	Hemlock (%)	Pine (%)	Spruce (%)	Deciduous (%)	Other (%)
2024	19.9	5.5	5.8	14.6	51.1	0.3	0.4	1.6	0.8
2020	19.8	5.5	6.1	14.6	51.5	0.3	0.4	1.7	0.1
Difference	+0.1	0.0	-0.3	0.0	-0.4	0.0	0.0	-0.1	+0.7

Area per Species by Year

Year	Species								Total
	Balsam (Ha)	Cedar (Ha)	Cypress (Ha)	Fir (Ha)	Hemlock (Ha)	Pine (Ha)	Spruce (Ha)	Deciduous (Ha)	
2024	25,287	7,029	7,332	18,450	64,776	394	545	2,004	125,817
2023	25,167	6,965	7,537	18,566	65,754	428	543	1,963	126,923
2022	25,434	6,978	7,705	18,537	66,499	425	567	2,001	128,146
2021	25,666	7,174	7,717	18,758	66,465	429	531	2,020	128,760
2020	25,261	7,057	7,712	18,597	66,625	425	523	2,135	127,336

The target is met. The total area represents the productive forest area that is "stocked" and excludes the areas harvested, but not yet planted or stocked.

Strategies & Implementation

LKSM conducts reforestation activities consistent with legal requirements and approved stocking standards. The stocking standards specify the ecologically and commercially suitable species permitted for each ecosystem type and site series. Regeneration and free growing milestones ensure cutblocks are regenerated in accordance with approved stocking standards.

A species shift will occur through time due to extreme elk pressure. Elk target in order of preference: western redcedar, cypress, douglas fir, hemlock, balsam, spruce, pine, and alder. The species composition will become skewed to less palatable species due to differences in survival and planting prescriptions that aim for good stocking to meet legal requirements.

To reduce the impact, Mid Island plants high components of cedar and cypress in heli blocks where very high slash levels discourage elk use. Historically Mid Island has also used cages and other variations of tree shelters for approximately 10ha/year in low elevation, easy access areas to provide future supply to First Nations. In moderate elk hazard areas, we obstacle plant a well distributed 10% of Cw/Yc in most blocks.

Forecasts

The target is expected to be achieved.

With the 5-year comparison period, the target allows for small shifts in species composition over the long term. This is necessary to account for climate change since the range and suitability of species will change. Mid Island has already started to adapt planting prescriptions. For example, the range of mountain hemlock is expected to decrease, so the division is planting high elevation hemlock instead on these sites. The performance of western hemlock is expected to decline in the xm2, so the division is planting and relying more heavily on Douglas fir and Western white pine. The range and performance of red alder is expected to expand and improve, so the division is continuing to implement a hardwood management strategy. There have been increased efforts

by the company to identify and locate healthy and resilient cypress tree to source high quality seed that is sustainable for the establishment of future cypress seedlings.

Monitoring

The indicator is reported annually. WFP Inventory & Analysis department completes a GIS analysis to report on the hectares of productive forest by species. The species composition is calculated based on leading, secondary, and tertiary representation in stand types by area. For example, if a forest inventory polygon is 50% Fdc, then 50% of the polygon area is attributed to Fdc.

The species composition is compared between the current reporting year's data and data from 5 years prior. The comparison year changes annually, allowing for slow shifts in species due to climate change or pests.

Indicator 1.1.3: Age Class

Element: 1.1 Ecosystem Diversity *Conserve ecosystem diversity at the stand and landscape levels by maintaining the variety of communities and ecosystems that naturally occur in the DFA. Establish forest plantations only in afforestation projects.*				
Value	**Objective**	**Indicator**	**Target**	**Variance**
The distribution of age classes on the DFA	Maintain old forest of each ecosystem type	Forest area by seral stage or age class	Amount of old forest and forest managed for recruitment of old forest characteristics in the non-contributing land base by ecosystem type is ≥ the targets defined in the Landscape Unit Planning Guide	0%

History

New Core Indicator under CSA Z809-08 (relates to old indicator 1 and 4). No change in Z809-16.

In 2019, the objective and target were modified to align with WFP's Stewardship and Conservation Plan. The old indicator was based on incorrect calculations and was impossible to meet due to the natural ageing process of a forest.

Justification for the Target

Seral stage is a key characteristic of forest ecosystems. Ecosystem conservation assumes that by maintaining the structure and diversity of ecosystems across the landscape, the habitat needs of various species will be provided. As a result, it's important to maintain old growth forests.

Old growth forests are climax ecosystems often characterized by relatively tall, old trees and high structural diversity. In the Landscape Unit Planning Guide, old seral stage (old growth) is defined as >250 years for the CWH and MH BEC zones.

The Guide includes targets for old seral stage distribution for the CWH and MH. It recommends several targets by BEC zone based on biodiversity emphasis. For an intermediate biodiversity emphasis, the guide recommends >9% for the CWHmm1, mm2, and xm2, >13% of the CWHvm1 and vm2, and >19% for the MHmm1 of the forested area to be in old seral stages.

For simplicity, the indicator will be measured for the entire TFL, not by landscape unit. Some biogeoclimatic zones do not meet the old seral targets due to historic logging and fire history, so area <250 years has been protected as recruitment area. These areas are included in the calculation. The calculation will be ((productive forest area >250 years and OG recruitment area in NCLB) / (productive forest area of TFL 39 Block 2)) x 100, for each BEC subzone.

There will be no variance.

Current Status & Interpretation

		% Area in NCLB (>250 years or Recruitment)		
BEC Unit	Target (%) *	<250 years	>250years	Total (%)
CWHxm2	>9	20.5%	**4.9%**	25.3%
CWHmm1	>9	14.2%	9.2%	23.4%
CWHmm2	>9	8.4%	11.5%	19.9%
CWHvm1	>13	13.1%	14.3%	27.4%
CWHvm2	>13	9.3%	20.8%	30.1%
MHmm1	>19	6.5%	39.1%	45.6%

*Using the Intermediate Biodiversity Emphasis

BEC Unit	<250years in NCLB (ha)	>250years in NCLB (ha)	TFL 64 (ha) (NCLB + THLB)
CWHxm2	4,319	1,032	21,110
CWHmm1	757	491	5,327
CWHmm2	19	26	222
CWHvm1	6,471	7,070	49,401
CWHvm2	3,545	7,917	38,145
MHmm1	809	4,860	12,437
TOTALS	**15,920**	**21,396**	**126,642**

The target is met for all BEC subzones.

The CWHxm2 is the only BEC subzone that does not meet the old forest target without including the recruitment area. Due to this subzone being so easily accessible with relatively gentle terrain, there is a long history of forest harvesting, meaning the CWHxm2 is now reliant on recruiting old growth going forward. The CWHxm2 also has a natural disturbance type characterized by infrequent stand-initiating events and was affected by the Sayward fires of 1922 and 1938. It will take 170 years for this zone to fully meet the target without recruitment area.

All other BEC subzones meet the old forest target without recruitment area, within the NCLB.

Strategies & Implementation

Old Growth Management Areas (OGMA) identified through landscape unit planning serve as foundation blocks to ensure representative occurrences of ecosystem types in the older seral stages are conserved for the long term. Landscape unit planning is complete across the DFA, and all OGMAs are legally established. Other protected areas contributing to old growth targets include: wildlife habitat areas, parks, ungulate winter ranges, wildlife tree patches, riparian reserves, etc. The Western Wildlife and Biodiversity Program also provides age and structural diversity using a retention silvicultural system, which involves stand level retention targets.

Forecasts

The target will be met.

Monitoring

The WFP Corporate Inventory & Analysis Department runs a GIS analysis and provides the Silviculture Planner with a summary report.

Indicator 1.1.4: Forest Strategy Retention

Element: 1.1 Ecosystem Diversity *Conserve ecosystem diversity at the stand and landscape levels by maintaining the variety of communities and ecosystems that naturally occur in the DFA. Establish forest plantations only in afforestation projects.*				
Value	**Objective**	**Indicator**	**Target**	**Variance**
Existing forests on the DFA	A portion of the existing forest is retained on the DFA	Degree of within stand structural retention	For retention blocks, minimum stand level retention is 15% in Enhanced Basic (EB), 20% in Enhanced Dry (ED) and General Basic (GB) and 25% in General Dry (GD) and Special (S)	-3%

History

New Core Indicator under CSA Z809-08 (carried forward from 2009 SFM Plan Indicator 7 and related to old Indicators 3 and 8). No change in Z809-16.

The target was revised at the March 15, 2018 MIFLAG meeting to match with historic reporting, which only included retention blocks.

Justification

Stand level retention helps capture important features that provide habitat heterogeneity including downed wood, tree cavities, large trees, and large dead snags. Retention of these structures in the managed forest matrix is important to provide stand structural heterogeneity across the landscape to promote a diversity of habitats; maintain unharvested refugia in large disturbed areas; assist some species to repopulate the regenerating ecosystem over time; and provide for a degree of connectivity throughout the managed landscape to facilitate movement of species populations.

This indicator is derived from the WFP Stewardship and Conservation Plan. The strategy has stand level retention targets ranging from 15-25% for all retention blocks, by Vancouver Island Land Use Plan (VILUP) zones.

The variance is -3% to allow operational flexibility to accommodate terrain challenges, windthrow hazard, economic conditions, etc. The variance would still ensure 7% retention in the Enhanced Basic, which is the minimum Wildlife Tree Retention Area % to meet the Forest Stewardship Plan and Forest Planning and Practices Regulation.

Current Status & Interpretation

Year	Resource Management Zone/ Variant Climate Class & Retention Target (%)					Target Met (Y/N)	Variance Met (Y/N)
	ED	EB	GD	GB	S		
	20	15	25	20	25		
2024	N/A	40	47	42	39	Y	N/A
2023	21	34	N/A	39	47	Y	N/A
2022	35.5	30	N/A	29	24	Y	N/A
2021	40	30	39	23	29	Y	N/A
2020	39	48	20	N/A	24	Y	N/A

The target was met.

Strategies & Implementation

Using a 5-year rolling average, WFP manages >50% of its total harvest area under retention systems. The retention system target varies by WFS zone, from >30% to >90%. Under this system, there are stand level retention targets, ranging from 15 to 25%.

Retention for each block is planned based on the required protection of different resources (e.g. riparian, wildlife, cultural) and engineering or economic constraints. If the minimum level of retention is not met to protect these resources, additional area is retained to meet the Western Stewardship and Conservation Plan stand level retention targets.

For many planned blocks, significant adjacent area is already protected due to riparian reserves, old growth habitat areas, wildlife habitat areas, and ungulate winter ranges. These protected areas are often included in block level retention as reserves and WTRAs. Including these areas in block retention does not cause a further loss of the operability of the land base and greatly increases retention totals.

Definitions:

ED= Enhanced Dry, EB= Enhanced Basic, GD= General Dry, GB= General Basic, S= Special
Where dry= CWHxm2 or mm1 and basic= CWHmm2, vm1, vm2, MHmm1
Retention system means a silvicultural system that retains individual trees or groups of trees to: maintain structural diversity over the area of the cutblock for at least one rotation; leaving more than half the total area of the cutblock within one tree height from the base of a tree or group of trees, whether or not the tree or group of trees is inside the cutblock. Retention can be dispersed throughout a cutblock as single trees or aggregated groups of trees.

Forecasts

The target is anticipated to be achieved based on historic performance and its priority at the corporate level. The WFP Stewardship and Conservation Plan revised stand level retention targets in 2020 by 5% for each zone, which will lead to a further increase in retention levels.

As of Jan 2018, the total area under forest influence will not include the area of Wildlife Tree Retention Area (WTRA) or long-term retention (LTR). To continue meeting the target, more area will need to be retained internally to generate higher forest influence. As a result, the stand level retention levels should remain high.

Monitoring

The Corporate Manager for Forest Stewardship and Wildlife creates an annual report summarizing the total hectares logged over the previous 5 years under a clear-cut with reserve and retention system by WFS Zone.

Indicator 1.1.A: Forest Influence

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. Establish forest plantations only in afforestation projects.*				
Value	**Objective**	**Indicator**	**Target**	**Variance**
Forest influence	Forest influence is maintained throughout harvested areas	The % of total harvested area using a retention silviculture strategy on a 5-year rolling average	Enhanced Basic >=50% Enhanced Dry >= 60% General Basic >= 60% General Dry >= 70% Special >= 90%	<=15% of the target on a 5-year rolling average for each zone

History

This objective was carried over from the 2009 SFMP (Indicator 8). It is not a core indicator.

The indicator was revised at the February 2019 meeting. It was no longer possible to calculate the old indicator due to corporate data entry standardizations. The revised target still captures the intent of the original indicator since a retention system requires that "more than half the total area of the cutblock be within one tree height from the base of a tree or group of trees."

Justification

Coastal BC has a diversity of forest ecosystems and species; therefore, forest management practices must vary in response to that diversity. No single harvesting or silvicultural system is appropriate everywhere.

Variable retention helps achieve that diversity. It is an overall approach to harvesting and silvicultural systems that retains trees and associated habitat for purposes other than timber management and traditional silviculture goals. Variable retention can be implemented with a wide range of harvesting systems. Various levels of retention can be used with different types, amounts, and spatial patterns of structure. Retention can be dispersed throughout a cutblock or aggregated in larger groups and patches, depending upon the objectives.

A retention system is a specific silvicultural system designed to meet the goals of variable retention. It was originally defined in the BC Operational Planning Regulations (March 1999) and has 3 requirements: 1) retention of trees distributed across the cutblock; 2) trees are left for the long term (one rotation minimum); 3) distribution of leave trees achieves >50% forest influence.

The retention targets of this indicator correspond to the corporate WFP Stewardship and Conservation Plan. The Plan outlines different retention silviculture system targets by VILUP zone. In the Enhanced Management Zone, where the emphasis is on timber production, the retention system will be used on 50% of the harvested area. In the General Management Zone, where the emphasis is on integrated resource management, the retention system will be used on

60% of the harvested area. In the Special Management Zones (SMZ), where specific environmental, recreational, and cultural/heritage values have been identified, a retention system will be used on 90% of the harvested area. Also, for the SMZ, the VILUP Higher Level Plan Order specifies, "applying a variety of silvicultural systems, patch sizes, and patch shapes across the zone, subject to a maximum cutblock size of 5ha if clearcut, clearcut with reserves, or seed tree silvicultural systems are applied, and 40ha if shelterwood, selection or retention silvicultural systems are applied."

The targets are 10% higher for dry zones (dm, xm, mm1) due to the extensive logging history and poor representation in reserves. Stand-level retention is being used to compensate for deficiencies in landscape-level representation.

The variance is to allow for operational flexibility to accommodate terrain challenges, windthrow hazard, economic conditions, etc.

By utilizing retention systems extensively across the landscape, LKSM will ensure high levels of forest influence are maintained.

Current Status & Interpretation

WFS Zone	5 Year Rolling Average (%)	Target Achieved	Variance Achieved
Enhanced Basic (>=50%)	74	Y	N/A
Enhanced Dry (>=60%)	96	Y	N/A
General Basic (>= 60%)	83	Y	N/A
General Dry (>=70%)	100	Y	N/A
Special (>=90%)	100	Y	N/A

5-years Gross Hectares

WFS Zone	Clearcut with Reserves (ha)	Retention (ha)	Total (ha)
Enhanced Basic	1,042	3,016	**4,058**
Enhanced Dry	15	360	**375**
General Basic	279	1,381	**1,660**
General Dry	0	48	**48**
Special	0	386	**386**
TOTAL	**1,336**	**5,191**	**6,527**

The target was met.

Overall, 79.5% of the harvest area between 2020 and 2024 used a retention silviculture system, which ensures >50% forest influence across the Mid Island Forest Operation.

Strategies & Implementation

Management strategies are described in the Western Stewardship and Conservation Plan.

Using a 5-year rolling average, WFP manages >50% of its total harvest area under retention systems. WFP targets the retention system on blocks that have high levels of required protection (eg. riparian, wildlife, cultural) and engineering or economic constraints. If further retention area is required, the engineers consider biologic control points like big trees/vets, safe wildlife trees, rare ecosystems, riparian areas, rock outcrops, karst, and mature deciduous. The control points are used to optimize layout, though their spatial distribution is also considered to ensure >50% forest influence is achieved.

Forecasts

Mid Island remains committed to meeting the WFP Stewardship and Conservation Plan.

The forest influence calculation changed in January 2018 to exclude the area of Wildlife Tree Retention Area (WTRA) or long-term retention (LTR). To continue meeting the target, more area will need to be retained, and the retention will need to be better distributed throughout the block. As a result, it will be more challenging to meet the definition of a retention system. While Mid Island should continue to meet the target or variance, the total number of hectares managed under a retention system is expected to decrease closer to the targets.

Monitoring

The Corporate Manager for Forest Stewardship and Wildlife creates an annual report summarizing the total hectares logged over the previous 5 years under a clear-cut with reserve and retention system by WFS Zone.

Indicator 1.2.1: SAR Habitat Protection

Element: 1.2 Species Diversity *Conserve species diversity by ensuring that habitats and forest conditions for the native species found in the DFA are maintained through time, including habitats for known occurrences of species at risk.*				
Value	**Objective**	**Indicator**	**Target**	**Variance**
The habitat for focal species, including species at risk exist on the DFA	Ensure habitat for focal species, including species at risk, is protected on the DFA	Degree of habitat protection for selected focal species, including species at risk	Area (ha) of UWR and WHA remains the same or increases from year to year	Decrease by 1%

History

New Core Indicator under CSA Z809-08 (relates to old indicator 9). No change in Z809-16.

Justification

The target is based on legal requirements under FRPA and the government initiatives underway through Land Use Planning processes and strategies such as the Identified Wildlife Management Strategy. The variance is meant to help account for fluctuations due to spatial issues (e.g. map base or scale) and natural disturbance factors.

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

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

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

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

Current Status & Interpretation

Type	Status	2020	2021	2022	2023	2024	Target Met (Y/N)	Variance Met (Y/N)
UWR	Legal	4941.9	4941.9	4941.9	4941.8	4941.8	Y	N/A
	Proposed	0	0	0	0	0		
	Voluntary	0	0	0	0	0		
MAMU	Legal	4412.1	4411.7	4411.5	4450.5	**4450.8**	Y	N/A
	Proposed	63.3	63.3	63.3	65.8	65.8		
	Voluntary	20.1	7.2	7.2	7.2	7.2		
Goshawk	Legal	542.1	542.1	542.1	985.5	985.5	Y	N/A
	Proposed	439.7	443.5	443.5	401.8	401.8		
	Voluntary	345.3	414.1	395.8	471.2	**549.5**		
Red Legged Frog	Legal	11.9	11.9	11.9	11.9	11.9	Y	N/A
	Proposed	0	0	0	0	0		
	Voluntary	0	0	0	0	0		

The target was met. Additional voluntary hectares added to the ‘Airstrip Main’ area of the DFA.

Proposed and voluntary areas fluctuate as both old nests become defunct and new nests are found. Similarly, some proposed areas become legal overtime. Annual surveying and ongoing monitoring programs are in place and guide these changes to non-legal areas.

Strategies & Implementation

In general, the management strategy for this indicator includes:

To spatially designate and legally establish Wildlife Habitat Areas. LKSM has a mix of legally established and proposed areas. The intent is to move proposed areas through the process to become legally established.

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

Species at Risk training is delivered to the operations to aid staff in identifying and working around Species at Risk.

Northern Goshawk Management Protocol has been developed to guide operations managing forest activities around nests. Known nests will be monitored for activity when forest management activities are planned nearby.

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

Forecasts

The government is planning on establishing significant marbled murrelet and goshawk WHAs and OGMAs, so the area of legal UWR and WHA is expected to remain the same or increase in the future.

Monitoring

The WFP Corporate Planning & Practices Biologist is responsible for coordinating GIS Analysis and reporting on this indicator. Reserves are mapped spatially in a layer of the GIS. All habitat supply will be monitored spatially relative to the target every year. Nests are documented when they are located, and appropriate management strategies are developed within site-level plans.

Indicator 1.2.2: SAR Habitat Modelling

Element: 1.2 Species Diversity *Conserve species diversity by ensuring that habitats and forest conditions for the native species found in the DFA are maintained through time, including habitats for known occurrences of species at risk.*				
Value	**Objective**	**Indicator**	**Target**	**Variance**
The habitat for focal species, including species at risk, exist on the DFA	Ensure habitat for focal species, including species at risk, exist on the DFA	Degree of suitable habitat in the long term for selected focal species, including species at risk	The number of species with habitat modelling completed stays the same or increases over time and the amount of suitable habitat for species where habitat modelling exists stays the same or increases (on a 5yr basis)	Decrease by 1%

History

New Core Indicator under CSA Z809-08 (relates to old indicator 9). No change in Z809-16.

Justification

While ecosystem conservation is the coarse-filter approach to biodiversity management, species diversity is the fine-filter approach. For most species, forest managers only have the ability to manipulate habitats, not species populations. Legal protection can help preserve habitat or elements of the habitat for species in decline or at risk of extinction (species at risk). To account for the degree of habitat protection provided for selected focal species, including species at risk, forest managers need to recognize short-term habitat needs, particularly for critical and core habitats, and consider existing protection plans for species at risk (see Indicator 1.2.1). For the longer term, forest managers can use habitat supply models when they exist and are reasonable in order to assess the long-term availability of habitat suitable for selected focal species.

