

APPENDIX I

ADMINISTRATIVE

- I.1 TFL23 Document**
- I.2 Amendments and Deletions to TFL 23**
- I.3 History of Tree Farm Licence 23**

APPENDIX I

I.1 TFL23 Document



File: 19700-25/TFL 23

*Copy Forward
to Dave Tucker
Oct 10/96*

October 3, 1996

Doug Lang
Pope & Talbot Limited
P.O. Box 2000
Nakusp, British Columbia
V0G 1R0

POPE & TALBOT LTD.
RECEIVED

OCT - 9 1996

NAKUSP B.C.

Dear Doug Lang:

Further to your facsimile request dated October 1, 1996, please find enclosed a copy of the current Tree Farm Licence 23 document.

Yours truly,

Hans Anderssen, R.P.F.
Tree Farm Licence Forester
Resource Tenures and Engineering Branch

Enclosure

PROVINCE OF BRITISH COLUMBIA

TREE FARM LICENCE NO. 23

POPE & TALBOT LTD.
RECEIVED

OCT - 9 1996

NANAI B.C.

THIS LICENCE, dated March 1, 1995

BETWEEN:

THE MINISTER OF FORESTS, on behalf of
HER MAJESTY THE QUEEN IN RIGHT
OF THE PROVINCE OF BRITISH COLUMBIA,

(the "Minister")

AND: POPE AND TALBOT LTD.
P.O. BOX 39
GRAND FORKS, BRITISH COLUMBIA
V0H 1H0

(the "Licensee")

WHEREAS

- A. Under Section 29 of the *Forest Act*, this Licence replaces Tree Farm Licence No. 23, dated January 1, 1980.

- B. The portion of the allowable annual cut attributable to Schedule B Land available to the Licensee under Tree Farm Licence No. 23, was reduced by 20 000 m³ under Instrument 129 and under the *Forest Amendment Act, 1988*, was reduced by a further 43 000 m³ of which, in total, 50 000 m³ was attributed to the residual Tree Farm Licence No. 23 at the time of the subdivision of Tree Farm Licence No. 23 to create Tree Farm Licence No. 55.
- C. As a result of the transfer of Tree Farm Licence No. 23 from Westshore Terminals Ltd. to Pope and Talbot Ltd., the portion of the allowable annual cut attributable to Schedule B Land, available to the Licensee, was reduced by 30 700 m³.

THE PARTIES agree as follows:

1.00 GRANT OF RIGHTS AND TERM

- 1.01 Subject to this Licence and the *Forest Act*, the Minister grants the Licensee
- (a) the exclusive right during the term of this Licence to harvest from
 - (i) Schedule B Land, and
 - (ii) Schedule A Land subject to a timber licence, timber of the types specified in paragraph 1.02 from the types of terrain specified in paragraph 1.03,
 - (b) the right to manage
 - (i) Schedule B Land, and
 - (ii) Schedule A Land subject to a timber licence, according to the management plan and development plan in effect under this Licence, and
 - (c) the right to enter and use
 - (i) Schedule B Land, and
 - (ii) Schedule A Land subject to a timber licence, for the purpose of exercising a right or fulfilling an obligation under this Licence.
- 1.02 The following types of timber are specified for the purposes of paragraph 1.01:
- (a) on Schedule A Land subject to a timber licence, all merchantable timber; and
 - (b) on Schedule B Land, all types of timber other than deciduous types.

- 1.03 The following types of terrain are specified for the purposes of paragraph 1.01:
- (a) on Schedule A Land subject to a timber licence, all terrain containing merchantable timber; and
 - (b) on Schedule B Land, all types of terrain.
- 1.04 The Licensee will not harvest timber from the Licence Area except under and in accordance with a cutting permit, road permit, free use permit issued to the Licensee, or special use permit.
- 1.05 Subject to paragraph 1.06, the Licensee will not occupy Schedule B Land or Schedule A Land subject to a timber licence, except under and in accordance with a cutting permit, road permit, or special use permit authorizing such use or occupation.
- 1.06 Paragraph 1.05 does not apply to temporary occupation for the purpose of
- (a) carrying out basic or incremental silviculture,
 - (b) collecting inventory information,
 - (c) doing engineering layouts and surveys,
 - (d) carrying out protection activities, and
 - (e) fulfilling other obligations of the Licensee under or in association with this Licence.
- 1.07 Each year during the term of this Licence, the Regional Manager or District Manager may dispose of the following volumes of timber of a type specified in paragraph 1.02 from a type of terrain specified in paragraph 1.03, provided the timber is within areas of Schedule B Land agreed to under paragraph 1.10 or specified under paragraph 1.11:
- (a) subject to paragraph 1.15, 80 700 m³ of the allowable annual cut, under non-replaceable timber sale licences; and
 - (b) a volume of timber not exceeding one half of one percent (0.5%) of the portion of the allowable annual cut the Chief Forester determines is attributable to Schedule B Land, under free use permits.
- 1.08 In addition to any timber disposed of under paragraph 1.07, each year during the term of this Licence, the Regional Manager or District Manager may dispose of timber of a type specified in paragraph 1.02 from a type of terrain specified in paragraph 1.03, under timber sale licences issued pursuant to a pulpwood agreement, provided
- (a) the timber is
 - (i) of the type referred to in Section 34(1)(b) of the *Forest Act*,
 - (ii) within a pulpwood area designated by the Minister, and

- (iii) within areas of Schedule B Land agreed to under paragraph 1.10 or specified under paragraph 1.11, and
- (b) the volume of timber disposed of does not exceed an amount equal to the portion of the allowable annual cut which the Chief Forester, having regard to the factors and information considered in his or her most recent determination of the allowable annual cut, determines is attributable to timber of the type referred to in clause (a)(i).

1.09 Subject to paragraph 1.17, in addition to any timber disposed of under paragraph 1.07 and 1.08, the Regional Manager or District Manager may dispose of any timber in the Licence Area that

- (a) is not of a type specified in paragraph 1.02, or
 - (b) is not from a type of terrain specified in paragraph 1.03,
- provided the timber is within areas of Schedule B Land agreed to under paragraph 1.10, or specified under paragraph 1.11.

1.10 Subject to paragraph 1.11, the District Manager and the Licensee will agree upon areas of Schedule B Land for the purposes of paragraphs 1.07, 1.08, 1.09 and 1.16, having regard to

- (a) the type and quality of timber on the area of Schedule B Land under consideration compared to the Schedule B Land as a whole,
- (b) the type of terrain on the area of Schedule B Land under consideration compared to the Schedule B Land as a whole,
- (c) in the case of paragraph 1.08, the type of timber referred to in Section 34(1)(b) of the *Forest Act*,
- (d) in the case of paragraph 1.16, the nature of the Licensee's failure to comply with the management plan,
- (e) the management plan and development plan in effect under this Licence,
- (f) any potential interference with the operations of the Licensee under this Licence, and
- (g) use of the Licence Area for purposes other than timber production, including use of the Licence Area by
 - (i) trappers, guide outfitters, range tenure holders, and other licensed resource users, and
 - (ii) aboriginal people carrying out aboriginal activities.

- 1.11 If under paragraph 1.10 the District Manager and the Licensee are unable to agree upon areas of Schedule B Land for the purposes of paragraph 1.07, 1.08, 1.09 or 1.16, the District Manager or the Licensee may refer the matter to the Regional Manager, in which case, the Regional Manager, subject to paragraph 1.14, and having regard to
- (a) the factors referred to in paragraph 1.10, and
 - (b) the recommendations of the District Manager and the Licensee, will specify areas for these purposes.
- 1.12 Subject to paragraphs 1.13 and 1.14, the Minister in a notice given to the Licensee may delete an area from Schedule B Land to enable the Regional Manager or District Manager to issue a woodlot licence or community forest over the area, if the Chief Forester determines that the portion of the allowable annual cut attributable to the area does not exceed the volume of timber referred to in subparagraph 1.07(a), having regard to the factors and information considered by the Chief Forester in his or her most recent determination of the allowable annual cut.
- 1.13 Before deleting an area under paragraph 1.12, the Minister will consult the Licensee and consider any recommendations made by the Licensee.
- 1.14 The Regional Manager will only specify an area under paragraph 1.11, and the Minister will only delete an area under paragraph 1.12, where the Regional Manager or the Minister, as the case may be, is satisfied that specifying or deleting the area will not
- (a) compromise the management plan and development plan in effect under this Licence, or
 - (b) unreasonably interfere with the Licensee's operations under this Licence.
- 1.15 Where the Minister deletes an area under paragraph 1.12,
- (a) the volume of timber referred to in subparagraph 1.07(a), and
 - (b) the allowable annual cut,
- is deemed to be reduced by an amount equal to the portion of the allowable annual cut that the Chief Forester determines is attributable to the deleted area, having regard to the factors and information considered by the Chief Forester in his or her most recent determination of the allowable annual cut.

- 1.16 If
- (a) a management plan referred to in paragraph 2.01 or approved under paragraph 2.27 provides that part of the allowable annual cut is to be harvested from a specified part of the Licence Area or from a specified type of timber or terrain, and the Licensee fails to comply with that provision, and
 - (b) as a consequence, the Chief Forester, under Section 55.5 of the *Forest Act*, reduces the allowable annual cut available to the Licensee,
- then, in addition to any timber disposed of under paragraphs 1.07, 1.08 and 1.09, the Regional Manager or the District Manager may dispose of a volume of timber, from areas of Schedule B Land agreed to under paragraph 1.10 or specified under paragraph 1.11, up to an amount equal to the amount by which the Chief Forester reduces the allowable annual cut under Section 55.5 of the *Forest Act* multiplied by the number of years the reduction remains in effect.
- 1.17 The Licensee may harvest timber in the Licence Area that
- (a) is not of a type specified in paragraph 1.02, or
 - (b) is not from a type of terrain specified in paragraph 1.03,
- provided the Licensee is authorized to do so under a cutting permit issued under Part 5.00.
- 1.18 If an area of Schedule A Land is
- (a) subject to a timber licence that expires, or
 - (b) deleted from a timber licence,
- then the area is deemed to be deleted from Schedule A Land and added to Schedule B Land.
- 1.19 The term of this Licence is 25 years, beginning March 1, 1995.

2.00 MANAGEMENT PLANS

- 2.01 A management plan
- (a) approved under the tree farm licence replaced by this Licence, and
 - (b) still in effect on the date immediately preceding the date on which that tree farm licence expires,
- is deemed for the remainder of the term of the management plan to be the management plan in effect under this Licence.

- 2.02 If there is no approved management plan in effect under the tree farm licence replaced by this Licence on the date immediately preceding the date on which that tree farm licence expires, then solely for the purposes of
- (a) inviting comments under subparagraph 2.05(a) and providing an assessment under subparagraph 2.08(a), and
 - (b) determining the deadlines for
 - (i) inviting comments under subparagraph 2.05(a),
 - (ii) submitting a review strategy under subparagraph 2.05(b),
 - (iii) providing an assessment under clause 2.08(a)(i),
 - (iv) submitting a summary under subparagraph 2.08(b),
 - (v) submitting a Statement of Management Objectives, Options and Procedures under paragraph 2.09,
 - (vi) referring a draft management plan and inviting comments under paragraph 2.24, and
 - (vii) submitting a proposed management plan under paragraph 2.26,

the parties will proceed as if the management plan which was last in effect under that tree farm licence is the management plan in effect under this Licence and, subject to paragraph 2.04, is due to expire 28 months after the date referred to in paragraph 1.19.

