



**Forest
Practices
Board**

Audit of Forest Planning and Practices

Skeena Sawmills Ltd.

Tree Farm Licence 41, Forest Licences A16882 and A16885

FPB/ARC/222

December 2018

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Introduction

The Forest Practices Board is the public's watchdog for sound forest and range practices in British Columbia. One of the Board's roles is to audit the practices of the forest industry to ensure compliance with the *Forest and Range Practices Act* (FRPA) and the *Wildfire Act*.

As part of its 2018 compliance audit program, the Board randomly selected the Coast Mountains Natural Resource District (CMNRD) as the location for a full scope compliance audit. Within the district, the Board selected tree farm licence (TFL) 41, forest licence (FL) A16882 and FL A16885, held by Skeena Sawmills Ltd. (Skeena), for audit.

This report explains what the Board audited and the results. Detailed information about the Board's compliance audit process is provided in *Appendix 1*.



Skeena's operating area, looking west across the Kitimat River.

Audit Results

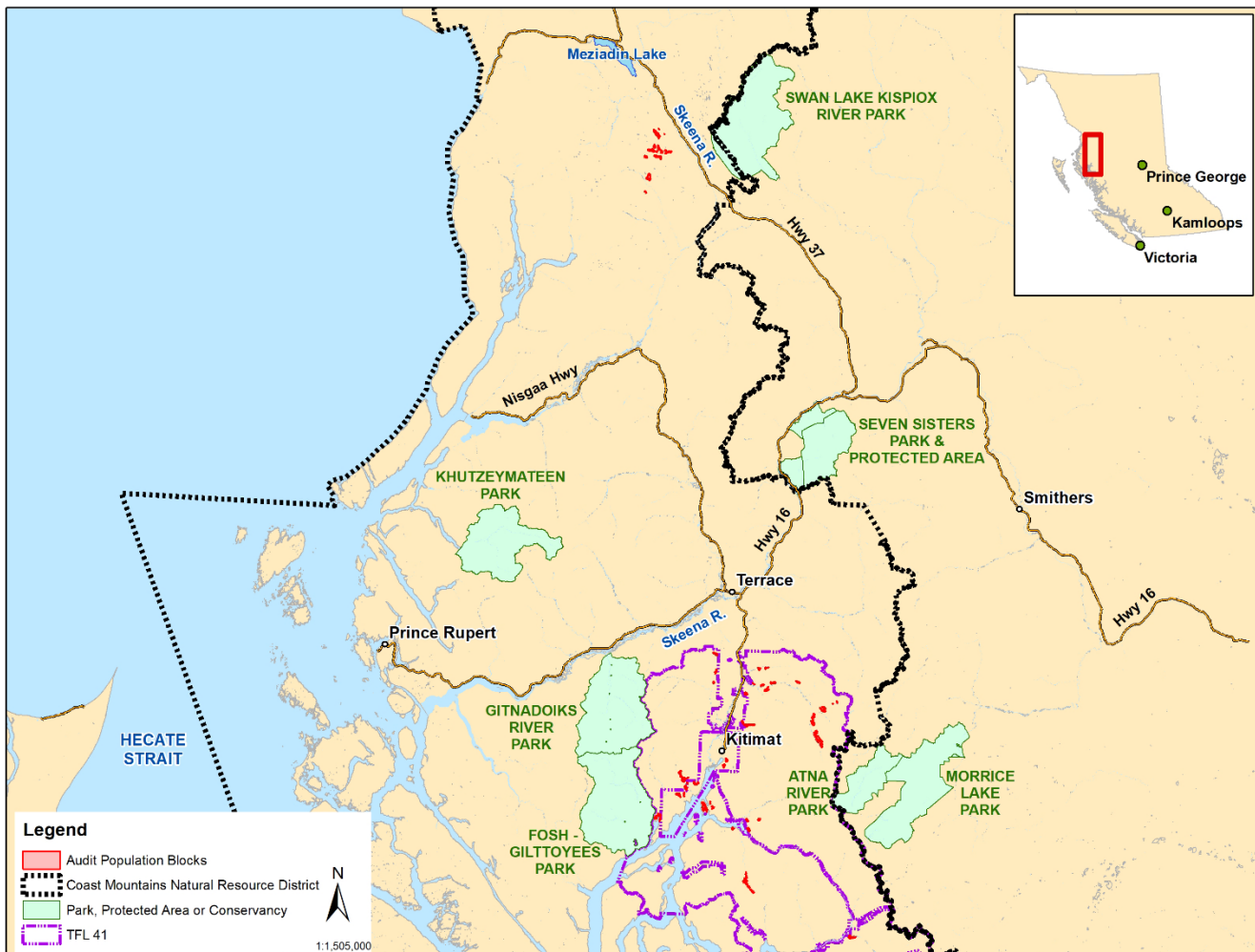
Background

The CMNRD extends from the Kitlope River in the south to the lower Nass River and Bell-Irving Rivers in the north. The district boundary is adjacent to several large protected areas, including Gitnadoix River Park, Foch Gilttooyes Park, and the Kitlope Heritage Conservancy.

Skeena operates in two general locations within the district. Operations for TFL 41 and FL A16885 are within 40 kilometres of Kitimat, between the Kitimat River in the north and Miskatla Inlet and Kildala Arm in the south. Operations for FL A16882 are just south of Meziadin Lake along the Kinskuch River and Little Paw Creek (refer to map below).

TFL 41 has an allowable annual cut (AAC) of 128 000 cubic metres, FL A16882 has an AAC of 162 000 cubic metres and FL A16885 has an AAC of 26 000 cubic metres. During the two-year audit period, approximately 295 000¹ cubic metres were harvested from TFL 41, 84 000 cubic metres from FL A16882 and 35 000 cubic metres from FL A16885.

Map of the Audit Area



¹ A licensee may harvest up to 110 percent of their five-year cut control cycle, or over 704 000 cubic metres, in this case, in just one or two years, while still meeting cut control requirements.

Audit Approach and Scope

This was a full scope compliance audit with a two-year timeframe. All activities carried out by Skeena in the CMNRD between August 1, 2016, and August 15, 2018, were subject to audit. The activities included harvesting, road and major structure² construction and maintenance, silviculture, wildfire protection and associated planning.

