



MANAGED
FOREST
COUNCIL

2016 Managed Forest Inspection Program
October 2016

BACKGROUND

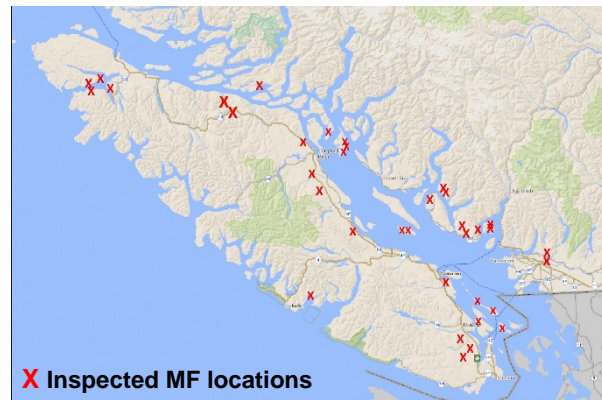
The Managed Forest Council (Council) has a policy to inspect all managed forests at least once every five years, as well as to inspect new managed forests within three years of entrance to the program. Managed forests may be inspected on a more frequent basis if they have higher levels of activity or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

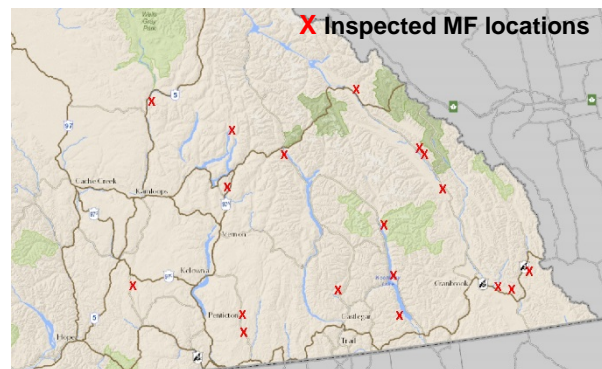
Of the 68 managed forest properties inspected in 2016, 47 managed forests are located on the coast and 21 are located in the interior as follows:

Number of MFs Inspected Coast	
Gulf Islands	19
Vancouver Island	15
South Coast	11
Skeena	2



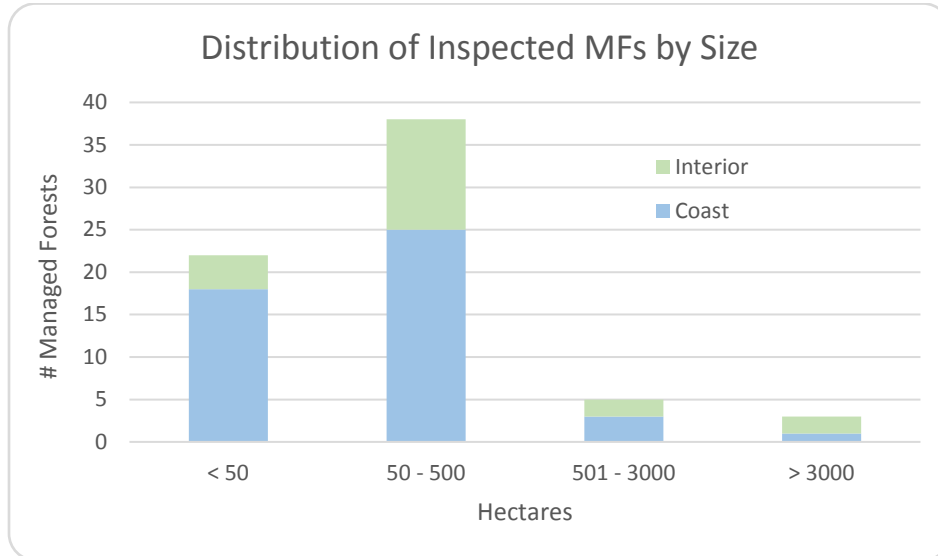
Location Map Vancouver Island & South Coast

Number of MFs Inspected Interior	
Kootenays	13
Thompson/ Okanagan	6
Columbia	2



Location Map Interior

The managed forests ranged from large properties with industrial owners to small family owned properties. Seven of the managed forests were larger than 1000 hectares, five of which have active, ongoing operations. The inspection sample encompassed 24% of forests in the Managed Forest Program. 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 22 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.

Other than one stream riparian area under review, there were no compliance issues noted for any of the harvest operations with respect to site disturbance and stream protection.

Other than the riparian area 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.

One owner was asked to confirm recent harvest boundaries and submit revised maps for areas that were not represented accurately on annual declarations.

Road Construction

Road construction took place within 14 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 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 six 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 20 managed forests for areas that are within the 5 or 10 year timelines above.