- 2.03 If the management plan deemed under paragraph 2.01 to be the management plan in effect under this Licence is due to expire less than 28 months after the date referred to in paragraph 1.19, then solely for the purpose of determining the deadlines for
- (a) inviting comments under subparagraph 2.05(a),
 - (b) submitting a review strategy under subparagraph 2.05(b), if applicable,
 - (c) providing an assessment under clause 2.08(a)(i),
 - (d) submitting a summary under subparagraph 2.08(b),
 - (e) submitting a Statement of Management Objectives, Options and Procedures under paragraph 2.09,
 - (f) referring a draft management plan and inviting comments under paragraph 2.24, and
 - (g) submitting a proposed management plan under paragraph 2.26,
- the parties will proceed as if, subject to paragraph 2.04, the management plan in effect under this Licence is due to expire 28 months after the date referred to in paragraph 1.19.

- 2.04 If
- (a) either
 - (i) there is no approved management plan in effect under the tree farm licence replaced by this Licence on the date immediately preceding the date on which that tree farm licence expires, or
 - (ii) the management plan deemed under paragraph 2.01 to be the management plan in effect under this Licence is due to expire less than 28 months after the date referred to in paragraph 1.19, and
 - (b) the Chief Forester is satisfied that a requirement or obligation referred to in this Part has been met or fulfilled under the tree farm licence replaced by this Licence,
- then the Chief Forester, in a notice given to the Licensee, may
- (c) specify the requirement or obligation that has been met or fulfilled and deem that requirement or obligation to have been met or fulfilled under this Licence, and
 - (d) if a period of less than 28 months is sufficient for the purpose of establishing a deadline referred to in subparagraph 2.02(b) or paragraph 2.03, specify a period less than 28 months which is sufficient for this purpose.
- 2.05 Not less than 28 months prior to the date on which the management plan in effect under this Licence is due to expire,
- (a) the Licensee will
 - (i) publish at least twice within a period of two consecutive weeks in a newspaper acceptable to the Regional Manager, an advertisement inviting comments regarding
 - (A) the management plan in effect under this Licence, and
 - (B) the Licensee's performance in respect of that management plan, and
 - (ii) make a copy of the management plan in effect under this Licence available for review by interested persons
 - (A) during normal business hours, and
 - (B) at the Licensee's place of business in the vicinity of the Licence Area or, if the Licensee so chooses, at another location which is convenient to the public and acceptable to the Regional Manager, for a period of one month, or longer if the Licensee so

chooses, beginning at least one week after the last publication of the advertisement referred to in clause (i), and

- (b) if there is no management plan in effect under this Licence, or if the management plan in effect under this Licence does not include a review strategy for
 - (i) the Statement of Management Objectives, Options and Procedures referred to in paragraph 2.09,
 - (ii) the draft management plan referred to in paragraph 2.24,
 - (iii) the statement of objectives referred to in paragraph 3.01, or
 - (iv) the statement of proposals referred to in paragraph 3.02,the Licensee will submit to the Regional Manager a review strategy complying with the requirements of paragraph 6.01 for the Statement of Management Objectives, Options and Procedures, the draft management plan, the statement of objectives referred to in paragraph 3.01, and the statement of proposals referred to in paragraph 3.02, as applicable.

- 2.06 The Regional Manager, within two months after the date on which the Regional Manager receives a review strategy submitted under subparagraph 2.05(b) or 2.07(b), will in a notice given to the Licensee approve the review strategy, subject to such conditions as the Regional Manager considers necessary or appropriate, if the Regional Manager is satisfied that the review strategy meets the requirements of paragraph 6.01.
- 2.07 Where the Regional Manager does not approve a review strategy under paragraph 2.06,
 - (a) the Regional Manager, within two months after the date on which the Regional Manager receives the review strategy, will specify in a notice given to the Licensee why the Regional Manager has not approved the review strategy, and
 - (b) the Licensee, within one month after the date on which the Licensee is given the notice referred to in subparagraph (a), will submit a new or revised review strategy to the Regional Manager.
- 2.08 Not less than 26 months prior to the date on which the management plan in effect under this Licence is due to expire,
 - (a) the Regional Manager will provide the Licensee with
 - (i) an assessment of
 - (A) the management plan in effect under this Licence, and

- (B) the Licensee's performance in respect of that management plan, and
 - (ii) a list of
 - (A) guidelines,
 - (B) land and resource management plans, and
 - (C) local resource use plans, currently in effect, and
 - (b) the Licensee will submit to the Regional Manager a summary of the comments received by the Licensee in complying with subparagraph 2.05(a).
- 2.09 The Licensee, not less than 22 months prior to the date on which the management plan in effect under this Licence is due to expire, will submit to the Regional Manager
 - (a) a Statement of Management Objectives, Options and Procedures which has been referred to resource agencies and made available for comment in accordance with the review strategy approved
 - (i) in the management plan in effect under this Licence, or
 - (ii) under paragraph 2.06, as the case may be, and
 - (b) a summary of
 - (i) all comments received by the Licensee in complying with the review strategy referred to in subparagraph (a), and
 - (ii) the modifications, if any, made to the Statement of Management Objectives, Options and Procedures, prior to its submission to the Regional Manager, in response to the comments referred to in clause (i).
- 2.10 A Statement of Management Objectives, Options and Procedures submitted under paragraph 2.09 or subparagraph 2.12(b) must
 - (a) be prepared by a professional forester in accordance with the applicable manual in effect four months prior to the deadline for submitting the Statement of Management Objectives, Options and Procedures under paragraph 2.09 or subparagraph 2.12(b), as the case may be,
 - (b) summarize the commitments which
 - (i) were made by the Licensee
 - (A) in the application on which the award of the tree farm licence replaced by this Licence or any predecessor to that tree farm licence was based,
 - (B) in accepting the offer of the tree farm licence replaced by this Licence or any predecessor to that

- tree farm licence, or
- (C) as a result of a request for the Minister's consent for the purposes of Section 50 of the *Forest Act*, and
- (ii) remain in effect at the time the Statement of Management Objectives, Options and Procedures is submitted,
- (c) identify the inadequacies, if any, in the information to be included in the inventories referred to in subparagraph 2.25(d),
- (d) propose management objectives for the Licence Area, and identify management options, regarding
 - (i) utilization of the timber resources, including harvesting methods and utilization standards suitable to the types of timber and terrain specified in paragraphs 1.02 and 1.03,
 - (ii) conservation of the non-timber values and resources, including visual quality, biodiversity, soils, water, recreation resources, cultural heritage resources, range land, and wildlife and fish habitats,
 - (iii) integration of harvesting activities with use of the Licence Area for purposes other than timber production, including use of the Licence Area by
 - (A) trappers, guide outfitters, range tenure holders, and other licensed resource users, and
 - (B) aboriginal people carrying out aboriginal activities,
 - (iv) forest fire prevention and suppression, prescribed fire, and fuel management,
 - (v) forest health, including disease and pest management,
 - (vi) road construction, maintenance and deactivation,
 - (vii) basic silviculture and, if applicable, incremental silviculture, and
 - (viii) any issues identified
 - (A) by the Licensee,
 - (B) by the Regional Manager in the assessment referred to in clause 2.08(a)(i), or
 - (C) in the comments referred to in subparagraph 2.08(b),
- which are consistent with the guidelines, land and resource management plans, and local resource use plans referred to in clause 2.08(a)(ii), and the commitments referred to in subparagraph (b),
- (e) identify inadequacies referred to in subparagraph (c) and issues referred to in clause (d)(viii) which will require further study or analysis, and indicate what, if any, studies or analyses the Licensee will carry out,

- (f) identify issues referred to in clause (d)(viii) which will be addressed in the management objectives and strategies in the draft management plan referred to in paragraph 2.24 and proposed management plan referred to in paragraph 2.26, and
- (g) identify management options referred to in subparagraph (d) which the Licensee proposes to assess in the timber supply analysis.

2.11 The Regional Manager, within three months after the date on which the Regional Manager receives a Statement of Management Objectives, Options and Procedures submitted under paragraph 2.09, or two months after the date on which the Regional Manager receives a Statement of Management Objectives, Options and Procedures submitted under subparagraph 2.12(b), will in a notice given to the Licensee accept the Statement of Management Objectives, Options and Procedures, subject to such conditions as the Regional Manager considers necessary or appropriate, if

- (a) the Statement of Management Objectives, Options and Procedures meets the requirements of paragraph 2.10, and
- (b) the Regional Manager is satisfied that the Licensee has
 - (i) adequately addressed the inadequacies referred to in subparagraph 2.10 (c), the issues referred to in clause 2.10(d)(viii), and the comments referred to in clause 2.09(b)(i), and
 - (ii) selected appropriate management options for assessment in the timber supply analysis.

2.12 Where the Regional Manager does not accept a Statement of Management Objectives, Options and Procedures under paragraph 2.11,

- (a) the Regional Manager, within three months after the date on which the Regional Manager receives a Statement of Management Objectives, Options and Procedures submitted under paragraph 2.09, or two months after the date on which the Regional Manager receives a Statement of Management Objectives, Options and Procedures submitted under subparagraph 2.12(b), will specify in a notice given to the Licensee why the Regional Manager has not accepted the Statement of Management Objectives, Options and Procedures, and
- (b) the Licensee, within one month after the date on which the Licensee is given the notice referred to in subparagraph (a), will submit a new or revised Statement of Management Objectives, Options and Procedures to the Regional Manager.

- 2.13 Where the Regional Manager accepts a Statement of Management Objectives, Options and Procedures under paragraph 2.11, the Licensee, within three months after the date on which the Statement of Management Objectives, Options and Procedures is accepted, will submit a Timber Supply Analysis Information Package to the Timber Supply Forester.
- 2.14 A Timber Supply Analysis Information Package submitted under paragraph 2.13 must
- (a) include the information required in the applicable manual in effect six months prior to the deadline for submitting the Timber Supply Analysis Information Package,
 - (b) identify assumptions the Licensee proposes to incorporate into the timber supply analysis referred to in subparagraph 2.17(a) which, subject to paragraph 2.33, are consistent with
 - (i) the management objectives proposed in the Statement of Management Objectives, Options and Procedures accepted under paragraph 2.11, and
 - (ii) the guidelines, land and resource management plans and local resource use plans referred to in clause 2.08(a)(ii),
 - (c) without restricting the generality of subparagraph (b), identify assumptions the Licensee proposes to incorporate into the timber supply analysis referred to in subparagraph 2.17(a) regarding
 - (i) the inventory of timber and non-timber resources in the Licence Area,
 - (ii) growth and yield,
 - (iii) regeneration delays,
 - (iv) silviculture treatments,
 - (v) integrated resource management constraints,
 - (vi) harvesting methods and utilization standards, and
 - (vii) the operable land base,
 - (d) describe the methodology, including the computer model, if any, that the Licensee proposes to use in the timber supply analysis, including a description of the extent to which the assumptions referred to in subparagraphs (b) and (c) are reflected in the methodology,
 - (e) include information which supports the assumptions referred to in subparagraphs (b), (c) and (d),
 - (f) describe how the Licensee proposes to address in the timber supply analysis any inadequacies referred to in subparagraph 2.10(c), and
 - (g) include any other information readily available to the Licensee, which
 - (i) the Licensee, or

- (ii) the Timber Supply Forester, in a notice given to the Licensee within one month after the date on which the Licensee is given the notice accepting the Statement of Management Objectives, Options and Procedures under paragraph 2.11, considers relevant to an assessment of the impact on the timber supply of the management options referred to subparagraph 2.10(g).

2.15 The Timber Supply Forester, within three months after the date on which the Timber Supply Forester receives the Timber Supply Analysis Information Package submitted under paragraph 2.13, or two months after the date on which the Timber Supply Forester receives the information or proposals submitted under subparagraph 2.16(b), will in a notice given to the Licensee accept the assumptions and the methodology referred to in paragraph 2.14 and, if applicable, subparagraph 2.16(b) for use in the timber supply analysis, subject to such conditions as the Timber Supply Forester considers necessary or appropriate, if

- (a) the requirements of paragraph 2.14 and, if applicable, subparagraph 2.16(b) have been met, and
- (b) the Timber Supply Forester is satisfied with the information provided in support of the assumptions and methodology.

