

RATIONALE FOR MY DECISION

ON

Cattermole Timber's

**2001 to 2005 FOREST DEVELOPMENT
PLAN (FDP)**

Amendment # 32

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1. My Legal Authority as a Statutory Decision Maker

Section 41(1) of the *Forest Practices Code of British Columbia Act (FPC)* provides that a District Manager *MUST APPROVE* an operational plan if:

- a) *the plan or amendment was prepared and submitted in accordance with the FPC, the regulations and the standards, and*
- b) *the district manager is satisfied that the plan or amendment will adequately manage and conserve the **forest resources** [emphasis added] of the area to which it applies.*

Forest resources are defined in the *FPC* as “resources and values associated with forests and range including, without limitation, timber, water, wildlife, fisheries, recreation, botanical forest products, forage and biological diversity”.

The discretion granted to me by section 41(1)(b) is not unlimited. Statutory discretion must be exercised within the boundaries set out in the legislation and by the common law principles of administrative fairness, i.e., I cannot impose additional content requirements on licensees that are outside of the legal requirements.

I considered the **statutory** [emphasis added] limit of my discretion by applying the rules of statutory interpretation. This involves a consideration of the context within which the statutory power is granted. A fundamental part of the context I considered is the **PREAMBLE to the CODE**, which states:

WHEREAS British Columbians desire sustainable use of the forests they hold in trust for future generations; AND WHEREAS sustainable use includes:

- a) managing forests to meet present needs without compromising the needs of future generations;
- b) providing stewardship of forests based on an ethic of respect for the land;
- c) balancing economic, productive, spiritual, ecological and recreational values of forests to meet the economic, social and cultural needs of peoples and communities, including First Nations;
- d) conserving biological diversity, soil, water, fish, wildlife, scenic diversity and other forest resources, and;
- e) restoring damaged ecologies.

As the *FPC* and the *Forest Act* comprise part of the Province’s statutory forest management regime, they set the context within which statutory interpretation should be determined. For example, the contractual rights of licensees, as reflected in the terms of their *Forest Act* tenure agreements, form part of the context for decision making. This is not to say that the terms of the tenure agreement can restrict my discretion with respect to evaluating whether or not a proposed plan satisfies the “adequately manage and conserve test”. However, the existence of those contractual rights is one factor to be considered as part of balancing the economic, social and environmental values. Also to be considered is the *Ministry of Forests Act*, which sets out the ministry’s mandate.

The **common law** rules of administrative fairness, on the other hand, limit the discretion of statutory decision makers by requiring that decisions on whether to approve or not approve a proposed operational plan must be made in a manner that is fair, reasonable, and legally defensible. It is not

defensible for statutory decision makers to base statutory decisions on irrelevant considerations, or to exceed their statutory authority. For example, the courts have recently confirmed that statutory decision makers must avoid mixing political issues with their duties as statutory decision makers, and that broad land use decisions should be made by cabinet, unless the power to make them is expressly or by necessary implication, granted to the statutory decision maker in the enabling statute.

Administrative fairness also requires that decisions must not be made arbitrarily. Having an adequate evidentiary basis is a fundamental test for the reasonableness of any statutory decision. Unlike determinations made by the courts with respect to criminal matters, which have to be proved “beyond a reasonable doubt”, the standard of proof for FDP approval is the “balance of probabilities”. *This means that prior to approving a proposed plan, I must be satisfied that it is more likely than not that the plan satisfies both the 41(1)(a) and 41(1)(b) tests that were explained previously.* The consequence is that prior to not approving a proposed plan, I must be satisfied that it is more likely than not that the plan fails to satisfy one or both of those tests. An adequate evidentiary basis, therefore, is one that has enough weight to tip the balance one way or the other – either toward plan approval or plan non-approval. In weighing the evidence, the statutory decision maker must be unbiased, and must not start with a preconceived presumption either against or in favour of approval of the plan. I must balance what may appear to be conflicting statutory requirements. I did this by weighing the evidence and information related to mandatory content, along with information concerning “other” forest resources.

2. REVIEW AND COMMENT

The 2001-2005 Forest Development Plan Amendment # 32, dated October 7, 2005, was submitted by Cattermole Timber Ltd. (“licensee”) to the Chilliwack Forest District Office.

The plan was advertised and available for review and comment from October 7 to December 20, 2005.

The proposed developments are located approximately 10 km Northeast of Yale in the Siwash Creek drainage (Blocks 46-1, 46-2, and 46-3) and less than 1 km from Sunshine Valley in Sumallo Creek drainage (Blocks HP 4501 to HP 4504). The Forest Development Plan Amendment (“FDP”) is comprised of seven blocks.

After the review and comment period, the proponent submitted further information, including a copy of written comments received, responses to comments, and a summary of revisions made to the proposed plan. Note the initial submission included blocks totalling 359 ha which has been reduced to final submission size of 168 ha.

The Chilliwack Forest District Office received input regarding this plan. Comments on the forest resources applicable to this area are discussed in more detail in subsequent sections of this rationale.

In making this determination, I have considered the potential impact of the FDP on First Nations, and the comments, concerns and recommendations received from individuals, agencies, and stakeholders.