Auditors assessed these activities for compliance with FRPA, the *Wildfire Act*, and applicable regulations. Auditors' work involved interviewing Skeena staff, reviewing the forest stewardship plan and site plans, assessing silviculture records, and field visits. Field sites were accessed by truck and helicopter.

The standards and procedures used to carry out this audit are set out in the Board's *Compliance Audit Reference Manual, Version 7.1, July 2016*.

Three forest professionals, a professional engineer, and a chartered professional accountant made up the audit team. The audit team was in the field with Skeena staff from August 13 to 15, 2018.

Planning and Practices Examined

Operational Planning

Skeena planned its activities under three forest stewardship plans¹ (FSP):

1. TFL 41, FL A16885 and FL A16882, approved on October 13, 2017, for the period September 21, 2017, to September 21, 2022. This FSP covers all of Skeena's operations.
2. Operations within the CMNRD under FL A16882, including areas in the Nass Timber Supply Area, held by Skeena Sawmills Ltd., approved on March 30, 2012. This FSP covered operations north of the Nass River.
3. TFL 41 and FL A16885, Amendment #3, approved on February 8, 2012. This FSP covered operations south of the Nass River.

Auditors examined the 2017-2022 FSP for consistency with legal requirements (including government objectives for old growth, moose and mountain goat ungulate winter range, visual quality objectives, wildlife habitat areas, species at risk and *Land Use Objectives Regulation Orders*). Auditors also reviewed site plans during harvesting, road and silviculture field sampling to ensure that they accurately identified site conditions.

Timber Harvesting

Skeena conducted harvesting activities on 41 cutblocks during the audit period. Auditors examined 19 of these cutblocks.

² Major structure includes bridges and major culverts.

- Bridge means a temporary or permanent crossing structure with a span length equal to or greater than 6 metres or an abutment height of 4 metres or greater.
- Major culvert has a pipe diameter of 2 metres or greater or is a pipe arch or open bottom arch with a span greater than 2.13 metres.

Road and Major Structure Construction, Maintenance and Deactivation

During the audit period, Skeena constructed 51 kilometres and maintained 448 kilometres of road. It did not deactivate any road. Skeena installed 2 bridges and 2 major culverts and maintained 52 bridges and 2 major culverts. Skeena did not remove any bridges or major culverts.