The intent of this indicator is to report on the amount of suitable habitat for focal species (currently available or projected in the long term) retained on the DFA through modelling. It can include modelling completed by WFP, LKSM, or other parties, such as government agencies. The variance is intended to allow fluctuations due to spatial or forest cover updates and natural disturbance factors. The variance will not cover changes to the model; instead the baseline will need to be reset.

The Marbled Murrelet is a small seabird that nests on large boughs high in old conifers, up to 30km inland. Marbled Murrelets are listed as Threatened by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC) and are provincially Blue-listed under the Conservation Data Centre. Suitable nesting habitat for the Marbled Murrelet has been mapped across its range using low-level aerial surveys, air photo interpretation, and the British Columbia model. Western Forest Products has used this information and mapping for habitat modelling on TFL64.

Current Status & Interpretation

Year	Species Modelling Complete	Measure	Hectares of Suitable Habitat (Modeled)		Target Met (Y/N)	Variance Met (Y/N)
			Current	Long Term		
2023	MAMU Nesting Habitat	Potentially Suitable Habitat in legal WHA, UWR, OGMA and NCLB	22,249.74	41,730.77	Y	N/A
2018	MAMU Nesting Habitat	Potentially Suitable Habitat in legal WHA, UWR, OGMA and NCLB	22,069.21	37,588.77	Y	N/A
2013-2017	MAMU Nesting Habitat	Potentially Suitable Habitat in legal WHA, UWR, OGMA and NCLB	20,483.2	36,652.4	base line	
2010	MAMU Nesting Habitat	Potentially Suitable Habitat in legal WHA, UWR, OGMA and NCLB	16,289.9	20,838.6	reference info	

The target is met. This indicator is reported on every 5 years.

Strategies & Implementation

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

Western's Stewardship and Conservation Plan around variable retention will leave a legacy of mature and old forest attributes.

The long-term strategy is to spatially designate and legally establish Wildlife Habitat Areas, Ungulate Winter Range and Old Growth Habitat Areas to address habitat needs for multiple species. LKSM has a mix of legally established and proposed areas. The intent is to move proposed areas through the process to become legally established. Proposed reserves will be managed as if established.

Forecasts

The quantity of potentially suitable habitat is forecasted to increase. The federal recovery strategy (Environment Canada 2014) set a population objective that requires retention of nesting habitat at 70% (or greater) of 2002 amounts by 2032 province-wide. The government of British Columbia is committed to maintaining specified amounts of nesting habitat on provincial Crown land within each conservation zone. For the West and North Vancouver Island conservation district, there is a 68% habitat retention threshold. The combination of nesting habitat that is (or will be) protected through existing land use planning, plus nesting habitat in the non-contributing land base, does not achieve the minimum habitat threshold and habitat within the harvestable

lands is required to achieve these thresholds for Crown land. At least 80% of the minimum habitat threshold for Crown land will be spatially protected (mapped) in the West and North Vancouver Island conservation region. As a result, the total amount of currently suitable nesting habitat is expected to increase. Furthermore, the projected habitat is expected to increase as stands age and grow taller in the reserves and in the non-operable land base.

The Provincial Northern Goshawk Recovery Team has completed a habitat suitability index model for the Northern Goshawk. They modelled areas within which critical habitat for breeding or foraging is found. However, they are expected to continue with updates, possibly using Lidar in the near future. As a result, it would not create a proper baseline for this indicator. More information and maps can be found in the 2018 Recovery Strategy for the Northern Goshawk *Iaingi* subspecies (*Accipiter gentilis Iaingi*) in Canada report.

Monitoring

WFP Corporate Stewardship is responsible for coordinating GIS Analysis and reporting on this indicator.

The general monitoring measures are as follows:

Potential habitat supply will be monitored spatially relative to the target every 5 years.

Non-contributing land-base will be recalculated with new Timber Supply Analyses

Potential suitable habitat is modelled using parameters from the Marbled Murrelet recovery team in two steps:

1) Area is considered “Most Likely” suitable if ≥250years old and ≥28.5m tall.
2) Area is considered to potentially become suitable habitat if ≤250years and ≥28.5m tall or ≥18m site index.

For modelling, long term is defined as twice the average life expectancy of the predominate trees in a DFA, up to a maximum of 300 years. Given the long-life expectancy of coastal forest species, 300 years is considered long term for the marbled murrelet modelling.

Indicator 1.2.3: Regeneration of Native Species

Element: 1.2 Species Diversity *Conserve species diversity by ensuring that habitats and forest conditions for the native species found in the DFA are maintained through time, including habitats for known occurrences of species at risk.*				
Value	**Objective**	**Indicator**	**Target**	**Variance**
Native tree species on the DFA	Native tree species are maintained on the DFA	Proportion of regeneration comprised of native species	Native species comprise at least 90% of the regeneration established annually on harvested areas	None

History

New Core Indicator under CSA Z809-08. Core Indicator under CSA-Z809-16, but has been moved from Criterion 2 to Criterion 1 (previously Indicator 2.1.2).

Justification

The target is based on legal requirements under FRPA and the associated Chief Forester's Standards for Seed Use. However, the target accounts for slight variations where approved by government (e.g., planting of non-native noble fir in higher elevations where research indicates it is acceptable).

Current Status & Interpretation

Year	Planted	% Native Species	Target Met (Y/N)
2024	1,269,460	100	Y
2023	1,186,310	100	Y
2022	1,369,410	99.1	Y
2021	977,170	98.7	Y
2020	1,158,741	100	Y

The target was met.

Strategies & Implementation

Noble fir is non-native to Canada. It is found at higher elevations in Washington, Oregon, and California. It has been approved for planting in British Columbia at higher elevations where research projects have indicated good performance and survival. The Mid Island Forest Stewardship Plan includes stocking standards with Noble fir for these sites, with a 20% limit in the planting prescription to mitigate risk.

Forecasts

It is anticipated that the target will be achieved as it relates to legal requirements (FRPA, the Chief Foresters Standards for Seed Use, and Mid Island's approved Forest Stewardship Plan stocking standards). Ecologically suitable sites for Noble Fir are not widely available, so there is minimal risk of exceeding the target.

Monitoring

The indicator reports on the spring and fall planting program species composition. It is assumed that all naturally regenerated trees are native species due to the lack of non-native seed sources on the DFA.

The Silviculture Planner generates an annual report.

Indicator 1.3.1: Trees Planted

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

History

New Core Indicator under CSA Z809-08.

Basis for the Target

The target aligns with the current legal requirements: no genetically modified organisms are currently permitted (Chief Foresters Standards for Seed Use, which prevents genetically modified seeds or vegetative material to be 'registered').

Current Status & Interpretation

Year	Planted	% Genetically Modified	Target Met (Y/N)
2024	1,269,460	0	Y
2023	1,186,310	0	Y
2022	1,369,410	0	Y
2021	977,170	0	Y
2020	1,158,741	0	Y

Target was met.

All seedlots utilized for planting are registered seedlots in BC and thus are not genetically modified in any way (genetically modified seedlings are not approved for registration or use in BC).

Strategies & Implementation

All seed destined for crown land reforestation must be registered with the Ministry of Forests. Registration at the Tree Seed Centre (TSC). The TSC ensures that seedlots meet the applicable collection criteria specified in the Chief Forester's Standards for Seed Use. These standards include minimum requirements for genetic diversity and physical quality for BC and several northern US species and sources. The information is also used to guide transferability of seedlots to maximize forest productivity. Registration information and data integrity is maintained in the on-line web-based Seed Planning and Registry System (SPAR).

The only strategy in place related to this indicator is to only use seedlings from seedlots registered for use in BC in reforestation programs (legal requirement under FRPA and the Chief Forester's Standards for Seed Use). Alternatively, natural regeneration is also used to enhance restocking of cutblocks.
The seedlot number of all stock planted in the DFA is entered in silviculture records.

Forecasts

Currently, it is not anticipated that BC laws will change to allow for genetically modified organisms to be used to regenerate the forests. The Chief Foresters Standards for Seed Use and applicable amendments are posted at the following location:
https://www2.gov.bc.ca/gov/content/industry/forestry/managing-our-forest-resources/tree-seed/legislation-standards/chief-forester-s-standards-for-seed-use

Monitoring

The Silviculture Planner maintains the silviculture records through the entry of activity information in LRM. Planting specific data is also recorded within the Plant Wizard database and the provincial SPAR database for seeds and seedlings.

Indicator 1.4.1: Cultural Features

Element: 1.4 Protected Areas & Sites of Special Biological or Cultural Significance *Respect protected areas identified through government processes. Co-operate in broader landscape management related to protected areas and sites of special biological or cultural significance. Identify sites of special geological, biological, heritage or cultural significance within the DFA and implement management strategies appropriate to their long-term maintenance.*				
Value	**Objective**	**Indicator**	**Target**	**Variance**
Sacred and culturally important sites on the DFA	Provide protection for identified sacred and culturally important sites on the DFA	Protection of sites of special significance.	100% of identified sacred and culturally important sites (i.e. archaeological sites) are managed according to measures jointly developed by LKSM and First Nations	None

History

New Core Indicator under CSA Z809-08. Core Indicator under CSA Z809-16 (previously Indicator 1.4.2).

Justification

The target is based on legal requirements under the Heritage Conservation Act, FRPA, and the results/strategies for Cultural Heritage Resources in the Forest Stewardship Plan. The target and the variance reflect the requirement to mitigate or control potential effects on identified culturally important sites through protection and/ or management prescriptions.

Current Status & Interpretation

Year	Archaeological Sites Identified	# Sites Protected	# Sites Managed	Target Met (Y/N)
2024	1	2	2	Y
2023	0	1	1	Y
2022	0	1	1	Y
2021	1	1	1	Y
2020	0	0	0	Y

Target met.

An Archaeological Impact Assessment (AIA) was completed for 2 blocks along the White River. This resulted in the identification of 3 Red Cedar Culturally Modified Trees (CMTs). The site was outside of the block boundary with no concerns to the noted from harvest or road activities. The site is protected under the Heritage Conservation Act and has a 10m buffer around the group of CMTs, all of which are within 50m of each other.

The one location reported in 2021, along the Johnstone Strait, has been designated as an archaeological site under the Heritage Conservation Act. This site was initially buffered with a 5m site boundary as per the BC Archaeology Branch Standards but was subsequently buffered by 70m on all sides by LKSM.

Strategies & Implementation

The government has completed Archaeological Overview Assessments (AOA) to categorize the DFA into areas based upon archaeological site potential.
As required, archeological assessments are completed to identify and evaluate archaeological resources within the proposed development areas. These identify and assess all impacts on archaeological resources that might result from the development and recommend alternatives for managing unavoidable adverse impacts.

In most cases, assessments are conducted jointly with representatives from the applicable First Nation. Mid Island Forest Operation also maintains open communication with First Nations regarding harvesting and road construction activities (i.e., meetings, email communications, etc.).

LKSM has a Standard Operating Procedure for Cultural Heritage Resources to guide planning activities in the identification, protection and management of features.

For the purposes of this indicator, ‘protected’ refers to protection of the feature from harvesting. ‘Managed’ could have a broader meaning including: buffer zones, special prescriptions to protect the feature during activity, or the modification/harvesting of a feature (provided First Nation approval and appropriate permits are in place).

Forecasts

It is anticipated that the target will be achieved. Currently, management strategies are jointly developed between LKSM and First Nations.

In the event any First Nation expresses any concerns with the existing process, alternatives may need to be developed (e.g. Protocol Agreements).

Monitoring

The Silviculture Planner requests a report from the Forestry Admin detailing any completed AOA/AIA activities and keeps a record of their reports.

Indicator 1.4.2: Sites of Significance

Element: 1.4 Protected Areas & Sites of Special Biological or Cultural Significance *Respect protected areas identified through government processes. Co-operate in broader landscape management related to protected areas and sites of special biological or cultural significance. Identify sites of special geological, biological, heritage or cultural significance within the DFA and implement management strategies appropriate to their long-term maintenance.*				
Value	**Objective**	**Indicator**	**Target**	**Variance**
Protected areas on the DFA	Respect and maintain protected areas on the DFA through government processes	Proportion of identified sites with implemented management strategies	100% of identified sites (i.e. SMZ 11, karst, bear dens, nests) have implemented management strategies	None

History

New Core Indicator under CSA Z809-08 (relates to old indicator 11). In 2014, Recreation Areas was removed from this indicator as there is now a separate Recreation Indicator 5.2.A.

Core Indicator under CSA Z809-16. Indicator number has been revised from 1.4.1 to 1.4.2 under new standard.

Justification

For this indicator, identified sites will be: karst, bear dens, blocks in the SMZ, and the following nests: goshawk/ eagle/ peregrine falcon/ gyrfalcon/ osprey/ heron/ burrowing owl.

Protected areas identified through government processes (WHAs, OGMAs, and UWRs) are tracked in Indicators 1.2.1 and 1.2.2. Identified recreation features, pursuant to s.5 of the 2006 GAR, are tracked under Indicator 5.2.A. Sites of archaeological significance are tracked in Indicator 1.4.1. They will not be tracked under this indicator.

Current Status & Interpretation

Year	# of Identified Sites	# of Cutblocks	# of Management Strategies Implemented	Summary of Implemented Management Strategy	Target Met (Y/N)
2024	64	37	4	-Bear dens (33 blocks): LKSM Bear Den Standard applied to all blocks, all retained & surveyed prior to harvest. -Goshawk nests (1 block): LKSM Timberlands Goshawk Management Standard applied to the block with timing instructions & surveys specified. -Karst (5 blocks): LKSM Karst Management Standard adhered to, and recommendations applied to all blocks. -SMZ 11 (8 blocks): All blocks used a Retention silviculture system.	Y
2023	39	29	4	-Bear dens (22 blocks): LKSM Bear Den Standard applied to all blocks, all retained & surveyed prior to harvest. -Goshawk nests (3 blocks): LKSM Timberlands Goshawk Management Standard applied to all blocks with timing instructions & surveys specified. -Karst (2 blocks): LKSM Karst Management Standard adhered to, and recommendations applied to both blocks. -SMZ 11 (6 blocks): All blocks used a Retention silviculture system.	Y
2022	58	21	8	-Bear dens (10 blocks): 2 dens located in internal retention and 20 external block dens, all retained as per Harvest Instructions. -Goshawk nests (5 blocks): 12 nests found. Management instructions were set out for all nests, and surveys were completed as required. The Northern Goshawk Management Standard was followed in all cases. -Karst (8 blocks): 22 karst features identified. LKSM Karst Management Standard adhered to, and recommendations applied. -SMZ 11 (2 blocks): Under retention system.	Y
2021	39	20	4	-Bear dens (4 blocks): 5 internal block dens, 2 external block dens all retained as per HI. -SMZ 11 (2 blocks): Under retention system. -Goshawk Nests (4 blocks): 6 nests found and buffered as per HI. -Karst (10 blocks): 24 karst features identified. LKSM Karst Management Standard adhered to and recommendations applied.	Y

2020	12	7	7	-Bear dens (4 blocks): 3 dens were in reserves or outside of the block, 3 dens were retained within the NAR, and 3 were felled, all in accordance with the HI. 5 dens required an assessment, and it was completed prior to road construction commencement. -SMZ 11 (2 blocks): Under retention system -Goshawk Nest: The nest was buffered. A survey was conducted in late February, prior to start-up.	Y

Target met. No non-compliances with the LKSM Standards used for the management of bear dens, goshawk nests, karst, or the Special Management Zones.

Strategies & Implementation

LKSM provides training to its staff and contractors to facilitate the identification of species at risk (animals and plants), nests, sensitive ecosystems, bear dens, and karst.
For karst features, LKSM's Karst Management Standard and Guidelines are followed. The standard includes management practices to protect and maintain feature quality and/or contents from the potentially adverse effects of surface activities.

The management strategies for the coastal northern coastal goshawk are derived from the goshawk management standard. It provides direction to LKSM's forest professionals on managing primary forest activities around Coastal Northern Goshawk nests to minimize the risk of nest and territory abandonment. The Standard covers identification, survey requirements, operational timing restrictions, and buffer zones.

Section 34 of the Wildlife Act prohibits the destruction of an eagle, peregrine falcon, gyrfalcon, osprey, heron, or burrowing owl nest. LKSM retains nests as wildlife trees and works to maintain retention surrounding the nest.

Forestry crews map the location of bear dens trees during layout, whether active or not. Bear den trees are retained within reserve areas, or as individual wildlife trees, where safe to do so.

The Final Cutblock Inspection and Harvest Completion Plan process verifies that all instructions/strategies were implemented.

Forecasts

The target should be met in future years.

Monitoring

The Silviculture Planner requests from the GIS Analyst a list of harvested blocks for the year with overlaps that fall within 100m of bear dens, karst, special management zones, and within 800m of nests. The block file is reviewed for management strategies specific to the feature. Final Cutblock Inspections are completed to verify their implementation.

Indicator 2.1.1: Free Growing

Element 2.1: Forest Ecosystem condition and productivity *Conserve forest ecosystem productivity and productive capacity by maintaining ecosystem conditions that are capable of supporting naturally occurring species. Reforest promptly and use tree species ecologically suited to the site.*				
Value	**Objective**	**Indicator**	**Target**	**Variance**
Resilient forest ecosystems	Maintain ecosystem processes and ecosystem conditions	Reforestation Success	The annual number of hectares not meeting free growing deadlines is zero	None

History

New Core Indicator under CSA Z809-08 (carried forward from the 2009 SFM Plan Indicator 20). Indicator number changed from 2.1.1a to 2.1.1 to correct the numbering. No changes in CSA Z809-16. Previously known as Indicator 4.1.2.

Justification

The target and variance are tied to future yield assumptions in the Timber Supply Review associated with the DFA and legal requirements under FRPA (WFP FSP, FRPA s.29 and FPPR s. 16 and 44 (1)(b)). Prompt reforestation with ecologically suitable species is necessary to ensure the Long-Term Harvest Level (LTHL) of the DFA.

Current Status & Interpretation

Year	Total Ha Due	Ha Not Meeting Target	% Not Meeting Target	Target Met (Y/N)
2024	1,233.2	0.0	0.0	Y
2023	335.2	0.0	0.0	Y
2022	362.9	0.0	0.0	Y
2021	220.6	0.0	0.0	Y
2020	401.5	0.0	0.0	Y

This target was met.

Strategies & Implementation

Milestone obligations for Free Growing dates are established within the Forest Stewardship Plan (approved stocking standards based on ecosystem types). Timelines are set in motion upon harvest start dates.

Planting with appropriate species and brush control are the primary management tools that ensure free growing commitments are met on time. The Silviculture Planner conducts surveys to ensure the success of reforestation.

Forecasts

The target is a legal requirement, so it should be consistently met.

Contract surveyor during the 2024 survey season missed a block with a March 2025 free growing due date, a request for extension will be submitted ahead of the due date allowing for an extra 6 months. No issues anticipated in reviewing the extension or in the block meeting the free growing status.

Monitoring

Openings are regularly assessed in the field to ensure milestone obligations are met and reported to government.

The Silviculture Planner/Forestry Admin generates milestone reports from the Ministry of Forests RESULTS database quarterly to ensure blocks with upcoming milestones are prioritized for surveys. LRM queries are also used to check status/milestones.

The same report is used to summarize compliance with milestone obligations for this indicator.

Indicator 2.1.3: Permanent Access (PAS)

Element: 2.1 Forest Ecosystem Condition and Productivity *Conserve forest ecosystem productivity and productive capacity by maintaining ecosystem conditions that are capable of supporting naturally occurring species. Reforest promptly and use tree species ecologically suited to the site.*				
Value	**Objective**	**Indicator**	**Target**	**Variance**
Conserve productive capacity of the DFA	The integrity of the DFA is maintained over time	Additions and deletions to the forest area	The average percent of forest area harvested each year in the DFA that is converted to permanent access structure does not exceed 7%	+0.5%

History

New Core Indicator under CSA Z809-08 (carried forward from 2009 SFM Plan Indicator 21). Indicator moved from Element 2.2 to 2.1 under CSA Z809-16 (previously Indicator 2.2.1).

Justification

Based on FPPR Section 36, permanent access structures may not exceed 7% of the cutblock, unless there is no other practicable option having regard to the size, topography, and engineering constraints of the cut block or the safety of the road user.

At the March 15th, 2018 MIFLAG meeting, the target was increased from 6 to 6.5%. On May 16th, 2024 MIFLAG voted to increase the target from 6.5% to 7%. MIFLAG acknowledged the increase in challenging terrain and the performance trend over the previous years.

Current Status & Interpretation

Year	Access as % of TAUP	Target Met (Y/N)	Variance Met (Y/N)
2024	7.6	N	N
2023	7.8	N	N
2022	7.3	N	N
2021	6.9	N	Y
2020	5.9	Y	N/A

This target was not met.

PAS exceeded 7% in 43 blocks, as per allowable rationales in the FPPR Section 36. The reasons were outlined in their respective signed cutblock site plan or amendments.

Strategies & Implementation

The LP needs to balance logging productivity, road user safety, road building costs with the target of limiting permanent access structures. Appropriate yarding systems are applied to minimize road construction, and the Grade SOP states, “to avoid exceeding limits for soil disturbance, restrict ditch excavation and overburden stripping to the minimum width necessary for a safe road running surface.”