3. FIRST NATIONS

I considered the following in terms of First Nation’s consultation:

The licensee sent a copy of the FDP amendment to the Seabird, and Cheam Indian Bands; Spuzzum, Yale, Union Bar, and Skawahlook First Nations; Sto:Lo Nation; Nlaka'pamux Nation and Sto:lo Tribal Councils on October 7, 2005. The Ministry of Forests and Range (MOFR) sent referral letters, dated October 13, 2005 to the above. A second letter was sent by the MOFR to the above on November 9, 2005.

The licensee has also sent two additional follow-up letters to the above nine First Nations on November 14th and December 13th, 2005. A number of First Nations requested meeting with the licensee and MOFR. Including the following:

1. Yale First Nation
2. Seabird Island Indian Band
3. Sto:lo Tribal Council
4. Spuzzum First Nations

Yale First Nation met with Cattermole Timber on October 20th to review Amendment #32. No copy of the minutes of this meeting was provided.

On December 12, 2005 the Yale First Nation sent a letter thanking Cattermole Timber for the October 20, 2005 meeting on the proposed harvest plans in the Siwash Creek Area and requested another meeting in early January.

On December 13, 2005 the licensee emailed a letter to the Yale First Nations. The licensee mentions the following items:

1. That the January time frame to meet was unacceptable.
2. Would be able to meet. (Dec. 13 to Dec. 23)
3. Block 46-1 has been adjusted to avoid a small pond.
4. An offer to remove a portable bridge near Block 46-2 to limit hunting opportunities in the Siwash Drainage.
5. Confirmation that the Blocks 46-1, 46-2, and 46-3 are outside of the proposed DWR polygons.
6. Cattermole's willingness to meet and discuss business opportunities.

On December 14, 2005 the Yale First Nation stated in a letter to Eugene MacInnes (MOFR) that "our Nation will not tolerate other groups running rough shod over our interests nor our consultation process" this accordingly they assert that in regards to Len Blackstock's comments of "January meeting are unacceptable."

A follow-up meeting was held on January 10, 2005 with Yale First Nation, Cattermole and MOFR staff. The Yale First Nation stated the following concerns:

1. Cattermole should consider the potential impacts to deer, mushroom picking and trails.
2. Need to assess possible adverse impacts on proposed harvesting near a pond.
3. Need to restrict hunting pressure by removing the temporary bridge crossing.

The licensee has not responded to these comments in writing. However they have stated verbally that Block 46-1 has been relocated away from the pond and that the temporary bridge will be pulled after operations.

A further letter dated January 25, 2006 from the Yale First Nation requested the following items:

1. The proposed blocks are in close proximity to trails and a gathering site. All activities should consider these sites, and if possible a Yale First Nation representative be retained to conduct a cultural field survey of the blocks.
2. For future reference the Yale First Nation insists that they be retained by Cattermole to conduct cultural field surveys on any and all proposed blocks and roads.
3. Cattermole should remove the temporary bridge soon after harvesting.
4. They conclude by stating that “the Yale First Nation consider these proposed cutblocks to have GREEN status conditional upon the implementation of points 1-3.”

The licensee has not responded to these comments in writing. However they have stated that the temporary bridge will be pulled after operations in past comments. In addition the licensee has reduced the size of the blocks from 120 ha to 63 ha. Also the licensee has stated that the blocks had been walked by the Yale First Nations. No areas of overlap between the trails or gathering sites and the proposed blocks have been identified by the Yale FN. The Yale FN has not stated any reasons why all future blocks and roads should have cultural field surveys conducted on them.

Seabird Island Indian Band met with the licensee on November 28 and December 6, 2005. The conversation centered on business opportunities. No site specific comments were provided.

Sto:Lo Tribal Council met with the licensee on December 6, 2005. They stated that they lacked the manpower to comment at this time.

Spuzzum First Nations met with the licensee on November 29, 2005. The Spuzzum First Nation would present the plan to the band members and get back to the licensee if they had any concerns. No written response has been received from the Spuzzum First Nation.

4. PLAN REFERRALS

a) Agencies

The licensee referred relevant portions of the FDP to the following agencies:

- i) Fraser Valley Regional District (FVRD)
- ii) Ministry of Forests and Range (MOFR)
- iii) Ministry of Environment (MOE)

Note that for each of the agency’s comments, I have summarized the comment, the licensee’s response, possibly some clarification of the comment/response, and my conclusion.

1) Fraser Valley Regional District (FVRD)

The FVRD has provided comments in two letters dated December 13, 2005 and March 1, 2006.

The December 13, 2005 letter stated the following:

1. That the Yale First Nation and Sunshine Valley Ratepayers Association be provided an opportunity to review and comment on the proposed amendment.
2. That a terrain assessment be carried out in proposed areas greater than 60 % slope.
3. That the water licensees on the Sumallo and Siwash Creek are provided an opportunity to comment on the proposed amendment.