Auditors examined 39 kilometres of constructed roads, 292 kilometres of maintained roads, both bridges and 1 of the major culverts that were installed, and 35 bridges and 1 of the major culverts that were maintained.

Silviculture Activities and Obligations

Skeena planted 18 cutblocks during the audit period. Regeneration delay was due or declared on 12 cutblocks and free growing was due or declared on 55 cutblocks. Skeena did not conduct any other silviculture activities within the audit period.

Auditors examined 5 planted cutblocks in the field and all planted cutblocks for compliance with seed transfer guidelines, 4 cutblocks where regeneration delay was due or declared and 28 cutblocks where free growing was due or declared.

Wildfire Protection

There were no active sites encountered during the field review because all operations were shut down due to a high fire hazard. Fire hazard assessments were required on 31 cutblocks and fire hazard was abated on 15 cutblocks, even though the hazard abatement was not yet due on any of them.

Auditors examined fire hazard assessment on 16 cutblocks and fire hazard abatement on 6 cutblocks.

Findings

The audit found that, except for seed transfer guidelines discussed below, the activities generally complied with the requirements of FRPA and the *Wildfire Act*.

The audit also identified an area requiring improvement related to free-growing obligations.

Silviculture Activities and Obligations

Seed Transfer Guidelines

Section 43ⁱⁱ of the *Forest Planning and Practices Regulation* (FPPR) requires forest licence holders to ensure that harvested areas are planted with a sufficient number of well-spaced and desirable seedlings, grown from suitable genetic sources. Section 31ⁱⁱⁱ of FRPA requires that seedlings used for regeneration conform to the *Chief Forester's Standards for Seed Use*.³ Seed transfer limits identify specific areas for seed use based on seed planning zones, elevation, latitude and longitude. A person who plants trees must not exceed the seed transfer limits specified in the standards.

Seed transfer transgressions that exceed five percent of the total annual trees planted are significant and can potentially lower the overall survival and productivity of the seedlings. The audit found five cutblocks where more than five percent of the seedlings planted in 2018 did not comply with the *Chief Forester's Standards for Seed Use*.

As over a quarter of the cutblocks audited were not in compliance with sections 31 of FRPA and 43 of the FPPR, this finding is considered significant.

³ https://www.for.gov.bc.ca/ftp/hti/external/!publish/Chief_Foresters_Standards_for_Seed_Use/CFstds03Jun2010.pdf

Free-Growing Obligations

The right to harvest the Crown resource is conditional on the harvested area being returned to a free-growing state. A free-growing stand is one of healthy trees of a commercially valuable species, where the growth is not impeded by competition from plants, shrubs, or other trees.

Section 44^{iv} of the FPPR requires that free growing be achieved before the late free-growing date has passed. The FPPR states that harvested areas must meet free-growing stocking standards and free-growing height by a date that is no more than 20 years from the commencement of harvesting.

Forest licensees have the option of using a blanket 20-year free-growing date in their FSP. However,

if a date other than 20 years is used in the FSP, then that is the date that the licensee is obligated to meet. Skeena committed to establishing a free-growing stand on some areas within a period less than 20 years from commencement of harvesting. Nine of the 28 sampled free-growing blocks had one or more standard units declared as free-growing past the late free-growing date committed to in the FSP.

The potential effect on future timber yields is not high, since all the blocks were considered free-to-grow at the time of the audit field work and all reached free growing within 20 years of the commencement of harvesting. Consequently, this non-compliance is considered an area requiring improvement.

Regeneration Delay

Auditors found no issues with regeneration delay.

Operational Planning

Skeena addressed site-specific resources in its site plans by accurately identifying and prescribing practices for resource features such as riparian, wildlife, visuals, soils and cultural heritage resources.

Skeena refers proposed development to First Nations and other tenured resource users on an annual basis. It keeps an itemized record of the referral and any comments received.

The FSP and site plans were consistent with FRPA requirements and legal objectives. Auditors had no concerns with operational planning.

Timber Harvesting

Harvesting met the requirements of legislation and site plans. Topography in the operating areas ranged from gently rolling, with little rock or steep slopes, to rugged coastal mountain terrain. Harvesting used ground-based, cable and helicopter systems.

