# 2019 Managed Forest Inspection Program

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## BACKGROUND

The Managed Forest Council (Council) is the independent provincial agency responsible for administering British Columbia's *Private Managed Forest Land Act* and the Managed Forest Program, which includes protection of key public environmental values on private managed forest land.

One of Council's functions is to enforce forest practices standards in accordance with regulations. A key component is the annual inspection program that provides ongoing assessment of owners' compliance with the private managed forest land legislation. Potential noncompliances identified by inspectors are followed up with further field review and investigation where warranted.

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 where potential environmental risk has been identified, such as higher levels of operations in proximity to drinking 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.

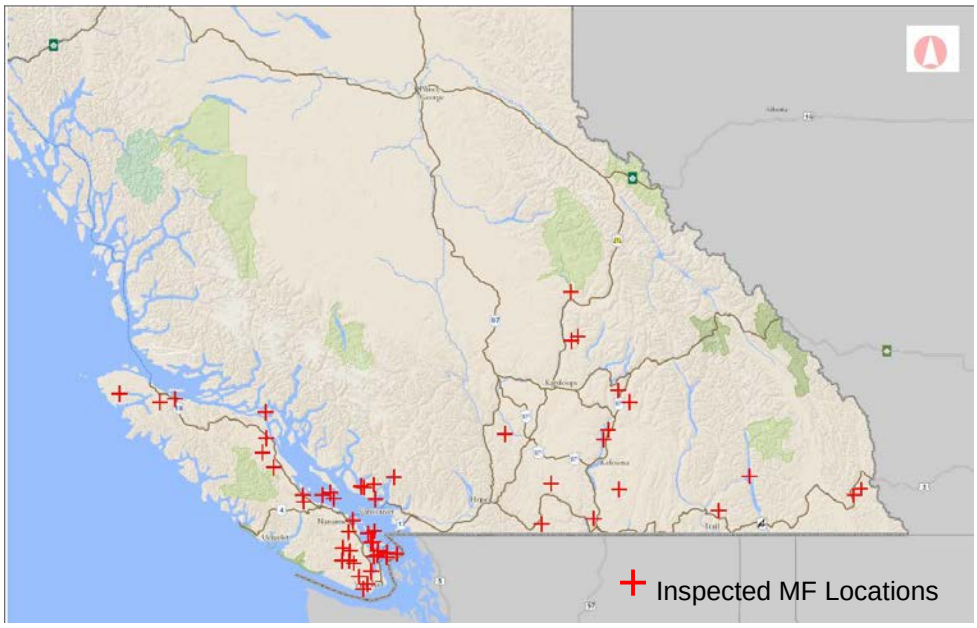
There are 285 managed forests in the program, encompassing 817,000 hectares across the province: approximately 70% of the land is on Vancouver Island & the south coast; 20% is in the Kootenay-Boundary area; and 10% is spread across BC.

## Inspection Locations & Hectares

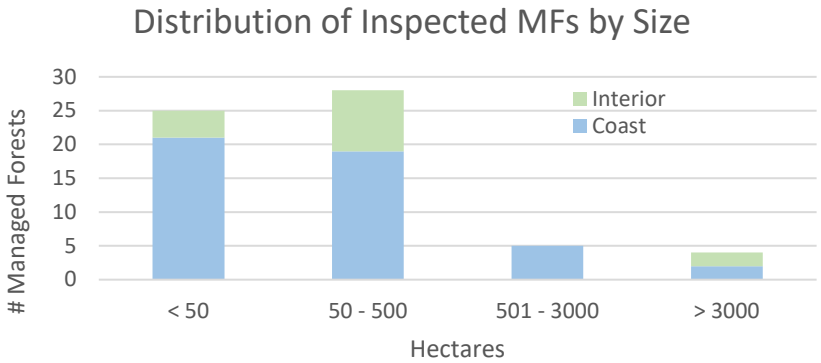
Of the 62 managed forest properties inspected in 2019, 47 managed forests are located on the coast and 15 are in the interior as follows:

| Coast | |
|---|---|
| West Coast | 42 |
| South Coast | 5 |

| Interior | |
|---|---|
| Kootenay- Boundary | 5 |
| Thompson- Okanagan | 10 |




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, seven of which have active, ongoing operations.



The inspection sample encompassed 22% of forests in the program while continuing to meet the objective of inspecting all managed forests at least once every five years. Appendix 1 includes a list of the inspected managed forests and general locations.

## INSPECTION APPROACH

The Private Managed Forest Land Council Regulation (Council Regulation) provides clear requirements for owners, contractors, employees and agents with respect to the key public environmental values, which are soil conservation, water quality, fish habitat, reforestation, and critical wildlife habitat. The inspection form is designed for inspectors 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 improvement with respect to field practices were also noted where applicable.