The licensee has already met with the Yale First Nation and Sunshine Valley Ratepayers Association. In addition, Terrain Stability Field Assessments ("TSFA") will be completed on proposed block with slopes over 60%. Finally licensee has stated that there are no active water licenses on Sumallo and Siwash Creeks.

The March 1, 2006 follow-up letter stated the following:

1. The community requests an opportunity to review the results of any visual assessments carried out.
2. That consideration be given to delaying or removing plans to harvest Cut Block HP4501 until community concerns are addressed.
3. Community concerns for the road maintenance and access to Alpine Park Village.
4. The concerns in regards flood hazard associated with changes to the hydrological regime from logging practices.
5. That the size and method of harvesting for Cut Block HP 4501 be confirmed after final engineering.
6. Residents would like input into the hours of operation, road maintenance and responsibility.

The licensee in their March 17, 2006 letter has addressed the above comments as follows:

1. Cut Block HP 4501 is located outside of the area requiring a visual quality assessment as provided for in the Forest Practices Code.
2. Our harvest plans for Cut Block HP 4501 have always included addressing legitimate community concerns before harvesting this site.
3. The licensee has pointed out the MOFR is presently responsible for road maintenance.
4. The licensee requested a copy of the study that attributes past flooding to run off from large clearcut areas.
5. The licensee will confirm size and harvesting method on Cutblock 4501 after final engineering.
6. The company crews do not work on weekends and if contractors/heli-logging crews are working on Cut Block HP4501 then their activities will be restricted to Mon. to Sat. within a daily schedule of 6 am to 6 pm. Considering that no noise bylaw are in effect in this area and our activities on Cut Block HP 4501 will only take a few weeks this appears to be reasonable.

A further letter from the licensee clarified a number of the above comments as follows:

1. Blocks HP 4501 and 4502 will have 40% basal area retain within the scenic areas.
2. Block HP4501 has changed harvesting method to partial harvesting.

Note according to the Chilliwack District Visual Assessment Package, a Visual Impact Assessment is not required for proposed block with 40 % basal area retention.

ii) Ministry of Forests and Range- Chilliwack Forest District (MOFR),

The MOFR commented on the amendment in an email dated November 1, 2005. MOFR staff requested clarification on a number of points regarding the amendment including:

- 1) Concerns with the Archaeological Potential Summary (APS) for Cutblocks 46-1 and 46-2.
- 2) That the topographic information is not included on the maps.
- 3) A number of blocks are missing from the Harvest Summary Table.
- 4) Scenic Areas are missing from this amendment.
- 5) A number of blocks exceed the maximum cutblock size of 40 ha.
- 6) Outlines of what considerations have you given to the blocks within the Spotted Owl Matrix Areas.
- 7) Cutblocks 46-3 and HP4502 maybe within proposed Deer Winter Range (DWR).

The licensee in their final submission has adjusted the APS calculation to show two blocks requiring a Recce Survey. They have also requested an exemption from doing these Recce Surveys. Their reason included that the Yale Band has walked the area and did not request an AIA and that the Spuzzum Band have yet to walk the blocks. They further state that "If there is something of interest to the first nations that needed to be addressed by an Archaeologist we would stop all operations until an Archaeological Survey is completed." Note Yale FN at the January 10, 2006 meeting requested a copy of the Archaeological Potential Model and stated that they would like to be involved with archaeological field work. They also expressed concerns that FN trails and gathering sites are in close proximity to the proposed blocks. The licensee has addressed the APS calculation. However no exemption will be granted. Note further discussion has occurred within the First Nation Section of this Rationale.

The licensee has updated the topographic information, scenic areas and Harvest Summary Table in the final submission.

The licensee has reduced Cutblocks 46-2 and HP 4504 to less than 40 ha. Cutblocks HP 4502 is still shown as greater than 40 ha in size. However the licensee in their letter of March 21, 2006, has stated that the maximum block size for this block will not exceed 40.0 hectares. The size of Cutblock HP4502 being less than 40.0 ha in size will be a condition stated within the approval letter.

Further discussions in regards to spotted owl and DWR are found below in the Spotted Owl and DWR Sections below.

Also under Section 41(2) of the FPC, requested further information in regards to the following items:

1. Indication of how your plans provide for adequate management of DWR.
2. Indication of how your plans provide for adequate management of Spotted Owl.

Both of these items will be discussed within the Spotted Owl and DWR Sections below.

A second request was made for more information in consideration of the residents of Sunshine Valley with regard to the following:

1. Rationale for how Cattermole plans to adequately manage and conserve for terrain stability risks. (**Terrain**)
2. Rationale for how Cattermole plans to adequately manage and conserve for visual resource. (**Visual**)
3. Rationale for how Cattermole plans to adequately manage and conserve for noise concerns. (**Noise**)

Terrain - The licensee has stated that upon completion of the engineering a TSFA will be completed for the whole Block HP4501 Operations on the Block will follow the recommendations in the TSFA. Note Section 17 of the *OSPR* requires the completion of the TSFA prior to the submission of the cutting permit.

Visual - The licensee has stated that upon completion of the engineering we will be able to provide information to the residences on visual impact. The licensee has changed Block HP 4501 from 35 ha to 10 ha and from clear cut to partial harvesting systems. They have also committed to retaining 40 % of the pre-harvest basal area within the scenic portion of blocks HP4501 and HP 4502.

