



MANAGED
FOREST
COUNCIL

2015 Managed Forest Inspection Program

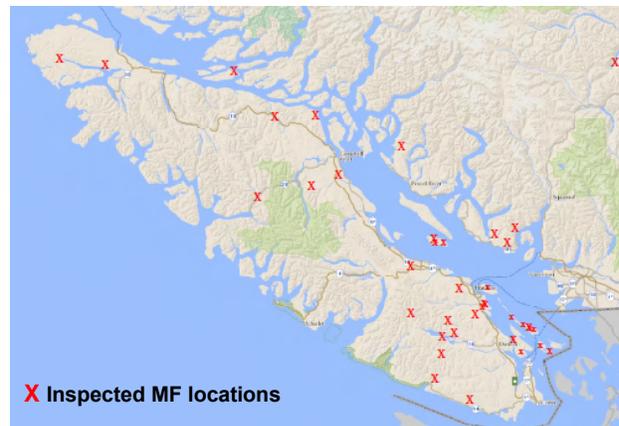
BACKGROUND

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. The Inspection Program is designed to determine whether managed forest owners are fulfilling 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

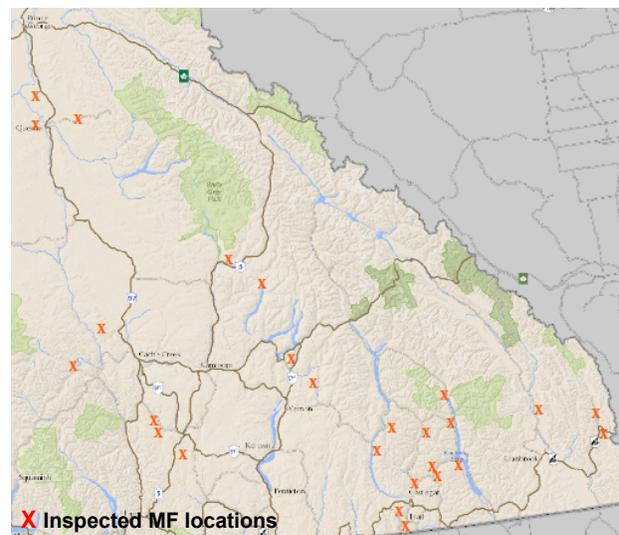
Of the 62 managed forest properties inspected in 2015, 38 managed forests are located on the coast and 24 are located in the interior as follows:

Number of MFs Inspected	
Vancouver Island	17
Gulf Islands	15
South Coast	6



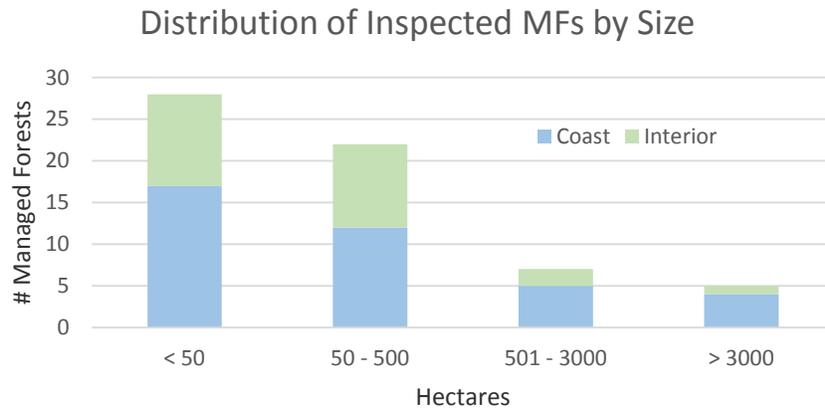
General Location Map Vancouver Island & South Coast

Number of MFs Inspected	
Kootenays	12
Thompson/ Okanagan	7
Clinton/ Quesnel	5



General Location Map Interior

The managed forests ranged from large properties with industrial owners, to small family owned properties. Ten of the managed forests were larger than 1000 hectares, all of which have active, ongoing operations. Nine of the inspections were carried out on managed forests that were new to the program since 2014. The inspection sample encompassed 22% 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 capture 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, reforestation and habitat for species at risk. 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. Feedback from inspectors was used to improve the inspection form for the 2015 field season.

For the ten inspections that were carried out on active managed forests greater than 1000 hectares, samples of harvesting, road building, maintenance, and deactivation, and reforestation were selected for inspection with particular emphasis 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 land slides and debris flows (sec 26)
	Focus of Private Managed Forest Land Regulation
Critical Wildlife Habitat	<ul style="list-style-type: none"> • owner awareness of requirements and restrictions when critical wildlife habitat is present (sec 8)

INSPECTION RESULTS

Harvesting

Harvesting was carried out on 24 of the managed forests since they had been 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.

There were no compliance issues noted for any of the harvest operations with respect to site disturbance and stream protection.

Stream retention requirements were met in all cases, and were exceeded in most areas. Top pruning was carried out by several owners in order to increase wind firmness of retention trees around streams and other water bodies.