2.16 Where the Timber Supply Forester does not accept both the assumptions and the methodology under paragraph 2.15,

- (a) the Timber Supply Forester, within three months after the date on which the Timber Supply Forester receives the Timber Supply Analysis Information Package submitted under paragraph 2.13, or two months after the date on which the Timber Supply Forester receives the information or proposals submitted under subparagraph 2.16(b), will specify in a notice given to the Licensee why the Timber Supply Forester has not accepted the assumptions, the methodology or both, and
- (b) the Licensee, within one month after the date on which the Licensee is given the notice referred to in subparagraph (a), will
 - (i) propose new or revised assumptions,
 - (ii) propose a new or revised methodology, and
 - (iii) submit further information in support of the assumptions, the methodology or both,as required by the Timber Supply Forester.

- 2.17 Where the Timber Supply Forester accepts the assumptions and the methodology under paragraph 2.15, the Licensee, within three months after the date on which the assumptions and the methodology are accepted, will submit
- (a) a timber supply analysis to the Timber Supply Forester, and
 - (b) a 20-year plan to the District Manager.
- 2.18 A timber supply analysis submitted under subparagraph 2.17(a) or 2.22(b) must
- (a) assess the impact of the management options referred to in subparagraph 2.10(g) on the timber supply, and
 - (b) subject to paragraph 2.33,
 - (i) be based on the assumptions, and
 - (ii) use the methodology, accepted by the Timber Supply Forester under paragraph 2.15.
- 2.19 A 20-year plan submitted under subparagraph 2.17(b) or 2.23(b) must
- (a) identify
 - (i) the net operable land base,
 - (ii) harvested areas,
 - (iii) existing and proposed road access within the net operable landbase, and
 - (iv) areas subject to specific integrated resource management constraints,
 - (b) categorize areas within the operable land base referred to in clause (a)(i) by
 - (i) the harvesting methods suitable to the terrain, and
 - (ii) the type and, where the information is available to the Licensee, quality of timber, and
 - (c) in support of the timber supply analysis, set out a sequence of cut blocks in 5 year increments over a period of 20 years, or longer if the Licensee so chooses, which, subject to paragraph 2.33, is
 - (i) based on a management option selected by the Licensee from the management options referred to in subparagraph 2.18(a), and
 - (ii) consistent with
 - (A) the management objectives proposed in the Statement of Management Objectives, Options and Procedures accepted under paragraph 2.11, and
 - (B) the guidelines, land and resource management plans and local resource use plans referred to in clause 2.08(a)(ii).

- 2.20 The Timber Supply Forester, within three months after the date on which the Timber Supply Forester receives a timber supply analysis submitted under subparagraph 2.17(a), or two months after the date the Timber Supply Forester receives a timber supply analysis submitted under subparagraph 2.22(b), will
- (a) in a notice given to the Licensee accept the timber supply analysis, subject to such conditions as the Timber Supply Forester considers necessary or appropriate, if the timber supply analysis meets the requirements of paragraph 2.18, and
 - (b) where the Timber Supply Forester accepts the timber supply analysis under subparagraph (a), provide the Licensee with an assessment of the strengths and weakness of the timber supply analysis.
- 2.21 The District Manager, within three months after the date on which the District Manager receives a 20-year plan submitted under subparagraph 2.17(b), or two months after the date on which the District Manager receives a 20-year plan submitted under 2.23(b), will
- (a) in a notice given to the Licensee accept the 20-year plan, subject to such conditions as the District Manager considers necessary or appropriate, if the 20-year plan meets the requirements of paragraph 2.19, and
 - (b) where the District Manager accepts the 20-year plan under subparagraph (a), provide the Licensee with an assessment of the strengths and weakness of the 20-year plan.
- 2.22 Where the Timber Supply Forester does not accept a timber supply analysis under paragraph 2.20,
- (a) the Timber Supply Forester, within three months after the date on which the Timber Supply Forester receives a timber supply analysis submitted under subparagraph 2.17(a), or two months after the date on which the Timber Supply Forester receives a timber supply analysis submitted under subparagraph 2.22(b), will specify in a notice given to the Licensee why the Timber Supply Forester has not accepted the timber supply analysis, and
 - (b) the Licensee, within one month after the date on which the Licensee is given the notice referred to in subparagraph (a), will submit a new or revised timber supply analysis to the Timber Supply Forester.

- 2.23 Where the District Manager does not accept a 20-year plan under paragraph 2.21,
- (a) the District Manager, within three months after the date on which the District Manager receives a 20-year plan submitted under subparagraph 2.17(b), or two months after the date on which the District Manager receives a 20-year plan submitted under 2.23(b), will specify in a notice given to the Licensee why the District Manager has not accepted the 20-year plan, and
 - (b) the Licensee, within one month after the date on which the Licensee is given the notice referred to in subparagraph (a), will submit a new or revised 20-year plan to the District Manager.
- 2.24 Not less than six months prior to the date on which the management plan in effect under this Licence is due to expire, the Licensee will
- (a) refer a draft management plan to the Regional Manager for comment, and
 - (b) at the same time, refer the draft management plan referred to in subparagraph (a) to resource agencies and make it available for comment in accordance with the review strategy approved
 - (i) in the management plan in effect under this Licence, or
 - (ii) under paragraph 2.06, as the case may be.
- 2.25 A draft management plan referred to in paragraph 2.24 or subparagraph 2.37(a) and a proposed management plan submitted by the Licensee under paragraph 2.26, subparagraph 2.30(b), or subparagraph 2.37(b) must
- (a) be prepared by a professional forester in accordance with the applicable manual in effect four months prior to the deadline for submitting the draft management plan under paragraph 2.24 or subparagraph 2.37(a), as the case may be,
 - (b) be signed and sealed by the professional forester who prepared it, and signed by the Licensee or an authorized signatory of the Licensee,
 - (c) be consistent with this Licence and, subject to paragraph 2.33, the Statement of Management Objectives, Options and Procedures accepted under paragraph 2.11,
 - (d) include inventories, meeting the standards and presented in the format set or approved in the applicable manual in effect six months prior to the deadline for submitting the Timber Supply Analysis Information Package, of

- (i) the forest and recreation resources in the Licence Area, based on information collected for this purpose by the Licensee, including information relating to visual quality objectives, sensitive soils, recreation sites, and the type of timber and terrain, and
 - (ii) the fisheries, wildlife, range and cultural heritage resources of the Licence Area, based on the best information readily available to the Licensee,
- (e) include proposals for updating the inventories referred to in subparagraph (d) and, if applicable, addressing inadequacies in the inventory information,
- (f) include proposals for
 - (i) developing timber harvesting operations on the Licence Area,
 - (ii) protecting the forest in the Licence Area from damage by fire, pests, wind and disease, and
 - (iii) carrying out
 - (A) basic silviculture required under the *Forest Act*, and
 - (B) such incremental silviculture as the Licensee considers desirable,
- (g) specify measures to be taken, specifications to be followed, and standards to be met by the Licensee in the Licence Area to provide for
 - (i) utilization of the timber resources, including harvesting methods and utilization standards suitable to the types of timber and terrain specified in paragraphs 1.02 and 1.03,
 - (ii) conservation of the non-timber values and resources, including visual quality, biodiversity, soils, water, recreation resources, cultural heritage resources, range land, and wildlife and fish habitats,
 - (iii) integration of harvesting activities with use of the Licence Area for purposes other than timber production, including use of the Licence Area by
 - (A) trappers, guide outfitters, range tenure holders, and other licensed resource users, and
 - (B) aboriginal people carrying out aboriginal activities,
 - (iv) forest fire prevention and suppression, prescribed fire, and fuel management,
 - (v) forest health, including disease and pest management,
 - (vi) road construction, maintenance and deactivation,
 - (vii) basic silviculture and, if applicable, incremental silviculture, and

- (viii) anything else relating to the management, development and use of the Licence Area as the Chief Forester requires, which, subject to paragraph 2.33, meet or, if the Licensee so chooses, exceed the applicable measures, standards or specifications contained or reflected in the guidelines, land and resource management plans, and local resource use plans referred to in clause 2.08(a)(ii),
- (h) specify measures to be taken by the Licensee to identify and consult with trappers, guide outfitters, range tenure holders, and other licensed resource users operating in the Licence Area,
- (i) specify measures to be taken by the Licensee to identify and consult with aboriginal people who are or who may be carrying out aboriginal activities in the Licence Area,
- (j) include
 - (i) the Statement of Management Objectives, Options and Procedures accepted under paragraph 2.11, including revisions, if any, required under paragraph 2.33,
 - (ii) either
 - (A) the timber supply analysis accepted under paragraph 2.20, together with the assessment referred to in subparagraph 2.20(b), or
 - (B) where no timber supply analysis has been accepted, a draft timber supply analysis prefaced with a statement to the effect that the draft timber supply analysis has not been submitted under subparagraph 2.17(a) or accepted under paragraph 2.20, as applicable, and
 - (iii) either
 - (A) the 20-year plan accepted under paragraph 2.21, together with the assessment referred to in subparagraph 2.21(b), or
 - (B) where no 20-year plan has been accepted, a draft 20-year plan prefaced with a statement to the effect that the draft 20-year plan has been not submitted under subparagraph 2.17(b) or accepted under paragraph 2.21, as applicable,
- (k) assess the impact the draft management plan or proposed management plan, as the case may be, will have on factors such as harvest levels, economic opportunities, the number of persons employed by the Licensee and contractors of the Licensee, and the conservation of non-timber values,

- (l) highlight the key similarities and differences between the draft management plan or the proposed management plan, as the case may be, and the management plan in effect or last in effect under this Licence, and in a summary form compare
 - (i) the impact, if any, that implementation of the management plan in effect or last in effect under this Licence had, and
 - (ii) the impact, if any, that the Licensee anticipates implementation of the draft management plan or the proposed management plan, as the case may be, will have on factors such as those referred to in subparagraph (k),
- (m) propose a review strategy, complying with the requirements of paragraphs 6.01 and 6.03, for
 - (i) the next Statement of Management Objectives, Options and Procedures to be submitted under paragraph 2.09,
 - (ii) the next draft management plan to be submitted under paragraph 2.24,
 - (iii) the next statement of objectives referred to in paragraph 3.01,
 - (iv) the next statement of proposals referred to in paragraph 3.02, and
 - (v) proposed development plans to be submitted under Part 4.00,
- (n) if applicable, provide that part of the allowable annual cut will be harvested from a specified part of the Licence Area, or from a specified type of timber or terrain,
- (o) include such other information on the development, management and use of the Licence Area as the Chief Forester requires, and
- (p) if required in the manual referred to in subparagraph (a), provide some or all of the information referred to in this paragraph in the form of maps meeting the requirements of the manual.

2.26 The Licensee, not less than three months prior to the date on which the management plan in effect under this Licence is due to expire, will submit to the Chief Forester

- (a) a proposed management plan which is based on the draft management plan referred to in paragraph 2.24, and
- (b) a summary of
 - (i) all comments
 - (A) provided by the Regional Manager within two months of date on which the Regional Manager receives a draft management plan referred to the Regional Manager in accordance with the

- requirements of subparagraph 2.24(a), and
 - (B) received by the Licensee in complying with the requirements of subparagraph 2.24(b), and
- (ii) the differences, if any, between the draft management plan and the proposed management plan, including differences resulting from modifications made in response to the comments referred to in clause (i).