Noise – The licensee has stated that Cattermole is a union operation; our working week for the logging crew is Monday to Friday. Some of our contract road builders do work the weekends; this will be kept to a minimum on Block HP4501. The licensee also states that there isn't a noise bylaw in Sunshine Valley.

iii) Ministry of Environment – (MOE)

MOE comments include concerns for DWR and Spotted Owl. Both of these will be discussed in the Spotted Owl and DWR Sections below.

b) Public Comments

A number of comments were submitted by the general public in regards to the proposed FDP amendment. Residents from Sunshine Valley made up the bulk of the comments stated. The comments can be grouped into the following topics:

1. Slope stability concerns uphill from watercourses and private residences. (**Slopes**)
2. Visual impact concerns from private residences. (**Visual**)
3. Noise concerns. (**Noise**)
4. Vehicle safety. (**Safety**)
5. Past road maintenance and access issues. (**Access**)
6. Flood concerns on private residences. (**Floods**)

Slopes - The licensee is required to complete TSFA for all blocks in the Sumallo. The professional doing the TSFA will consider the downslope impacts from harvesting.

Visuals – The licensee has stated that upon completion of the engineering we will be able to provide information to the residences on what the block look like. The licensee has changed Block HP 4501 from 35 ha to 10 ha and from clear cut to partial harvesting systems. They have also committed to retaining 40 % of the pre-harvest basal area within the scenic portion of blocks HP4501 and HP 4502.

Noise – The licensee has stated that Cattermole is a union operation; our working week for the logging crew is Monday to Friday. Some of our contract road builders do work the weekends; this will be kept to a minimum on Block HP4501. The licensee also states that there isn't a noise bylaw in Sunshine Valley.

Safety – The licensee has stated that safety is a concern of the company and that the licensee would look into any company vehicles speeding through Sunshine Valley.

Access – The licensee stated that the access road is an FSR and the responsibility of the MOFR.

Floods – As Peak flows are cited as a concern by the residences. The licensee has calculated that the Equivalent Clearcut Area (ECA) at 7.78% which includes the proposed blocks. The Peak Flow Hazard for the Sumallo drainage is low.

5. Key Forest Resources and Values

Deer Winter Range

Licensees within the Fraser Timber Supply Area are guided by the requirements of the regarding “Indicators of the Amount, Distribution and Attributes of Wildlife Habitat Required for the Winter Survival of Ungulates Species In The Fraser TSA” under the *Forest and Range Practices Act*. Both MOE and MOFR have commented on the possible impact on potential DWR from Blocks 46-3 and HP 4502. Under this Notice 3500 ha of timber within the Timber Harvesting Landbase is required to manage and conserve the Deer populations. This Notice requires stands with the following attributes for DWR:

1. Slopes percentages greater than 40%.
2. South aspects.
3. Understory vegetation that provide for winter forage.
4. Stand elevations between 200 and 1000 metres.
5. 100 years or older than timber with canopies able to intercept snowfall.
6. Stands should be a minimum of 50 ha in size.

MOE has requested that this amendment be deferred because of overlap with potential DWR units.

Block 46-3 – This block overlaps with 11 ha of potential DWR Unit YA-12. This unit is not approved and is not supported by the Fraser TSA Co-operative. MOE has identified potential DWR Units that exceed the limit of 3500 ha. The aspect of the unit is east to southeast. The unit is shaped like a square with a tail and the proposed block is located on the tail portion. If the proposed block was harvested that unit would still be over 50 ha in size. Potential DWR Unit YA -11 is within 1 km of the proposed block. YA - 11 aspect is more south and is lower in elevation.

HP4502 – This block overlaps with potential DWR Unit MA-11. This unit is not approved and is not approved nor supported by the Fraser TSA Co-operative. MOE has identified potential DWR Units that exceed the limit of 3500 ha. Potential DWR Units that are being proposed by the licensee are located within 3 km of the proposed block.

Given that the DWR proposed by MOE exceeds the 3500 ha limit and the licensee are not proposing these potential DWR Units for inclusion for the mapping of the DWR.

Spotted Owl

The spotted owl was designated as an endangered species in Canada in 1986 by the Committee on the Status of Endangered Wildlife in Canada. In 1995 the British Columbia government announced a broad strategy to manage spotted owls in the province using the Protected Area Strategy, the Forest Practices Code and other land-use and resource management initiatives. In 1997 the provincial government cabinet accepted the Spotted Owl Management Plan (SOMP) after considering several options provided in reports from the Spotted Owl Recovery Team, community leaders, industry and environmental organizations. The goal of the strategy has been stated as “to achieve a reasonable level of probability that owl populations will stabilize, and possibly improve, over the long term without significant short-term impacts on timber supply and forestry employment.” The MOF Chief Forester in his AAC determination for the Fraser TSA recognized the importance of the management of the spotted owl as outlined in his AAC determination rationale. The SOMP is a balance between recovering the spotted owl population, social and economic concerns. I consider that government, public and forest industry have recognized and undertaken appropriate management strategies for the spotted owl within the Chilliwack Forest District. Below are my considerations related to spotted owl.