Inspectors noted many good practices including: minimal site disturbance associated with the harvest activities; reserves left on wetlands and lakes; and documented planning and implementation of best management practices and standard operating procedures.

Road Construction

Road construction had taken place within 16 managed forests. No compliance issues were noted on any of the managed forests. One owner of a smaller managed forest had installed a culvert that did not effectively manage the water. However there were no downstream water intakes or fish habitat associated with this area.

Inspectors noted that roads are stable and designed for effective water management. 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 for the most active owners.

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. Short sections of permanent road deactivation were noted on 13 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

Current restocking obligations were noted on 22 managed forests for areas that are within the 5 or 10 year timelines above.

Five owners have potential restocking issues. 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.

Of the five owners identified with potential restocking issues:

- Three owners have areas that were required to be restocked and 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.
- Two owners have restocking obligations due in 2016 where inspectors were unsure whether the requirements would be met. Diligence is expected of these owners to determine and carry out any actions required to restock the areas by next year.

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

Current successful regeneration obligations were noted for 29 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.

One owner who has two blocks that are required to be successfully regenerated by 2017 was encouraged to carry out a survey to confirm whether treatment would be required to meet 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.

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APPENDIX 1: Managed Forest Listing

Managed Forest	Hectares	Location	Comments
5	12,918	Vancouver Island/ South Coast	No compliance issues noted
19	164,300	Vancouver Island/ South Coast	No compliance issues noted
20	1,187	Vancouver Island/ South Coast	No compliance issues noted
29	2,160	Vancouver Island/ South Coast	No compliance issues noted
30	1,450	Vancouver Island/ South Coast	No compliance issues noted
47	2,259	Vancouver Island/ South Coast	No compliance issues noted
65	66,318	Vancouver Island/ South Coast	No compliance issues noted
76	9,446	Vancouver Island/ South Coast	No compliance issues noted
79	736	Kootenays	No compliance issues noted
93	12	Vancouver Island/ South Coast	No compliance issues noted
98	40	Vancouver Island/ South Coast	No compliance issues noted
103	409	Kootenays	No compliance issues noted
111	44	Gulf Islands	No compliance issues noted
127	28	Vancouver Island/ South Coast	No compliance issues noted
130	33	Gulf Islands	No compliance issues noted
132	65	Thompson/ Okanagan	No compliance issues noted
145	68	Gulf Islands	No compliance issues noted
157	62	Clinton/ Quesnel	No compliance issues noted
160	49	Gulf Islands	No compliance issues noted
168	14	Thompson/ Okanagan	No compliance issues noted
180	55	Gulf Islands	No compliance issues noted
182	12	Vancouver Island/ South Coast	No compliance issues noted
198	128	Kootenays	No compliance issues noted
201	19	Kootenays	No compliance issues noted
204	28	Thompson/ Okanagan	No compliance issues noted
207	77	Gulf Islands	No compliance issues noted
220	13	Gulf Islands	No compliance issues noted
223	64	Clinton/ Quesnel	No compliance issues noted
224	41	Thompson/ Okanagan	No compliance issues noted
227	16	Gulf Islands	No compliance issues noted
230	127	Thompson/ Okanagan	No compliance issues noted
235	29	Kootenays	No compliance issues noted
266	17	Vancouver Island/ South Coast	No compliance issues noted
312	9	Gulf Islands	No compliance issues noted
316	63	Gulf Islands	Potential restocking issue, survey needed to confirm
319	25	Gulf Islands	No compliance issues noted
323	8	Gulf Islands	No compliance issues noted
327	36	Gulf Islands	No compliance issues noted
329	61	Gulf Islands	Potential restocking issue, survey needed to confirm
335	61	Thompson/ Okanagan	No compliance issues noted
338	33	Kootenays	No compliance issues noted
346	55	Kootenays	No compliance issues noted
355	40	Kootenays	No compliance issues noted

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Managed Forest	Hectares	Location	Comments
360	1,006	Vancouver Island/ South Coast	No compliance issues noted
362	36	Clinton/ Quesnel	No compliance issues noted
369	32	Thompson/ Okanagan	Potential restocking issue, survey needed to confirm
370	119	Kootenays	No compliance issues noted
378	132	Gulf Islands	No compliance issues noted
386	65	Vancouver Island/ South Coast	No compliance issues noted
404	31	Kootenays	No compliance issues noted
406	62	Vancouver Island/ South Coast	No compliance issues noted
423	60	Vancouver Island/ South Coast	No compliance issues noted
458	181	Vancouver Island/ South Coast	No compliance issues noted
477	62	Vancouver Island/ South Coast	No compliance issues noted
478	43	Vancouver Island/ South Coast	No compliance issues noted
479	41	Vancouver Island/ South Coast	No compliance issues noted
480	40	Vancouver Island/ South Coast	No compliance issues noted
481	59	Vancouver Island/ South Coast	No compliance issues noted
482	55,181	Kootenays	No compliance issues noted
484	57	Clinton/ Quesnel	No compliance issues noted
485	757	Kootenays	No compliance issues noted
486	33	Clinton/ Quesnel	No compliance issues noted