2.27 Subject to paragraphs 2.28 and 2.29, the Chief Forester, within three months after the date on which the Chief Forester receives a proposed management plan submitted under paragraph 2.26, subparagraph 2.30(b) or subparagraph 2.37(b), will in a notice given to the Licensee approve the proposed management plan, subject to such conditions as the Chief Forester considers necessary or appropriate, if

- (a) the Chief Forester is satisfied that the proposed management plan
 - (i) meets the requirements of paragraph 2.25 and subparagraph 2.26(a) or clause 2.37(b)(i), as the case may be, and
 - (ii) adequately addresses the comment referred to in clause 2.26(b)(i) or subclause 2.37(b)(ii)(A), as the case may be, and
- (b) the proposed management plan includes
 - (i) inventories referred to subparagraph 2.25(d),
 - (ii) proposals referred to in subparagraph 2.25(e) and (f),
 - (iii) measures referred to in subparagraphs 2.25(h) and (i), and
 - (iv) a review strategy referred to in subparagraph 2.25(m), which are satisfactory to the Chief Forester.

2.28 The Chief Forester, in a notice given to the Licensee, may decline to approve a proposed management plan under paragraph 2.27 until such time as

- (a) a timber supply analysis is accepted under paragraph 2.20, or
- (b) a 20-year plan is accepted under paragraph 2.21.

2.29 Where a timber supply analysis accepted under paragraph 2.20 or a 20-year plan accepted under paragraph 2.21 was not included in the draft management plan referred to in paragraph 2.24, before approving a proposed management plan under paragraph 2.27, the Chief Forester, in a notice given to the Licensee, may require the Licensee to refer the timber supply analysis or the 20-year plan, as the case may be, and make it available for comment in accordance with the review strategy referred to in paragraph 2.24.

- 2.30 Where the Chief Forester does not approve a proposed management plan under paragraph 2.27,
- (a) subject to paragraphs 2.28 and 2.29, the Chief Forester, within three months after the date on which the Chief Forester receives the proposed management plan, will specify in a notice given to the Licensee why the Chief Forester has not approved the proposed management plan, and
 - (b) the Licensee, within one month after the date on which the Licensee is given the notice referred to in subparagraph (a), will submit a new or revised proposed management plan to the Chief Forester.
- 2.31 Subject to paragraphs 2.28 and 2.29, if
- (a) the Chief Forester, within three months after the date on which the Chief Forester receives a proposed management plan submitted under paragraph 2.26, has neither
 - (i) approved the proposed management plan under paragraph 2.27, nor
 - (ii) given the Licensee a notice referred to in subparagraph 2.30(a), and
 - (b) there is a management plan in effect under this Licence, then the term of that management plan referred to in subparagraph (b) is deemed to be extended until such time as the Chief Forester approves the proposed management plan under paragraph 2.27, or gives the Licensee a notice referred to in subparagraph 2.30(a), as the case may be.
- 2.32 If the Chief Forester is satisfied that the Licensee or a ministry officer is trying in good faith to fulfill a requirement or obligation under this Part, but for reasons beyond the control of the Licensee or the ministry officer, as the case may be, cannot
- (a) meet a deadline referred to in this Part, or
 - (b) where there is a management plan in effect under this Licence, fulfill the requirement or obligation before the management plan is due to expire,
- then the Chief Forester, in a notice given to the Licensee, will, as applicable,
- (c) extend the deadline by a period the Chief Forester considers sufficient to allow the ministry officer or the Licensee, as the case may be, to fulfill the requirement or obligation, or

- (d) extend the term of the management plan by a period the Chief Forester considers sufficient to allow the ministry officer or the Licensee, as the case may be, to fulfill the requirement or obligation in accordance with applicable deadlines, subject to such conditions as the Chief Forester considers necessary or appropriate.

2.33 If the Licensee

- (a) submits a Timber Supply Analysis Information Package under paragraph 2.13, or the information or proposals referred to in subparagraph 2.16(b) more than eight months,
- (b) submits a timber supply analysis under subparagraph 2.17(a) or 2.22(b), or a 20-year plan under subparagraph 2.17(b) or 2.23(b) more than 13 months,
- (c) submits a draft management plan under paragraph 2.24 more than 19 months, or
- (d) submits a proposed management plan under paragraph 2.26 or subparagraph 2.30(b) more than 22 months,

after the date on which the Statement of Management Objectives, Options and Procedures is accepted under paragraph 2.11, the Chief Forester, in a notice given to the Licensee within one month of the date on which the applicable item is submitted, may require the Licensee to amend both the Statement of Management Objectives, Options and Procedures, and one or more the items referred to in subparagraph (a) through (d) inclusive, to the extent required to ensure consistency with

- (e) guidelines,
 - (f) land and resource management plans, and
 - (g) local resource use plans,
- in effect on the date the Licensee is given the notice.

2.34 If the Chief Forester considers that

- (a) damage to timber in the Licence Area as a result of fire, flood, wind, insects, disease, or other causes,
- (b) a determination by the Chief Forester that operations conducted in accordance with the management plan are causing or could cause serious damage to the natural environment, including soils, fisheries, wildlife, water, range, and recreation resources,
- (c) approval, amendment or replacement of a land and resource management plan,
- (d) approval, amendment or replacement of a local resource use plan,
- (e) a change in the allowable annual cut as a result of a determination by the Chief Forester under the *Forest Act*, or

- (f) other special circumstances,
have rendered the management plan in effect under the Licence inadequate, the Chief Forester, in a notice given to the Licensee, may require that the management plan be amended.
- 2.35 A notice referred to in paragraph 2.34 must specify
- (a) why the Chief Forester considers the management plan has been rendered inadequate,
 - (b) the extent to which the management plan is inadequate, and
 - (c) the changes required by the Chief Forester.
- 2.36 Where the Chief Forester gives the Licensee a notice referred to in paragraph 2.34, the Licensee, within three months after the date on which the notice is given, will submit for the Chief Forester's approval a proposed amendment to the management plan, which incorporates the changes referred to in subparagraph 2.35(c), to have effect during the unexpired term of the management plan.
- 2.37 If the Licensee fails to comply with the requirements of paragraph 2.36, the management plan in effect under this Licence will expire three months after the date on which the notice referred to in paragraph 2.34 is given to the Licensee, in which case,
- (a) within three months after the date on which the management plan expires under this paragraph, the Licensee will
 - (i) refer a draft management plan to the Regional Manager and
 - (ii) at the same time, refer the draft management plan referred to in clause (i) to resource agencies and make it available for comment in accordance with the review strategy referred to in subparagraph 2.24(b), and
 - (b) within six months after the date on which the management plan expires under this paragraph, the Licensee will submit to the Chief Forester
 - (i) a proposed management plan which is based on the draft management plan referred to in subparagraph (a), and
 - (ii) a summary of
 - (A) all comments received by the Licensee in complying with the requirements of subparagraph (a), and
 - (B) the differences, if any, between the draft management plan and the proposed management

plan, including differences resulting from modifications made in response to the comments referred to in subclause (A).

2.38 The Licensee will implement the management plan in effect under this Licence.

2.39 A management plan is deemed to be part of this Licence.

2.40 Subject to paragraphs 2.31, 2.32, and 2.37, a management plan expires five years after the date on which it takes effect.

3.00 OBJECTIVES AND STRATEGIES FOR EMPLOYMENT AND ECONOMIC OPPORTUNITIES

3.01 When the Licensee submits a Statement of Management Objectives, Options and Procedures under paragraph 2.09, the Licensee will also submit to the Regional Manager

- (a) a statement of the Licensee's objectives regarding
 - (i) employment of people living in or near the Licence Area, including aboriginal people, and
 - (ii) economic opportunities available to people living in or near the Licence Area, including aboriginal people, in respect of the timber harvested under this Licence and the Licensee's operations under and in respect of this Licence, which has been referred to resource agencies and made available for comment in accordance with the review strategy approved
 - (iii) in the management plan in effect under this Licence, or
 - (iv) under paragraph 2.06, as the case may be, and
- (b) a summary of
 - (i) all comments received by the Licensee in complying with the review strategy referred to in subparagraph (a), and
 - (ii) the modifications, if any, made to the statement of objectives, prior to its submission to the Regional Manager, in response to the comments referred to in clause (i).

3.02 When the Licensee refers a draft management plan and makes it available for comment under paragraph 2.24, the Licensee will also refer and make available in accordance with

- (a) the review strategy approved in the management plan in effect under this Licence, or
- (b) under paragraph 2.06,

as the case may be, a statement of the Licensee's proposals for meeting the objectives set out in the statement of objectives submitted under paragraph 3.01.

- 3.03 When the Licensee submits a proposed management plan under paragraph 2.26, the Licensee will also submit to the Chief Forester
- (a) a statement of proposals based on the statement of proposals referred to in paragraph 3.02, and
 - (b) a summary of
 - (i) all comments received by the Licensee in complying with the requirements of paragraph 3.02, and
 - (ii) the differences, if any, between the statement of proposals submitted under this paragraph and the statement of proposals referred to in paragraph 3.02, including differences resulting from modifications made in response to the comments referred to in clause (i).

4.00 DEVELOPMENT PLANS

- 4.01 A five-year development plan approved under the tree farm licence replaced by this Licence and still in effect on the date immediately preceding the date on which that tree farm licence expires is deemed for the remainder of the term of the five-year development plan to be the development plan in effect under this Licence.
- 4.02 If there was no approved five-year development plan in effect under the tree farm licence replaced by this Licence on the date immediately preceding the date on which that tree farm licence expires, then the Licensee, not later than six months after the date referred to in paragraph 1.19, will submit for the District Manager's approval a proposed development plan for the Licence Area.
- 4.03 The Licensee, not less than three months prior to the date on which the development plan in effect under this Licence is due to expire will submit for the District Manager's approval a proposed development plan for the Licence Area.
- 4.04 Where the Chief Forester gives the Licensee a notice referred to in paragraph 2.34, the Chief Forester may at the same time give the Licensee a notice requiring the Licensee to amend the development plan in effect under this Licence to the extent required to ensure consistency with the changes referred to in subparagraph 2.35(c).

- 4.05 Where the Chief Forester gives the Licensee a notice referred to in paragraph 4.04, the Licensee, within three months after the date on which the notice is given, will submit for the District Manager's approval a proposed amendment to the development plan to have effect during the unexpired term of the development plan.
- 4.06 If the Licensee fails to comply with the requirements of paragraph 4.05, the development plan in effect under this Licence will expire three months after the date on which the notice referred to in paragraph 4.04 is given to the Licensee, in which case the Licensee, within four months after the date on which the development plan expires under this paragraph, will submit a proposed development plan for the District Manager's approval.
- 4.07 A proposed development plan submitted under paragraph 4.02, 4.03, 4.06, or 4.11(b) must
- (a) be signed and sealed by a professional forester and signed by the Licensee or the Licensee's authorized signatory,
 - (b) be prepared according to the applicable manual in effect three months prior to the deadline for submitting the proposed development plan under paragraph 4.02, 4.03, or 4.06, as the case may be,
 - (c) be consistent with this Licence and the management plan in effect at the time the proposed development plan is submitted,
 - (d) set out the Licensee's development plans for a period of five years, or longer if the Licensee so chooses, beginning on the date the proposed development plan takes effect,
 - (e) set out a proposed harvesting sequence of cut blocks which will enable the Licensee, each year during the period referred to in subparagraph (d), to harvest timber from the Licence Area in accordance with the cut control provisions of the *Forest Act*, categorizing these cut blocks as follows
 - (i) cut blocks covered by existing cutting permits,
 - (ii) cut blocks covered by outstanding cutting permit applications submitted to the District Manager,
 - (iii) cut blocks for which the Licensee proposes to submit cutting permit applications during the term of the proposed development plan, and