Spotted Owl Detection Information

I have considered the spotted owl detection map information *Spotted Owl Detection Sites*, 1:20,000, Draft, (update of 2002 survey data) maps printed by MOF, April 9, 2003. As well, I have considered the latest detection information from MOE’s Jared Hobbs (Refer to MOE’s email to my staff). I have also considered the information provided by Conservation Data Center (CDC) and Keystone Wildlife Research Ltd (Keystone). In addition, Ian Blackburn, MOE, also provided further detection location during his February 9, 2006 meeting with MOFR (John Stevenson). Ian Blackburn indicated that his area of concern in the Anderson area is for the most part west of the Cattermole’s area under the plan. He indicated that Cutblock 46-3 is of no concern. No detection overlapped with Blocks HP4501 and HP4502. The nearest spotted owl detections are approximately 2 km away in a north direction from Block HP4501 on the east side of the highway.

These detection maps and recent detections provide information on known spotted owl presence.

Spotted Owl Management Plan (SOMP)

The events leading up to the completion of the Spotted Owl Management Plan is quoted from page 2 of the SOMP-Strategic Component, as follows:

In June of 1995 the B.C. government announced a broad strategy to develop a management plan for spotted owls in the province utilizing the Protected Area Strategy, Forest Practices Code and other land use and resource management initiatives. In arriving at this decision, Cabinet considered the many management options provided in reports by the Spotted Owl Recovery Team, community leaders, industry and environmental organizations. The goal of the strategy was to achieve “a reasonable level of probability that owl populations will stabilise, and possibly improve, over the long term without significant short term impacts on timber supply and forestry employment.” The strategy was developed in hopes of bringing

stability and long term viability to the spotted owl population and also removes much of the uncertainty facing the industry over the future of forestry within the range of the owl.

The BC government in 1997 approved the Spotted Owl Management Plan which consists of the Strategic Component and Managing Spotted Owl Habitat – Operational Guidelines Component. The approval of the SOMP by government is an attempt to balance spotted owl requirements with social and economic concerns. Despite the stabilization of habitat within these conservation areas, the spotted owl population is predicted to decline and has declined over the short term (20 to 30 years) as suitable habitats outside of these areas are harvested. Over the long term, the probability of owl population stabilization and possible improvement under the SOMP is about 60%.

The SOMP outlines key spotted owl management and forest management objectives (SOMP, Strategic Component). The SOMP also outlines the Spotted Owl Matrix Area. These matrix areas are to be phased out over a fifty year period based on the Mehatl Offset Agreement. Blocks HP4501, HP4502 and 46-3 are located in a Nicolum and Siwash Spotted Owl Matrix Areas.

The SOMP is not a higher level plan under the FPC, and I am not bound by it. It is a guide for managing the spotted owl in the Chilliwack and Squamish Forest Districts, and provides one important measure against which I can determine whether the FDP adequately manages and conserves the spotted owl.

Spotted Owl Matrix Areas

Spotted Owl Matrix Areas were designed to provide areas for Spotted Owl to transition from the matrix areas to Special Resource Management Zone over a fifty year period. The Mehatl Offset Agreement documents a harvesting schedule which will phase out the mature timber within each Matrix Area. The Matrix Area is divided into a set of concentric rings with the inner most ring being situated over top of the spotted owl detection. The strategy is to harvest the outer most ring and work towards the inner most ring.

Siwash Spotted Owl Matrix

The Mehatl Offset Agreement allows for the harvesting of 3600 m³ of timber per year from this matrix. This is the tenth year of harvesting and the licensee has only harvested 31630 m³. The licensee entitlement still permits a further 4370 m³. In addition, the licensee is permitted to show five years worth of volume on their FDP. This amounts to total of 18,000 m³. The proposed volume of block 46-3 is 4973 m³. The licensee proposed block is located within the second inner ring.

Nicolum Spotted Owl Matrix

The Mehatl Offset Agreement allows for the harvesting of 38 ha from 1997 to 2001 and 26 ha from 2006 to 2011. Since Interfor (the previous licensee in the area) did not harvest within this matrix area a total of 64 ha is available. The proposed size of blocks HP 4501 and the 3 ha portion of HP4502 (portion within the matrix area) totalling 13 ha. The licensee proposed blocks are located on the outer edge of the outer most ring.

Population Trend Assessments

I have considered the following three reports:

- *Population Assessment of the Northern Spotted Owl in British Columbia 1992-2000* (draft), dated July 27, 2001 (“draft trend report”);
- *Population Assessment of the Northern Spotted Owl in British Columbia 1992-2001* (final), released July 2002 (“final trend report”); and
- *Supplement to the Population Assessment of the Northern Spotted Owl in British Columbia 1992-2001*, released July 2002.