Forecasts

The LP will continue to strive to minimize PAS when possible. It is anticipated that the average PAS will continue to increase due to challenging cutblock design and harvest area constraints. Despite the target 7% FRPA does allow permanent access structures to exceed 7% of the cutblock if there is no other practicable option having regard to the size, topography, and engineering constraints of the cutblock. Given the increase in challenging terrain, wider roads with more switchbacks are expected to allow for safe hauling which leads to increased PAS. Safety needs to remain the LP's number one priority.

The LP is working with Natural Resources Canada and the Province of BC to find ways to utilize reforestation funding under the '2 Billion Trees Program' to assist, however, this process will take time to be implemented and begin to impact this indicator.

Monitoring

The Silviculture Planner runs a query from our LRM database which provides permanent access areas for all harvest complete blocks in a year to generate an overall PAS %.

PAS is calculated using a 5.6m road buffer on all roads. It is adjusted to account for large landings or quarries. This average road width was determined from a sample of 30 blocks in 2014. A weighted average of their road buffers by TAUP was calculated and adjusted down by a factor of 0.92 based on 2014 as-built PAS surveys. The accuracy of this road buffer was verified using Lidar and field assessments in December 2017.

Indicator 2.1.4: Harvest Level

Element: 2.1 Forest Ecosystem Condition and Productivity *Conserve forest ecosystem productivity and productive capacity by maintaining ecosystem conditions that are capable of supporting naturally occurring species. Reforest promptly and use tree species ecologically suited to the site.*				
Value	**Objective**	**Indicator**	**Target**	**Variance**
Sustainable harvesting on the DFA	The harvest level on the DFA is sustainable over time	Proportion of the calculated long-term sustainable harvest level that is actually harvested	i)The annual harvest level is within 50% of the AAC ii) The cumulative volume harvested does not exceed the AAC authorized for the 5-year cut control period	i) One out of five years in the cut control cycle may exceed +/-50% of the AAC ii) +10%

History

New Core Indicator under CSA Z809-08 (carried forward from 2009 SFM Plan Indicator 22). Indicator moved from Element 2.2 to 2.1 under CSA Z809-16 (previously Indicator 2.2.2).

Justification

The Chief Forester ensures sustainable harvesting by determining the annual allowable cut (m3/year) that can be harvested within a management unit. To provide operational flexibility, 5 year cut control periods apply. There are no minimum or maximum harvest levels for a given year; however, the maximum amount that can be harvested over 5 years without penalty is 110% of the 5-year AAC. Overharvest volumes are carried forward into the next cut control period. The licensee pays 2x stumpage on any volume over 110%. This discourages licensees from logging more than the sustainable volume.

Target i) ensures a steady flow of fibre, so jobs are maintained, while allowing for variations in harvest levels to account for market fluctuations. However, it does not ensure a sustainable harvest level is maintained with respect to the environment.

As a result, a second target was developed at the March 15, 2018 MIFLAG meeting. Target ii) helps ensure the sustainable harvest level is not exceeded over a 5-year period. A 10% variance was selected to align with the Cut Control Regulation.

Current Status & Interpretation

Year	AAC (m^3)	Harvested (m^3)	Average Harvest as % of AAC	Target Met (Y/N)	Variance Met (Y/N)
2024	904,540	1,011,348	112%	Y	N/A
Cut Control 2019-2023	**4,522,700**	**4,243,025**	**94.0**	**Y**	**N/A**
2023	904,540	1,194,004	132.0	Y	Y
2022	904,540	940,864	104.0	Y	Y
2021	904,540	821,369	90.8	Y	Y
2020	904,540	852,353	94.2	Y	Y
2019	904,540	434,435	48.0	**N**	Y
Cut Control 2014-2018	**4,956,012**	**5,214,612**	**106.3**	**Y**	**Y**
2018	904,540	959,757	106.1	Y	Y
2017	904,540	1,096,144	121.2	Y	Y
2016	1,011,866	1,342,141	132.6	Y	Y
2015	1,067,533	896,650	84.0	Y	Y
2014	1,067,533	919,920	87.7	Y	Y

*Numbers adjusted back to 2014 for consistency with corporate reporting. Harvested volumes needed to include waste to be compared to AAC

Target i) was met.

Target ii) was met.

Strategies & Implementation

LKSM wants to achieve harvest levels as close to the AAC as possible each year. There is a desire to maintain steady harvest levels to retain high quality employees and contractors. Harvest levels may exceed the AAC annually, as long as overall cut control requirements are met. Under harvests may occur during economic downturns, but they need to be minimized since undercut volumes may be awarded to other parties.

Corporate Forestry completes a timber supply analysis which determines the long-term harvest level (LTHL). The harvest rate is dependent on the state and growth rates of the existing forest, the silviculture intensity, and harvest constraints. The provincial Chief Foresters considers this rate when determining the AAC.

Forecasts

LKSM plans to meet the targets or variances over the new cut control period and in future years.

Monitoring

The WFP Corporate Tenures Manager provides harvest volume data on an annual basis.

Indicator 2.1.A: Regeneration Delay

Element: 2.1 Forest Ecosystem Condition and Productivity *Conserve forest ecosystem productivity and productive capacity by maintaining ecosystem conditions that are capable of supporting naturally occurring species. Reforest promptly and use tree species ecologically suited to the site.*				
Value	**Objective**	**Indicator**	**Target**	**Variance**
Timelines of regeneration on the DFA	Harvested areas are reforested	Reforestation performance on harvested areas	i) All blocks meet the legal regen delay period (6 years) ii) Average regen delay performance across all blocks with regen delay due is 90% of the regen delay period (i.e. better than the legal requirements)	None; unless biological or environmental rationales are provided on a site-specific basis

History

Carried forward from the 2009 SFM Plan Indicator 12. This indicator is not a core indicator.

During the November 20, 2021 MIFLAG meeting, the group approved splitting the target into 2 parts. This is to differentiate clearly between the legal time limit and the enhanced MIFLAG target.

Justification

Regeneration delay is the elapsed time after harvest commencement before an area becomes occupied by a specified minimum number of acceptable, well-spaced trees. The regen delay period is set in the stocking standards of the forest stewardship plan and is 6 years for the Mid Island Forest Operation. However, in the Chief Forester's reference guide for forest development stocking standards, the recommended regen delay period varies from 3 to 7 years.

Current Status & Interpretation

Year	Hectares	Legal Requirement (years)	Target 90% of Requirement (years)	Average Achieved (years)	Ha of Regen Delay Missed	Target Met (Y/N)	Variance Met (Y/N)
2024	1,603.3	6	5.4	3.2	0.0	Y	N/A
2023	1,633.4	6	5.4	3.2	0.0	Y	N/A
2022	1,446.8	6	5.4	3.4	0.0	Y	N/A
2021	1,731.1	6	5.4	3.1	0.0	Y	N/A
2020	1,651.6	6	5.4	3.4	0.0	Y	N/A

The target was met.

Strategies & Implementation

Government and LP databases are compared to ensure that SUs approaching their time limit for regeneration are given planting priority.

Timely planting with appropriate species is the primary management tool for meeting reforestation commitments. Planners supervise the planting projects to ensure high quality planting and to check the health of the seedlings. Both factors can have significant impacts on seedling performance and survival.

Forecasts

It is anticipated that the target will be achieved given the operation's historic performance and the link to legal requirements.

Furthermore, our reporting system changing will remain a contributing factor in potential increases in Regen Delay declarations. Until 2016, regen delay was declared based on planting quality surveys. Now, we are waiting to declare the standard units until after the survival survey if there are performance risk factors (ex. elevated elk, weevil, or brush hazard or suspect stock health). This will lead to a more accurate measurement of the regen delay period, but it will lead to an increase in the indicator. The impact of this change is ongoing but is not expected to prevent us from continuing to meet this target.

Monitoring

Planting, stocking, or survival surveys are completed on all blocks to ensure milestone obligations are met and reported to the government. Regen delay is declared using the data from one of these surveys.

The Silviculture Planner generates a data export and/or uses the Ministry of Forests RESULTS database to summarize compliance with milestone obligations.

Indicator 3.1.1: Soil Disturbance

Element: 3.1 Soil Quality and Quantity *Conserve soil resources by maintaining soil quantity and quality.*				
Value	**Objective**	**Indicator**	**Target**	**Variance**
Productive capacity of forest soils on the DFA	Harvest operations are conducted such that the productive capacity of forest soils on the DFA is maintained	Level of soil disturbance	The annual % of harvested openings in which soil disturbance levels exceed the plan is zero	None

History

New Core Indicator under CSA Z809-08. (carried forward from 2009 SFM Plan Indicator 18). Core Indicator under CSA Z809-16 indicator number did not change.

Justification

The objective ensures that site productivity is maintained and that impacts to other resource values are prevented or mitigated.

Based on FPPR, soil disturbance means disturbance to the soil in the net area to be reforested in a cut block because of temporary access structures, compacted areas, or gouges, ruts, and scalps. Defined in the Forest Planning and Practices Regulation (FPPR), sensitive soils have a high or very high risk of displacement, surface erosion, or compaction due to slope gradient, texture class, moisture regime, or organic matter content.

The target and variance are based on legal requirements established in FPPR Section 35 for sensitive soils. The soil disturbance limit is 5% for sensitive soils, 10% for non-sensitive soils and 25% for roadside areas. The limit is outlined in the site plan for each standard unit. As per FPPR Section 35(4)(b), an agreement holder may exceed the CSP limits for the construction of temporary access structures if the site is rehabilitated before the regeneration date to meet the specified limits.

Current Status & Interpretation

Year	# of Post-Harvest Assessments Completed	# of Openings & % of blocks Exceeding Soil Disturbance Limit	Target Met (Y/N)
2024	52	0	Y
2023	56	0	Y
2022	36	0	Y
2021	27	0	Y
2020	28	0	Y

The target was met.

Strategies & Implementation

The EMS and SOPs provide guidance to avoid soil disturbance, including:

- Identify sensitive soils in the planning stages through field work (limits are recorded in Site Plans)
- Assign the appropriate harvest method (ground based, cable, aerial) for the soil conditions
- Assign the appropriate equipment to the soil conditions (hoechuck vs. skidder)
- Use woody debris to insulate soil disturbance
- Curtail operations during wet weather
- Complete EMS Cutblock Inspections and Post-Harvest Inspections to ensure compliance with the plan and to access soil disturbance levels.
- Prescribe rehabilitation measures where soil disturbance levels exceed the desired levels

The Falling and Bucking Department SOP includes, “Supervisors will confirm that visual checks to monitor soil disturbance are being done by operators concurrent with mechanical falling and processing activities.”

FPPR 35. (4)(b)(ii) allows soil disturbance to be exceeded by 5% for temporary access structures if the area is rehabilitated before the regeneration date. WFP aims to rehabilitate any soil disturbance in excess of limits while completing post-harvest activities like piling and ditch cleaning. To meet fire abatement standards, piling generally occurs within 1 year of harvest completion, so rehabilitation happens well in advance of regen delay (6 years from harvest commencement).

Areas of soil disturbance within 100m of an invasive species site are grass seeded promptly with weed free seed or planted.

Forecasts

Due to past performance and the long history of implementation of the EMS and SOPs, we anticipate that the target will be achieved.

Monitoring

Soil disturbance is assessed through a visual review during cutblock inspections and post-harvest inspections. If soil disturbance exceeds limits or if concerns are noted, an action item is created in the EMS tracking system with rehabilitation measures, a deadline and the assigned person to complete the task.

The Silviculture Planner reviews the post-harvest assessments and the EMS tracking items annually, looking for any references to soil disturbance.

Indicator 3.1.2: Coarse Woody Debris (CWD)

Element: 3.1 Soil Quality and Quantity *Conserve soil resources by maintaining soil quality and quantity.*				
Value	**Objective**	**Indicator**	**Target**	**Variance**
Productive capacity of forest soils on the DFA	Soil degeneration on the DFA is prevented	Level of downed woody material	> 15 m^3 per hectare	-5.0 m^3 per hectare

History

New Core Indicator under CSA Z809-08. Minor revision in Z809-16.

Justification

Dead wood is an important component of a healthy forest ecosystem. Coarse woody debris is a major input of organic matter to forest soils, critical for forest function, structure, and productivity.

The 15m^3 target relates to the waste benchmarks in the Provincial Logging Residue and Waste Measurement Procedures Manual. The waste benchmarks vary, from 10m^3/ha to 35m^3/ha, depending on stand maturity and harvest method. The waste benchmark means the volume of avoidable waste that can be left on a harvested area without being subject to a monetary waste assessment. The benchmark ensures sufficient coarse woody debris is left given its importance in nutrient and organic matter dynamics of forest ecosystems.

Furthermore, FPPR Section 68(1) requires a minimum of 4 logs per hectares, each being a minimum of 5m in length and 30cm in diameter at one end, to be retained on a cutblock.

Current Status & Interpretation

Year	Downed Woody Material (m^3/ha)	Target Met (Y/N)	Variance Met (Y/N)
2024	63	Y	N/A
2023	68	Y	N/A
2022	69	Y	N/A
2021	46	Y	N/A
2020	52	Y	N/A

The target was met.

Due to the challenge of reliably calculating pile burning volume, CWD consumption, and the fluctuating nature of pile burning, it has not been included in this calculation since 2022.

Strategies & Implementation

Coastal stands often have significant levels of downed and dead standing woody material at various levels of decomposition. Harvesting operations add to these levels by leaving non-merchantable wood on site. Intentional broadcast burning of woody material has been eliminated as a site preparation tool. However, non-merchantable wood is piled and burned depending on the fire hazard assessment to abate fire hazard and prevent the loss of plantable ground. This does not impede LKSM's ability to achieve CWD targets.

Forecasts

Levels of coarse woody debris fluctuate with market conditions, the proportion of conventional vs heli logging, and the proportion of old growth vs second growth harvesting. It is expected that a similar volume of downed woody debris per hectare will remain in 2025.

Monitoring

The Operations Forester who manages Waste & Residue generates a summary from the Provincial Government's waste billing system for the calendar year and divides the total waste volume by the harvested area of the associated cutblocks.

Indicator 3.2.1: Watersheds

Element: 3.2 Water Quality and Quantity *Conserve water resources by maintaining water quantity and quality.*				
Value	**Objective**	**Indicator**	**Target**	**Variance**
Water quality and quantity	Management operations do not endanger water quality and quantity	Proportion of watershed or water management areas with recent stand-replacing disturbance	Proportion of watershed units in the target condition (A,B) is improving over time (Mid-Island Watershed Assessment Report 2010)	None

History

New Core Indicator under CSA Z809-08.

Justification

A Watershed Assessment was completed for TFL 39 by G. Horel, P. Eng. (GM Horel Engineering Ltd.) in 2009/ 2010. The report includes recommended indicators and targets, in addition to recording the current status of the watersheds in the DFA. The assessment report defined four categories of overall watershed 'health': A – stable or consistent with natural; B – improving, may have sites that are still disturbed; C – moderately disturbed; and D – severely disturbed. The report outlines expected timelines to improve the rating for each watershed. An updated report from G.M. Horel Engineering Ltd. was undertaken in 2022.

Current Status & Interpretation

Year	# of Watersheds in A, B Category	Area of Watersheds in A, B Category as a %	Target Met (Y/N)
2023	35/44 (80%)	103,105/142,812 (72%)	N
2010	38/44 (86%)	116,735/142,812 (82%)	N/A - Baseline

This target is not reported on annually, but it did fail in 2023.

Four watersheds moved from the A & B trend down to C & D trends. One watershed improved, moving from B to the A trend.

Downgraded Watersheds

Consort Creek/Stewart: Chronic natural rockfalls, spalls, and upper valley wall talus slides were the leading contributor to the worsening trend. A total of 13 new natural landslides ranging from 0.13-0.82 ha in size were noted.

Spirit Lake: Despite areas of historic floodplain logging recovering with improving canopy closure, there remains openings in the riparian Alder canopy elsewhere that has negatively impacted the trend. These openings are attributed to the conversion of areas previously dominated by hardwood species to coniferous led stands. The report does not identify the time frame for this conversion or if improved remote sensing data and analysis influenced this trend change.

Grilse: Only 18% of the area of this watershed is within the TFL so it is highly susceptible to the influence of adjacent tenure holders/owners. Pre-1995 floodplain logging cited as the primary contributor to the disturbance level, with insufficiently advanced second growth riparian forest in place to resist stream bank erosion, leading to increased bedload transport during high flows.

Wagar: A significant change in trend from A to C is attributed to natural landslides that took place between 2013-2017. The most significant being a 7.42 ha slide that entered the watershed's higher order stream, an S2. During the same period smaller slides originating from both pre and post-1995 logging also contributed to the disturbance.

Improved Watersheds

Little Memekay: low landslide frequency with observed disturbances being small and limited to small, non-fish streams (S6).

Status of Watersheds in TFL 39-2 (2022 Horel report)

Watershed Trend	Watershed Name				
(D) Highly Disturbed	Lower Adam Big Tree Salmon (Remainder)				
(C) Moderately disturbed; or improving but still of concern	Consort Creek/Stewart	Spirit Lake Grilse	North Memekay Kunnum	Nisnak Wagar	
(B) Improving, may have sites that are still disturbed	North Elk Lower White Upper White	Upper Memekay	Canyon Middle Memekay Upper Adam	Compton Montague Kim	
(A) Stable, or consistent with natural	South Elk	Upper Amor Cooper Lower Memekay Springer Rooney	Gerald/Moakwa Kokummi Stove Kay Stowe Kylee Newcastle Salmon-H Little Memekay	Nora Marilou Norberg Dewey/Nicole White-B	Dalrymple K012-3 K031-1 Newcastle CWS
Fisheries Rank	(1) High to very high fish capacity; large or potentially large anadromous runs	(2) Important resident fishery or moderate anadromous capacity	(3) Small but significant anadromous capacity; or some resident fish	(4) Limited fisheries capacity. Few resident or anadromous fish	(0) No data

Status of Watersheds in TFL 39-2 (2010 Horel report)

Watershed Trend	Watershed Name				
(D) Highly Disturbed	Lower Adam Big Tree Salmon (Remainder)				
(C) Moderately disturbed; or improving but still of concern			North Memekay Kunnum	Nisnak	
(B) Improving, may have sites that are still disturbed	Consort Creek/Stewart North Elk Lower White Upper White	Upper Memekay Spirit Lake Grilse	Canyon Little Memekay Middle Memekay Upper Adam	Compton Montague Kim	
(A) Stable, or consistent with natural	South Elk	Upper Amor Cooper Lower Memekay Springer Rooney	Gerald/Moakwa Kokummi Stove Kay Stowe Kylee Newcastle Salmon-H	Nora Wagar Marilou Norberg Dewey/Nicole White-B	Dalrymple K012-3 K031-1 Newcastle CWS
Fisheries Rank	(1) High to very high fish capacity; large or potentially large anadromous runs	(2) Important resident fishery or moderate anadromous capacity	(3) Small but significant anadromous capacity; or some resident fish	(4) Limited fisheries capacity. Few resident or anadromous fish	(0) No data

Strategies & Implementation

An update to the Watershed Indicators Report completed for TFL 39 Block 2 by G. Horel (GM Horel Engineering Ltd.) in 2009/ 2010 was carried out in 2022.

This report provides management strategies to address key concerns identified in the Watersheds Indicators Report and lays out risk control measures and highlighted focus areas for management moving forward.

The following strategies have continued to be implemented since the original 2010 report:

- Where streams in a watershed unit have been impacted by landslide in postcode blocks, rate of cut limits are applied for harvest on steep terrain (until 2018).
- The Terrain Risk Management System (TRMS), windthrow strategy, rainfall shutdown guidelines, and standard practices for road construction are followed.
- Terrain stability assessments are completed where required, as dictated by the TRMS.
- The TFL 39-2 Watershed Management Strategies Report is reviewed for all blocks during the Hydrological Note to File, and relevant strategies are applied.
- A watershed assessment is required for areas of special consideration: a community watershed, a fisheries sensitive watershed, or a large block (>40ha not greened up) in the Enhanced Forestry Zone. The hydrological assessment identifies and addresses potential sources of hydrological risk.

In response to the 2022 report G. Horel has recommended measures which the operation has accepted and is actively putting into place. These include the following:

- An Equivalent Clearcut Area (ECA) limit of 25% in the total combined area of the Nora, Gerald/Moakwa, Kokummi, Kylee, White B, Upper White, and Consort Creek/Stewart Lake watershed units.
- An ECA limit of 25% in both the Springer and Stowe Creek watershed units.
- In watersheds with high consequence landslides the TRMS should take into consideration an increased projected rainstorm intensity due to climate change.
- A Landscape Reserve Network (LRN) that incorporates the majority of the floodplains, fans, and alluvial streams within the tenure.
- Where fans are present, Terrain Stability Assessments (TSAs) undertaken for roads or cutblocks in the catchment area above the fan should estimate the sediment delivery potential to the fan and the potential effects on it.

- An ECA of 30-35% over 5 years, not to exceed 35% in any given year, to be applied to the delineated high sensitivity sections of the Big Tree. White River, and Memekay watershed units.

- No logging in the delineated high sensitivity sections of the Spirit Lake, North & Middle Memekay watershed units, and in the Newcastle Community Watershed.