- (iv) cut blocks which the Licensee proposes to harvest during the period referred to in subparagraph (d), but for which the Licensee does not propose to submit cutting permit applications during the term of the proposed development plan, unless for any reason cut blocks referred to in clause (iii) cannot be harvested,
- (f) include the following information regarding the cut blocks referred to in subparagraph (e)
 - (i) season of operation, logging system and reforestation method, and
 - (ii) the status of adjacent harvested areas,
- (g) include one or more detailed maps of the following information
 - (i) based on the best information readily available to the Licensee,
 - (A) recreation areas, community watersheds, fish spawning, fish rearing and fish migration areas, critical wildlife habitats, and any other areas subject to specific integrated resource management constraints, and
 - (B) private properties, foreshore leases, and public utilities within the Licence Area,
 - (ii) based on information gathered by the Licensee for the purposes of the proposed development plan,
 - (A) the forest cover,
 - (B) operability and contour lines,
 - (C) sensitive soils, unstable slopes, and areas subject to visual quality constraints,
 - (D) boundaries of
 - (I) cut blocks referred to in subparagraph (e), and
 - (II) existing cutting permits,
 - (E) existing roads including, where applicable, linkage to the public road system, timber processing facilities and log dumps,
 - (F) proposed roads, including bridges and major culverts,
 - (G) roads under construction,
 - (H) roads which have been deactivated to a temporary or semi-permanent level,
 - (I) fire breaks and fuel management problem areas, and
 - (J) log handling and storage areas, including existing or proposed log dump sites,

- (iii) based on consultation carried out in accordance with the measures specified in the management plan,
 - (A) the location of areas where aboriginal people have indicated they are or may be carrying out aboriginal activities in the Licence Area, and
 - (B) the location of areas where trappers, guide outfitters, range tenure holders, and other licenced resource users are operating in the Licence Area, and
- (iv) any other information required under the manual referred to in subparagraph (b), and
- (h) include a Road Maintenance Plan complying with the requirements of paragraph 11.04 and a Road Deactivation Plan complying with the requirements of paragraph 11.05.

- 4.08 In addition to the requirements under paragraph 4.07, a proposed development plan submitted under paragraph 4.02, 4.03, or 4.06 must
- (a) have been referred to resource agencies and made available for comment in accordance with the review strategy approved in the management plan in effect under this Licence, and
 - (b) be accompanied by a summary of
 - (i) all comments received by the Licensee in complying with the review strategy referred to in subparagraph (a), and
 - (ii) the modifications, if any, made to the proposed development plan, prior to its submission to the District Manager, in response to the comments referred to in clause (i).

- 4.09 Subject to paragraph 4.10, the District Manager, within three months after the date on which a proposed development plan is submitted under paragraph 4.02, 4.03, or 4.06, or two months after the date on which a proposed development plan is submitted under subparagraph 4.11(b), will in a notice given to the Licensee approve the proposed development plan, subject to such conditions as the District Manager considers necessary or appropriate, if
- (a) the District Manager is satisfied that the proposed development plan meets the requirements of paragraph 4.07,
 - (b) the proposed harvesting sequence is satisfactory to the District Manager,
 - (c) the District Manager is prepared to accept cutting permit applications for
 - (i) the cut blocks referred to in clause 4.07(e)(iii), and

- (ii) the cut blocks referred to in clause 4.07(e)(iv), if for any reason cut blocks referred to in clause 4.07(e)(iii) cannot be harvested, and
 - (d) the District Manager is satisfied that the development plan adequately addressed the comments referred to in clause 4.08(b)(i).
- 4.10 The District Manager will not approve a proposed development plan unless there is a management plan in effect under this Licence.
- 4.11 Where the District Manager does not approve a proposed development plan under paragraph 4.09,
 - (a) subject to paragraph 4.10, the District Manager, within three months after the date on which a proposed development plan is submitted under paragraph 4.02, 4.03, or 4.06, or two months after the date on which a proposed development plan is submitted under subparagraph 4.11(b), will specify in a notice given to the Licensee why the District Manager has not approved the development plan, and
 - (b) the Licensee, within one month after the date on which the Licensee is given the notice referred to in subparagraph (a), will submit a new or revised proposed development plan to the District Manager.
- 4.12 A development plan is deemed to be part of this Licence.
- 4.13 Subject to paragraphs 4.01, 4.06, 4.14 and 4.15, a development plan expires one year after the date on which it takes effect.
- 4.14 If
 - (a) the District Manager, within three months after the date on which the District Manager receives a proposed development plan submitted under paragraph 4.02 or 4.03, has neither
 - (i) approved the proposed development plan under paragraph 4.09, nor
 - (ii) given the Licensee a notice referred to in subparagraph 4.11(a), and
 - (b) there is a management plan and a development plan in effect under this Licence,
 then the term of the development plan referred to in subparagraph (b) is deemed to be extended until such time as the District Manager approves the proposed development plan under paragraph 4.09, or gives the Licensee a notice referred to in subparagraph 4.11(a), as the case may be.

- 4.15 At the request of the Licensee, the District Manager may extend the term of a development plan for a period not greater than one year, provided there is a management plan in effect under this Licence.
- 4.16 Before extending the term of a development plan under paragraph 4.15, the District Manager may require the Licensee to amend the development plan to the extent required to ensure compliance with the management plan in effect under this Licence.
- 4.17 If the development plan in effect under this Licence has been rendered inadequate as a result of circumstances the Licensee could not reasonably have foreseen at the time the proposed development plan was submitted for the District Manager's approval, the Licensee may submit for the District Manager's approval a proposed amendment to the development plan.
- 4.18 The District Manager at his or her sole discretion may approve a proposed amendment submitted under paragraph 4.17, provided there is a management plan in effect under this Licence.
- 4.19 Before approving a proposed amendment submitted under paragraph 4.17, the District Manager may require the Licensee to refer the proposed amendment, and make it available for comment in accordance with the review strategy referred to in subparagraph 4.08(a).

5.00 CUTTING PERMITS

- 5.01 All cutting permits in effect under the tree farm licence replaced by this Licence continue in effect under this Licence for the duration of their respective terms.
- 5.02 Subject to paragraph 5.04, the Licensee may submit cutting permit applications for
- (a) cut blocks referred to in clause 4.07(e)(iii), and
 - (b) cut blocks referred to in clause 4.07(e)(iv), if for any reason cut blocks referred to clause 4.07(e)(iii) cannot be harvested, to enable the Licensee to harvest timber from the Licence Area in accordance with the cut control provisions of the *Forest Act*.
- 5.03 Subject to paragraphs 5.05 and 5.06, upon receipt of cutting permit applications referred to in paragraph 5.02, the District Manager will issue cutting permits to the Licensee for
- (a) cut blocks referred to in clause 4.07(e)(iii), and

- (b) cut blocks referred to in clause 4.07(e)(iv), if for any reason cut blocks referred to clause 4.07(e)(iii) cannot be harvested, if the District Manager is satisfied that the cutting permit application meets the requirements of paragraph 5.04.
- 5.04 A cutting permit application referred to in paragraph 5.02 must
- (a) be signed and sealed by a professional forester and signed by the Licensee or the Licensee's authorized signatory,
 - (b) contain such information as is required
 - (i) by the District Manager in a notice given to the Licensee two months prior to the date on which the cutting permit application is submitted, or
 - (ii) in the applicable manual in effect two months prior to the date on which the cutting permit application is submitted,
 - (c) subject to paragraph 5.08, be accompanied by a proposed logging plan, and
 - (d) be consistent with the management plan and development plan in effect under this Licence, and the pre-harvest silviculture prescription, if any, approved for the area on which the timber to be harvested is located.
- 5.05 The District Manager will not issue a cutting permit under paragraph 5.03 unless
- (a) subject to an exemption referred to in subparagraph 5.18(b), the District Manager has approved a pre-harvest silviculture prescription for the area on which the timber to be harvested is located, and
 - (b) there is a management plan and development plan in effect under this Licence.
- 5.06 The District Manager may delay issuing a cutting permit if he or she is satisfied that
- (a) the Licensee will be able under existing cutting permits and road permits to harvest that portion of the allowable annual cut available to the Licensee, and
 - (b) the delay will not compromise the management plan and development plan in effect under this Licence.
- 5.07 Where the District Manager
- (a) is not satisfied that a cutting permit application meets the requirement of paragraph 5.04,
 - (b) is prohibited under paragraph 5.05 from issuing a cutting permit, or

(c) is delaying issuing the cutting permit under paragraph 5.06, the District Manager will give the Licensee a notice to that effect within two months after the date on which the cutting permit application is submitted.

5.08 The District Manager may

- (a) exempt the Licensee from the requirement under paragraph 5.04(c) to submit a logging plan with a cutting permit application, and
- (b) issue a cutting permit before approving a logging plan, however, where a cutting permit is issued prior to the approval of the logging plan, the Licensee will not commence operations under the cutting permit until a logging plan has been submitted and approved.

5.09 At the request or with the consent of the Licensee, the District Manager may at any time

- (a) amend an existing cutting permit, or
- (b) issue a cutting permit, to authorize the Licensee to harvest wind thrown, dead, damaged, infested or diseased timber within the Licence Area.

5.10 A cutting permit must

- (a) subject to this Licence and the *Forest Act*, authorize timber to be harvested in accordance with the provisions of the cutting permit from proximate cut blocks located within the Licence Area,
- (b) be consistent with
 - (i) this Licence,
 - (ii) the *Forest Act*,
 - (iii) subject to an exemption referred to in subparagraph 5.18(b), the pre-harvest silviculture prescription approved for the area on which the timber is to be harvested, and
 - (iv) subject to paragraphs 5.09 and 5.14, the management plan and development plan in effect on the date the cutting permit is issued,
- (c) subject to paragraph 5.13, be for a term not exceeding three years,
- (d) prescribe the locations of roads to be built or deactivated on the area covered by the cutting permit, and the specifications and standards to be followed in building or deactivating these roads,
- (e) prescribe utilization standards and forestry practices to be followed in timber harvesting operations carried on under the cutting permit,
- (f) set out procedures for assessing the volumes of timber wasted or damaged by the Licensee, and provide for a charge based on applicable stumpage rates to be paid by the Licensee,

- (g) specify a timber mark to be used in conjunction with the timber harvesting operations carried on under the cutting permit,
 - (h) specify whether the cutting permit is scale based or cruise based, and
 - (i) subject to subparagraph (b), include such other provisions as the District Manager considers necessary or appropriate.
- 5.11 Subject to paragraphs 5.12, 5.13 and 5.14, the District Manager may amend a cutting permit only at the request or with the consent of the Licensee.
- 5.12 A cutting permit that does not comply with the requirements of paragraph 5.10 is not void, however,
- (a) on the request of the Licensee, or
 - (b) on one month notice to the Licensee,
- the District Manager may amend the cutting permit to the extent required to ensure compliance with the requirements of paragraph 5.10.
- 5.13 The District Manager may, in a notice given to the Licensee, extend the term of a cutting permit.
- 5.14 Where under paragraph 5.13 the District Manager extends the term of a cutting permit, the District Manager may, in a notice given to the Licensee, amend the cutting permit to the extent required to ensure compliance with the management plan and development plan in effect on the date the term of the cutting permit is extended.
- 5.15 Unless exempted in writing by the District Manager or a person authorized by the District Manager, the Licensee will define on the ground the boundaries of the areas authorized for harvesting under a cutting permit.
- 5.16 A cutting permit is deemed to be part of this Licence.
- 5.17 An logging plan approved in respect of a cutting permit is deemed to be part of this Licence and the applicable cutting permit.
- 5.18 The Licensee will not harvest any timber under a cutting permit, unless
- (a) a pre-harvest silviculture prescription has been approved, or
 - (b) the Licensee has been exempted under the *Forest Act* from the requirement to have a pre-harvest silviculture prescription approved,
- for the area on which the timber is located.