1992 –2000 draft trend report (as noted above)

In considering the draft report entitled Population Assessment of the Northern Spotted Owl in British Columbia 1992-2000, dated July 27, 2001, I note MOE’s statements regarding the overall decline in Spotted Owl population as described in this draft report. I note that the survey work completed in the draft report occurred over a period of 9 years from 1992 to 2000. The report states that “spotted owl numbers declined slowly between 1992 and 1995, quickly between 1995 and 1997, and remained relatively stable between 1997 and 2000.” I note that over the period between 1995 and 1997 (which has apparently had the greatest decline in spotted owl numbers), was largely before the Spotted Owl Management Plan (SOMP) came in to effect. The draft report notes the factors that have led to this decline are unknown and that there is uncertainty on future spotted owl population dynamics. The report states that:

“Populations of spotted owls may change solely due to effects of climate on reproductive output...Between the fall of 1996 and fall 1997, annual precipitation was on average 60% higher than normal. Perhaps, weather influenced prey or predator populations and increased adult owl mortality....”

I have also considered comments on the draft report in an October 31, 2001, memorandum by Denis Collins Ph. D, Research Manager, Vancouver Forest Region. These review comments were compiled by the Vancouver Forest Region, Research Section and the comments were provided by two research wildlife habitat ecologists, a research branch biometrician, a regional research hydrologist, regional timber supply staff and district staff.

The Denis Collins’ memorandum outlines two general issues with the draft report on the spotted owl population assessment. These are:

- Model assumptions and sensitivity of the modelling to missing data
- Decline of spotted owl population, which coincides with decreased harvest levels, a natural record stochastic weather event, and other factors such as predation and barred owl population trends, and the decline of the spotted owl population in the US.

The memorandum notes that MOF research staff reviewed Environment Canada climatic data, and as a result, the staff had the following comments:

We reviewed Environment Canada climatic data for the period 1992 to 2000 and it is apparent that there is a very distinct and record snowfall event centred around December 1996 to March 1997. There were also above average snowfalls in the winters of 1995 and January 1998 in both the Chilliwack and Princeton areas. As noted in the draft report, there is published documentation of changes in owl populations solely due to effects of climate on reproductive output. Severe weather may also have influenced prey or predator populations and increased adult owl mortality, decreased nesting attempts and fecundity, or both, as recognized in the draft report.

The memorandum concludes that:

Overall, further analysis would clarify and validate the interpretations in the draft report and the need for ongoing monitoring that addresses data gaps should be stressed. Dependent upon the assumptions made about the missing data, it may be inferred that the number of spotted owls was stable from 1992 to 1994, that there was a precipitous decline from 1995 to 1997, but that the number was stable but at a lower level since then. If so, the Spotted Owl Management Plan strategy may be working.

1992 –2001 final trend report (as noted above)

I have considered the information in the final report entitled Population Assessment of the Northern Spotted Owl in British Columbia 1992-2001, released in 2002. I note the report's comments in the discussion on the possible explanations for the population decline. The report states (p. 18) that:

Populations of Spotted Owls have declined substantially in Canada and the United States over the last decade. The contributions of various known factors that have lead to this decline are unknown, but habitat loss is likely foremost among these factors. Although the habitat provision of the Spotted Owl Management Plan may have slowed the population decline in recent years, our results suggest that these provisions are inadequate to stabilize the population...Unfortunately, many factors influencing Spotted Owl numbers cannot be controlled (such as natural disturbances and environmental conditions) or efforts to control them may be futile and may lead to greater environmental problems (such as removal of predators and competitors).

Supplement to the Population Assessment

As well, I have considered the report titled Supplement to the Population Assessment of the Northern Spotted Owl in British Columbia 1992-2001, released 2002. I note the findings in the Recovery Action section (p. 31) that:

The Spotted Owl population in B.C has declined but the causes of the decline are unknown. Identifying the cause(s) will require additional research with considerable funding, resources and time to collect and analyze data, and to develop and implement solutions.

Furthermore, this report outlines (p. 26):

As a result of the minimal timber harvest activity within the 40 survey areas and the mitigation strategies applied to minimize direct impacts on critical owl habitats, we do not suspect a direct correlation between the observed population decline and the harvest activities within survey areas... The mitigation strategy to "log around" these owl areas to maintain forestry jobs and timber volume requirements may be correlated to the population decline...is unlikely that the "log around" alone caused the population decline, but it is highly likely that it made habitat conditions outside of owl areas worse than had the AAC been reduced to accommodate Spotted Owls.

An update from Denis Collin's Ph. D., Research Team, on the above final report and related supplement (Population Assessment of Northern Spotted Owl in British Columbia 1992-2001), states that generally their comments were adequately addressed in the revised document. I note comments from one of the researcher's, Dale Seip, that:

There are problems with missing and inadequate data throughout the years, but I think they have done the best they can with the data that are available...[report] conclusions recognize the uncertainty that remains around the reasons for decline, but the essential conclusion of a significant population decline is fairly clear.

