



MANAGED
FOREST
COUNCIL

2017 Managed Forest Inspection Program

BACKGROUND

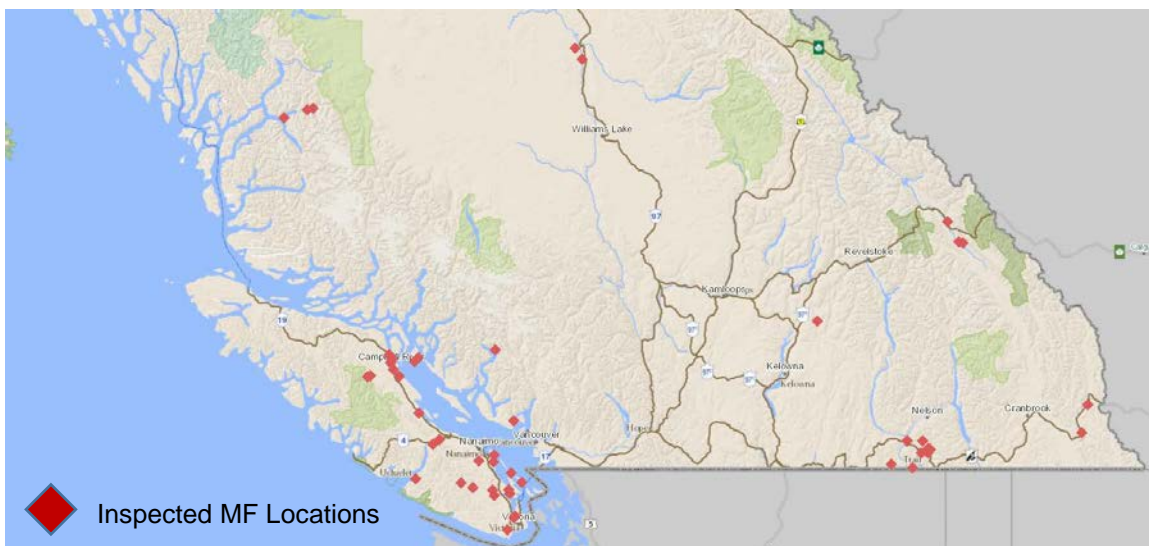
The Managed Forest Council (Council) has a policy to inspect all managed forests at least once every five years, as well as to inspect new managed forests within three years of entrance to the program. Managed forests may be inspected on a more frequent basis if they have higher levels of activity or operations are carried out in proximity to water intakes or fish habitat.

The Inspection Program is designed to ensure owners are fulfilling the requirements of the private managed forest land legislation. Inspections are carried out by a team of forest professionals who are knowledgeable of both forest practices and the relevant legislation.