- Additional measures for the Newcastle Community Watershed include limiting harvesting to terrain with a very low likelihood of a landslide to Newcastle Creek, an ECA of 20-25% over 5 years, not to exceed 30% in any given year within the delineated high sensitivity zones, limiting road construction to be done during the dry season unless assessed by a Qualified Professional and deemed low risk with sediment control measures in place, establishing sediment management plans if hauling during wet weather, and assessing rock quarries that provide materials for road surface ballast, drainage structure armouring, or armouring fill slopes, for the presence of acid-generating minerals.

- Increase the LiDAR precision for the fisheries sensitive watershed (Memekay), and the Newcastle Community Watershed to 2m contours.

- Increased caution and heightened management regarding windthrow potential along boundaries of the delineated no-log zones in the Spirit Lake, North & Middle Memekay watershed units, and in the Newcastle Community Watershed.

- The following roads with recent landslides from fill slopes be reviewed in order to improve LKSM's quality control for new road construction and road inspection strategy:
    - Ste30
    - CC540
    - UA245A2
    - S38

Forecasts

Mid Island will continue to implement the already existing recommendations from the WMS alongside the new measures recommended from the 2022 report.

Monitoring

The Silviculture Planner will provide updates as the watershed report recommendations are incorporated into the operation. No current target date for a subsequent watershed analysis.

Indicator 3.2.2: Water Features

Element: 3.2 Water Quality and Quantity *Conserve water resources by maintaining water quality and quantity.*				
Value	**Objective**	**Indicator**	**Target**	**Variance**
Water quality and quantity	Maintain or enhance water quality (clean water) and water quantity (identified riparian features are within natural variations)	Proportion of forest management activities, consistent with prescriptions to protect identified water features	100% of forest management activities are consistent with prescriptions; measured as zero non-conformances identified through the following EMS Inspections: • Road Construction/ Reconstruction/ Deactivation • Post-Harvest	None; Identified non-conformances are addressed through mitigative actions

History

New Core Indicator under CSA Z809-16.

Justification

Extensive research has been completed on the effects of forest management activities on water quality and quantity. Regulations, guidelines, and best management practices have been developed based on this research. LKSM's Harvest and Road Instructions documents are guided by these regulations, SOPs, and standards to minimize and mitigate impacts to water quality and quantity.

Assuming all instructions are followed, the impacts to water quality and quantity should be minimized. As such, the target is for 100% prescription implementation, measured as zero non-conformances through the EMS Inspection process.

NOTE: A non-conformance relates to the organization's Management System, including operating procedures, policies, standards or guidelines. A non-compliance relates to legal requirements, including acts, regulations, permits, and licenses.

Current Status & Interpretation

Target is met.

In 2024, 57 in-progress road inspections and 57 final road inspections were completed. There are no outstanding ITS action items from 2024 that require further action.

In 2024, 64 in-progress harvest inspections and 54 final harvest inspections were completed. There are no outstanding ITS action items from 2024 that require further action.

Additionally, 10 blocks were grass seeded in 2024 to help stabilize through vegetating cut & fill slopes adjacent to streams.

Year	Blocks Logged	ITS Items	Status
2024	61	Blk 10796: Complete a deactivation plan to reduce road stability concerns.	Completed June 21st, 2024
		Blk 10019 & 10043: Assess road system for potential deactivation plan.	Completed June 25th, 2024
		Blk K01520: Inspect spurs post winter to assess if additional work is required to control water.	Completed September 21st, 2024
		Blk 10530 & 10794: Assess road system for potential deactivation plan.	Completed October 31st, 2024
		Blk 29272: Create deactivation plan.	Completed August 30th, 2024
		Blk 20774 & 20775: Assess road system for additional maintenance/seasonal deactivation.	Completed September 5th, 2024
		Blk 21041: Re-install culvert in the correct location.	Completed April 18th, 2024
		Blk 40290: Missing culvert, install in correct location.	Completed May 31st, 2024
		Blk 11052: Remove debris pile from stream edge and logs from ditch line.	Complete August 23rd, 2024
		Blk 40525: Roadside machine clean a stream.	Completed May 18th, 2024
		Blk 40304: Hand clean a stream.	Completed May 13th, 2024
		Blk 21023: Grass seed a stream.	Completed June 26th, 2024
		Blk 40786: Heavily grass seed all new roads in the community watershed. Create seasonal deactivation plan.	Completed August 30th, 2024
		Blk 11056: Hand clean a stream.	Completed November 27th, 2024
		Blk 50259: Complete a deactivation plan.	Completed June 21st, 2024
		Blk 21547: Complete machine cleaning of a stream.	Completed September 20th, 2024

Strategies

Detailed block assessments are completed in advance of harvesting to address FRPA values, including water. These assessments include: terrain risk management, terrain stability, watershed management, rate of cut, windthrow, and riparian management.

Harvest and Road Instructions provide strategies for managing water quality and quantity. The instructions are largely based on acts and regulations and Western's Standard Operating Procedures and Standards. The Grass Seeding Standard and Rainfall Shutdown Standard help support the Environmental Management System in response to erosion and sediment transport. The WFP Grade and Falling/Yarding SOPs provide specific measures for managing water quantity and quality. There are special requirements for operating within community watersheds as well.

Implementation

LKSM completes extensive training with their supervisors and crews related to water quality and quantity. All supervisors complete EMS Level 2 and Spill Training. All crews complete EMS Level 1 and review all SOPs relevant to their jobs, including the Grade, Falling & Bucking, Yarding, and Loading SOPs. The crews are also provided with field cards with their relevant SOPs.

To ensure all acts, regulations, SOPs, and guidelines are followed, Mid Island carries out formal and informal inspections and assessments. They represent the primary means to monitor and measure features and/or conditions of operations that can have an adverse effect on the environment. They also represent a key means by which compliance with legal requirements is evaluated. Formal inspections and assessments are documented on forms, while informal ones may involve a diary notation.

The Issue Tracking System is the principal storage medium for tracking the results of formal inspections. Mid Island is responsible to ensure the information pertaining to internal inspections and to government agencies enforcement activities is tracked in ITS and is kept up to date.

Post-harvest activities like seasonal deactivation, trail rehabilitation and stream cleaning occur in conjunction with piling.

Forecast

This target should be met. All Road and Harvest Instructions are signed off by a forest professional and are peer-reviewed by one to two forest professionals depending on risk. As a result, it is unlikely that any prescriptions would be unsuitable for managing water quantity or quality.

Furthermore, crews are trained extensively on their SOPs and are expected to understand and follow the project instructions. If the instructions are not followed, the non-conformance should be identified and addressed during the many scheduled inspections (road inspection, in progress road inspection, harvest inspection, in progress harvest inspection, final cutblock inspection).

Monitoring

The Silviculture Planner reviews the EMS Action Plan reports for the year and queries the LRM database for completed grass seeding.

Indicator 4.1.1: Carbon

Element: 4.1.1 Carbon *Maintain the processes that take carbon from the atmosphere and store it in forest ecosystems.*				
Value	**Objective**	**Indicator**	**Target**	**Variance**
The uptake of carbon	The rate of carbon uptake by the managed forest is consistent over time.	Net carbon uptake	The net carbon uptake of the forest is positive, measured using a five - year average	None

History

New Core Indicator under CSA Z809-08. No change in Z809-16.

Justification

The net carbon uptake on the DFA is simply defined as the difference between the total carbon uptake on the DFA by its growing stock, minus the net carbon removed from the DFA through harvest operations and the total carbon emitted by fuel consumption or burning (operationally caused fires). The target is based on the concept that regeneration objectives should balance with the harvested area of the DFA, resulting in a 'constant' measure of net carbon uptake and confirmation that harvest levels are sustainable.

The five-year average for the target and the variance is meant to help account for fluctuation in yearly cut levels due to market conditions and license obligations under provincial legislation.

Current Status & Interpretation

Description	CO2e (tonnes)						Target Met	Variance Met
	2020	2021	2022	2023	2024	2020-2024		
Carbon uptake (from growing stock TFL 39/2)	664,923	659,827	652,661	638,706	655,626	**654,349**	Y	N/A
Carbon removed (to short-lived products[1])	-338,233	-366,921	-426,945	-492,043	-364,936	**-397,816**		
Fuel consumed (harvest & transport)	-11,651	-12,646	-10,988	-12,548	-13,199	**-12,206**		
Debris burned (debris disposal/ operational fires)	-38,481	-65,839	-80,481	-177,566	-98,082	**-98,082**		
Description	**2020**	**2021**	**2022**	**2023**	**2024**	**2020-2024**		
Net carbon Uptake	276,558	214,421	134,247	-43,452	179,409	**152,237**		

Target was met.

To calculate performance of this indicator, the following applies:

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

Net carbon uptake can be expressed using the following parameters:

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

Carbon uptake is estimated from forest growth and the carbon density of wood. Forest growth on the DFA is calculated through the harvest projection model by applying yield curves or growth estimates from the latest applicable timber supply analysis to the productive forest. For simplicity, no growth is assumed for "old-growth" age classes greater than 139 years of age. This estimated annual growth (in m3) is multiplied by the average carbon density estimates (kg/m3) by species to obtain the carbon uptake in tonnes of carbon.

A portion of the volume harvested remains sequestered in long-life products such as building lumber and furniture. A factor of the total volume is used to determine the carbon removed to short-lived products. An updated mill recovery factor was used in 2024 (46.8% vs 40% for sawlogs) meaning that less of the log is going to short-lived products (paper, cardboard, and firewood) and are staying in long-lived products.

The carbon removed is calculated based on the log volume production for each species. The annual log production (in m3) is multiplied by the average carbon density estimates (kg/m3) by species to obtain the gross carbon removed. This is then multiplied by a factor of 60% to estimate the tonnes of carbon removed to short-lived products. For simplicity, only stem-wood volume is considered in the calculation which is consistent with the results of yield curves.

The known fuel consumption is matched to the operational log production. When contractors independently purchase fuel, their consumption is assigned the average calculated rate (in L/m3) for the remaining of the operation’s log production to estimate the total amount of fuel they consumed. The sum of fuels consumed (in L) is then multiplied by the average carbon density by fuel types (in t/L) to obtain the tonnes of carbon emitted through fuel consumption. An updated fuel factor value was used in 2024 (14.23 vs 12.54 kgCO2e/m3) due to decreasing production with the same fuel consumption associated with more difficult topography and lower volume stands.

Finally, the carbon emitted through forest practices such as debris burning or through other operationally caused fires is estimated by multiplying the approximate volume of wood consumed (in m3) by the average carbon density estimates (kg/m3). An updated wood density value was used in 2024 (0.747 vs 0.840 tCO2e/m3) which resulted in an overall lower proportion of carbon stored in wood, therefore when estimating how much carbon is released from burning it was less.

Strategies & Implementation

The primary strategy for ensuring a consistent net carbon uptake on the DFA is prompt and effective reforestation or regeneration of harvested areas that aims to establish free growing stands of healthy trees of mixed species in sufficient numbers and within set time frames.

The foresters aim to create resilient forests that will be less susceptible to pests and diseases. This is primarily achieved through a combination of natural regeneration and the planting of seedlings shortly after harvest is completed.

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

- Physical protection of seedlings against browsing pressures form deer and/or elk.
- The use of improved seed for planted seedlings that have increased growth performance and/or insect or disease resistance.
- Brushing treatments to relieve young trees form competition
- Broadcast fertilization of stands to stimulate growth when funding is available.
- Forest fire preparedness & response that aim at the prevention of fires and the prompt control and extinguishment of those that occur.
- Where fire hazard is low, distribution of slash versus piling to reduce burning activities
- Modernizing or upgrading of equipment that results in improved fuel efficiencies

Forecasts

The results for the Mid Island DFA indicate that there is ample growing stock on the DFA to maintain a net positive carbon uptake, assuming normal harvest levels are maintained.

Monitoring

The Certification & EMS Manager coordinates the calculation of the Net Carbon Uptake with the Corporate Carbon Forester.

Several parameters need to be monitored or maintained for the DFA:

- Growing stock inventory over time;
- Volume harvested annually, species profile of the harvested volume;
- Age (i.e. old growth vs. 2nd growth) profile of the harvested volume;
- Annual fuel consumption (gasoline, diesel fuel, aircraft fuel) based on a factor applied to the annual harvest in M3 (see description of process below);
- Annual area burnt in operationally caused forest fires, annual area burnt in broadcast silviculture fires, total number of debris piles burned annually for silviculture or fire abatement reasons and their average size.

The parameters listed above are entered in a spreadsheet built to calculate the carbon values emitted. It includes conversion factors extracted from recognized and credible international research literature. These factors include carbon density (CO2e) of wood by species in tonnes/m3, carbon density of various fuel types in tonnes/L and proportion (%) of wood harvested that is stored in short-lived products. Fuel consumption is calculated based on a factor derived from an average of all 5 CSA DFA's from data gathered for the 2012 – 2016 reporting periods. The factor is applied to the annual M3 of harvest as reported for the CSA reporting period. This includes diesel, gasoline and avgas consumption. This factor will be reviewed and revised every 5 years to account for changes in harvest types, technology and equipment. The current factor is 16.67 kg of carbon per M3 of harvest. The rationale for using a factor is that fuel accounts for a relatively low portion of the carbon produced; already uses factors for contractors as they do not report fuel consumption; and has not seen significant fluctuations over the time it has been calculated (2009 – 2016).

Indicator 4.2.1: DFA Changes

Element 4.2 Forest Land Conversion *Protect forest lands from deforestation. Encourage afforestation where ecologically appropriate.*				
Value	**Objective**	**Indicator**	**Target**	**Variance**
The conversion of forest land to other uses	Avoid excessive conversion of forest lands into other uses	Deletions to the forest area	Forest area in the DFA converted to other uses is less than <0.01% of the DFA over a 5-year period	Some changes to the DFA are outside of the control of WFP

History

New Core Indicator under CSA Z809-08. Old Indicator 2.2.1b changed to 4.2.1 in 2014 to reflect the correct Element number.

This indicator appears as a duplicate in Z809-16 under both 2.1 and 4.2. It also appears under 2.1.3, but MIFLAG has assigned a different target under 2.1.3.

The target was updated at the March 15, 2018 MIFLAG meeting to allow a small amount (15ha over 5 years) of land conversions for operational developments (landfills, quarries, dryland sorts, etc).

Justification

The target is intended to represent additions and withdrawals from the DFA that are completed by the LP or by the government (e.g., land conversion for infrastructure such as dryland sorts). It captures conversions of forest lands to other uses. It is not intended to focus on spatial updates or tenure changes.

Current Status & Interpretation

Year	Total Area of the DFA (ha)	Area Converted to Other Uses over 5- year period	% DFA converted to other uses	Reason for Change	Target Met (Y/N)	Variance Met (Y/N)
2024	156,149	0	0.0%	N/A	Y	N/A
2023	156,149	0	0.0%	N/A	Y	N/A
2022	156,149	0	0.0%	N/A	Y	N/A
2021	156,149	0	0.0%	N/A	Y	N/A
2020	156,151	0	0.0%	N/A	Y	N/A

The target was met.

The 2-hectare discrepancy from 2020 is due to small TFL boundary revisions. No areas of the DFA were converted to other uses.

Strategies & Implementation

All Crown land in a tree farm license is designated as "Provincial Forest" land. This designation limits the ability of the company to convert the land to other uses. The *Land Act* establishes that land can be converted for easements or rights of way, or for other purposes if the Chief Forester deems those uses to be compatible with uses described in the *Forest and Range Practices Act (Provincial Forest Use Regulation).*

In general, the LP wants to maintain or increase the DFA through land or tenure purchases. However, some losses are required for capacity expansion (eg. landfill or dryland sorts). The DFA may also be changed due to government take back areas.

Forecasts

Since 2018 there has been a proposed 4.7ha wood waste site for the Kelsey Bay dryland sort. This area remains forested for now but will be converted when the adjacent wood waste site is filled, and the permit is granted for the new one. The target should still be met once it's developed.

No other land conversion is planned.

Monitoring

The Corporate Tenures Manager reports on the total area of the DFA and any tenure changes or transfers. Land conversion areas (landfills, dryland sorts, large quarries) under SUP are subtracted from the DFA shapefile area. The area converted to other uses over the previous 5 years is summed in the column "Area Converted to Other Uses in the DFA over a 5-year period".

Indicator 5.1.1: Benefits

Element: 5.1 Timber and Non-Timber Benefits *Manage the forest sustainably to produce a mix of timber and non-timber benefits. Support a diversity of timber and non-timber forest products and forest-based services.*				
Value	**Objective**	**Indicator**	**Target**	**Variance**
Timber and non-timber benefits	Timber and non-timber benefits are supported	Documentation of the diversity of timber and non-timber benefits, products and services in the DFA	Track annual spending in the following areas: contract services, LKSM crew labour, payments to government, purchases and misc. in relation to the annual harvest	None

History

New Core Indicator under CSA Z809-08 (carried forward from 2009 SFM Plan Indicator 28)
Minor revision to indicator in CSA Z809-16 (no material change).

Justification

The distribution of Mid Island Operation's primary costs provides a measure of the operation's overall contribution to local, regional and provincial economies. The target is based on previous SFM Plan Indicator 28.

The value of non-timber forest products is not tracked by LKSM. However, the annual number of agreements for non-timber forest products is reported in Indicator 5.1.2.

Current Status & Interpretation

Year	Volume Harvested (m^3)	Total Spending ($)	Local Spending & Wages ($)			Local Wood Sales ($)		Target Met (Y/N)
			Sayward	CR Area	Courtney/ Comox	Sayward	CR	
2024	1,011,348	99,105,299	2.7M (3%)	43.3M (44%)	3M (3%)	0.00M	0.2M	Y
2023	1,194,90,1	101,110,897	2.5M (2%)	54.8M (54%)	3.8M (4%)	0.03M	1M	Y
2022	940,864	103,639,638	2.5M (2%)	51.7M (50%)	4.2M (4%)	0.02M	2.4M	Y
2021	821,369	76,384,294	2.3M (3%)	30.4M (40%)	3.7M (5%)	0.06M	2.4M	Y
2020	852,353	68,005,816	2.4M (3%)	30.8M (46%)	3.3M (6%)	0.04M	1M	Y

Target met. The spending breakdown was: 57.3% contract services, 12% miscellaneous, 15.3% own crew labour, 12.1% purchasing, and 3.3% payments to government.

Strategies & Implementation

Information from the financial accounting system is collected monthly to report on the operation's primary costs to produce logs at tidewater.

Contract Services covers payments to full phase (stump to dump) logging contractors, single phase contractors, forestry and engineering contractors, general service contractors such as janitorial, electrical, and carpenters, etc. as well as consultants and professional services. These costs include the supply of labour, equipment and materials costs required to execute the contract work and invoiced as one "job".

Own crew labour includes the gross payment of wages paid to both salary and hourly employees without deduction for statutory or contractual deductions. It includes all benefits costs paid by the employer for statutory and contractual benefits including WorkSafe BC Assessments. Payments made to cover employees under the Employee and Family Assistance Program (EFAP) and costs related to EFAP programs are not included.

Payments to Government include only direct payments for stumpage and royalty fees, logging waste residue payments, timber taxes and fees allocated by Head Office properties department (municipal and regional district property taxes, foreshore leases, etc.), and amounts charged to licenses (e.g. radio licenses, highway crossing permits, etc.). Payments made to government do not include: Goods and Services Taxes, provincial sales taxes, provincial motor fuel taxes, federal excise taxes, payroll related taxes (employee income tax with holdings) and assessments for EI or CPP, corporate income taxes, or corporate capital taxes, etc.

Purchasing includes all supplies, materials and services purchased that don't fit into a category listed above. Some of the services in this category would include insurance coverage, road use charges, association dues, donations and repair supplies and services.

Miscellaneous is a category that includes any costs not captured in other categories. It includes but is not limited to nor reconciles to the following: depletion on timber, road amortization, silviculture liability change, inventory change/allocations, depreciation and machine cost allocations.

Forecasts

LKSM will continue to report out on spending.

Monitoring

Spending is reported in Mid Island's financial statement and during each financial month end. The Silviculture Planner coordinates reporting with our Operations Administrator & Division Controller.

Indicator 5.1.2: Open & Respectful Communication

Element: 5.1 Timber and Non-Timber Benefits *Manage the forest sustainably to produce a mix of timber and non-timber benefits. Support a diversity of timber and non-timber forest products and forest-based services*				
Value	**Objective**	**Indicator**	**Target**	**Variance**
Timber and non-timber benefits	Timber and non-timber benefits are supported.	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.	i) Report out on number of agreements in place for alternate uses (e.g., minor forest products, firewood, lesser vegetation, road use agreements, boughs, Sayward Futures Society etc.)	i) None
			ii) All communications with forest dependent businesses, forest users and local communities, related to integrating non-timber forest uses into forest management planning are recorded and reported out annually and, where disagreement occurs, all efforts of conflict resolution are documented.	ii) None

History

New core Indicator under CSA Z809-16. Target ii) was added. Indicator target i) updated during the May 15th, 2025 MIFLAG meeting to remove the 100 agreement value with a 10 agreement variance to now just be a report out on the number of agreements per year.

Justification

Social and ecological benefits need to be considered during the development of forest management plans. Possible uses and benefits to consider include

- Outdoor activities;
- Timber and forest cover;
- Hunting, fishing, and trapping activities;
- Ecotourism;
- Cultural and heritage resources
- Ecological goods and services, and
- Other non-timber forest products

Target i) reflects MIFLAG's desire for diversity in the local economy. It focuses on areas not already covered by other elements, indicators, or targets. The indicator relates to non-timber products and support for other forestry-dependent businesses.