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

The inspections focused on the following:

| Activity | Focus of Council Regulation |
|---|---|
| Harvesting | • minimize site disturbance (s. 14)<br>• protecting water quality and fish habitat (s. 14.1, 15)<br>• retain appropriate number of trees, understory vegetation adjacent to streams (s. 27, 28, 29, 30) |
| Road Construction | • protect and mitigate disturbance to stream channels and banks (s. 16, 17)<br>• maintain natural drainage patterns (s. 18)<br>• revegetate exposed soils after construction (s. 19) |
| Road Maintenance | • maintain road prism and clearing width (s. 21)<br>• maintain drainage system (s. 21) |
| Road Deactivation | • re-establish natural drainage patterns (s. 18)<br>• revegetate exposed soils after deactivation (s. 19)<br>• remove culverts and bridges when no longer required (s. 22) |
| Restocking | • restock after harvesting or destroyed timber (s. 31) |
| Successful Regeneration | • successfully regenerate after harvesting or destroyed timber (s. 31) |
| Primary Forest Activities | • protect drinking water quality (s. 14.1)<br>• restrict sediment transport and deposition into streams (s. 15)<br>• protect licensed waterworks intakes (LWIs) (s. 20)<br>• retain riparian non-commercial trees and understory (s. 30) |
| Notifications | • notify holders of LWIs when road construction or deactivation to take place (s. 23)<br>• notify Council of landslides and debris flows (s. 26) |

## INSPECTION RESULTS

### Harvesting

Harvesting was carried out on 16 of the managed forests since previously inspected, ranging from multiple cutblocks over varied terrain and site conditions, to small patch cuts. A range of systems was observed, from clearcuts to selective harvest and individual tree selection. An additional 16 owners reported salvage of scattered windfall or dead trees to use onsite and as firewood.

With one exception, there were no compliance issues found for harvest operations with respect to site disturbance and stream protection. Stream retention requirements were met and 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 professionals to plan, document, and supervise timber harvesting activities.

One potential compliance issue was found related to a recent harvest area adjacent to a fish bearing stream. A follow up field review will be conducted to confirm riparian retention of commercial trees, non-commercial trees, and understory as required (Council Regulation s. 29 and s. 30), and whether sediment was deposited in a stream and had a material adverse effect on fish habitat (Council Regulation s. 15). An investigation will be initiated if the field review confirms potential non-compliance with riparian retention or other regulatory requirements.

### Road Construction

Road construction took place within 12 managed forests, ranging from access to new harvest areas to temporary in-block spurs within cutblocks. No compliance issues were noted with road building on any of the managed forests.

Inspectors noted that overall roads are stable and designed for effective water management. 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.

An inspector of one of the managed forests noted two instances where sloughing fill slopes risk introducing sediment into streams. In follow up to the inspection, the owner carried out and confirmed repair work. Council has initiated further field review and follow up for potential road related issues on this managed forest.

## 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. 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. However, although no compliance issues were found, some owners were reminded of the need for adequate drainage structures, and the requirement to continue maintaining roads, including ensuring drainage structures are functioning properly.

## 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. 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 road sections.

## Reforestation

Reforestation requirements including timelines are set out in s. 31 of the Council Regulation. This section of the regulation was amended effective July 1, 2019 such that new owners to the program no longer have an extended timeframe to restock or successfully regenerate land that was harvested by a previous owner. All managed forest owners now must restock harvested or destroyed land within five years of the disturbance, and successfully regenerate these areas within 15 years.

RESTOCKING

Restocking obligations were noted on 15 managed forests, all for areas that are within the allowable timeframe since harvest. Inspectors use annual declaration data provided by the owners to confirm restocking obligations are reported and tracked accurately, and confirm restocking status as part of the inspection.

No potential non-compliance issues were identified. However, inspectors noted challenges in areas with upcoming restocking obligations, including brush competition, seedling mortality, drought, and ungulate browse. These areas may require fill planting, brush control, or browse protection to meet the restocking 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 obligations were noted for 18 owners. No compliance issues were found however challenges were noted, including brush competition, browse damage, and mortality. Owners are generally very aware of their obligations and the actions required to ensure the obligations are met.

Owners are expected to be diligent in monitoring their regenerating stands to ensure seedling survival is adequate, and brush, pests, and other challenges are managed to meet 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. Additionally, the Council Regulation amendment effective July 1, 2019 includes the new section 14.1: owners who carry out primary forest activities must not cause a material adverse effect on the quality of drinking water that may affect human health at a drinking water intake.

As noted in the harvesting section, a follow up review has been initiated to assess potential non-compliance related to possible deposit of sediment and related impacts to fish habitat.

There were no other potential 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 did not note any instances where notifications had not occurred as required.