I am still struck with the fact that the **major decline appeared to occur in one year 1996-97**, and that year corresponded to an abnormally cold summer and fall. [Emphasis added]

I have also considered comments from a presentation by Keith Simpson at a Fraser Timber Supply Area Co-operative Association meeting on November 25, 2003, attended by Chilliwack Forest District Staff. Keith Simpson's comments outlined several limitations to the trend report's findings. Some of these are:

- No multi year study plan and few replicates – basic survey design principles outline that surveys should be repeatable to reduce variability in samples (must have consistent survey methodology).
- Study (survey) areas poorly defined and survey effort concentrated along roads (developed areas are fragmented and thus less desirable spotted owl habitat) – thus the coverage on the largest pool of habitat, the protected land base, is unknown.
- Assumption that all birds were resident adults not supported by data – standard data should be consistently recorded on each survey – if you find an owl at night need to do a daytime survey to confirm if owl is resident or transient.
- Standards to confirm spotted owl absence not followed.
- Occupied study area classified as vacant – two years is standard for vacancy but MOE used one year.

I note from Western Canada Wilderness Committee's (WCWC) submission (tab 8), a letter, dated December 22, 2003, from Michael Chutter, Spotted Owl Recovery Team (SORT) Chair, MOE, to the Assistant Deputy Minister for MOE's Environmental Stewardship Division and Chief Forester, MOF. I reference from this letter that "SORT members were in total agreement with Keystone and the industry representatives' overall conclusion that inventory and population monitoring is sorely needed, and that this inventory and population monitoring need to have a strong study design at the appropriate scale to properly assess the species' distribution, and population trend." However, I also note that "SORT members disagreed often with Keystone's interpretation of the PA [Population Assessment] and its methods, and strongly disagreed with the assertion that existing and recommended conservation measures should be put on hold until after such studies were completed." In addition, I have considered the comments by Doug Ransome, Ph.D. Research Scientist, at the same meeting on November 25, 2003, which indicate several potential problems with the spotted owl population assessment and the survey methodology. He mentions that:

- Survey objectives have not been applied uniformly, but varied from year to year – 1st part of surveys (1992 to 1995) may have overestimated occupancy and later part of surveys (1996-2000) may have overestimated vacancy, therefore, the trend of decline may be less.
- Estimated change in occupancy rates could be, in part, an artifact of varying survey objectives, gaps in data (large amounts of missing or incomplete data), overestimates of vacancies in the later part of the study (relaxed definition of 'vacancy', potentially resulting in an overestimate of vacancy rates).
- Uncertainty in why there are clear differences between owl populations represented by the 84 areas (population stable) versus the 40 areas (population in decline).
- Analyses used are very sensitive to these limitations and inconsistencies.
- Study- site selection and survey methodology must be based on sound defensible science and peer reviewed.

Mr. Ransome stated several recommendations should be adopted, including that:

- a thorough and extensive long term monitoring program be established to gather accurate baseline data;
- site selection and survey methodology must be based on sound defensible science and peer review;
- acoustic-lure surveys be combined with radio telemetry to provide an accurate estimate of occupancy rates corrected for false vacancies, and
- peer review reports before releasing information to the public.

Parameters affecting population dynamics

I note that species population levels are affected by many factors, including but not limited to, matters of food supply, climate, predatory prey relationships, habitat etc.

I have considered a local research study of a thinning of stand of second growth hemlock in Chehalis River area within the BEC subzone CWHdm. The published research report entitled *Short-term population dynamics of *Glaucomys sabrinus* and *Tamiasciurus douglasii* in commercially thinned and unthinned stands of coastal coniferous forest* had no negative short-term effects on the population dynamics of the food supply for these squirrel species (northern flying squirrel and douglas squirrel, respectively) (Ransome and Sullivan, 2002). Although this 2-year study is not over a long enough period to draw any long term conclusions, it suggests that food supply may be a primary factor in the health of spotted owls and that flight path options to food supply in second growth (2nd growth generally have a higher tree density than older growth) may be a very important factor with spotted owls and not necessarily tied to cavity abundance.

As well, a 10 year research study in Northern California on spotted owl found that climate may play a key role in spotted owl population dynamics (Franklin et al, 1999). This report suggests “that Northern Spotted Owl populations may change solely due to climatic influences, even with unchanging habitat conditions.” The report (Ecological Monographs. 2000. P583) states that:

The argument as to whether a single general factor, such as habitat quality or climate, regulates or limits populations becomes moot when interactions are considered (Holmes 1995). These two factors can increase or decrease in importance, depending on changes in the other factor. We believe that understanding the magnitude, strength, and relative importance of different factors under varying conditions provides a deeper understanding of population dynamics.

I have considered that there are many factors that come in to play in analysing the population trends of this species. Survey information gaps, survey effort to declare a owl site vacant, significant climatic changes over the last decade (e.g. the 1996/97 extended cold weather snap and deep snow pack), cycles in predatory prey relationships, changes in the level of natural and unnatural forest land disturbance, food supply fluctuations, and a host of other parameters may have a part in critically impacting the population numbers for this species. Consequently, I consider this evidence of spotted owl population trends and population dynamics is not well understood and inconclusive and does not support the argument that the SOMP is ineffective. I have considered these population reports and research information in making my determination by taking a cautious approach to managing habitat that may be suitable for spotted owl.