Natural drainage patterns were maintained, and streams and wetlands were well managed. Skeena kept most streams and wetlands outside of the block boundary, and protected them with mature timber buffers. Site disturbance was well managed and below allowable limits.

The FSP requires that at least 7 percent of the total area of the cutblock be retained as wildlife trees. Skeena exceeded the 7 percent minimum and maintained an average of 10.5 percent of the gross block



Skeena met free growing within 20 years of harvest commencement on all blocks where free growing was due.

area in wildlife trees. Most wildlife tree retention was in patches around riparian areas adjacent to the harvested area.

Auditors found no issues with harvesting.



Typical topography in Skeena's operating areas.



Helicopter logged cutblocks south of Kitimat.

Road and Major Structure Construction and Maintenance

Construction

Road construction techniques varied from conventional construction in the lower valley to engineered road sections requiring drilling and blasting with full bench construction over the mid to upper slopes. Natural drainage patterns were maintained over the road segments field reviewed.

Bridge construction was well done and all documentation was available and complete.

Maintenance

For the most part, terrain stability risk was low to moderate. Culverts were functional and, in many cases, backed up with cross ditches, thereby maintaining natural flow patterns. A number of in-block roads were seasonally deactivated after harvesting, which the Board considers to be a maintenance activity. The methods used were effective in maintaining stream flows within the channels and reducing erosion associated with the roads.

Auditors did not identify any road segments with significant stability issues.

Skeena had a wide variety of bridge designs including railcars, steel substructures and composite decking, and log stringer bridges. Auditors reviewed the bridge inspection reports in the licensee's office following the field reviews.

Documentation for the roads and major structures was retained in individual files for each road permit and structure. Inspection reports were appended to the files with follow-up dates for any issues noted.

Auditors found no issues with road and major structure construction or maintenance.

Wildfire Protection

Hazard Assessment

Auditors examined 16 cutblocks that required a hazard assessment for compliance with the *Wildfire Act*. Skeena had completed hazard assessments for all 16 cutblocks.

Hazard Abatement

The fire hazard was abated by burning the slash piles on the six cutblocks reviewed. The slash piles were disposed of very effectively. Where slash was piled, it was done in a manner that will facilitate disposal by burning when it is safe to do so.

Auditors found no issues with wildfire protection.

It is Skeena's standard practice to pile slash and then burn it when it is safe to do.



Audit Opinion

In my opinion, except for the issue identified below, the operational planning, timber harvesting, road and bridge construction and maintenance, silviculture and fire protection activities carried out by Skeena Lumber Ltd. on tree farm licence 41, forest licence A16882 and forest licence A16885 between August 1, 2016, and August 15, 2018, complied in all significant respects with the requirements of the *Forest and Range Practices Act*, the *Wildfire Act* and related regulations, as of August 2018. There is no opinion provided for deactivation.

In reference to compliance, the term “in all significant respects” recognizes that there may be minor instances of non-compliance that either may not be detected by the audit, or that are detected but not considered worthy of inclusion in the audit report.

As described in the *Seed Transfer Guidelines* section of the report, the audit identified a significant non-compliance.

Without further qualifying my opinion, I draw attention to the *Free-Growing Obligations* section of the report that describes an area requiring improvement.

The *Audit Approach and Scope* and the *Planning and Practices Examined* sections of this report describe the basis of the audit work performed in reaching the above conclusion. The audit was conducted in accordance with the auditing standards of the Forest Practices Board, including adherence to the auditor independence standards and the ethical requirements, which are founded on fundamental principles of integrity, objectivity, professional competence and due care, confidentiality and professional behaviour. Such an audit includes examining sufficient forest planning and practices to support an overall evaluation of compliance with FRPA and the *Wildfire Act*.

A handwritten signature in black ink that reads "C R Mosher".

Christopher R. Mosher CPA, CA, EP(CEA)

Director, Audits

Victoria, British Columbia

December 3, 2018

Appendix 1: Forest Practices Board Compliance Audit Process

Background

The Forest Practices Board conducts audits of government and agreement-holders under the *Forest and Range Practices Act* (FRPA), section 122, and the *Wildfire Act*. Compliance audits examine forest or range planning and practices to determine whether or not they meet FRPA and / or *Wildfire Act* requirements. The Board conducts about 10 compliance audits annually. Most of these are audits of agreement holders. The Board also audits the government's BC Timber Sales Program (BCTS).