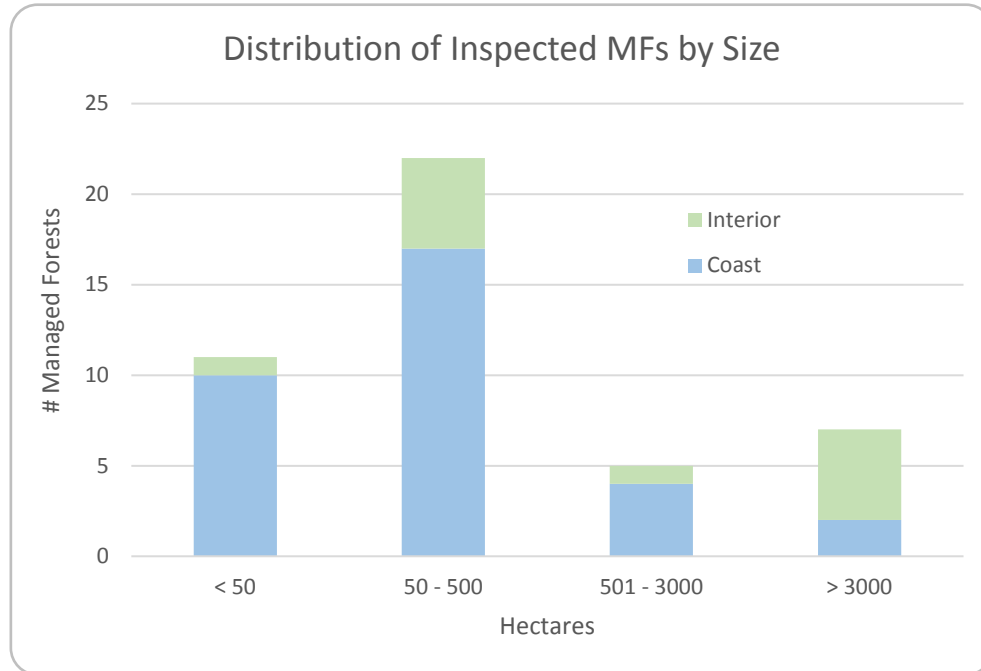
LOCATION and SIZE

Of the 45 managed forest properties inspected in 2017, 33 managed forests are located on the coast and 12 are in the interior as follows:

Coast		Interior	
Vancouver Island	21	Kootenay/ Boundary	6
Gulf Islands	8	Columbia	3
South Coast	2	Cariboo	2
Central Coast	2	Thompson/ Okanagan	1



The managed forests ranged from large properties with industrial owners to small family owned properties. Eight of the managed forests were larger than 1000 hectares, six of which have active, ongoing operations.



The inspection sample encompassed 17% of forests in the Managed Forest Program while continuing to meet the objective of inspecting all managed forests at least once every five years. The last three years have had a rate of inspections higher than required to meet this objective. Appendix 1 includes a list of the inspected managed forests with hectares and general locations.

INSPECTION APPROACH

The inspection form is designed to assess and report on information relevant to Council's function of monitoring forest practices and protecting key public environmental values as established by regulation: soil conservation, water quality, fish habitat, and reforestation. Inspection components were designed to identify forest activities that have taken place and document whether the activities have been carried out in compliance with the Council Regulation. Opportunities for improvements with respect to field practices were also noted where applicable.

For the larger managed forests with active operations, samples of harvesting, road building, maintenance, and deactivation, and reforestation were selected for inspection. Particular emphasis was placed on areas where multiple activities had been carried out and where there were streams or other risk factors present.

Owners or designates were encouraged to accompany the inspectors during the inspections.

The inspections focused on the following:

Activity	Focus of Council Regulation
Harvesting	<ul style="list-style-type: none">• minimize site disturbance (sec 14, 15)• retain appropriate amount of trees, understory vegetation adjacent to streams (sec 27, 28, 29, 30)
Road Construction	<ul style="list-style-type: none">• protect and mitigate disturbance to stream channels and banks (sec 16, 17)• maintain natural drainage patterns (sec 18)• revegetate exposed soils after construction (sec 19)
Road Maintenance	<ul style="list-style-type: none">• maintain road prism and clearing width (sec 21)• maintain drainage system (sec 21)
Road Deactivation	<ul style="list-style-type: none">• remove culverts and bridges when no longer required (sec 22)• re-establish natural drainage patterns (sec 18)• revegetate exposed soils after deactivation (sec 19)
Restocking	<ul style="list-style-type: none">• restock after harvesting or destroyed timber (sec 31)
Successful Regeneration	<ul style="list-style-type: none">• successfully regenerate after harvesting or destroyed timber (sec 31)
Primary Forest Activities	<ul style="list-style-type: none">• restrict sediment transport and deposition into streams (sec 15)• protect licensed waterworks intakes (LWIs) (sec 20)
Notifications	<ul style="list-style-type: none">• notify holders of LWIs when road construction or deactivation to take place (sec 23)• notify Council of landslides and debris flows (sec 26)

INSPECTION RESULTS

Harvesting

Harvesting was carried out on 20 of the managed forests since previously inspected. Harvesting operations ranged from multiple cutblocks over varied terrain and site conditions, to small volumes of roadside firewood salvage. A range of systems was observed from clearcuts, to selective harvest and variable retention.