Other information

I have considered the pertinent information from the court proceedings in the Western Canada Wilderness Committee v. British Columbia (Ministry of Forests, South Island Forest District), 2003 BCCA 403 – Decision released July 8, 2003. As well, I have referenced the findings of the Western Canada Wilderness Committee v. Cindy Stern et al, 2002 BCSC 1260. In addition, as stated previously, I have considered the information in WCWC’s submission to me for past FDP Amendment #29, Volumes 1 and 2, March 22, 2004.

Comments from Western Canada Wilderness Committee.

I have considered the information (News release) regarding spotted owl. I reference the New Release - February 9, 2006 “Cattermole Timber plans to log spotted owl habitat once protected by Interfor” – Western Canada Wilderness Committee.

I have summarized a number of excerpts comments from their news release as follows:

- Movement corridor between US and Canada. (*Connector*)
- Sunshine Valley area is crucial to the long-term health of spotted owls. (*Sunshine Valley*)

My considerations in regards to the above comments are as follows:

Connector - WCWC noted that the proposed blocks are located in a critically important corridor through which Spotted Owl movement between the US and Canada. Their submission states that “The only high quality forest habitat connection between the BC and US spotted owl population is through the Skagit and Sunshine Valley area.” They go on to state that “Any logging that happens in this corridor linking the US and BC owl populations will necessarily have a negative impact to owls, both in the short-term and the long-term.” The proposed harvesting is located within 1 km of Highway #3 and adjacent to a small community. Additional corridor of suitable habitat still exists on the north side of the Highway #3. In addition Manning Park does provide another corridor link. Matrix Area are not islands surrounded by water. Existing stands are found in surrounding areas (OGMAs, Scenic, steep slopes, constrained, Parks, operable and non-operable).

Sunshine Valley – WCWC noted that Sunshine Valley area is crucial to the long-term health of spotted owls. Block HP 4501 is adjacent to the community of Sunshine Valley. Adjacent to the community is Highway #3. Logging has already occurred adjacent to Block HP 4502. This area is located within the outer most ring of the matrix center.

Additional Consideration

I have also considered that over the landscape level, these LU contains:

- Manning Park as well as the Garry Oak Reserve;
- Portions of Special Resource Management Zones
- Portions of Spotted Owl Matrix Areas.
- Old Growth Management Areas

Having outlined the above, I also note the general biodiversity provisions with the *FPC* (e.g. riparian protection, wildlife tree retention) and other management strategies (e.g. visual management, ungulate winter range management, Identified Wildlife Management) and will contribute to maintaining habitat

for many plants and animals. These strategies applicable in or adjacent to, or near the blocks in question, will help to maintain habitat for many species, including spotted owl. This will also maintain some habitat connectivity between conservation areas and allow owl movement.

Supreme Court of British Columbia

Western Canada Wilderness v Cindy Stern et al

In 2002, Western Canada Wilderness Committee submitted an application to the court to set aside the determination by Cindy Stern in regards to the approval of harvesting of block 37-1. The Honourable Mr. Justice Shabbits in his reasons for judgement discuss the following items:

1. judicial review
2. admissibility of evidence
3. procedural unfairness
4. denial of natural justice
5. statutory interpretation of the code
6. fettering of discretion
7. patent unreasonableness

I have considered all of the items listed above in this rationale, although I am not bound by them.

Court of Appeal for British Columbia

Western Canada Wilderness Committee v. British Columbia (Ministry of Forests, South Island Forest District),

In 2003, Western Canada Wilderness Committee (“WCWC”) appealed the dismissal of WCWC’s petition for the set aside the determination by Cindy Stern in regards to the approval of harvesting of block 37-1. The Honourable Madam Justices Prowse, Ryan, and Huddart in their reasons for judgement discuss the following items:

1. nature of appeal
2. issue on appeal
3. procedural history
4. legislative framework
5. Ms. Stern’s decision
6. decision of the chambers judge
7. standard of review

Within item #5 Ms. Stern’s decision the Justices noted the following factors which Ms. Stern considered relevant to her determination:

1. government policy (SOMP and RMP)
2. criticisms of SOMP and government policy
3. owl population trend
4. 60% probability for the SOMP
5. owl detections
6. size of cutblock
7. other uses of the area (corridors connection)
8. harvesting techniques

9. method of harvesting
10. habitat type
11. future monitoring
12. integration of spotted owl management and forest management
13. cautious approach

Again I have considered all of the items listed above, although I am not bound by them.

In considering the information before me, I find that this plan adequately manages and conserves the spotted owl resource.

This document is not an exhaustive list of all resources and issues I have considered. It includes the main information I have considered in my decision.

Conclusion

I find that this FDP Amendment was prepared and submitted in accordance with the *Forest Practices Code of British Columbia Act* and associated regulations thus fulfilling the requirement of 41(1)(a). In light of all of the evidence and submissions that I received in this matter, and upon careful examination and consideration of this material, I have determined, pursuant to section 41(1)(b) of the *FPC* that the FDP Amendment adequately manages and conserves the forest resources to which it applies.

Therefore, it is my determination that this FDP amendment is approved.

Kerry Grozier
District Manager
Chilliwack Forest District

Date _____