Selection of auditees

To begin with, auditors randomly select an area of the Province, such as a natural resource district. Then the auditors review the forest resources, geographic features, operating conditions and other factors in the area selected. These are considered in conjunction with Board strategic priorities (updated annually), and the type of audit is determined. At this stage, auditors choose the auditee(s) that best suits the selected risk and priorities. The audit selections are not based on past performance.

For example, in 2016, the Board randomly selected the Dawson Creek portion of the Peace Natural Resource District as a location for an audit. After assessing the activities within the area, it was noted that there were two community forest agreements that had not yet been audited by the Board. As the Board strives to audit an array of licence types and sizes each year, these two community forest agreements were selected for audit.

For BCTS audits, a district or timber supply area within 2 of the 12 business areas in the province is selected randomly for audit. Only those areas that have not been audited by the Board in the past five years are eligible for selection.

Audit Standards

The audits are conducted in accordance with auditing standards developed by the Board. These standards include adherence to the auditor independence standards and the ethical requirements, which are founded on fundamental principles of integrity, objectivity, professional competence and due care, confidentiality and professional behaviour and are consistent with Canadian generally accepted auditing standards. The standards for compliance audits are described in the Board's *Compliance Audit Reference Manual*.

Audit Process

Conducting the Audit

Once the Board randomly selects an area or district and determines the scope of audit to be conducted and the licensee(s) to be audited, all activities carried out during the period subject to audit are identified (such as harvesting or replanting, and road construction or deactivation activities). Items that make up each forest activity are referred to as a population. For example, all sites harvested form the timber harvesting population and all road sections constructed form the road construction population.

A separate sample is then selected for each population (e.g., the cutblocks selected for auditing timber harvesting). Within each population, more audit effort (i.e., more audit sampling) is allocated to areas where the risk of non-compliance is greater. For smaller audits, the sample will include the full population.

Auditors' work includes interviewing licensee staff, reviewing applicable plans, assessing features from helicopters and measuring specific features like riparian reserve zone width using ground procedures. The audit teams generally spend three to five days in the field.

Evaluating the Results

The Board recognizes that compliance with the requirements of FRPA and the *Wildfire Act* is more a matter of degree than absolute adherence. Determining compliance, and assessing the significance of non-compliance, requires the exercise of professional judgment within the direction provided by the Board.

The audit team, composed of professionals and technical experts, first determines whether forest practices comply with legal requirements. For those practices considered to not be in compliance, the audit team then evaluates the significance of the non-compliance, based on a number of criteria, including the magnitude of the event, the frequency of its occurrence and the severity of the consequences.

Auditors categorize their findings into the following levels of compliance:

Compliance – where the auditor finds that practices meet FRPA and *Wildfire Act* requirements.

Unsound Practice – where the auditor identifies a significant practice that, although in compliance with FRPA or the *Wildfire Act*, is not considered to be sound management.

Not significant non-compliance – where the auditor, upon reaching a non-compliance conclusion, determines that one or more non-compliance event(s) is not significant and not generally worthy of reporting. However, in certain circumstances, these events may be reported as an area requiring improvement.

Significant non-compliance – where the auditor determines a non-compliance event(s) or condition(s) is, or has the potential to be, significant and is considered worthy of reporting.

Significant breach – where the auditor finds that significant harm has occurred, or is beginning to occur, to persons or the environment as a result of one or more non-compliance events.

If a significant breach of the legislation has occurred, the auditor is required by the *Forest Practices Board Regulation* to immediately advise the Board, the party being audited, and the Minister of Forests, Lands, Natural Resource Operations and Rural Development.

Reporting

Based on the above evaluation, the auditor then prepares a draft audit report. The party being audited is given a copy of the draft report for review and comment before it is submitted to the Board.

The Board reviews the draft report and determines if the audit findings may adversely affect any party or person. If so, the party or person must be given an opportunity to make representations before the Board decides the matter and issues a final report. The representations allow parties that may potentially be adversely affected to present their views to the Board.

The Board reviews representations from parties that may potentially be adversely affected, makes any necessary changes to the report, and decides if recommendations are warranted. The report is then finalized and released: first to the auditee and then to the public and government seven days later.