Two owners have potential restocking issues for areas required to be restocked by 2016. For both owners, 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 stocking has been achieved.

Inspectors noted upcoming restocking obligations on five managed forests where areas may require planting, brush control, or browse protection in order to meet the stocking requirements. 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 25 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.

Four owner 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. Owners are expected to monitor health and take action where applicable.

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. This year there were three managed forests identified with increased areas used for commercial gravel production. The gravel production areas are not eligible for managed forest land class, and the owners were required to withdraw the gravel production areas from their managed forests.

APPENDIX 1: Managed Forest Listing

Managed Forest	Hectares	Location	Comments
21	17,088	Vancouver Island, South Coast	No compliance issues noted
36	1080	Kootenays	No compliance issues noted
37	250	Kootenays	No compliance issues noted
45	817	Vancouver Island, South Coast	No compliance issues noted
57	294	Vancouver Island, South Coast	No compliance issues noted
81	14	Columbia	No compliance issues noted
92	30	Vancouver Island, South Coast	No compliance issues noted
117	63	Gulf Islands	No compliance issues noted
133	65	Thompson, Shuswap, Okanagan	No compliance issues noted
138	60	Gulf Islands	No compliance issues noted
140	152	Kootenays	No compliance issues noted
149	10	Vancouver Island, South Coast	No compliance issues noted
172	69	Gulf Islands	No compliance issues noted
199	69	Gulf Islands	No compliance issues noted
202	36	Kootenays	No compliance issues noted
203	14	Kootenays	No compliance issues noted
212	14	Vancouver Island, South Coast	No compliance issues noted
218	104	Gulf Islands	No compliance issues noted
228	14	Vancouver Island, South Coast	No compliance issues noted
238	1436	Kootenays	No compliance issues noted
243	88	Vancouver Island, South Coast	No compliance issues noted
246	195	Vancouver Island, South Coast	No compliance issues noted
254	63	Kootenays	No compliance issues noted
259	4	Vancouver Island, South Coast	No compliance issues noted
262	135	Kootenays	No compliance issues noted
268	37	Kootenays	No compliance issues noted
283	6	Vancouver Island, South Coast	No compliance issues noted
285	2	Vancouver Island, South Coast	No compliance issues noted
292	76	Vancouver Island, South Coast	No compliance issues noted
302	9	Gulf Islands	No compliance issues noted
307	59	Gulf Islands	No compliance issues noted
315	10	Gulf Islands	No compliance issues noted
317	20	Gulf Islands	No compliance issues noted
320	1855	Vancouver Island, South Coast	Survey required to confirm restocking obligations met
322	180	Gulf Islands	No compliance issues noted
328	65	Columbia	No compliance issues noted
341	64	Thompson, Shuswap, Okanagan	No compliance issues noted

MFC 2016 Inspection Program

Managed Forest	Hectares	Location	Comments
360	1006	Vancouver Island, South Coast	No compliance issues noted
376	73	Vancouver Island, South Coast	No compliance issues noted
379	247	Kootenays	No compliance issues noted
389	26	Vancouver Island, South Coast	No compliance issues noted
391	22	Vancouver Island, South Coast	No compliance issues noted
392	65	Kootenays	No compliance issues noted
396	35	Gulf Islands	No compliance issues noted
411	68	Gulf Islands	No compliance issues noted
413	185	Thompson, Shuswap, Okanagan	Survey required to confirm restocking obligation met
416	10,954	Kootenays	No compliance issues noted
419	47	Gulf Islands	No compliance issues noted
420	50	Gulf Islands	No compliance issues noted
425	160	Thompson, Shuswap, Okanagan	No compliance issues noted
426	33	Vancouver Island, South Coast	No compliance issues noted
427	52	Thompson, Shuswap, Okanagan	No compliance issues noted
428	96	Vancouver Island, South Coast	No compliance issues noted
429	54	Gulf Islands	No compliance issues noted
430	155	Vancouver Island, South Coast	No compliance issues noted
431	174	Gulf Islands	No compliance issues noted
432	76	Vancouver Island, South Coast	No compliance issues noted
434	81	Thompson, Shuswap, Okanagan	No compliance issues noted
435	95	Gulf Islands	No compliance issues noted
436	64	Vancouver Island, South Coast	No compliance issues noted
437	78	Vancouver Island, South Coast	No compliance issues noted
438	29	Vancouver Island, South Coast	No compliance issues noted
439	25	Gulf Islands	No compliance issues noted
441	85	Gulf Islands	No compliance issues noted
453	162	Skeena	No compliance issues noted
454	187	Skeena	No compliance issues noted
473	426	Vancouver Island, South Coast	No compliance issues noted
482	55,181	Kootenays	Stream sampling required to confirm classification