



MANAGED  
FOREST  
COUNCIL

2018 Managed Forest Inspection Program

## BACKGROUND

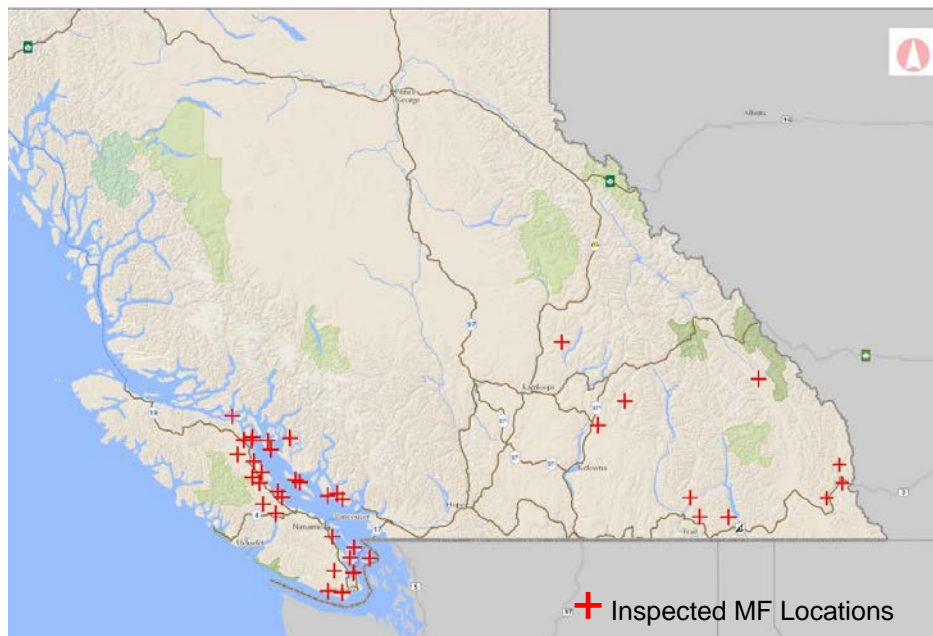
The Managed Forest Council (Council) has a policy to inspect all managed forests at least once every five years, as well as to inspect new managed forests within three years of entrance to the program. Managed forests may be inspected on a more frequent basis if they have higher levels of activity or 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 46 managed forest properties inspected in 2018, 36 managed forests are located on the coast and 10 are in the interior as follows:

<b>Coast</b>		<b>Interior</b>	
West Coast	27	Kootenay- Boundary	7
South Coast	9	Thompson- Okanagan	3



The managed forests ranged from large properties with industrial owners to small family owned properties. Nine of the managed forests were larger than 1000 hectares, seven 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. Three of the past five 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:

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

## **INSPECTION RESULTS**

### **Harvesting**

Harvesting was carried out on 17 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 individual tree selection.

There were no compliance issues found 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. Inspectors noted minimal site disturbance from roads and trails associated with the harvest activities, terrain assessments completed on steep or potentially unstable slopes, and use of qualified people to supervise timber harvesting activities.

## **Road Construction**

Road construction took place within 12 managed forests, ranging from access to new harvest areas, short spurs, and reconstruction of older roads. No compliance issues were noted with road building on any of the managed forests.

Inspectors noted that roads are stable and designed for effective water management and geotechnical professionals were involved where required. Roads built adjacent to streams and active stream crossings were located, built, and used in a manner that protects the stream channels and banks. Natural drainage patterns have been maintained and owners have revegetated exposed soils where required.

## **Road Maintenance**

Road maintenance includes 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 Council 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 with one exception. As a result of the inspections findings for one managed forest, a follow up field review is being conducted to confirm maintenance activities that have been carried out relative to a deposit of sediment into a stream. An investigation will be initiated if the field review identifies potential non-compliance with road maintenance or other regulatory requirements.