CSA Z809-16 considers open and respectful communication with forest dependent businesses, forest users, and local communities to be evidence of genuine support for other social and ecological benefits within the DFA. Target ii) requires communication related to integrating non-timber forest uses into forest management planning to be summarized for MIFLAG review. If there are disagreements, all conflict resolution efforts will be documented.

Current Status & Interpretation

i) Agreements

Year	Agreements	Target Met (Y/N)	Variance Met (Y/N)
2024	Commercial/ Private Firewood- 78 Road use agreements: 3 Boughs- 3	Y Total: 84	N/A
2023	Commercial/ Private Firewood- 108 Boughs- 2 Lesser Vegetation- 2	Y Total: 112	N/A
2022	Commercial/ Private Firewood- 110 Lesser Vegetation- 2	Y Total: 112	N/A
2021	Commercial/ Private Firewood- 91 Lesser Vegetation- 1	N Total: 92	Y
2020	Commercial/ Private Firewood- 144 Boughs- 4 Lesser Vegetation- 1	Y Total: 149	N/A

The target.

Historically, firewood permits have made up the largest number of alternate use agreements. Firewood cutting is typically focused in low elevation, mild terrain, with easy access and proximity to mainlines and Sayward. The decline in permits issued could have many potential reasons, such as declining interest and use of wood for heat, but may also be connected to the locations of cutblocks, which have progressively become farther away from town and along challenging road systems bounded with steep terrain.

In addition to providing permits, LKSM supports other forest users and non-timber benefits. For example, Mid Island supports local apiarists. Mid Island provides maps, road updates, and site recommendations to several commercial beekeepers each year.

LKSM's resource road infrastructure also provides access to BC's backcountry, creating opportunities for recreation, tourism, and commercial harvesting of wild edible mushrooms,

salal, or boughs. It also makes Mid Island an attractive hunting destination. MIFO rarely deactivates or blocks roads and has no locked gates.

Mid Island has the highest concentration of Roosevelt elk in British Columbia. On Vancouver Island, more than 15,000 applications are submitted annually by resident hunters for approximately 200 hunting opportunities. According to the 2021-2022 British Columbia Limited Entry Hunting Regulations Synopsis, the following zones overlap with Mid Island: 1-10 A, B, C, D, G, and H. Based on Koontz and Loomis (2005), resident and non-resident elk hunters spend $440 and $1,800 respectively per trip in local communities. This spending does not include direct license revenue, guide outfitter fees, indirect economic benefits, or regional impacts.

ii) Communication Tracker

All communications related to the integration of non-traditional timber forest uses into forest management planning were recorded in the "MIFO 2024 External Communication Ledger." The communications related to this indicator are summarized below.

Interest group	Issue Raised	Action	Status
Kusam Climb Running Event	Wanting to align vision for Stowe Creek area between Ministry, Proponent, and LKSM	TFL Forester provided a summary of commitments to the District Recreation Officer. Continued participation and support of event from LKSM staff.	Ongoing
Member of public	Reported a trailer camp setup in the woods that may be within the TFL	Not located in the TFL, however, information passed along to appropriate organizations.	Resolved
Member of public	Reports of horses loose along Salmon River Mainline	Resident with known horses in the area contacted.	Resolved
Member of public	Reports of boards with nails along Salmon River Mainline	Associated with nearby renovations and were promptly cleaned up.	Resolved
Member of public	Property owner reported a leaning tree over his property.	Identified as Mosaic tenure, contact information forwarded.	Resolved
Member of public	Property owner complained about dust levels on White River mainline.	New dust control application completed later that same month.	Resolved
Member of public	Local hunter concerned about Elk habitat in the Stowe Creek area being impacted by logging plans.	Hunter has a meeting with the TFL Forester to discuss concerns and provided supporting information from the Ministry of Environment Biologist re: potential impact.	Resolved

Member of public	Local hunter looking for access information in Memekay for an upcoming Elk hunt.	TFL Forester provided necessary information and safety advice.	Resolved
Village of Sayward	Concerns regarding operations in the community watershed.	TFL Forester and Operations Manager attended the January 7th council meeting to present on operations the community watershed.	Ongoing
Member of public	Local mushroom forager looking for information re: the Newcastle ridge fire.	Map and fire report shape provided.	Resolved
Member of public	Local recreationist looking for access information in the Memekay East area.	Map provided with locations of planned deactivation.	Resolved
Sasamans Society	FN activity coordinator looking for access to a block with appropriately aged Red Cedar for bark stripping.	Maps and access information provided.	Resolved
North Island Amateur Radio Society	Notification of planned event up to Newcastle Ridge radio repeater.	Notified Production and advised on safest routes/access.	Resolved
North Island College	Notification of planned field trip to Candlestick Cave.	Discussed activity in area and correct radio stations to monitor/communicate on.	Resolved
Apiarist	Looking to put hives in the Canyon Mainline area.	No issues and just general safety advice shared.	Resolved
Canadian Forces/SAR	Notification of training activities planned in Sutton Peak Area	Active operations and concerns in the area shared and coordinated without issue.	Resolved

Strategies & Implementation

LKSM engages in many activities that support/ strengthen the local economy and foster a cooperative relationship with the community and local business owners. This includes agreements for firewood, boughs, salal, etc.

All communication regarding the integration of non-timber forest uses into the forest management planning will be documented, saved, and reported out annually. Any conflicts that arise and the efforts to resolve these conflicts will be chronicled by the Area Planner.

Forecasts

LKSM maintains a long history of cooperation with local business owners, forest users, and the local communities. It is anticipated that LKSM will continue to provide agreements for minor products and non-timber forest products, and good road access to support hunters, foragers, fishermen, campers, etc.

All Planners will continue using the External Communication Ledger.

Monitoring

The Silviculture Planner reviews the central file and reports on the number of agreements in place for alternate uses.

The Silviculture Planner will summarize all communications with forest dependent businesses, forest users, and local communities regarding the integration of non-timber forest uses into forest management planning. The Silviculture Planner will provide a record of all efforts of conflict resolution if disagreements occur.

Indicator 5.2.1: LKSM Support

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.*				
Value	**Objective**	**Indicator**	**Target**	**Variance**
Community sustainability	Support community stability	Level of participation and support in initiatives that contribute to community sustainability	List number of organizations supported	None

History

New Core Indicator under CSA Z809-08 (related to 2009 SFM Plan Indicator 37). Minor revision to indicator in CSA Z809-16 (no material change).

At the March 15, 2018 MIFLAG meeting, the target was altered to protect confidential information. The number of organizations will be reported in this report, and the actual organizations will be reported out orally during the annual MIFLAG indicator review meeting.

Justification

This indicator reflects WFP's donations to support community sustainability. The indicator was revised in 2018 to exclude program and student support, already covered in the Public Outreach and Communication Indicator.

Benefits from the forests to local communities can also be tracked under Criterion 5, 6, and 7.

Current Status & Interpretation

Year	Organizations	Target Met (Y/N)
2024	6 Campbell River organizations 3 Sayward organization	Y
2023	11 Campbell River organizations 4 Sayward organization	Y
2022	6 Campbell River organizations 1 Sayward organization	Y
2021	3 Campbell River organizations 1 Comox organization	Y
2020	5 Campbell River organizations 3 Sayward organizations 1 Cape Mudge organization	Y

Target met.

First Nation log donations are tracked under 'Indicator 7.2.A First Nation Donations'. Additional donations made to educational services are tracked under 'Indicator 6.1.B Outreach & Education'.

Strategies & Implementation

LKSM & WFP selects community projects that will impact the greatest number of individuals possible.

LKSM & WFP donates to non-profits that align with their Community Investment Objectives which:

- Focus on healthy living, culture, or forestry education in local communities
- Promote the sustainable use of wood building materials
- Enhance public-use of the working forest promote understanding of forest management

Forecasts

It is anticipated that LKSM & WFP will continue to support local non-profits based on historical performance. The level of donations will vary through time depending on the health of the forest industry.

Monitoring

The Corporate Communications & Engagement Specialist provides a summary of organizations contributed to by Operation.

Indicator 5.2.2: Training

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.*				
Value	**Objective**	**Indicator**	**Target**	**Variance**
Employee skills	Develop employee skills	Level of participation and support in training and skills development	Employee receives at least 1 day of training per year (based on an average)	None

History

New Core Indicator under CSA Z809-08. Minor revision in CSA Z809-16 (no material change).

Justification

Training and skills development are important for both the employees and organization. For the individual, training can increase motivation, engagement, productivity and competency. It creates opportunities for career development and helps improve safety. For the employer, training reduces employee turnover, increases profits, and deepens the talent pool. LKSM ensures that its personnel are qualified with appropriate training and/or work experience and have opportunities to gain new knowledge.

Current Status & Interpretation

Year	# of Employees	Average Person Days of Training	Target Met (Y/N)
2024	130	2.1	Y
2023	138	1.3	Y
2022	135	2.0	Y
2021	132	3.9	Y
2020	140	2.5	Y

Target met.

Training	Hours
Annual Startup (EMS & Safety)	390
Western Learning	175
RFT/RPF/CPA Continuing Professional Development	267
First Aid Training (Basic, Intermediate, Adv, Transport)	600
A&D Level 2	16.5
AED Training	8.5
Ambrosia Beetle Training	6.5

Apprenticeship Training	160
EMS Level 2	20
Rocks in Logs Awareness Training	6.5
S100A Training	64
Blasting – Continuing Education	12
Blasting – Emergency Response Testing/Training	24
Confined Space Training	112
Forklift Certification	64
Professional Development – Supervisory Training	14
Small Non-Pleasure Domestic Vessel Basic Safety	24
Spill Response Training	22.5
Fall Arrest Rescue Training / Drill	8
Resource Road Driver Training	32
Man Overboard Training / Drill	2
Cab Cutting Training / Drill	16.5
Big Tree Standard & Reserve Alteration Training	7
Species At Risk Training	7
Herring Spawn Training	3

Strategies & Implementation

This target is intended to measure the average number of person days of completed training per year in the category of safety, environment and professional development.

LKSM provides numerous training and skill development opportunities for employees and contractors under the existing Environmental Management System, Safety System and the Sustainable Forest Management Plan. In addition, there are certain training courses that are legally required such as Transportation of Dangerous Goods, Blasting, Crew Boat Operator, Fork Lift Operator, First Aid, etc.

Forest professionals and accountants must undertake professional development activities to maintain competency in their areas of practice. LKSM provides opportunities to meet these requirements throughout the year.

Forest professionals are only allowed to practice in professional forestry fields where training and ability have made them professionally competent. If job-related knowledge is lacking, the forest professional must acquire it through reading, training, and consulting with peers and specialists, etc. Forest professionals must log and report a minimum of 30 hours of continuing professional development per year.

Accountants also have professional training requirements. Registered accountants are required to report 120 hours of training over a 3-year cycle, with a minimum of 20 hours per year. 60 hours need to be verifiable, including 4 hours of professional ethics training, and 60 hours can be non-verifiable.

Forecasts

It is expected that the average training days will remain stable.

Monitoring

There have been technical challenges with the training database since 2016. It no longer has accurate training records with hours for each employee. Until a new tracking system is rolled out, some assumptions had to be made to calculate this indicator. The Silviculture Planner requests a summary table from our Operations Administrator and also calculates the RPF/RFT/CPA continuing professional development hours.

Indicator 5.2.3: Employment

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 ec*				
Value	**Objective**	**Indicator**	**Target**	**Variance**
Employment	Provide employment	Level of direct and indirect employment	Actual direct and indirect employment is greater than or equal to (0.0005 jobs*volume harvested), measured annually	-10% employment

History

New Core Indicator under CSA Z809-08. No changes in Z809-16. The target was updated for 2019 to better reflect direct and indirect employment as a function of volume harvested.

Justification

Both communities are considered forestry dependent and rely on stable employment in the forest industry. This indicator provides a measure of LKSM's ability to generate employment from the DFA over the long term. For direct employment, it includes staff, union, and contract jobs for the Mid Island Forest Operation-Timberlands, including harvesting/falling, planning and administration, log hauling and trucking, road building, silviculture and other miscellaneous jobs. For indirect employment, it includes suppliers of goods and services to the forest industry.

Approximately 5.8% of the workforce in Campbell River is tied to the forest sector, compared to 3.3% for all of Vancouver Island, or 3.5% for the Okanagan. Forestry on a local and regional level is experiencing challenges associated with declining annual allowable cuts, trade uncertainties, and a lack of investment opportunities which all contribute to job losses and uncertainty for forestry dependent communities. Provincial Labour Market data shows that within the forest sector in the coming years there will be ~3,000 new openings and ~14,400 jobs associated with replacement of retiring and exiting workers.

The target is now tied to billable volume harvested plus waste to account for the decreasing AAC. The target of 0.0005 direct and indirect jobs/m3 was selected based on a 2013-2018 Mid Island baseline. The coefficients ranged from 0.00051 to 0.00073 jobs/m3. The target was based off the lowest rate to allow for inevitable productivity gains with technological advancements. The variance allows 10% less actual jobs than calculated with the coefficient to account for economic downturns.

Current Status & Interpretation

Year	TFL64	A94386	TOTAL	Exposure Hours (Direct-LKSM & Contract)	Indirect Exposure Hours	Actual Jobs (direct + indirect)	Required Jobs	Target Met (Y/N)	Variance Met (Y/N)
2024	1,011,348	*	1,011,348	585,970	410,179	692	506	Y	N/A
2023	1,194,901	*	1,194,901	580,575	406,402	685	597	Y	N/A
2022	940,864	*	940,864	592,902	415,031	700	470	Y	N/A
2021	821,369	*	821,369	512,371	358,660	605	411	Y	N/A
2020	852,353	127,492	979,845	497,916	348,547	588	489	Y	N/A

The target is met.

Reported direct exposure hours= 585,970

Indirect exposure hours= 585,970* 0.70 = 410,179

Combined hours= 996,149

Direct/ Indirect jobs= 996,149/ 1440 = 692

Strategies & Implementation

Employment is largely linked to harvest level. Western's strategy involves setting operational levels that align with market demand, while remaining within AAC cut control limits. Target i) of 2.1.4 Harvest Level provides incentive for maintaining stable harvest levels throughout the cut control period.
Employment is also guided by contractual agreements between the union and contractors under Bill 13.

Forecasts

There are various factors that influence timber harvesting employment coefficients over time. The percentage of timber that is harvested through conventional methods vs helicopter logging affects the types of timber harvesting jobs and may affect the number of jobs involved.

The percentage of old growth vs second growth timber affects the total number of jobs per 1000m3. Second growth timber is typically more uniform in size and located on flatter terrain, which results in more labour efficient harvesting methods. For example, most of the falling is done by feller buncher with little hand falling, and yarding is largely completed with hoe chucking rather than grapple yarding.

The baseline was set using direct employment data from 2013-2018. There were heli programs for 2 years; otherwise, all volume was logged through conventional methods. The proportion of second growth logging from 2013-2017 was higher than the 20-year plan or harvest profile.

Monitoring

The Planning Administrator reports the exposure hours for the Mid Island Forest Operation using the data collected for WFP's Safety Program (Medical Incident Rate and Severity Rate). The PricewaterhouseCoopers' employment multiplier of 0.7 is used to calculate the indirect employment (PwC, 2017). The combined direct and indirect exposure hours are divided by 1440 hours (180 days*8 hours) to determine total full-time equivalent employment (FTE). This is compared to the estimated employment level using Mid Island's employment coefficient of 0.0005 jobs/m3 (set using a 2013-2018 baseline) and total billed volume harvested and waste. The volume levels are reported by corporate forestry and reflect all volume logged by the Mid Island Forest Operation, including partnerships or wood purchases.

The indicator is considered met if the actual employment level meets or exceeds the calculated level. The variance allows 10% less jobs than calculated.

Indicator 5.2.A: Recreation Trails & Sites

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.*				
Value	**Objective**	**Indicator**	**Target**	**Variance**
Economic development in local communities through tourism in the DFA	Protection of defined recreation trails and sites in the DFA	All GAR recreation features and the following defined sites/trails are not damaged or rendered ineffective: 1)Spirit Lake Recreation Site 2)Mount Kitchener trail	All GAR or defined sites/trails are not damaged or rendered ineffective as a result of harvesting or road construction	None

History

This indicator was developed by the MIFLAG in 2014. Previously, MIFLAG included important recreation areas as part of Indicator 1.4.1 Sites of Significance. MIFLAG wanted to manage and protect additional recreation sites and trails and decided to create a separate recreation indicator. A sub-committee was formed to develop this indicator and target.

In 2018, the indicator was revised to include all GAR recreation sites and trails on the land base, instead of a limited list. Based on LKSM's recreation database, only 2 features are not covered under GAR: the Spirit Lake Recreation Site and Mount Kitchener trail. These features will also be covered under the indicator.

Justification

Recreation sites and trails play an important role in the domestic tourism sector by providing economic opportunities for rural communities. BC's trails and recreation sites provide safe and enjoyable public recreation opportunities for local citizens and visitors and promote an active lifestyle for a healthier population.

Recreation resource features within the Campbell River Forest District were identified pursuant to s. 5 of the Government Actions Regulations on April 12, 2006. The horse trail and associated sites were also captured in a recent recreation review under GAR. As per FPPR s. 70, forest activities may not damage or render these identified recreation resource features ineffective. Two recreation features (1 site, 1 trail) were not captured in the 2006 Campbell River Forest District Recreation Resource Features Locator maps. These features were defined in the indicator and must also meet the target.

Current Status & Interpretation

Year	# of Operations Conducted in Vicinity	Recreation Site ID	# of Sites Managed/ Protected	Target Met (Y/N)
2024	1	Memekay Lakes Polygon (Proposed - GAR)	0	Y
	3	Rooney Lake Polygon (GAR)	0	Y
	3	White River Polygon (GAR)	1	Y
	1	White River Caves (non-GAR)	1	Y
2023	3	Memekay Lake Polygon (GAR)	1	Y
	1	Memekay East Polygon (GAR)	0	Y
	2	White River Polygon (GAR)	1	Y
	1	Mt. Kitchener Hiking Trail (non-GAR)	1	Y
	1	Nita Lake Polygon (GAR)	1	Y
	2	Keta Lake Polygon (GAR)	1	Y
	1	Rooney Lake/Kim Creek Polygon (GAR)	1	Y
	1	Newcastle Ridge Polygon (GAR)	0	Y
	2	Cynthia/Zottan Lakes Polygon (GAR)	1	Y
2022	2	Victoria Peak Rec Polygon (GAR)	1	Y
	1	Memekay Lakes Rec Polygon (GAR)	1	Y
	4	White River Rec Polygon (GAR)	2	Y
	2	Canon Falls Creek Rec Polygon (GAR)	1	Y
2021	1	Pine Marten Horse Camp (GAR)	1	Y
	1	Salmon Brewster Trail (GAR)	1	Y
	1	Santa Maria Lake Trail (GAR)	1	Y
	1	Sgt. Randally (GAR)	1	Y
	1	Rooney Lake (GAR)	1	Y
2020	1	Spirit Lake Rec Site	1	Y

The target was met.

Strategies and Implementation

"protection of defined recreation trails and sites" is defined as follows:

- For the Salmon-Brewster Horse Trail:
  - That LKSM will follow the "Management Principles for the Salmon-Brewster Equine Trail and Campsites" dated Oct 20, 2011 (updated November 13, 2012) by MoF.

LKSM will follow the legal Order and Objectives, and the management intent and expectations of the Order

For other features: LKSM will keep the sites and trails open and accessible, except for temporary closures due to logging activity.

Forecasts

To ensure the safety of the public, there may be temporary closures of recreation sites or trails. LKSM will work with the applicable groups to ensure communication is maintained and impacts are minimized or mitigated. In some cases, trails may be required to be re-located (consistent with the Management Plan provisions).

Due to the change in wording of the indicator to include all GAR recreation features and the additional defined recreation sites and trails, there may be more reportable blocks in the future.

Monitoring

All GAR recreation features and the defined site/trails from the indicator target are buffered by 100m in ArcGIS. All blocks with harvest completion for the year of the report that overlap with the feature or buffer zone are identified. The management strategies in the recreation assessment are reviewed with recreation technicians from the Ministry of Forests. All prescriptions are included within the block's Harvest and Road Instructions and followed through with a Final Cutblock Inspection and Harvest Completion Plan to ensure the management prescription was maintained.

Indicator 6.1.1: MIFLAG Satisfaction Survey

Element: 6.1 Fair and Effective Decision Making *Demonstrate that the SFM public participation process is designed and functioning to the satisfaction of the participants and that there is general public awareness of the process and its progress.*				
Value	**Objective**	**Indicator**	**Target**	**Variance**
Stakeholder/First Nations participation satisfaction	CSA public participation at this table is responsive, communicative and representative of stakeholder and First Nations' values.	Level of participant satisfaction with the public participation process	MIFLAG completes an annual Satisfaction Survey; overall satisfaction score is ≥80%; discuss results within 2 meetings and propose action items to improve (where applicable)	None

History

New Core Indicator under CSA Z809-08 (relates to old Indicator 34). The target was revised in April 2015 after much discussion with the MIFLAG group. The previous version "80% of 80%" was confusing to some. The new target is straightforward and includes other key components such as a prompt review of the issues and concerns.