One harvest operation is under review for riparian retention. There were no compliance issues noted for other harvest operations with respect to site disturbance and stream protection.

Other than the one harvest operation under review, stream retention requirements were met in all cases, and were exceeded in most areas. Inspectors noted good practices including: minimal site disturbance from roads and trails associated with the harvest activities; and documented policies, procedures, planning and implementation of best

management practices. Owners used professionals to manage and assess operations where appropriate.

Road Construction

Road construction took place within 11 managed forests. No compliance issues were noted on any of the managed forests.

Inspectors noted that roads are stable and designed for effective water management. Roads built adjacent to streams, and active stream crossings were located, built, and used in a manner that protects the stream channels and banks. Practices noted include: appropriate culvert sizes and placement; revegetation of exposed soils; and controlled road widths to minimize the loss of productive growing site.

Road Maintenance

Road maintenance include actions required to ensure that the surface, ditches, crossings, and cut and fill slopes will not cause sedimentation or deposit material that may have a material adverse effect on water quality or fish habitat. The regulation requires that roads are maintained until they are deactivated.

Maintenance activities include:

- ensuring the road prism and clearing width remain stable
- ensuring culverts, ditches and fords are functioning properly and can handle peak flows
- preventing surface water from being discharged onto erodible soils
- grading & surfacing

Road maintenance was found to be adequate for protection of fish habitat and water quality for all owners. Inspectors noted documentation of some owners for road inspection and maintenance schedules and professional risk-based inspection programs.

Road Deactivation

Deactivation must be carried out when an owner no longer requires a road and intends to cease maintaining it. For most areas inspected, owners are maintaining roads for current and future forest activities. Permanent road deactivation was identified and inspected on ten managed forests.

Deactivation includes removing stream culverts and bridges and stabilizing the road prism where required to reduce the likelihood of a material adverse effect on drinking water or fish habitat. In all cases, there were no issues found with respect to any of the deactivated sections, and there were also no situations noted where deactivation should have been carried out but was not.

Restocking

Restocking requirements, including timelines, are set out in Section 31 of the Council Regulation:

If the area was harvested or destroyed after becoming an owner's land, the owner must:

- Restock the area with the minimum number of crop trees within 5 years

If the area was harvested or destroyed before becoming an owner's land, the owner must:

- Restock the area with the minimum number of crop trees within 10 years

Restocking obligations were noted on 18 managed forests for areas that are within the 5 or 10 year timelines above.

Two owners have potential restocking issues. For both of these managed forests, Inspectors could not confirm stocking during the inspection due to patchy distribution and/or low numbers of trees. Silviculture surveys are required to confirm that restocking has been achieved.

Inspectors noted upcoming restocking obligations where areas may require fill planting, brush control, or browse protection in order to meet the stocking requirements. Although restocking is not required for a few more years, diligence is expected of these owners to assess their obligations and carry out any actions required to ensure restocking is achieved within the regulated timeframe.

The other owners have clearly restocked stands within the required timeframes, and have shown diligence in both restocking and maintaining the young stands to ensure requirements are met. The larger managed forest owners in particular have well documented reforestation programs that include planting, often within 1 year of harvest, and meeting standards higher than those required by Regulation.

Tracking and follow up on potential restocking issues is part of the ongoing Inspection Program.

Successful Regeneration

Successful Regeneration requirements, including timelines, are also set out in Section 31 of the Council Regulation:

If the area was harvested or destroyed after becoming an owner's land, the owner must:

- Successfully regenerate the area within 15 years

If the area was harvested or destroyed before becoming an owner's land, the owner must:

- Successfully regenerate the area within 20 years

Successful regeneration obligations were noted for 26 owners. None of the obligations are compliance issues as they are all within the allowed timeframes of 15 or 20 years. Most owners including all the larger managed forest owners were noted to have active

monitoring and brush control strategies where required to ensure the stands are productive. There are no issues expected for these owners in meeting the successful regeneration requirements.