ENDNOTES

ⁱ A forest stewardship plan (FSP) is a key planning element in the FRPA framework and the only plan subject to public review and comment and government approval. In FSPs licensees are required to identify results and/or strategies consistent with government objectives for values such as water, wildlife and soils. These results and strategies must be measurable and once approved are subject to government enforcement. FSPs identify areas within which road construction and harvesting will occur but are not required to show the specific locations of future roads and cut blocks. FSPs can have a term of up to five years.

ⁱⁱ *Forest Planning and Practices Regulation – Section 43 - Use of seed*

(1) In this section, "**transfer**" means the process by which seed is selected and used, based on the origin of the seed and its genetic suitability for the site on which trees grown from the seed are to be planted.

(2) The chief forester may make standards for matters referred to in section 169 (1) (a) (i) to (v) [*chief forester standards for forest practices*] of the Act if the chief forester considers such standards to be necessary or appropriate for the purpose of regulating the use, registration, storage, selection or transfer of seed to be used in the establishment of free growing stands.

(3) The chief forester may authorize a person to exercise a discretion of the chief forester described in subsection (5), (6) or (7).

(4) Unless an alternative is approved under subsection (6), a person who plants trees while establishing a free growing stand must use only seed registered, stored, selected and transferred in accordance with the standards, if any, established by the chief forester.

(5) A person referred to in subsection (4) may submit to the chief forester for approval an alternative to any standard established by the chief forester under subsection (2).

(6) The chief forester may approve an alternative submitted under subsection (5) if the chief forester considers that the alternative is consistent with achieving the intent of the standard.

(7) If the chief forester approves an alternative submitted under subsection (5), the person who submitted the alternative

(a) is exempt from the requirement of subsection (4) for which the alternative has been approved, and

(b) must comply with the alternative.

(8) A person who is required to establish a free growing stand must keep a record of the registration numbers of the seed that is used, if any, and a map of the location where the trees grown from the seed are planted.

ⁱⁱⁱ *Forest and Range Practices Act – Section 31 - Seed*

A person required to establish a free growing stand must ensure that seed used for that purpose conforms to prescribed requirements.

^{iv} *Forest Planning and Practices Regulation – Section 44 - Free growing stands generally*

- (1) A person who has an obligation to establish a free growing stand must establish, for areas that have been identified under section 16 (1) [*stocking standards*] as areas to which this section will apply, a stand that
- (a) meets the applicable stocking standards set out in the forest stewardship plan for the area, by the applicable regeneration date specified for the area, and
 - (b) meets the applicable stocking standards and free growing height set out in the forest stewardship plan for the area by a free growing date that is no more than 20 years from the commencement date, unless the minister permits a later free growing date.
- (2) If an agreement holder contravenes section 52 (1) [*unauthorized timber harvesting*] of the Act, the holder must establish, on the area on which the contravention occurred, a stand that meets the requirements specified in the holder's forest stewardship plan for an area with similar attributes, as if the area on which the contravention occurred had been identified under section 16 (1) as being subject to this section.
- (3) A person is exempt from the requirements of section 29 (1) and (2) [*free growing stands*] of the Act in respect of an area if timber harvesting is restricted to one or more of the following:
- (a) harvesting timber to eliminate a safety hazard;
 - (b) harvesting timber to facilitate the collection of seed, leaving an opening not greater than 1 ha;
 - (c) removing felled trees from landings and road rights of way;
 - (d) harvesting trees on land that is, or will be, exclusively used for harvesting hay or grazing livestock in accordance with an agreement under the *Range Act*;
 - (e) harvesting timber for experimental purposes if, in the opinion of the minister, the harvesting will be carried out under controlled scientific or investigative conditions;
 - (f) clearing areas for or within a recreation site or recreation trail;
 - (g) felling and removing trees that have been or will be treated to facilitate the entrapment of pests;
 - (h) commercial thinning, removal of individual trees, or a similar type of intermediate cutting;
 - (i) harvesting special forest products other than woodchips or hogged tree material.
- (4) A person who harvests timber for the reasons referred to in subsection (3) (h) and (i) must ensure that, for a period of 12 months after completion of harvest, the area on which timber harvesting was carried out conforms to the stocking standards specified in section 16 (4) for the area.



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