This indicator was moved from Element 6.4 (previously Indicator 6.4.1) to 6.1 under CSA Z809-16.

Justification

Participant processes work best when participants are satisfied with how the process is running. Therefore, process facilitators need to know how participants are feeling about the means and protocols of engagement. A quantitative survey can be a gauge of participant satisfaction.

MIFLAG has determined that an overall score of ≥80% represents achievement of satisfaction.

Current Status & Interpretation

Year	Satisfaction Survey Completed (Y/N)	Level of Satisfaction	Target Met (Y/N)
2024	Yes	Survey completed by 9 members with 100% satisfaction. The results were reviewed at the March 2025 meeting.	Y
2023	Yes	Survey completed by 8 members with 100% satisfaction. The results were reviewed at the March 2024 meeting.	Y
2022	Yes	Survey completed by 5 members with 100% satisfaction. The results were reviewed at the January 2023 meeting.	Y

Year	Satisfaction Survey Completed (Y/N)	Level of Satisfaction	Target Met (Y/N)
2021	Yes	Survey completed by 5 members with 97% satisfaction. The results were reviewed at the January 2022 meeting.	Y
2020	Yes	Survey completed by 9 members with 100% satisfaction. The results will be reviewed at the May 2021 meeting.	Y

The target was met.

Nine surveys were completed with all responses to all questions being 'Somewhat Satisfied' or better. There were no 'Not Satisfied' responses.

Feedback was positive and highlighted the variety, quality, and informative nature of the many presenters and topics covered. The remote attendance option was appreciated, and it was noted that questions were answered in a timely manner outside of meetings and that overall meetings were well organized.

It was recommended that MIFLAG be included in company press releases and communications in order to be better abreast of the business governance of the company.

Strategies & Implementation

Feedback from MIFLAG is provided throughout regular meetings and field trips. This helps ensure the target is met (ie. issues are addressed as they occur).

A satisfaction survey is completed with the MIFLAG on an annual basis. The objective of the survey is to seek official feedback from MIFLAG members on their general satisfaction with the process and to identify areas for improvement. In response to the survey, an action plan is created to address concerns.

Forecasts

LKSM will continue to work to address the concerns of MIFLAG in constructive, inclusive ways, while also improving attendance and active participation. It continues to be important to rebuild relationships after the 8-month USW strike, the Covid-19 pandemic, and generally increasingly negative public sentiment towards forestry.

Monitoring

A rating of 'Not Satisfied' is scored as 0 and any rating of 'Somewhat Satisfied' or better is scored as 1.

These scores are then averaged to provide an overall survey score of % satisfied.

Indicator 6.1.2: MIFLAG Meetings

Element: 6.1 Fair and Effective Decision Making *Demonstrate that the SFM public participation process is designed and functioning to the satisfaction of the participants and that there is general public awareness of the process and its progress.*				
Value	**Objective**	**Indicator**	**Target**	**Variance**
Public participation capacity	Develop/improve public participation capacity over time	Evidence of efforts to promote capacity development and meaningful participation in general	MIFLAG - schedule and arrange the opportunity for members to attend 1 field trip and 2 presentations each calendar year	Meetings may be suspended due to Public Health Orders and/or infectious diseases such as COVID-19

History

New Core Indicator under CSA Z809-08.

Under CSA Z809-16, this indicator has been moved from Element 6.4 into 6.1 (previously Indicator 6.4.2).

During the March 15, 2018 MIFLAG meeting, the target was reduced from 2 field trips down to 1 field trip due to lack of MIFLAG attendance. However, whenever desired by the MIFLAG, a second field trip will be scheduled.

Due to COVID-19 field trips for 2020 and 2021 were cancelled and all meetings were held remotely via Microsoft Teams.

During the November 20, 2021 MIFLAG meeting, the group approved adopting a variance that allowed for suspension of individual MIFLAG meetings due to public health orders and/or infectious diseases such as COVID-19.

Justification

Within the Advisory Committee process, presentations from outside experts are a key component for advancing knowledge and capacity of participants, and to facilitate educated evaluations and decisions regarding forest resource management issues. Field trips provide opportunities to better understand the issues discussed during the meetings. The target amounts were deemed to promote capacity development.

Current Status & Interpretation

Year	Field Trips/ Presentations	#	Target Met (Y/N)	Variance
2024	**Field Trips:** Steep Slope Harvester, Log Processor, Grapple Yarder, and Wood Waste Site visit	1	Y	N/A
	Presentations: Jan – Climate Change & Coastal Research with Jason H. & Tethered Equipment with Jon Flintoft March – Carbon Annual Report with Marie-Eve LeClerc & SFMP/ToR review with Shawn Crawford May – FOM Requirements with Steve Check & CSA Indicators with Shawn Crawford Sept – PEFC Updates with Will Sloan & CSA Indicators with Shawn Crawford Nov – Ecological Integrity & Elk Habitat with Stuart Glen, John Deal, Del M.	5		
2023	**Field Trips:** Grapple Yarding, High Mountain Road Design, Newcastle Ridge Fire	1	Y	N/A
	Presentations: Jan – Intro to LiDAR with Steve Platt & FN Info Sharing with Kindry Mercer. March – VI Black Bears with Helen Davis & AAC Cut Control with Mike Davis May – Cutblock Layout with Brendan Forge & SFMP with Shawn Crawford Sept – Climate Based Seed Transfer with Annette V. Niejenhuis & CSA Indicators with Shawn Crawford Nov – IRMP Update with Stuart Glen & Heidi Kalmakoff	5		
2022	**Field Trips:** Grapple Yarding, Large Cultural Cedar, and Community Watershed blocks.	1	Y	N/A
	Presentations: Jan – Old Growth Deferrals with Stuart Glen & Carbon Indicator with Marie-Eve Leclerc March – Mid Island FSP with Bruce Vinnedge & Large Cultural Cedar with Kat Robazza May – Saanich Tree Nursery with Paul Kutz & CSA Indicators with Ryan Greencorn Sept – IRMP with Heidi Kalmakoff/Stuart Glen & CSA Indicators with Shawn Nov – EMS Monitoring Program with Colby Mahood & Changes to CSA-Z809 with Will Sloan	5		
2021	**Field Trips:** No field trips in first half of 2021 due to COVID-19 concerns. September 9th – Karst Field trip cancelled due to low interest	0	N	Y
	Presentations: Jan - WFP's new Reforestation Prescription Standard with Taisa Brown May – Annual SFMP Indicator Report Review with Sarah Germain Sep - WFP's Monitoring Program & CSA Audit Results presentation Oct – All PAG Virtual Meeting Nov – WFP Water Program presentation with Steve Check	5		

Year	Field Trips/ Presentations	#	Target Met (Y/N)	Variance
2020	**Field Trips:** No field trips in 2020 due to COVID-19	0	Y	N/A
	Presentations: Jan – Old Growth Management with John Deal and Stuart Glen June – Draft MIFO PMP 2020-2025 with Taisa Brown Sept – The State of BC's Forests: A Global Comparison with Dr. John Innes Oct – Climate Change, Wildfires, Carbon Modelling with Ben Boghean, Annette Van Niejenhuis, and Marie-Eve Leclerc Nov – Provincial OG Update, Big Tree Retention Standards, C2 & C5 with John Deal	5		

The target was met.

Strategies & Implementation

Ideas for field trips and presentations are tracked during meetings in a MIFLAG action tracker. The list is reviewed often and utilized when developing the annual meeting plan.

Forecasts

Regular meetings and at minimum one field trip is planned for 2025.

Monitoring

The meeting minutes are reviewed for educational opportunities provided to the MIFLAG.

Indicator 6.1.3: MIFLAG Website

Element: 6.1 Fair and Effective Decision Making *Demonstrate that the SFM public participation process is designed and functioning to the satisfaction of the participants and that there is general public awareness of the process and its progress.*				
Value	**Objective**	**Indicator**	**Target**	**Variance**
Relevant information	Relevant information is provided	Availability of summary information on issues of concern to the public	Current SFM Plan, a map of the DFA, and the most recent 3 years of Indicator Reports are available on the website.	None

History

New Core Indicator under CSA Z809-08.

Under CSA Z809-16, this indicator moved from Element 6.5 into 6.1 (Previously Indicator 6.5.2). Indicator target was updated to remove the requirement of posting meeting minutes online following a vote during the March 27th, 2025 MIFLAG meeting.

Justification

The MIFLAG website has been recognized as a transparent means of communicating issues to the public and their resolution. It can help provide public awareness of the process and its progress.

Current Status & Interpretation

Year	SFM Plan Version Posted	Target Met (Y/N)
2024	Version 6.1 (April 2024); 2023 Indicator Results	Y
2023	Version 6.1 (January 2023); 2022 Indicator Results	Y
2022	Version 6.0 (January 2022); 2021 Indicator Results	Y
2021	Version 5.0 (January 2017); 2020 Indicator Results.	Y
2020	Version 5.0 (January 2017); 2019 Indicator Results.	Y

The target is met.

Strategies & Implementation

General concerns of the MIFLAG are addressed through indicator development, MIFLAG meeting discussions, workshops, presentations etc. The MIFLAG website was revamped and changed URL to https://www.westernforest.com/public-advisory-groups/ in Spring 2024.

Forecasts

It is anticipated that the target will be achieved based on consistent historical performance (since 1999).

Monitoring

The Silviculture Planner submits an updated SFM Plan and the associated Annual Indicator Report (Appendix 1) to the WFP Corporate Content & Media Manager for upload to the website once the documents have been reviewed by MIFLAG and LKSM.

Indicator 6.1.A: MIFLAG Representation

Element: 6.1 Fair and Effective Decision Making *Demonstrate that the SFM public participation process is designed and functioning to the satisfaction of the participants and that there is general public awareness of the process and its progress.*				
Value	**Objective**	**Indicator**	**Target**	**Variance**
Diverse representation on PAG	A diversity of sectors are represented in the PAG	Report on the list of active members and their sectors	N/A	N/A

History

This Indicator is a MIFLAG Indicator, carried forward from the 2009 SFM Plan, Indicator 31 (not a core indicator).

It is carried forward from the 2016 SFM Plan and has moved from Element 6.4 to 6.1 consistent with the new standard structure (previously indicator 6.4.A)

Basis for the Target

This indicator tracks the active participants of the Mid Island Forest Lands Advisory Group. It provides an indication of the level of diversity in meaningful input from the local community into SFM planning on the DFA.

Current Status & Interpretation

Representation
Sayward Fish and Game
Member at Large (Campbell River)
Village of Sayward
Recreation User (4WD Association)
Recreation User (ATV Club)
MoE (Recreation, Sites & Trails)
Employee Services Representative
Education Representative
Small Contractor Representative
Seniors Representative
CR Chamber of Commerce
Tree Nursery Representative

Target is met.

Strategies & Implementation

Participation in MIFLAG is open to all interested members of the public, interested stakeholders and sector representatives. Public members agree to participate in MIFLAG as individual members of the public and are not representing any particular interest group, while stakeholder and sector representatives can and should represent their constituent's views and concerns. Stakeholder and sector representatives need to ensure their constituents are kept informed of the work of MIFLAG.

Nominations for specific individuals to be active members of MIFLAG can be made by existing members, or the Chair/LP. The nominations will be discussed with the MIFLAG.

The MIFLAG Facilitator is responsible for supporting and monitoring participation in the advisory group. Attendance is recorded in the meeting minutes, and a MIFLAG membership list is maintained.

Forecasts

The LP will continue to promote diversity in the representation of MIFLAG members.

Monitoring

The MIFLAG Facilitator reviews the meeting minutes to determine the active members for the year.

Indicator 6.1.B: Outreach & Education

Element: 6.1 Fair and Effective Decision Making *Demonstrate that the SFM public participation process is designed and functioning to the satisfaction of the participants and that there is general public awareness of the process and its progress.*				
Value	**Objective**	**Indicator**	**Target**	**Variance**
Public education and communication	A continuous public education and communication program exists.	Number of people reached through educational outreach	Report on the outreach and education opportunities completed or supported	None

History

New Core Indicator under CSA Z809-08 (carried forward from 2009 SFM Plan indicator 37).

Not a Core Indicator under the CSA Z809-16 (but has been carried forward from the 2016 SFM Plan and has moved from Element 6.5 to 6.1 to reflect the new standard organisation (previously Indicator 6.5.1)).

The target was revised November 2017 to remove reference to a separate Communications Plan document. All elements of the plan were incorporated into the indicator.

Justification

This indicator is a measure of Mid Island's success at meeting its commitments for public education, outreach, and communication. It includes categories such as:

- Forest tours
- Public education (presentations, open houses, school visits, support for students),
- Public communication (MIFLAG meetings/tours, career fairs, public outreach events, articles)

Current Status & Interpretation

Year	Tours & Public Education	Public Communications
2024	MIFLAG Field Tour of Operations - Financial support for Carihi Forestry Program through CRFEA - -Financial support for Robin William's Forest Education Program.	-5 MIFLAG meetings - Presentation on active operations to Sayward town council
2023	- MIFLAG Field Tour of Operations - Financial support for Carihi Forestry Program through CRFEA -Financial support for Robin William's Forest Education Program.	-5 MIFLAG meetings - 1 North Island College Career Fair - We Wai Kai Career Fair

2022	- MIFLAG Field Tour of Operations - Financial support for Carihi Forestry Program through CRFEA -Financial support for Robin William's Forest Education Program.	-5 MIFLAG meetings - 1 North Island College Career Fair
2021	-Presentation to 'Women in Forestry' at NIC about working in silviculture -Presented to NIC RFT and certificate students about forestry planning -Financial support for Carihi Forestry Program through CRFEA -Financial support for Robin William's Forest Education Program	-5 MIFLAG meetings or special presentations
2020	-Carihi Forestry Program: Site plan field tour (Nov) -Financial support for Carihi Forestry Program through CRFEA -Financial support for Robin William's Forest Education Program	-6 MIFLAG meetings or special presentations -Presentation to CR City Council on local forestry issues and support

A significant part of the operation's outreach comes in the form of supporting local organizations through donations and staff time. For 2024 the Mid Island operation contributed to the local community through support the following clubs, events, and organizations:

- Kelsey Center Teen Program
- Village of Sayward Hot Lunch Program
- Campbell River Salmon Festival Logger Sports
- Campbell River Forest Education Association Carhi Secondary Bus
- Robin Williams Forest Education Program – Sandowne Elementary
- Campbell River & District Food Bank Society – Holiday Food Program Donation
- Kusam Klimb Race Event
- We Wai Kai Days Annual Event
- Nanwakolas Council Corporate Challenge Golf Tournament

Strategies & Implementation

LKSM engages in several activities that involve educational outreach to the community, including the MIFLAG website and meetings, open houses for consultation, field tours, career fairs, and support for students.

Forecasts

Opportunities to support school programs, tours, and career fairs are being directed to our corporate public outreach coordinator.

Monitoring

The MIFLAG Facilitator maintains records and reports on the number of completed elements on an annual basis for the SFMP, and the Corporate Communications & Engagement Specialist provides an annual report on organizations supported by Operation.

Indicator 6.1.C: Research

Element: 6.1 Fair and Effective Decision Making *Demonstrate that the SFM public participation process is designed and functioning to the satisfaction of the participants and that there is general public awareness of the process and its progress.*				
Value	**Objective**	**Indicator**	**Target**	**Variance**
Research across all divisions is supported by WFP	WFP supports research across all divisions, including the deployment of non-herbicide alternatives	The list of active Corporate research projects and the related categories (i.e., alternatives to herbicides, ecosystem management, operational, etc.)	Annual report summary	None

History

This indicator and target are carried forward from the 2009 SFM Plan (Indicator 35 and 38).

This is not a Core Indicator under Z809-16 but has been carried forward from the 2016 SFM Plan as a MIFLAG indicator and has been moved from Element 6.5 to 6.1 consistent with the new standard organisation (previously Indicator 6.5.A).

Justification

This indicator tracks WFPs/the LPs continued involvement in research and development. Corporate Forestry facilitates the transfer of "Best Practices" from company research to operational planning staff. Planning staff can make better informed decisions for Sustainable Forest Management using these "Best Practices".

Current Status & Interpretation

Year	Research Project	Target Met (Y/N)
2024	Variable Retention Adaptive Management (1) Species at Risk (1) Forest Ecology: Ecosystem Integrity (1) Watershed Outputs: Quality, Quantity, Biodiversity (1) Resiliency (4) Regeneration and Growth (3) Seed and Seedling Production (1) Forest Inventory (2) Old Forest (1) Wildlife Habitat (1)	Y
2023	Variable Retention Adaptive Management (3) Species at Risk (4) Watershed Outputs: Quality, Quantity, Biodiversity (1) Forest Ecology: Ecosystem Integrity (1) Resiliency (3) Regeneration and Growth (3) Seed and Seedling Production (1) Growth and Yield (1) Forest Inventory (3) Remote Sensing (4) Harvest and Logistics Planning (1)	Y

Year	Research Project	Target Met (Y/N)
2022	Variable Retention Adaptive Management (3) Species at Risk (4) Watershed Outputs: Quality, Quantity, Biodiversity (1) Resiliency (3) Regeneration and Growth (3) Seed and Seedling Production (1) Growth and Yield (1) Forest Inventory (3) Remote Sensing (5) Harvest and Logistics Planning (1)	Y
2021	Variable Retention Adaptive Management (3) Species at Risk (4) Resiliency (3) Regeneration and Growth (3) Seed and Seedling Production (2) Growth and Yield (1) Forest Inventory (2) Remote Sensing (4) Harvest and Logistics Planning (1)	Y
2020	Variable Retention Adaptive Management (2) Species at Risk (3) Resiliency (3) Regeneration and growth (3) Seed and Seedling Production (2) Growth and Yield and Lidar (2) Harvest and Logistics Planning (1)	Y

Target met.

Strategies & Implementation

The Company supports and engages in forest research and monitoring that leads to improved forest management practices. Our objectives include sustaining timber supply and economic values, sustaining ecological values and processes, and sustaining social values. The strategy is to:

- Identify knowledge gaps and recommend basic and applied research needs;
- Engage with government, academic, and private agencies that have capacity and mandate to undertake applicable research;
- Support (with letters, in-kind resources, and leverage funding) research funding proposals for projects of strategic or particular interest to WFP tenures;
- Cooperate with research organizations in conducting basic and applied research; and
- Test and develop workable applications and uses of published research that are relevant to Western Forest Products' management goals and responsibilities.

Significant areas of research include:

- Forest Ecology – The objectives of the forest ecology research program are to determine the effects of management activities on forest ecosystem functions and components and

to improve our ability to predict ecosystem response. Results of this work lead to development and implementation of ecologically sound silviculture prescriptions and practices.

- Silviculture – The silviculture research program focuses on examining silvicultural practices for regeneration and growth. Objectives of this research are to maintain and enhance timber supply where economically viable to do so. Various trials—some being monitored after 30 or more years from establishment—examine species selection, genetic gain for volume and pest tolerance, stock types, mechanical site preparation, vegetation control, and fertilization.
- Forest Growth and Yield & Light Detection and Ranging (LiDAR) – The aim of this program is to quantify forest inventory and growth rates across the range of site conditions on the company's tenures. The company has invested in LiDAR to improve inventory estimates and aid in planning. This investment has been further employed to examine forest ecology knowledge gaps.

Research supported or implemented by the Company occurs across its tenures. In many cases, the findings apply broadly to sites in multiple tenures.

The following is a listing of active and long-term forest management research and monitoring projects in which the company is a lead or major partner; it covers all company tenures and divisions. Those projects which were monitored, measured, or reported on in 2024 are underlined. Funding sources apart from the Company (WFP) may include Natural Science and Engineering Research Council of Canada (NSERC), Land Based Investment Strategy (LBIS), Ministry of Forests (MOF), Natural Resources Canada (NRCan), BC Centre for Clean Energy (CICE) and GenomeBC (and GenomeCanada).

Forest Ecology: Variable Retention Adaptive Management (VRAM)

- Retention Monitoring

Forest Ecology: Species at Risk

- Northern goshawk site monitoring

Ecosystem Integrity

- Comparing natural and managed ecosystems for species composition and function (2024 - $WFP)
    - Publication: Evaluating Ecosystem Integrity on a Managed Forest Landscape. By Allen Banner, RPF(Ret), RPBio; Del Meidinger, RPBio; Joel Mortyn, RPF; and Steve Platt, RFT. https://www.fpbc.ca/wp-content/uploads/2024/01/2024-BCFP-Winter.pdf

Watershed Outputs – Quality, Quantity, Biodiversity

- Watershed monitoring (2024 – NCASI – $WFP [in kind LiDAR contribution]): Assessing the impact of forestry management intensity (including mean stand age and Equivalent Clear-Cut Area [ECA]) on several aquatic food web and water quality metrics for twenty-four 3rd order streams spread across the managed forests of Vancouver Island.