- 5.19 A cutting permit or approved logging plan that is inconsistent with the pre-harvest silviculture prescription approved for the area covered by the cutting permit is not void, but to the extent of the inconsistency the pre-harvest silviculture prescription will prevail.
- 5.20 Without restricting the generality of subparagraph 5.10(i), the District Manager may include in a cutting permit a provision requiring the Licensee to provide a specified level of supervision in respect of employees and contractors carrying out operations under the cutting permit on sites identified by the District Manager as being environmentally sensitive sites.

6.00 REVIEW STRATEGY & MINISTRY CONSULTATION

- 6.01 A review strategy referred to in subparagraph 2.05(b), 2.07(b) and subparagraph 2.25(m) must
- (a) provide adequate opportunities for comment to persons interested in or affected by operations under this Licence, including but not restricted to
 - (i) resource agencies,
 - (ii) trappers, guide outfitters, range tenure holders, and other licensed resource users,
 - (iii) aboriginal people,
 - (iv) local governments, and
 - (v) members of the public, and
 - (b) specify measures for inviting comment, including
 - (i) referrals to resource agencies,
 - (ii) advertising methods, times and locations,
 - (iii) viewing methods, times and locations,
 - (iv) if applicable, times and locations of open houses, and
 - (v) methods for collecting written and oral comments from interested persons.
- 6.02 An opportunity for comment provided to a person referred to in subparagraph 6.01(a) will only be adequate for the purposes of that subparagraph if, in the opinion of the Regional Manager or the Chief Forester, as the case may be, the opportunity for comment properly reflects the nature and extent of that person's interest in the Licence Area and any right that person may have to use the Licence Area.
- 6.03 In addition to the requirements under paragraph 6.01, a review strategy for development plans must specify measures which are consistent with the usual procedures in the applicable forest district.

- 6.04 When in accordance with an approved review strategy the Licensee refers a document or plan to resource agencies, or makes it available for comment, the Licensee will at the same time send a copy of the document or plan to the Regional Manager for his or her information.
- 6.05 Before
- (a) approving a review strategy under paragraph 2.06,
 - (b) accepting a Statement of Management Objectives, Options and Procedures under paragraph 2.11,
 - (c) approving a proposed management plan under paragraph 2.27,
 - (d) approving a proposed development plan under paragraph 4.09, or
 - (e) issuing a cutting permit under Part 5.00,
- the Regional Manager, the Chief Forester, or the District Manager, as the case may be, at his or her sole discretion and notwithstanding the Licensee's obligations under the review strategy, may consult persons who may be interested in or affected by operations under this Licence, including but not restricted to
- (f) resource agencies,
 - (g) trappers, guide outfitters, range tenure holders, and other licensed resource users,
 - (h) aboriginal people,
 - (i) local governments, and
 - (j) members of the public,
- and, subject to paragraph 6.06, may consider any comments received as a result of consultation under this paragraph.
- 6.06 If because of comments received as a result of consultation under paragraph 6.05, the Regional Manager, the Chief Forester, or the District Manager is considering
- (a) not accepting, approving, or issuing, or
 - (b) imposing a condition upon acceptance, approval or issuance of,
- a document or plan referred to in paragraph 6.05, the Regional Manager, the Chief Forester, or the District Manager, as the case may be, will provide the Licensee with an opportunity to respond to the comments before making a decision.

7.00 CONDITIONS IMPOSED UPON ACCEPTANCE OR APPROVAL

- 7.01 Where under this Licence a ministry officer has a discretion to make his or her acceptance or approval of a document or plan subject to a condition, the ministry officer will exercise that discretion in a reasonable manner, having regard to the purposes and functions of the Ministry of Forests set out in Section 4 of the *Ministry of Forests Act* as it read on June 1, 1993.
- 7.02 The Licensee, in a notice given to the appropriate ministry officer within 15 days of the date on which the notice of acceptance or approval is given to the Licensee, may reject any condition to which the acceptance or approval is subject, in which case the notice of approval or acceptance is deemed to be a notice that the applicable document or plan is not accepted or approved for the reasons set out in the conditions.

8.00 ANNUAL REPORT

- 8.01 On or before April 1 of each year during the term of this Licence, the Licensee will submit to the Chief Forester, the Regional Manager and the District Manager an annual report
- (a) prepared in accordance with the applicable manual in effect on January 1 of the year in which the annual report is submitted, and
 - (b) containing the information required in the manual referred to in subparagraph (a) regarding
 - (i) the Licensee's performance over the previous calendar year in relation to its management of the Licence Area and its obligations under this Licence,
 - (ii) the Licensee's success in meeting its management objectives, including but not restricted to its management objectives with respect to employment and economic opportunities,
 - (iii) the processing or other use or disposition of the timber harvested under this Licence, and
 - (iv) the Licensee's goals and major initiatives for the next calendar year.
- 8.02 The Licensee will make a copy of an annual report submitted under paragraph 8.01 available for review by interested persons during normal business hours at the Licensee's place of business in the vicinity of the Licence Area or, if the Licensee chooses, at another location which is convenient to the public and acceptable to the Regional Manager.

9.00 CUT CONTROL

- 9.01 The Licensee will comply with the cut control provisions of the *Forest Act*.
- 9.02 The five-year cut control period for this Licence means the 5-year period beginning on January 1, 1995, and each succeeding 5-year period.

10.00 FINANCIAL AND DEPOSITS

- 10.01 Where any money is payable by the Licensee under the *Forest Act* in respect of this Licence, a road permit or a special use permit, the money payable under the *Forest Act* is also deemed to be money payable under this Licence.
- 10.02 In addition to any money payable by the Licensee under paragraph 10.01, the Licensee will pay to the Crown, immediately upon receipt of a notice issued on behalf of the Crown,
- (a) in respect of timber harvested from Schedule B Land, stumpage under Part 7 of the *Forest Act*,
 - (b) in respect of timber harvested from Schedule A Land subject to a timber licence, stumpage or royalty under Part 7, as elected by the Licensee under Section 23 of the *Forest Act*, and
 - (c) any charges in respect of an assessment referred to in subparagraph 5.10(f).
- 10.03 During the term of this Licence, the Licensee will maintain on deposit with the Crown an amount prescribed under the *Forest Act*, in cash or in negotiable securities acceptable to the Minister, as security for the Licensee's performance of its obligations under
- (a) this Licence, a road permit or a special use permit, or
 - (b) the *Forest Act* in respect of this Licence a road permit or a special use permit, and
- where the Regional Manager or District Manager gives the Licensee a notice advising that an amount has been taken under this Part from the deposit, the Licensee, within one month after the date on which the notice is given, will pay to the Crown, in cash or negotiable securities acceptable to the Minister, an amount sufficient to replenish the deposit.

10.04 If the Licensee fails

- (a) to pay money that the Licensee is required to pay to the Crown under this Licence, a road permit or a special use permit, or under the *Forest Act* in respect of this Licence, a road permit or a special use permit, or
- (b) to otherwise perform its obligations under this Licence, a road permit or a special use permit, or under the *Forest Act* in respect of this Licence, a road permit or a special use permit,

then the Regional Manager or District Manager, after at least one month notice to the Licensee, may take from the deposit

- (c) an amount equal to the money which the Licensee failed to pay,
- (d) an amount sufficient to cover all costs reasonably incurred by the Regional Manager or District Manager in remedying the Licensee's failure to perform its obligations, or
- (e) an amount equal to the Regional Manager's or District Manager's estimate of the costs which the Regional Manager or District Manager could reasonably expect to incur in remedying the Licensee's failure to perform its obligations,

and for that purpose a security included in the deposit may be sold.

10.05 A notice referred to in paragraph 10.04 must specify

- (a) the obligation which the Licensee has failed to perform, and
- (b) the amount of money the Regional Manager or District Manager intends to take from the deposit.

10.06 Subject to paragraphs 10.08, 10.09 and 10.10, where

- (a) the Regional Manager or District Manager under paragraph 10.04 takes from the deposit an amount equal to the Regional Manager's or District Manager's estimate of the costs which the Regional Manager or District Manager could reasonably expect to incur in remedying the Licensee's failure to perform its obligations, and
- (b) the costs reasonably incurred by the Regional Manager or District Manager in remedying the Licensee's failure to perform its obligations are less than the amount taken from the deposit,

the Regional Manager or District Manager, as the case may be, will as soon as practicable return to the Licensee an amount equal to the difference between the amount taken from the deposit and the costs incurred by the Regional Manager or District Manager.

10.07 Where

- (a) the Regional Manager or District Manager under paragraph 10.04 takes from the deposit an amount equal to the Regional Manager's or District Manager's estimate of the costs which the Regional Manager or District Manager could reasonably expect to incur in remedying the Licensee's failure to perform its obligations, and
- (b) the costs reasonably incurred by the Regional Manager or District Manager in remedying the Licensee's failure to perform its obligations are greater than the amount taken from the deposit, the Regional Manager or District Manager may take from the deposit an additional amount equal to the difference between the costs incurred by the Regional Manager or District Manager and the amount originally taken from the deposit, and for that purpose a security included in the deposit may be sold.

10.08 Where the Regional Manager or District Manager under paragraph 10.04 takes from the deposit an amount equal to the Regional Manager's or District Manager's estimate of the costs which the Regional Manager or District Manager could reasonably expect to incur in remedying the Licensee's failure to perform its obligations, the Regional Manager or District Manager, as the case may be, is under no obligation to remedy the Licensee's failure.

10.09 Where

- (a) the Regional Manager or District Manager under paragraph 10.04 takes from the deposit an amount equal to the Regional Manager's or District Manager's estimate of the costs which the Regional Manager or District Manager could reasonably expect to incur in remedying the Licensee's failure to perform its obligations,
- (b) the Regional Manager or District Manager does not remedy the Licensee's failure to perform its obligations, and
- (c) the Regional Manager or District Manager gives a notice to the Licensee indicating that the Regional Manager or District Manager will not be remedying the Licensee's failure to perform its obligations,

then, subject to paragraph 10.10, the Regional Manager or District Manager may retain the amount taken from the deposit under paragraph 10.04.

- 10.10 If, after receiving a notice referred to in paragraph 10.09, the Licensee
- (a) remedies the failure to perform its obligations, and
 - (b) gives a notice to that effect to the Regional Manager or District Manager within three months of the date on which the notice referred to in paragraph 10.09 is given to the Licensee, or within such longer period as the Regional Manager or District Manager may approve,
- then the Regional Manager or District Manager, as the case may be, will return to the Licensee an amount equal to the difference between the amount taken from the deposit and any costs reasonably incurred by the Regional Manager or District Manager in respect of the Licensee's failure to perform its obligations.
- 10.11 If the Regional Manager or District Manager considers that
- (a) any operation that is to be carried out under this Licence, a road permit or a special use permit is likely to cause damage to persons or property, and
 - (b) the deposit is insufficient to indemnify the Crown for any liability which the Crown might incur as a consequence of the operation,
- then the Regional Manager or District Manager may require the Licensee to maintain with the Crown a special deposit, in cash or in negotiable securities acceptable to the Minister, in the amount determined by the Regional Manager or District Manager, as the case may be.
- 10.12 If the Licensee fails to
- (a) remedy any damage resulting from an operation referred to in paragraph 10.11, or
 - (b) compensate any person who suffers a loss as a result of an operation referred to in paragraph 10.11,
- the Regional Manager or District Manager may, after at least one month notice to the Licensee, take an amount from the special deposit sufficient to indemnify the Crown for any liability which is or may be incurred by the Crown as a consequence of a failure referred to in subparagraph (a) or (b).
- 10.13 A notice referred to in paragraph 10.12 must specify
- (a) the nature of the Licensee's failure,
 - (b) the nature of the damage or loss, and
 - (c) the amount of money the Regional Manager or District Manager intends to take from the special deposit.