## **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 eight 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 road sections. There was one instance where owners were reminded that round-pipe stream culverts must be removed if they no longer maintain the road.

## **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 16 managed forests for areas that are within the 5 or 10 year timelines above. Inspectors use annual declaration data provided by the owners to confirm restocking obligations are reported and tracked accurately and correspond with field observations.

No potential non-compliance issues were identified. However inspectors noted areas with upcoming restocking obligations that have challenges including brush competition, mortality of planted trees, lack of natural regeneration, and deer browse. These areas may require planting or fill 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.

Most 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.

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 27 owners. One potential non-compliance is being followed up with a silviculture survey, which may lead to an investigation. The other obligations are not compliance issues as they are within the allowed timeframes of 15 or 20 years. There are no issues expected for most of these owners in meeting the successful regeneration requirements.

Owners are expected to be diligent in monitoring their regenerating stands to ensure that seedling survival is adequate, and brush, pests, and other challenges are managed to maintain the required successful regeneration attributes. Successful regeneration challenges are noted in the inspection reports where applicable.

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. As mentioned in the road maintenance section, a follow up field review is being conducted to determine the cause of a recent deposit of sediment into a stream. Other than this incidence, 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 was one instance of road construction upstream of a LWI during the inspection timeframe, and documentation of the required notification was confirmed.

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 found one slope failure that impacted a stream. This is the same incident that is under field review as noted in the road maintenance section.

APPENDIX 1: Managed Forest Listing

Managed Forest	Hectares	Location	Comments
7	108,878	West Coast	No compliance issues noted
39	6,665	West Coast	No compliance issues noted
54	9,505	Kootenay-Boundary	Field review initiated related to slope failure and deposit of sediment into stream
82	54	West Coast	No compliance issues noted
86	33	West Coast	No compliance issues noted
104	63	West Coast	No compliance issues noted
170	649	Kootenay-Boundary	No compliance issues noted
176	52	West Coast	No compliance issues noted
225	11	West Coast	No compliance issues noted
264	102	South Coast	No compliance issues noted
267	2,547	Kootenay-Boundary	No compliance issues noted
281	39	West Coast	Field review initiated for potential successful regeneration noncompliance
291	65	West Coast	No compliance issues noted
297	21	West Coast	No compliance issues noted
305	119	West Coast	No compliance issues noted
306	42	West Coast	No compliance issues noted
330	32	West Coast	No compliance issues noted
331	49	Thompson-Okanagan	No compliance issues noted
333	28	Kootenay-Boundary	No compliance issues noted
343	256	Thompson-Okanagan	No compliance issues noted
349	25	West Coast	No compliance issues noted
353	29	Thompson-Okanagan	No compliance issues noted
356	40	West Coast	No compliance issues noted
360	1,006	South Coast	No compliance issues noted
372	41	West Coast	No compliance issues noted
375	71	West Coast	No compliance issues noted
397	312	Kootenay-Boundary	No compliance issues noted
407	151	West Coast	No compliance issues noted
448	106	South Coast	No compliance issues noted
455	44	West Coast	No compliance issues noted
456	41	West Coast	No compliance issues noted
457	820	South Coast	No compliance issues noted
459	34	South Coast	No compliance issues noted
461	50	South Coast	No compliance issues noted
462	62	South Coast	No compliance issues noted
463	55	West Coast	No compliance issues noted
465	79	West Coast	No compliance issues noted
466	28	West Coast	No compliance issues noted



MFC 2018 Inspection Program

Managed Forest	Hectares	Location	Comments
471	45,174	Kootenay-Boundary	No compliance issues noted
482	55,181	Kootenay-Boundary	No compliance issues noted
499	83	West Coast	No compliance issues noted
501	89	West Coast	No compliance issues noted
502	329	West Coast	No compliance issues noted
503	69	South Coast	No compliance issues noted
508	30	West Coast	No compliance issues noted
523	1,465	South Coast	No compliance issues noted