Silviculture: Resiliency

- Climate change strategies and mitigation
- Climate-based seed transfer – CoAdapTree (2024 – UBC Aitken et al – $GenomeBC)
- Western redcedar genomic selection – pest tolerance (2024 – Bohlmann *et al* - $GenomeBC)
    - Publication: Gilliard, G. 2024. How genomics could help protect B.C.'s redcedars. https://focus.science.ubc.ca/genomics-redcedars-72b3e09bd9db
- Douglas-fir genomic selection – Swiss Needle Cast tolerance (2024 – UVic Ehlting *et al* - $GenomeBC, $WFP, $FIP, others)

Silviculture: Regeneration and growth

- Salal Cedar Hemlock Integrated Research Program (SCHIRP) installations (2024 - $MOF)
    - Publication: Fertilization increases growth of western redcedar and western hemlock but also increases mortality and sinuosity by Woongsoon Jang, Bianca Eskelson, Eleanor McWilliams, Cindy Prescott, and Annette van Niejenhuis. For. Ecol. Mgt. 2024 DOI: 10.1016/j.foreco.2024.122019
- Western redcedar – western hemlock fertilization trials (2024 - $MOF)
- Planting trials – stock types, fertilization-at-plant, browse deterrents, species selection (2024 – $WFP)

Silviculture: Seed & Seedling Production

- Cone & Seed insect management (2024 – $WFP, $Mosaic, $MOF)

Growth and Yield

- VRAM Regeneration performance

Forest Inventory

- Light Detection and Ranging (LiDAR) Enhanced Forest Inventory Project
- Using successive LiDAR-derived tree inventories to measure forest carbon capture (2024 – $CICE). https://cice.ca/projects/using-successive-lidar-derived-tree-inventories-to-measure-forest-carbon-capture/

Old Forest

- Examine structure and condition of Old Forest

Wildlife Habitat

- Marbled Murrelet habitat study (2024 – UBC Coops, Cosgrove $NSERC)
    - Publication: Cosgrove, C. F., N. C. Coops, F. L. Waterhouse, and T. R. H. Goodbody. 2024. Modeling Marbled Murrelet nesting habitat: a quantitative approach using airborne laser scanning data in British Columbia, Canada. Avian Conservation and Ecology 19(1):5. https://ace-eco.org/vol19/iss1/art5/

Forecasts

Continued allocation of resources to support applicable research is expected.

Monitoring

The corporate Tree Improvement Forester tracks research support and provides an annual summary to the division.

Indicator 6.1.D: Herbicides

Element: 6.1 Fair and Effective Decision Making *Demonstrate that the SFM public participation process is designed and functioning to the satisfaction of the participants and that there is general public awareness of the process and its progress.*				
Value	**Objective**	**Indicator**	**Target**	**Variance**
The use of herbicides in the DFA is limited	Vegetation management in the DFA emphasizes non-herbicide methods	i. The percentage of the DFA brushed using chemical herbicides on an annual basis	≤0.15%	≤0.05%
		ii. No chemical herbicides are applied within the identified Herbicide Exclusion Zone (HEZ) in the Sayward Valley (refer to map below) and within 20m of the Salmon-Brewster Horse Trail	Zero chemical herbicides applied within HEZ and within 20m of the Salmon Brewster Horse Trail	Chemical herbicide treatment is permitted for invasive plants

History

This is not a Core Indicator under Z809-16. It was carried forward from the 2016 SFM Plan as a MIFLAG indicator. It has been moved from Element 6.5 to 6.1, consistent with the new standard organization (previously Indicator 6.5.B).

Consensus was reached on this indicator at the February 2019 meeting.

Justification

Brush control is essential for the establishment of new plantations and achieving free growing obligations. There are several ways to manage vegetation: manual, mechanical, biological, cultural, and chemical. Integrated vegetation management uses a combination of these approaches. MIFLAG wants the LP to limit its herbicide use and emphasize non-herbicide methods.

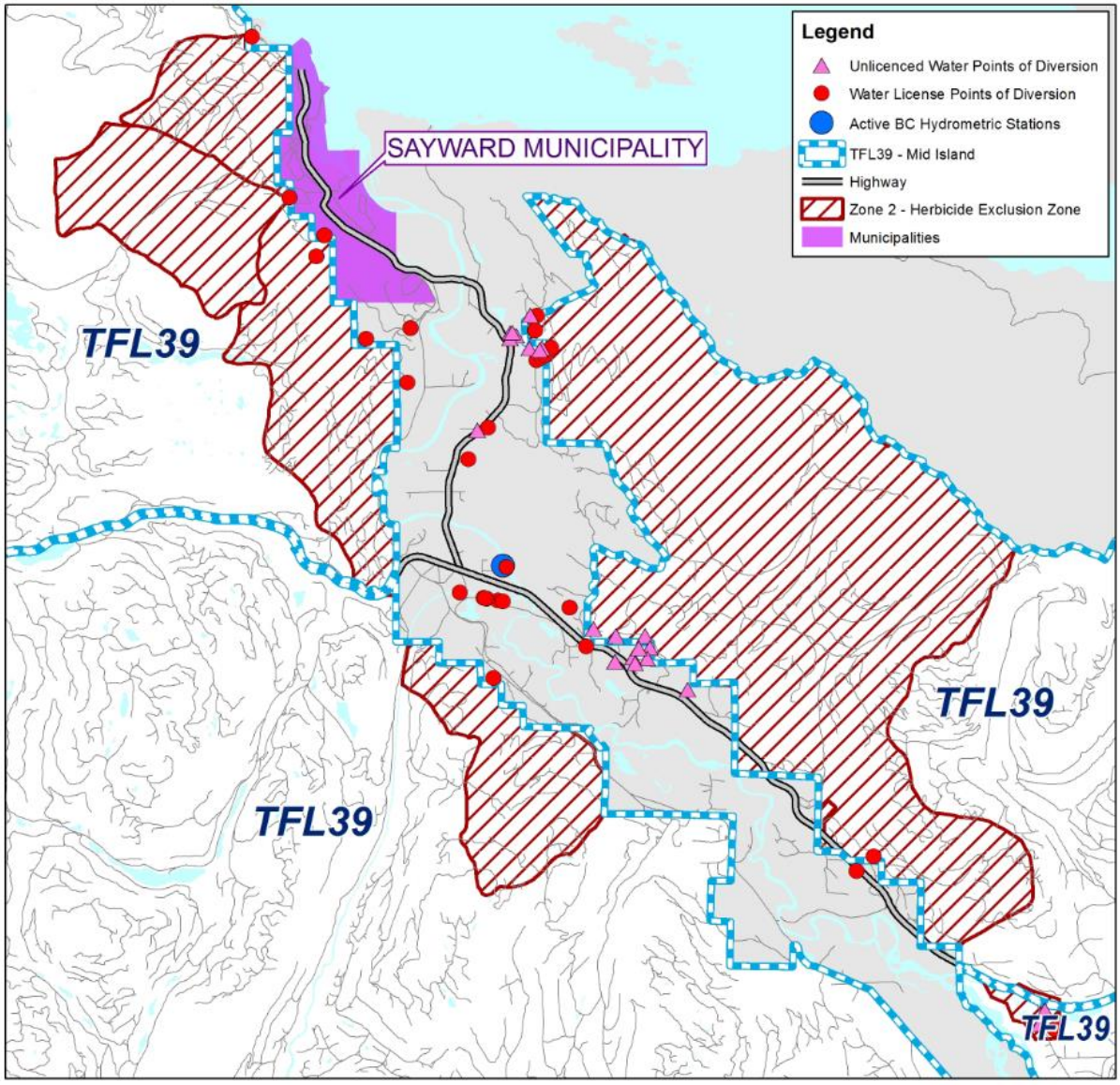
This indicator will eliminate the use of herbicides in the Herbicide Exclusion Zone and around the Salmon Brewster Horse Trail, two high value areas for the MIFLAG and Sayward residents. It will also limit overall use of herbicides to ≤0.15% of the DFA (~230ha), on an annual basis. Lastly, it will track manual brushing treatments and alternative approaches to help reduce herbicide usage.

Herbicide Exclusion Zone

A Herbicide Exclusion Zone (HEZ) was mapped based on consultation with MIFLAG members and Sayward residents through an open house meeting. Minor additions were made in 2020 during the PMP review process, including the Mowi Hatchery site.

Biological herbicides are permitted within the HEZ.

Chemical herbicides are allowed to treat invasive species with no practical alternative treatment options in the HEZ.



Current Status & Interpretation

Year	Proactive Hardwood Management (ha)	Non-Herbicide Treatments (Ha)	Herbicide Treatments			Herbicide Treatment as a % of DFA	Chemical Treatments in HEZ (ha)	Target Met (Y/N)	Variance Met (Y/N)
			Ha	L[1]	Kg				
2024	0.0	61.7	0	0	0	0	0	Y	N/A
2023	0.0	93.2	41.9	/	395	0.027	0	Y	N/A
2022	0.0	23.4	0.0	/	0.0	0.000	0	Y	N/A
2021	0.0	30.4	44	/	375	0.028	0	Y	N/A
2020	0.0	104.8	0.0	/	0.0	0.000	0	Y	N/A

[1] Litres of herbicide refers to the total volume of product

Both targets were met.

Strategies & Implementation

The LP exclusively prescribes non-herbicide brushing treatments in the HEZ and within the vicinity of the Salmon Brewster horse trail and the Mowi fish hatchery. Outside of these areas, the LP prescribes a mix of treatment types to ensure the target (0.15% of DFA) is not exceeded.

Chemical treatments can be more cost effective in dense treatment areas and can reduce the likelihood of a re-treatment vs manual treatments.

Non-chemical treatments can be more viable where there is an abundance of riparian areas or for creating plantable spots in advance of a replant. Non-herbicide treatments are also preferred for certain species like bracken fern, fireweed, and cherry.

Overall, Mid Island attempts to reduce its brushing by:

- only treating hardwoods/vegetation where it can cause significant seedling mortality
- only treating hardwoods/vegetation where necessary to meet free growing milestones
- not treating brush >3.0m from crop trees
- planting red alder on ecologically suitable sites with extreme brush hazard
- planting large stock, fertilizing at time of planting, or planting shade-tolerant species on high brush hazard sites

Forecasts

The LP intends to meet the target. The Silviculture Planner will monitor brushing levels to ensure herbicide applications do not exceed the target or occur within the herbicide exclusion zones.

No chemical brushing is scheduled for 2025.

Indicator 6.2.1: Safety Committee

Element: 6.2.1 Safety Committee *Demonstrate that the organization is providing and promoting safe working conditions for its employees and contractors.*				
Value	**Objective**	**Indicator**	**Target**	**Variance**
Worker Safety Program	Maintain a worker safety program in cooperation with workers and unions	Evidence of co-operation with DFA-related workers to improve and enhance safety standards, procedures, and outcomes in all DFA-related workplaces and affected communities	Minimum of one Joint Health and Safety Committee meeting per month during active operations	None

History

New Core Indicator under CSA Z809-08. Minor changes under CSA Z809-16, and the indicator has been moved from Element 6.3 to 6.2 (previously Indicator 6.3.2)

Justification

A joint health and safety committee supports our duty to ensure a healthy and safe workplace. The joint committee brings together representatives of the employer and the workers (hourly), to identify and help resolve health and safety issues in the workplace.

The joint committee has the following specific duties and functions, as per WorkSafe BC:

- Identify situations that may be unhealthy or unsafe for workers;
- Consider, and promptly deal with complaints relating to the health and safety of workers;
- Consult with workers and the employer on issues related to occupational health and safety, and the occupational environment;
- Make recommendations to the employer and the workers for the improvement of the occupational health and safety;
- Make recommendations to the employer on educational programs promoting the health and safety of workers and compliance with Part 3 of the Workers Compensation Act and the regulations, and to monitor their effectiveness;
- Advise the employer on programs and policies required under the regulations for the workplace, and to monitor their effectiveness;
- Advise the employer on proposed changes to the workplace, including significant proposed changes to equipment and machinery, or the work processes that may affect the health or safety of workers;
- Ensure that accident investigations and regular inspections are carried out;

- Participate in inspections, investigations and inquiries as provided in Part 3 of the Workers Compensation Act and Section 3 of the Regulation.

Current Status & Interpretation

Year	# of HSC Meetings	Target Met (Y/N)
2024	10	T
2023	11	Y
2022	12	Y
2021	11	Y
2020	9	Y

The target was met.

The March meeting lacked quorum, and operations were curtailed in December.

Strategies & Implementation

The operation employs more than 20 workers, so a joint Health and Safety Committee is required by WorkSafe BC. The committee is required to have more than four members, with at least half of the members to be worker representatives (don't exercise managerial functions). Our committee includes LKSM, union, and contractor representatives. The committee meets on a regular basis- monthly, during active operations.

Safety performance is a key measurable. Improvements in safety are supported by the EH&S Team, corporate polices, standards, hazard reports, work procedures etc. Locally, our operation manages safety utilizing an OHS Program, emergency response procedures and by maintaining a "SAFE" company certification with the BC Forestry Safety Council. Continual improvement is a key component of the our Safety System, WorkSafe BC requirements and the Forest Safety Council SAFE Company certification requirements.

Forecasts

It is a WorkSafe BC requirement for joint Health and Safety Committees to meet regularly, at least once a month during active operations. As a result, the target should be met.

Monitoring

The operation's administrator reports on the number of JOHSC meetings held annually.

Indicator 6.2.2: SAFE Certification

Element: 6.2 Safety *Demonstrate that the organization is providing and promoting safe working conditions for its employees and contractors.*				
Value	**Objective**	**Indicator**	**Target**	**Variance**
Worker Safety	Maintain a worker safety program	Evidence that a worker safety program has been implemented and is periodically reviewed and improved.	LKSM and Contactors (with active signed contracts) are SAFE Certified or in the registration process.	None

History

New Core Indicator under CSA Z809-08. No changes under CSA Z809-16, but the indicator has been moved from Element 6.3 to 6.2 (previously Indicator 6.3.3.)

Justification

LKSM requires contractors to maintain SAFE Certification. SAFE Certification is an industry-wide initiative designed to assist companies in improving their safety performance and to evaluate company safety programs to industry standard. It takes commitment, completion of training, and a safety management system (with successful audit) to become a SAFE certified company. SAFE certification has a three-year cycle, with a certification or re-certification audit in year 1 and maintenance audits in year 2 and 3. The audits provide evidence that a worker safety program has been implemented with periodic reviews and corrective action logs.

Current Status & Interpretation

Year	SAFE Company Certification		Target Met (Y/N)
	LKSM	Contractors (SAFE Cert Status Current)	
2024	Yes	Yes	Y
2023	Yes	Yes	Y
2022	Yes	Yes	Y
2021	Yes	Yes	Y
2020	Yes	Yes	N*

In 2024, LKSM and 47/47 contractors with active contracts at our operation were SAFE certified or in the regisration process.

*One of LKSM's main contractors was up to date in the SAFE certification regisration process, but decided to expand their business. They originally registered as an owner-operator but have since expanded the business and increased the number of employees past 3, requiring registeration as a SEBase (Small Employer- Base Audit Standard) employer. This requires further training and an audit on a minimum of 6 months of work documentation.

Strategies & Implementation

LKSM's contractors implement and maintain their own safety programs to meet the requirements of the SAFE Company certification. Prior to commencing work for WFP, a review is completed to ensure each contractor is currently SAFE Company certified.

The Mid Island Forest Operation is responsible for implementing their safety program and continuing to meet the requirements of SAFE Company certification.

In 2018, Corporate launched an enhanced Health and Safety Management System. It has 13 key elements including 52 corporate safety standards encompassing everything from the right to refuse unsafe work to working in confined spaces. The System complies with ISO45001 and U.S. Voluntary Protection Program health and safety standards.

Western Forest Products also developed the Western Safety Accreditation program in 2018 to measure proactive health and safety performance. In 2024 Mid Island's WSA score was 98.6%. WSA scoring consists of four proactive safety key performance indicators: Health and Management System inspections, Operation Annual Safety Improvement plans, corrective action completion rates, and safety leadership training completion.

Mid Island Forest Operation also has implemented the following: -Western Life Saving Rules -Contractor Health and Safety Improvement Plans for underperforming contractors -Standardized Health and Safety orientation for employees, contractors, and visitors -Use of Personal Field Level Hazard Assessments -Leader Health and Safety Training -Health and Safety Compliance Training.

Forecasts

It is anticipated that the target will be met as current corporate policies include support of the BC Forest Safety Council SAFE certification program.

Monitoring

Certification is confirmed when contracts are prepared. In addition, the contract administrator reviews active contractors quarterly to ensure their SAFE certification is current- not expired or revoked. The operation's administrator checks on the BC Forest Safety Council website, under the link "who is safe certified?" If they are not on the list, the administrator checks to see if they are on the "audit submitted" list. If they are not on either list, the administrator follows up directly with the contractor. The contract administrator also maintains an internal tracking sheet with contractor SAFE Certification status and WSBC account standings (active, clearance, and whether or not their account is delinquent).

Indicator 7.1.1: Treaty

Element: 7.1 Aboriginal and Treaty rights. *Recognize and respect Aboriginal title and rights, and treaty rights. Understand and comply with current legal requirements related to Aboriginal title and rights, and treaty rights.*				
Value	**Objective**	**Indicator**	**Target**	**Variance**
Aboriginal title and rights	Aboriginal title and rights are understood	Evidence of a good understanding of the nature of Aboriginal title and rights	Report on the progress of interim measures, agreements and/ or treaties for First Nations in the DFA.	None

History

New Core Indicator under CSA Z809-08 (carried forward from 2009 SFM Plan Indicator 39). Moved from criterion 6 to criterion 7 in CSA Z809-16 (previously Indicator 6.1.1).

Justification

The target was designed to review the current status of interim measures agreements or treaties completed for First Nations in the DFA. Treaties and interim measures agreements are issued under the Constitution Act and the Indian Act (Federal). Once agreements are in place, the target will be re-visited to address evidence of a good understanding of the agreements.

Regardless of the status of the negotiations, it is important for forest professionals to understand applicable Aboriginal title and rights, and treaty rights, as well as the Aboriginal interests that relate to the DFA. Engagement with Aboriginal Peoples and communities, results in contributions towards specific management and operating plans as well as supporting meaningful relationships with leadership.

WFP's corporate Sustainable Forest Management Statement outlines the importance of recognizing and respecting First Nations' treaty rights and title and respecting asserted aboriginal interests.

Current Status & Interpretation

Year	First Nation	Treaty Stage	# of Treaties Complete	# of Interim Measures Agreements Completed	Compliance (%)	Target Met (Y/N)
2024	Wei Wai Kum	5	0	1	N/A	Y
	We Wai Kai	5	0	1	N/A	
	K'omoks	5	0	1	N/A	
	Tlowitsis	5	0	1	N/A	
	Kwakiutl	N/A	0	0	N/A	

2023	Wei Wai Kum	5	0	1	N/A	Y
	We Wai Kai	5	0	1	N/A	
	K'omoks	5	0	1	N/A	
	Tlowitsis	5	0	1	N/A	
	Kwakiutl	N/A	0	0	N/A	
2022	Wei Wai Kum	5	0	1	N/A	Y
	We Wai Kai	5	0	1	N/A	
	K'omoks	5	0	1	N/A	
	Tlowitsis	5	0	1	N/A	
	Kwakiutl	N/A	0	0	N/A	
2021	Wei Wai Kum	5	0	0	N/A	Y
	We Wai Kai	5	0	1	N/A	
	K'omoks	5	0	1	N/A	
	Tlowitsis	5	0	1	N/A	
	Kwakiutl	N/A	0	0	N/A	
2020	Wei Wai Kum	5	0	0	N/A	Y
	We Wai Kai	5	0	0	N/A	
	K'omoks	5	0	0	N/A	
	Tlowitsis	4	0	0	N/A	

This target is met.

Laich-Kwil-Tach Council of Chiefs is negotiating an agreement in principle in the BC treaty process on behalf of the We Wai Kai Nation (Cape Mudge Band). They are in Stage 5 – Final Agreement Negotiations.

The Wei Wai Kum as of May 2024 have decided to pursue their treaty negotiations separately from the Laich-Kwil-Tach Council of Chiefs. They are in Stage 5 – Final Agreement Negotiations.

The Tlowitsis Nation is negotiating a treaty independently through the BC treaty process. As of 2021 they have advanced from Stage 4 and are now in Stage 5 – Final Agreement Negotiations. The Tlowitsis Nation has received a 'Transition to Stage 5 Memorandum of Understanding' for this completed agreement.

The K'omoks First Nation completed the first step of the Stage 5 ratification process on March 8th, 2025 following a successful vote from eligible Nation members.

The Kwakiutl First Nation is negotiating land and resource issues with the Province outside the BC treaty process. The Nation wishes to pursue claims around the Kwakiutl Douglas Treaty. The Kwakiutl is party to a 2015 Letter of Intent on Consultation with the Provincial Government. It lays out a framework for consultation and partnership building.

In 2021, an announcement was made on a planning and reconciliation agreement between four member Nations of the Nanwakolas Council and Western Forest Products.

The Nanwakolas agreement covers 100% of the ancient and remnant trees in 1,068 hectares identified by the Old Growth Technical Advisory Panel (TAP) within the TFL. Another 1,506 hectares of priority large, remnant and ancient forests have been deferred through other bi-lateral initiatives between Nanwakolas and Western, including a Large Cultural Cedar Protocol, TFL ecosystem mapping and an addition to the H'kusam area, originally deferred in the fall of 2020.

Currently, we are working with Nanwakolas on an Integrated Resource Management Plan (IRMP) for the TFL that incorporates Nation values on the land base. Further to this, as of March 28th, 2024 a new limited partnership was formed between the Mid Island Forest Operation & the Wei Wai Kum, We Wai Kai, K'omoks, and Tlowitsis First Nations. A 34% interest was purchased of the operation leading to the transfer of TFL39-2 to the newly minted TFL64, and a name change from WFP to La-kwa sa muqw Forestry Limited Partnership.