- 10.14 Subject to the *Forest Act*, the Regional Manager will refund to the Licensee
- (a) the deposit, less deductions made under paragraphs 10.04 and 10.07, when
 - (i) this Licence terminates or expires and is not replaced under Section 29 of the *Forest Act*, and
 - (ii) the Regional Manager is satisfied that the Licensee has fulfilled its obligations under this Licence, and
 - (b) a special deposit, less deductions made under paragraph 10.12, when the Regional Manager, acting reasonably, is satisfied that the Crown is no longer at risk of being held liable as a consequence of an operation referred to in paragraph 10.11.

11.00 ROADS

- 11.01 Subject to the provisions of a cutting permit or road permit, the Licensee will ensure that the specifications, standards and locations of all roads the Licensee builds on the Licence Area are consistent with the management plan and development plan in effect at the time the road is built.
- 11.02 Upon the expiry of a road permit or a special use permit, all improvements, including roads and bridges, constructed by the Licensee under the authority of the road permit or the special use permit will vest in the Crown, without right of compensation to the Licensee, unless otherwise specified in the road permit or special use permit.
- 11.03 The Licensee will not remove any improvements referred to in paragraph 11.02, unless authorized to do so by the Regional Manager.
- 11.04 The Road Maintenance Plan included in the Development Plan must
- (a) identify those roads shown on the maps referred to in subparagraph 4.07(g) which the Licensee will maintain for harvesting, silviculture and forest protection purposes, and
 - (b) specify the maintenance operations which the Licensee will carry out to
 - (i) protect the structural integrity of the roads referred to in subparagraph (a) and the cleared area of the road right-of-way adjoining these roads,
 - (ii) keep drainage systems, including culverts and ditches, functional,
 - (iii) minimize surface erosion, and
 - (iv) ensure these roads are safe for forest harvesting or other industrial purposes.

- 11.05 The Road Deactivation Plan included in the Development Plan must
- (a) identify those roads shown on the maps referred to in subparagraph 4.07(g) which the Licensee will deactivate each year over the next three years, specifying in each case whether the deactivation will be temporary, semi-permanent or permanent,
 - (b) specify the operations required to
 - (i) stabilize the roads referred to in subparagraph (a) and the cleared area of the road right-of-way adjoining these roads, and
 - (ii) restore or maintain the natural drainage at each road location,
 - (c) identify those roads shown on the maps referred to in subparagraph 4.07(g) which have been deactivated by the Licensee to a temporary or semi-permanent level in the past year, and any other roads that have been permanently deactivated by the Licensee in the past year, and
 - (d) specify the type of vehicle which can access the roads referred to in subparagraph (a) or (c).
- 11.06 If the Licensor so desires, the Licensee will transfer such rights of way and roads, located or to be located on the lands set out in Schedule "E" of this Licence, which the Licensor at his sole discretion identifies as the rights of way and roads the Licensor wishes to acquire.
- 11.07 The total consideration for the transfer referred to in paragraph 11.06 shall be \$10.00, and the Licensee hereby acknowledges the sufficiency of this consideration.
- 11.08 The Licensee will cooperate with the Licensor, and provide the Licensor with any assistance the Licensor may reasonably require, for the purpose of identifying the rights of way and roads referred to in paragraph 11.06 that the Licensor wishes to acquire, and, without restricting the generality of the foregoing, the Licensee shall
- (a) permit the Licensor to enter onto the lands set out in Schedule "E" for the purpose of surveying rights of way and roads, and
 - (b) sign in a timely manner plans and documents as required.

12.00 FIRE PROTECTION

- 12.01 Before April 1 of each year during the term of this Licence, the Licensee will submit for the District Manager's approval a fire protection pre-organization plan consistent with this Licence, and will include a duty roster in the fire protection pre-organization plan.

- 12.02 An approved fire protection pre-organization plan is deemed to be part of this Licence.
- 12.03 The Licensee's obligations under an approved fire protection pre-organization plan are in addition to and do not replace its commitments in the management plan or development plan or its obligations under Section 121 of the *Forest Act*.

13.00 FORESTRY

- 13.01 The Licensee will
- (a) comply with the requirements of the *Forest Act* with respect to basic silviculture, and
 - (b) ensure basic silviculture and, if applicable, incremental silviculture carried out by or for the Licensee on the Licence Area is consistent with the management plan in effect under this Licence.
- 13.02 If under this Licence or the *Forest Act* the Licensee is to develop or maintain a recreation site or trail, the Licensee may enter onto Crown land for this purpose.
- 13.03 If the Licensee posts a sign concerning silviculture or the development and maintenance of recreation sites or trails, the sign must acknowledge any contribution made by the Crown in respect of the silviculture or the development or maintenance of recreation sites or trails.
- 13.04 The Licensee will annually review pest management strategies with the District Manager and, if required by the District Manager, the Licensee will submit a pest management plan, including appropriate surveys, for the District Manager's approval.
- 13.05 The Licensee's obligations under an approved pest management plan are in addition to and do not replace its commitments in the management plan or development plan respecting pest management.
- 13.06 The Regional Manager or the District Manager may carry out
- (a) basic silviculture on Schedule B Land referred to in paragraph 1.07, 1.08, 1.09 and 1.16, in accordance with the Crown's basic silviculture obligations under the *Forest Act*, and
 - (b) incremental silviculture on Schedule B Land or Schedule A Land subject to a timber licence, provided that in so doing the Regional Manager or District Manager, as the case may be, does not

- (i) compromise the management plan or development plan in effect under this Licence, or
- (ii) unreasonably interfere with the Licensee's operations under this Licence.

- 13.07 Where the Regional Manager or the District Manager carries out basic silviculture referred to in subparagraph 13.06(a) or incremental silviculture referred to in subparagraph 13.06(b), the Regional Manager or the District Manager, as the case may be, will ensure that the basic silviculture and, if applicable the incremental silviculture is consistent with the intent of the management plan in effect under this Licence.
- 13.08 The Licensee will fulfill all outstanding silvicultural obligations of Westshore as Licensee and permittee, in respect of this Licence and License Area, as well as those obligations arising under Part 10.1 of the Forest Act, including existing pre-harvest silviculture prescriptions.
- 13.09 The plan for elimination of backlog "not satisfactorily restocked" areas, entitled "Forest Renewal Initiative", dated April 1990, prepared by T. M. Thomson and Associates Ltd. for Westar Timber Ltd., the title page and table of contents which are attached to this licence (for purposes of identification) as Schedule "C", shall be deemed to be an integral part of this Licence and the Licensee agrees to carry out obligations therein which pertain to the Licence area by December 31, 1996, unless extended by the Chief Forester.

14.00 ACCESS AND ACCOMMODATION

- 14.01 Any ministry officer may use roads owned or deemed to be owned by the Licensee, for the purposes of fulfilling an obligation or exercising a right under this Licence.
- 14.02 The Licensee will allow any person who has been granted harvesting rights to timber referred to in paragraph 1.07, 1.08, 1.09, or 1.16 to use any road providing access to timber within the Licence Area, which is owned or deemed to be owned by the Licensee.
- 14.03 The Licensee will not require any payment from a person referred to in paragraph 14.02 other than a reasonable payment in respect of the actual maintenance costs of the road.

- 14.04 Upon reasonable notice from the Regional Manager or District Manager, the Licensee will provide a ministry officer with reasonable office and living accommodation on premises owned or operated by the Licensee in or near the Licence Area, to enable the ministry officer to fulfill an obligation or exercise a right under this Licence.
- 14.05 The Licensee may charge the Regional Manager or District Manager, as the case may be, for costs reasonably incurred in providing the accommodation referred to in paragraph 14.04.
- 14.06 The Licensee shall permit any third party, upon reasonable payment to the Licensee, and on other reasonable terms, to use the Licensee's log transportation infrastructure where such use is reasonably necessary for purposes related to forest harvesting.

15.00 CONTRACTORS

- 15.01 Each year during the term of this Licence, the Licensee will ensure that not less than
- (a) 50 percent of the volume of timber harvested by or for the Licensee under this Licence during the year, multiplied by
 - (b) the result obtained by the division of
 - (i) the portion of the allowable annual cut that the Chief Forester determines is attributable to Schedule B Land, by
 - (ii) the allowable annual cut,
- is harvested by persons under contract with the Licensee.
- 15.02 Compliance with the requirement of paragraph 15.01 will be calculated in accordance with the method prescribed under the *Forest Act*.
- 15.03 If in a calendar year the volume of timber harvested by persons under contract with the Licensee is less than a volume required under paragraph 15.01, the Licensee will on demand pay to the Crown, an amount of money equal to
- (a) the volume required under paragraph 15.01 minus the volume harvested during the calendar year by persons under contract, multiplied by
 - (b) the weighted average of the stumpage rates charged in invoices issued to the Licensee during the calendar year for timber harvested under this Licence from Schedule B Land,
- unless the Minister relieves the Licensee in whole or in part from the requirements of this paragraph.

15.04 The Licensee may contract to have more than the volume required under paragraph 15.01 harvested by persons under contract.

15.05 The Minister may relieve the Licensee from the requirement under paragraph 15.01 to the extent provided for under the *Forest Act*.

16.00 TIMBER PROCESSING

16.01 The Licensee will process all timber harvested under a cutting permit or a road permit, or equivalent volumes, through a timber processing facility located at Castlegar

- (a) owned or operated by the Licensee or an affiliate of the Licensee within the meaning of the *Company Act*, and
- (b) equipped to carry out debarking and chipping, unless the Minister exempts the Licensee in whole or in part from the requirements of this paragraph.

16.02 Where the Licensee

- (a) intends to close a timber processing facility or reduce its production, or
- (b) has reason to believe that an affiliate of the Licensee within the meaning of the *Company Act* intends to close a timber processing facility or reduce its production,

for a period of longer than 90 days, the Licensee will give the Minister at least three months notice prior to the closure or reduction.

16.03 Where

- (a) the Licensee, or
- (b) an affiliate of the Licensee within the meaning of the *Company Act*,

closes a timber processing facility or reduces its production for a period longer than 90 days, the Licensee will at the request of the Minister provide information regarding the volume of Crown timber processed through the timber processing facility during the 24-month period immediately preceding the closure or reduction in production level.

16.04 The Licensee will continue to operate, and where applicable construct or expand, a timber processing facility in accordance with

- (a) the proposal made in the application on which the award of the tree farm licence replaced by this Licence or any predecessor to that tree farm licence was based, and
- (b) the revisions, if any, to that proposal which have been approved by the Minister or an appropriate ministry officer.

- 16.05 The Licensee shall not sell or otherwise dispose of the Castlegar sawmill unless the Castlegar sawmill is sold or disposed of in conjunction with an assignment of this Licence.

17.00 LIABILITY AND INDEMNITY

- 17.01 Subject to paragraph 17.03, the Licensee will indemnify the Crown against and save it harmless from all claims, demands, suits, actions, causes of action, costs, expenses and losses faced, incurred or suffered by the Crown as a result, directly or indirectly, of any act or omission of

- (a) the Licensee,
- (b) an employee of the Licensee,
- (c) an agent of the Licensee,
- (d) a contractor of the Licensee who engages in any activity or carries out any operation, including but not restricted to harvesting operations, under or associated with this Licence, a road permit, a free use permit issued to the Licensee, or a special use permit, or
- (e) any other person who on behalf of the Licensee engages in any activity or carries out any operation, including but not restricted to harvesting operations, under or associated with this Licence, a road permit, a free use permit issued to the Licensee or a special use permit.

- 17.02 For greater certainty, the Licensee has no obligation to indemnify the Crown under paragraph 17.01 in respect of any act or omission of

- (a) an employee, agent or contractor of the Crown, in the course of carrying out his or her duties as employee, agent or contractor of the Crown, or
- (b) a person other than the Licensee to whom the Crown has granted the right to enter, use or occupy Crown land, including a person who has been granted the right to harvest timber referred to in paragraph 1.07, 1.08, 1.09 or 1.16, in the course of exercising those rights.