Although not yet a compliance issue, the owners identified as having potential restocking issues are also at risk of not meeting successful regeneration requirements if their restocking is delayed or if the number of trees is close to minimum, thus not allowing for damage or mortality.

Eight owners were noted to have brush issues that may hinder successful regeneration, however these owners all have several years to take action to fulfill the obligations.

Health issues appeared to be minor where they existed, and none noted were expected to jeopardize successful regeneration status.

Primary Forest Activities

Primary forest activities are timber harvesting, road construction, maintenance or deactivation and silviculture treatments. Primary forest activities must not result in sediment or other material being transported to or deposited in a stream if it will have a material adverse effect on fish habitat, or water that is diverted by a LWI. There were no compliance issues noted with respect to primary forest activities and sediment transport or deposition.

Notifications

Owners are required to notify holders of LWIs of any pending road construction or deactivation within one kilometer upstream. There were no instances of these activities upstream of a LWI during the inspection timeframe.

Owners are required to notify Council of any landslides or debris flows that deposit debris or sediment into Class A to E streams. The inspectors did not encounter any unreported landslides or debris flows that impacted streams.

Other Findings

Inspectors may also comment on any general observations they make on the field visits. In 2017 there was one managed forest identified with a change in land use from forestry to agriculture on a portion of the managed forest. The owner subsequently withdrew the agriculture portion from the managed forest, and BC Assessment will reassess this area to a different property class. Land use on another managed forest is being reviewed for a small area that was described as an immature stand on the forest cover map.

APPENDIX 1: Managed Forest Listing

Managed Forest	Hectares	Location	Comments
22	943	Vancouver Island	No compliance issues noted
27	827	Kootenay	No compliance issues noted
38	16,849	Kootenay Boundary Columbia	No compliance issues noted
53	5,916	Kootenay	No compliance issues noted
68	85,253	Vancouver Island	No compliance issues noted
74	70,551	Vancouver Island	No compliance issues noted
84	8,631	Kootenay Boundary	No compliance issues noted
91	24	Vancouver Island	No compliance issues noted
114	38	Vancouver Island	No compliance issues noted
143	97	Cariboo	No compliance issues noted
167	48	Gulf Islands	No compliance issues noted
177	349	Vancouver Island	No compliance issues noted
192	28	Vancouver Island	No compliance issues noted
221	130	Vancouver Island	No compliance issues noted
240	117	Central Coast	No compliance issues noted
241	87	Vancouver Island	No compliance issues noted
248	3,999	Kootenay	No compliance issues noted
300	319	Central Coast	No compliance issues noted
367	135	Gulf Islands	No compliance issues noted
368	32	Gulf Islands	No compliance issues noted
380	151	Gulf Islands	No compliance issues noted
381	80	Gulf Islands	Potential restocking noncompliance
390	57	South Coast	No compliance issues noted
395	31	Gulf Islands	Potential restocking noncompliance
398	68	Columbia	No compliance issues noted
417	56	Columbia	No compliance issues noted
433	49	Columbia	No compliance issues noted
440	123	Gulf Islands	No compliance issues noted
442	130	Vancouver Island	No compliance issues noted
443	1,739	Vancouver Island	No compliance issues noted
445	132	Vancouver Island	No compliance issues noted
446	109	Vancouver Island	No compliance issues noted
451	65	Vancouver Island	No compliance issues noted
452	41	Vancouver Island	No compliance issues noted
483	12,013	Kootenay Boundary	No compliance issues noted
487	401	Vancouver Island	No compliance issues noted
488	41	Vancouver Island	No compliance issues noted

MFC 2017 Inspection Program

Managed Forest	Hectares	Location	Comments
489	722	South Coast	No compliance issues noted
490	47	Vancouver Island	No compliance issues noted
491	57	Gulf Islands	No compliance issues noted
492	69	Cariboo	No compliance issues noted
493	842	Vancouver Island	No compliance issues noted
494	65	Thompson Okanagan	No compliance issues noted
495	39	Vancouver Island	No compliance issues noted
502	329	Vancouver Island	Potential riparian retention noncompliance