Strategies & Implementation

In the future, once treaties are established, our operation will implement measures to understand and comply with treaty settlements that impact the DFA.
Forest professionals can demonstrate an understanding and respect for Aboriginal title and rights by:

- Using Aboriginal knowledge
- Recognizing Aboriginal Peoples' expertise
- Identifying and respecting Aboriginal forest values and uses
- Developing a meaningful and effective working relationship with Aboriginal Peoples
- Seeking acceptance of forest management plans on the basis of Aboriginal communities having a clear understanding of the plans

Forecasts

As agreements/ treaties are completed, MIFLAG will re-visit this indicator and establish a new target that can reflect understanding and knowledge of rights and title and the agreements defining them.

LKSM will continue to demonstrate an understanding and respect of Aboriginal rights and title through the consultation process.

Monitoring

The Silviculture Planner reviews the BC Treaty Commission's annual report and website, and stays informed about internal relationships with our local First Nations.

Indicator 7.1.2: Open & Respectful Communication with First Nations

Element: 7.1 Aboriginal and Treaty Rights *Recognize and respect Aboriginal title and rights, and treaty rights. Understand and comply with current legal requirements related to Aboriginal title and rights and treaty rights.*				
Value	**Objective**	**Indicator**	**Target**	**Variance**
On-going open and respectful communications	On-going open and respectful communications with Aboriginal communities to foster meaningful engagement.	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 organizations forest management activities, this evidence would include documented efforts towards conflict resolution.	i. Report summary of annual communication of LKSM information sharing processes with First Nations (MP, FSP, PMP, SFMP) ii. Report summary of on-going communication (i.e., meetings, call logs, emails) iii. Where disagreement occurs and is made known, the disagreement and all efforts of conflict resolution are documented.	None

History

New Core Indicator under CSA Z809-08 (carried forward from 2009 SFMP Indicator 26 and 40). Moved from criterion 6 to criterion 7 in CSA Z809-16 (Indicator 6.1.2 is now Indicator 7.1.2), with some significant revisions to focus on ongoing communication rather than a focus on input into plans.

Justification

Meaningful relationships with Aboriginal Peoples require engagement and consultation regarding forest management decisions and incorporation of Aboriginal values into forest management. This contributes towards shared decision making.

Information sharing of the TFL Management Plan, Forest Stewardship Plan and Pest Management Plan are all required under legislation.

The Forest Planning and Practices Regulation requires the proponent to make reasonable efforts to meet with the First Nations to share, explain, and discuss information regarding the Forest Stewardship Plan and to determine whether the First Nation has cultural heritage resources that may be impacted. The proponent must consider all written comments from the First Nation and describe any changes made to the Plan to address these comments.

Tracking the info sharing process and documenting all communications with First Nations will demonstrate LKSM's commitment to open and meaningful dialogue and consideration of Aboriginal title and rights.

Current Status & Interpretation

Year	Info Sharing Summary	Target Met (Y/N)
2024	LKSM is currently working with Nanwakolas on an Integrated Resource Management Plan (IRMP) for the new TFL 64 (formerly TFL 39-2). A goal of the IRMP is to ensure Indigenous Values are integrated in management for the TFL. The IRMP process is anticipated to be completed in 2025. One info share was initiated with Nanwakolas (K'omoks, We Wai Kai, Wei Wai Kum, Tlowitsis) on May 23rd, 2024. This share included a cover letter, summary of blocks, overview map, and shapefiles with new projections. LKSM offered to meet in person to review and discuss the proposed blocks and/or any concerns they may have with the proposed development. The resulting responses received from the Nations were as follows: Wei Wai Kum (June 5th) "no comment", We Wai Kai (May 31st) requested a follow up meeting which was held on September 26th and subsequently on October 28th a "no comment" response was received along a request for Large Cultural Cedar surveys to be completed on 47/49 shared blocks, Tlowitsis (August 17th) "no comment", K'omoks (August 27th) requested a meeting to discuss 5 blocks of concern. This meeting with K'omoks did not occur as all blocks of concern were decided to be postponed until following completion of the Integrated Resource Management Plan (IRMP) in 2025. An Archaeological Overview Assessment (AOA) was completed for 1 block, Archaeological Impact Assessments (AIA) were completed for 2 blocks, and Preliminary Field Reconnaissance (PFR) were completed for 5 blocks in 2024.	

i) This target was met.

ii) This target was met. This process is built into the info sharing protocol and tracked within LRM through the 'FN Correspondence' block activity. Details of communications are confidential.

iii) This target was met. This process is built into the info sharing protocol and tracked within LRM through the 'FN Correspondence' block activity. Details of communications are confidential.

Strategies & Implementation

The Province of British Columbia has a duty to consult and where required, accommodate First Nations whenever it proposes a decision or activity that could impact treaty rights or aboriginal rights (including title) - claimed or proven. Proponents are often in a better position relative to the Province to exchange information about their decision requests and directly modify plans to mitigate any concerns. Mid Island sends out info shares to all First Nations with traditional territory overlapping with the DFA and to the Ministry of Forest Lands Natural Resource Operations and Rural Development on their annual logging plans.

Consultation must be meaningful with the intention of reasonably addressing the claimed or proven aboriginal rights. Accommodation may be necessary if a proposed activity will adversely impact an Aboriginal Interest or if there is likely an infringement of a proven aboriginal right or title or treaty right. Accommodation involves seeking compromise to address concerns; however, it does not require a duty to agree.

Target iii) attempts to capture efforts to accommodate. Where disagreements occur, efforts at conflict resolution will be made and documented.

Forecasts

Plan referrals for TFL MPs, FSPs, and PMPs are legally required.

Mid Island will continue sharing logging plans on an annual basis.

Referral of the SFMP is not legally required, but it is necessary under the CSA Standard.

The Integrated Resource Management Plan is scheduled for completion and implementation in 2025 and as of March 28th, 2024 the Mid Island Forest Operation entered into a limited partnership with the We Wai Kum, Wei Wai Kai, K'omoks, and Tlowitsis First Nations. A 34% interest was purchased in the operation from WFP and a new TFL number was created (TFL 64) as well as a name change from WFP to La-kwa sa muqw Forestry Limited Partnership.

As the Limited Partnership continues to develop there will likely be changes to many of the Criterion 7 indicators to better reflect the businesses governance and organization.

Monitoring

The Planning Department documents Forest Stewardship Plans, PMPs and the Silviculture Planner specifically any SFMP reviews that occur with First Nations.

All information sharing, responses, and any requests associated with them are organized into a network planning drive that is reviewed by the Silviculture Planner and compiled annually for the purposes of this indicator. Requests for activities such as archeological assessments and large cultural cedar walks are also tracked with our forest management database, LRM.

Indicator 7.2.1: MIFLAG & First Nations

Element: 7.2 Respect for Aboriginal forest values, knowledge and uses. *Respect traditional Aboriginal forest values, knowledge, and uses as identified through an Aboriginal input process.*				
Value	**Objective**	**Indicator**	**Target**	**Variance**
Aboriginal Capacity Development	Develop/improve aboriginal participation capacity over time	Evidence of efforts to promote capacity development and meaningful participation for Aboriginal individuals, communities and forest-based companies	Each First Nation with traditional territory in the DFA is invited to participate in the MIFLAG and review the SFM Plan annually at the First Nations office/ territory; on-going communication is maintained. Report summary of efforts to promote capacity development for Aboriginal individuals, communities and forest-based companies	None

History

New Core Indicator under CSA Z809-08. Moved from criterion 6 to criterion 7 in CSA Z809-16 (previously Indicator 6.4.3 with some minor revisions).

Justification

Aboriginal participation in the SFM process provides an additional opportunity to have meaningful consultation. It can provide another avenue to identify, address, and protect Aboriginal rights, uses, cultural resources, and values. The target is designed to help build a trusting and respectful relationship with First Nations.

Many Aboriginal communities view the forestry sector as a means to achieve economic self-sufficiency. However, a lack of capacity can be a barrier impeding the flow of benefits from resource development to Aboriginal peoples. A focus has emerged on providing Aboriginal peoples with the education, training, and skills to capture employment and business opportunities in the forest industry.

This indicator will report on the LP's efforts to promote capacity development and to provide opportunities for participation and input in the certification process.

Current Status & Interpretation

Year	First Nation	# of Invitations to Participate & Review the SFM Plan	# of Meetings Held at First Nations office	On-Going Communication	Target Met (Y/N)
2024	Nanwakolas	1	0	Y	Y
	Kwakiutl	1	0		
	We Wai Kai	1	0		
	Wei Wai Kum	1	0		
	K'omoks	1	0		
	Tlowitsis	1	0		
2023	Nanwakolas	1	0	Y	Y
	Kwakiutl	1	0		
	We Wai Kai	1	0		
	Wei Wai Kum	1	0		
	K'omoks	1	0		
	Tlowitsis	1	0		
2022	Nanwakolas	1	0	Y	Y
	Kwakiutl	1	0		
	Cape Mudge	1	0		
	Campbell River	1	0		
	K'omoks	1	0		
	Tlowitsis	1	0		
2021	Nanwakolas	1	0	Y	Y
	Kwakiutl	1	0		
	Cape Mudge	1	0		
	Campbell River	1	0		
	K'omoks	1	0		
	Tlowitsis	1	0		
2020	Cape Mudge	1	0	Y	Y
	Campbell River	1	0		
	K'omoks	1	0		
	Tlowitsis	1	0		

This target was met.

The LP also offered to provide a presentation to each Council and to hold a regularly scheduled meeting in each community.

Strategies & Implementation

The LP extends invitations to the First Nations in the DFA to participate in the MIFLAG on an annual basis.

The LP is committed to working with local First Nations to promote capacity development.

As of March 28th, 2024 the Mid Island Forest Operation entered into a limited partnership with the We Wai Kum, Wei Wai Kai, K'omoks, and Tlowitsis First Nations. A 34% interest of the operation was purchased from WFP and a new TFL number was created (TFL 64) as well as a name change from WFP to La-kwa sa muqw Forestry Limited Partnership.

Forecasts

With the new Limited Partnership, we expect increased First Nation involvement in the public advisory group process over the coming years.

An Integrated Resource Management Plan (IRMP) with our local First Nations is targeted for completion in 2025 which would replace our Forest Stewardship Plan, and the information sharing protocol is being revised during Q1 of 2025. These in addition to the Nations now being part owners in the operation and sitting on the governing panel for the Limited Partnership should bolster involvement and participation in our advisory group over time.

Monitoring

The Silviculture Planner reviews correspondence files to report on the efforts to engage First Nations in MIFLAG and/ or review of the SFM Plan, with focus on discussions held at the First Nation's office.

Indicator 7.2.2: Large Cultural Cedar

Element: 7.2 Respect for Aboriginal forest values, knowledge and uses. *Respect traditional Aboriginal forest values, knowledge, and uses as identified through an Aboriginal input process.*				
Value	**Objective**	**Indicator**	**Target**	**Variance**
Aboriginal knowledge	Aboriginal knowledge provided is used and respected	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	i. 100% of requests by First Nations for field visits to planned cutblocks are completed ii. Report on on-going status and results of the implementation of the LCC Strategy (e.g., number recorded, number protected, number used by First Nation)	None

History

New Core Indicator under CSA Z809-08. Moved from criterion 6 to criterion 7 in CSA Z809-16 (previously Indicator 6.2.1).

Justification

This indicator intends to capture LKSM's efforts to build relationships with First Nations through meetings and field visits to planned cutblocks. These visits provide opportunities to address concerns and issues the First Nations may have identified through the information sharing process. Furthermore, the field visits may capture other valuable resources to First Nations, such as large cultural cedar.

Large cultural cedar (LCC) are defined as cedar logs greater than 100cm DBH with no rot, twist or defect, that are suitable for either house logs, totem logs or canoe logs. An agreement between LKSM and Nanwakolas was implemented to train appropriate LKSM employees to accurately identify LCCs. This training was completed with traditional carvers from the We Wai Kai, Wei Wai Kum, and Tlowitsis First Nations. With the completion of this training, the First Nations are confident that the agreed-upon LKSM representatives have the ability and knowledge to confidently mark and record LCCs. LCC have been recorded in all cutblocks and adjacent areas to cutblocks since 2014- originally by timber cruisers. Location of these LCCs are shared with the First Nations at time of cutblock information sharing (Step 6 Process).

The term "Monumental cedar" is no longer used. However, records in LRM have not been changed, so an inventory of monumental cedar remains in the system.

Current Status & Interpretation

Year	Field Visits (Requested/ Completed)	Large Cultural Cedars (LCC)	Target Met (Y/N)
2024	8/8 (+95 LCC Surveys)	LCC: Identified – 225; Current Inventory – 3153 Protected Inventory – 1711; Harvested - 149	Y
		Monumental: Identified – 0; Current Inventory – 131; Harvested – 0	
2023	1/1 (+130 LCC Surveys)	LCC: Identified – 277; Current Inventory – 2928; Protected Inventory – 1547; Harvested - 107	Y
		Monumental: Identified – 0; Current Inventory – 131; Harvested - 0	
2022	17/17 (+79 LCC Surveys)	LCC: Identified – 536; Current Inventory – 2651; Protected Inventory – 1307; Harvested - 23	Y
		Monumental: Identified – 0; Current Inventory – 131; Harvested - 0	
2021	9/9 (+24 LCC Surveys)	LCC: Identified- 480; Current Inventory- 2115; Protected Inventory- 905; Harvested- 123	Y
		Monumental: Identified- 0; Current Inventory- 131; Harvested- 0	
2020	5/5 (+25 LCC Surveys)	LCC: Identified- 19; Current Inventory- 1635; Protected inventory- 613; Harvested- 19	Y
		Monumental: Identified- 0; Current Inventory- 131; Harvested- 0	
		Monumental: Identified – 0; Current Inventory – 146; Utilized by First Nations – 0; Harvested- 11	

The target was met.

Archaeological Overview Assessments (AOA), Archeaological Impact Assessments (AIA), and Preliminary Field Reconnaisance (PFR) constitute field visits.

Strategies & Implementation

Mid Island follows the Cultural Heritage Resources SOP which contains steps on First Nation field walks, LCC and CMT identification, documentation, and management practices. LKSM

has a strong history of completing field walks and resolving issues and concerns by First Nations.

Trained First Nation members and agreed-upon LKSM engineers conduct Large Cultural Cedar (LCC) surveys according to the agreed upon criteria developed with Nanwakolas and local First Nation carvers. LCC surveys are completed on all proposed blocks that have an old growth cedar component. Locations and quality observations of LCCs are recorded and stored in the LKSM data base. The locations are marked on the block maps shared during the Step 6 referral process.

Forecasts

LKSM and the Nanwakolas Council have entered a new Information Sharing Protocol as of November 16th, 2020 that contains changes in how Large Cultural Cedars (LCC) will be managed in TFL 39 moving forward. This new protocol aims to further strengthen and enhance already existing LCC management through systematic surveying of blocks directly by Nanwakolas trained or approved qualified surveyors, alongside more detailed LCC classification criteria and retention targets (see table below).

Type	Cultural Use	Status	Diameter	Length	Retention
Type 1	Community canoes, large totem poles, large big house logs	Very Rare	≥150cm	12m	100%
Type 2	Chief canoe, medium totem poles, medium big house logs	Rare	120-149cm	7m	50%
Type 3	Small totem poles, small big house logs	Moderately Rare	100-119cm	5m	25%

Additionally, this protocol establishes strategies that will aid in the future recruitment of Cedars as well as the continued stewardship of identified standing LCCs by establishing a 1 tree length reserve zone and a ½ tree length management zone (based on LCC height) around retained LCCs. Having these buffer zones will help mitigate windthrow risk while also better maintaining the ecological conditions around retained LLCs. The priority for LCC management is to ensure that continued long term access to these high quality and culturally significant trees is maintained for present and future generations.

As of April, 2024 the operation has transitioned to a limited partnership with our local 4 First Nations through the Nanwakolas Council where collectively they own a 34% stake in the operation. We expect a further focus on, and strengthening of, our large cultural cedar protocol.

Monitoring

The Silviculture Planner reports on the number of requested and completed field visits each year.

The GIS department determines the current LCC inventory, the number protected, the amount newly identified, and if any were harvested over the year using the GIS database.

Indicator 7.2.3: First Nation Special Sites

Element: 7.2 Respect for Aboriginal forest value, knowledge and uses. *Respect traditional Aboriginal forest values, knowledge, and uses as identified through an Aboriginal input process.*				
Value	**Objective**	**Indicator**	**Target**	**Variance**
Areas where culturally important practices and activities occur	Areas where culturally important practices and activities occur are managed for or protected	Level of management and/or protection of areas where culturally important practices and activities (hunting, fishing, gathering) occur	Report on management and/ or protection of knowledge, values, and sites that are identified through the process described in 7.1.2	None

History

New Core Indicator under CSA Z809-08. Moved from criterion 6 to criterion 7 in CSA Z809-16 (previously Indicator 6.1.3).

Justification

Aboriginal rights are practices, customs, or traditions integral to the distinctive culture of the First Nation. Some examples of aboriginal rights are hunting, fishing, and gathering plants for traditional medicines and spiritual ceremonies. Aboriginal rights can be connected to a particular piece of land. The intention of the target is to incorporate Aboriginal rights and interests into the SFMP and forest management planning, through the management or protection of knowledge, values, and sites of cultural significance (hunting, fishing, and gathering).

Current Status & Interpretation

Year	# First Nations Special Sites Identified	Sites Managed (%)	Target Met (Y/N)
2024	None identified	N/A	Y
2023	2	N/A	Y
2022	None identified	N/A	Y
2021	None identified	N/A	Y
2020	None identified	N/A	Y

This target is met.

To commemorate our limited partnership with our four local First Nations we supported a canoe carving project in 2024 which took place over 4 months in the H'kusam forest off the M-Branch mainline. The canoe at 10m long was moved by hand to the Kelsey Bay spit on May 20th then was steamed, painted, and launched on July 17th. It was paddled to Cape Mudge on Quadra Island.

This indicator does not capture the number or changes to block design associated with our Large Cultural Cedar (LCC) protocol with the Nanwakolas Council. This information can be found in Indicator '7.2.2 Large Cultural Cedar'.

Strategies & Implementation

The intent of Indicator 7.2.3 is to protect or manage for general areas of the DFA that have been identified by First Nations as providing hunting, fishing, gathering, or other cultural practice opportunities. For First Nations to be comfortable sharing confidential information, LKSM needs to continue developing relationships with First Nations built on trust and respect. LKSM is taking the following steps:

- Annual info sharing- including the Nanwakolas Information Sharing Protocol
- Phone calls and meetings (and offering to hold them in First Nation's offices)
- First Nation recon walks for LCCs
- Inventory and protection of LCCs
- Log donations
- Assurance of the protection/security of any shared information

Forecasts

The target is expected to be met. LKSM will document all important sites to ensure they are considered during forest management planning. LKSM will keep the information secure and confidential.

Monitoring

The Silviculture Planner reports on the areas of the DFA that First Nations have identified as culturally important (while respecting confidentiality of information).

Indicator 7.2.A: First Nation Donations

Element: 7.2 Respect for Aboriginal forest values, knowledge and uses. *Respect traditional Aboriginal forest values, knowledge, and uses as identified through an Aboriginal input process.*				
Value	**Objective**	**Indicator**	**Target**	**Variance**
Culturally important resources and values	Old Growth cedar continues to be available to First Nations	The annual volume of old growth cedar made available to First Nations	Report on the volume of wood made available to First Nations	None

History

This is not a core indicator.

MIFLAG indicator carried over from the 2009 SFM Plan Indicator 29. In 2017, this indicator was moved from Criterion 6 to Criterion 7 to fit with the new CSA Z809-16 standard (previously Indicator 6.2.A).

Justification

The target acknowledges aboriginal rights. Old growth western red cedar logs are important to First Nations for traditional, cultural, and ceremonial purposes.

Current Status & Interpretation

Year	Volume of Cedar/ Cypress (m^3)	Target Met (Y/N)
2024	101.03	Y
2023	67.58	Y
2022	59.09	Y
2021	76.67	Y
2020	37.75	Y

The target is met.

In 2024, Mid Island donated 101.03 m3 valued at $56,520 to First Nations. The volume reported does not include wood made available for carvers from the waste piles at the dryland sort.

Strategies & Implementation

When a First Nation individual requires a log for cultural purposes, a written request (with log specifications) by a member of Band Council is submitted to Corporate (Corporate Forestry Donation Requests and MoF Free Use Permits). Then, the operation finds a suitable log at the dryland sort or assists the individual in finding a suitable standing tree for them to harvest. The volume is scaled and recorded at the point of delivery. The volume is recorded and tracked by the dryland sort administrator and special products administrator. Additional processes for securing cultural use logs are done through our Large Cultural Cedar Protocol agreement with the Nanawakolas Council.

Forecasts

LKSM has a long history of providing volume to First Nations. LKSM is committed to fulfilling all reasonable requests for cedar and cypress volume from First Nations with traditional territory in the DFA. It is therefore anticipated that the target will be achieved.

Monitoring

The Silviculture Planner requests a report of the donations from the WFP Corporate Scale Specialist.