- 17.03 Paragraph 17.01 does not apply to an act or omission which is a direct response to, and complies with, an order made by a ministry officer or another officer of the Crown.

- 17.04 Money taken under Part 10.00 from a deposit or special deposit, and money paid by the Licensee under paragraph 15.03 or 17.01, is in addition to and not in substitution for any other remedies available to the Crown in respect of a default of the Licensee.

18.00 LIMITATION OF LIABILITY

- 18.01 The Licensor is not liable to the Licensee for injuries, losses, expenses, or costs incurred or suffered by the Licensee as a result, directly or indirectly, of an act or omission of a person who is not a party to this Licence, including but not restricted to an act or omission of a person disrupting, stopping or otherwise interfering with the Licensee's operations under this Licence by road blocks or other means.

19.00 INTERFERENCE WITH ABORIGINAL RIGHTS

- 19.01 Notwithstanding any other provision of this Licence, if a court of competent jurisdiction
- (a) determines that the Licensee's operations under this Licence, or the Licensee's use or occupation of Schedule B Land or Schedule A Land subject to a timber licence, is interfering or may interfere with an aboriginal right,
 - (b) grants an injunction further to a determination referred to in subparagraph (a), or
 - (c) grants an injunction pending a determination of whether the Licensee's operations under this Licence, or the Licensee's use or occupation of Schedule B Land or Schedule A Land subject to a timber licence, is interfering or may interfere with an aboriginal right,
- then, having regard to any determination of the court and the terms of any injunction granted by the court, the Regional Manager or District Manager, in a notice given to the Licensee, may, in whole or in part, vary, suspend, or refuse to issue
- (d) a cutting permit,
 - (e) a road permit,
 - (f) a special use permit, or
 - (g) a free use permit issued to the Licensee,
- to the extent necessary to ensure there is no interference or no further interference with the aboriginal right or the alleged aboriginal right.
- 19.02 Notwithstanding any other provision of this Licence, if a court of competent jurisdiction
- (a) determines that the Licensee's operations under this Licence, or the Licensee's use or occupation of Schedule B Land or Schedule A Land subject to a timber licence, is interfering or may interfere with an aboriginal right,

- (b) grants an injunction further to a determination referred to in subparagraph (a), or
- (c) grants an injunction pending a determination of whether the Licensee's operations under this Licence, or the Licensee's use or occupation of Schedule B Land or Schedule A Land subject to a timber licence, is interfering or may interfere with an aboriginal right,

then, having regard to any determination of the court and the terms of any injunction granted by the court, the Chief Forester, in a notice given to the Licensee, may require the Licensee to amend one or both of the following

- (d) the management plan in effect under this Licence, and
 - (e) the development plan in effect under this Licence,
- to the extent necessary to ensure there is no interference or no further interference with the aboriginal right or the alleged aboriginal right.

19.03 Where the Chief Forester gives the Licensee a notice referred to in paragraph 19.02, the Licensee, in accordance with the requirements of the notice and within the time specified in the notice, will submit one or both of the following

- (a) for the Chief Forester's approval, a proposed amendment to the management plan to have effect during the unexpired term of the management plan, and
- (b) for the District Manager's approval, a proposed amendment to the development plan to have effect during the unexpired term of the development plan.

19.04 Subject to the *Forest Act* and all other applicable legislation and the other provisions of this Licence, the Chief Forester or the District Manager, as the case may be, will approve a proposed amendment referred to in paragraph 19.03 if he or she is satisfied that the proposed amendment

- (a) meets the requirements of the notice referred in paragraph 19.02, and
- (b) is consistent with any determination of the court and the terms of any injunction granted by the court referred to in paragraph 19.02.

19.05 If either

- (a) the Licensee fails to comply with the requirements of paragraph 19.03, or
- (b) the Chief Forester or the District Manager does not approve a proposed amendment under paragraph 19.04,

the Chief Forester or the District Manager may amend the management plan or the development plan, as the case may be, to the extent necessary to ensure the plan

- (c) meets the requirements of the notice referred to in paragraph 19.02, and
- (d) is consistent with any determination of the court and the terms of any injunction granted by the court referred to in paragraph 19.02.

19.06 Subject to the *Forest Act* and all other applicable legislation and the other provisions of this Licence, where

- (a) the Regional Manager or District Manager has varied a cutting permit, road permit, special use permit, or free use permit under paragraph 19.01,
- (b) a court of competent jurisdiction subsequently overturns, sets aside or dissolves the determination or injunction referred to in that paragraph, and
- (c) the Regional Manager or District Manager, as the case may be, considers it practicable to do so,

the Regional Manager or District Manager, at the request of the Licensee, will vary the permit to reflect as closely as possible the terms and conditions of the permit prior to its variation under paragraph 19.01.

19.07 Subject to the *Forest Act* and all other applicable legislation and the other provisions of this Licence, where

- (a) the Regional Manager or District Manager has suspended a cutting permit, road permit, special use permit, or free use permit under paragraph 19.01,
- (b) a court of competent jurisdiction subsequently sets aside or dissolves the determination or injunction referred to in that paragraph, and
- (c) the Regional Manager or District Manager, as the case may be, considers it practicable to do so,

the Regional Manager or District Manager, at the request of the Licensee will reinstate the permit.

19.08 Subject to the *Forest Act* and all other applicable legislation and the other provisions of this Licence, where

- (a) the Regional Manager or District Manager has refused to issue a cutting permit, road permit, special use permit, or free use permit under paragraph 19.01,

- (b) a court of competent jurisdiction subsequently overturns, sets aside or dissolves the determination or injunction referred to in that paragraph, and
 - (c) the Regional Manager or District Manager, as the case may be, considers it practicable to do so,
- the Regional Manager or District Manager, at the request of the Licensee, will issue the permit.

19.09 Subject to the *Forest Act* and all other applicable legislation and the other provisions of this Licence, where

- (a) as a result of a determination or injunction referred to in paragraph 19.02, an amendment to the management plan or development plan in effect under this Licence has been approved under paragraph 19.04 or made under paragraph 19.05, and
- (b) a court of competent jurisdiction subsequently overturns, sets aside or dissolves the determination or injunction,

the Licensee may submit an amendment reversing, insofar as it is possible, the effects of the amendment referred to in subparagraph (a), and the Chief Forester or the District Manager, as the case may be, will approve the amendment if he or she considers it practicable to do so.

20.00 TERMINATION AND SURRENDER

20.01 If this Licence is terminated, expires and is not replaced under Section 29 of the *Forest Act*, or if this Licence is cancelled,

- (a) cutting permits will terminate when the expiration, termination or cancellation occurs, and
- (b) title to all
 - (i) improvements, including roads and bridges, constructed on Schedule B Land by the Licensee under the authority of this Licence, and
 - (ii) logs and special forest products which were harvested from Schedule B Land under the authority of this Licence and are still located on Schedule B Land,
 will vest in the Crown, without right of compensation to the Licensee, and
- (c) the Licensee may continue to enter, occupy and use Schedule B Land for a period of one month after the termination, expiry or cancellation of this Licence for the purposes of removing the Licensee's property.

- 20.02 The Licensee will not remove any improvements, logs or special forest products referred to in subparagraph 20.01(b), unless authorized to do so by the Regional Manager.
- 20.03 Subject to paragraph 20.04, if the Licensee commits an act of bankruptcy, makes a general assignment for the benefit of its creditors or otherwise acknowledges its insolvency, the Chief Forester may cancel this Licence in a notice given to the Licensee.
- 20.04 The Chief Forester will not cancel this Licence under paragraph 20.03 unless and until the Chief Forester gives a written notice to every holder of a registered security interest that charges this Licence, allowing a period of not less than 60 days prior to cancellation during which the holder of the registered security interest may exercise the rights and pursue the remedies available in respect of the registered security interest.

21.00 NOTICE

- 21.01 A notice given under this Licence must be in writing.
- 21.02 Where a notice is to be given under this Licence, it may be
- (a) delivered by hand,
 - (b) sent by prepaid registered mail, or
 - (c) subject to paragraph 21.05, sent by facsimile transmission, to the address or facsimile number, as applicable, specified on the first page of this Licence, or to such other address or facsimile number as is specified in a notice given in accordance with this Part.
- 21.03 Where a notice is given under this Licence, it is deemed to have been given
- (a) if it is given in accordance with subparagraph 21.02(a), on the date it is delivered by hand,
 - (b) if it is given in accordance with subparagraph 21.02(b), subject to paragraph 21.04, on the eighth day after its deposit in a Canada Post Office at any place in Canada, and
 - (c) if it is given in accordance with subparagraph 21.02(c), subject to paragraph 21.05, on the date it is sent by facsimile transmission.
- 21.04 Where, between the time a notice is mailed in accordance with subparagraph 21.02(b) and the time it is actually received, there occurs a postal strike, lockout or slowdown that might reasonably affect delivery of the notice, the notice is not deemed to be given until the party actually receives it.

- 21.05 Where a notice is sent by facsimile transmission, the party sending the notice must ensure that the transmission has been successfully completed.

22.00 MISCELLANEOUS

- 22.01 This Licence is subject to the laws of British Columbia, including the *Forest Act* and all other applicable legislation.
- 22.02 This Licence will enure to the benefit of, and be binding on, the parties and their respective heirs, executors, successors and permitted assigns.
- 22.03 Where under this Licence the Minister or a ministry officer has a discretion to require information, the Minister or ministry officer will exercise this discretion in a reasonable manner, having regard to the purposes and functions of the Ministry of Forests set out in Section 4 of the *Ministry of Forests Act* as it read on June 1, 1993.
- 22.04 The Minister will ensure that the obligations under this Licence of the ministry officers referred to in this Licence are fulfilled within the limits of this Licence and applicable legislation.
- 22.05 The Licensee will use the services of one or more registered professional foresters to manage the Licence Area in accordance with the management plan and development plan in effect under this Licence.
- 22.06 At the request of the Regional Manager or District Manager, the Licensee will survey and define on the ground any or all boundaries of the Licence Area.
- 22.07 Where
- (a) the boundaries of the Licence Area are based on boundaries established under existing or expired timber licences,
 - (b) the legal description of the boundaries of the Licence Area has been derived from original timber licence survey plans or from reference maps prepared from original timber licence survey plans, and
 - (c) the legal description differs from the actual ground location of timber licence corner posts,
- the boundaries of the Licence Area are the boundaries as originally established by the actual ground location of the timber licence corner posts.

- 22.08 Timber cut under this Licence or a road permit must be
- (a) marked according to the *Forest Act*, and
 - (b) unless the timber is cut under a cruise based cutting permit, scaled according to the *Forest Act* and any procedures set or approved by the Ministry of Forests.
- 22.09 A right or duty of a ministry officer referred to in this Licence may be exercised or fulfilled by another ministry officer designated or authorized to do so by the Minister, the Chief Forester, the Regional Manager, or the District Manager, as appropriate.
- 22.10 Nothing in this Licence entitles the Licensee to have an area of Schedule B Land, or Schedule A Land subject to a timber licence, replaced with another area, or to have harvesting rights awarded under another agreement under the *Forest Act*, in the event timber is damaged or destroyed by pests, fire, wind or other natural causes, or an area of land is deleted from the Licence Area under the *Forest Act* or any other statute.
- 22.11 The Licensee waives any right the Licensee may have to compensation from the Licensor, and releases the Licensor from any claims the Licensee might have against the Licensor, as a result of any deletion from the Licence Area, pursuant to Section 53 of the *Forest Act*, of the areas which are indicated on Schedule "D" attached to this Licence as the following: Proposed Gold Range Wilderness Area, Proposed Monashee Park Addition Study Area, Proposed Hutchinson Wilderness Area and Addition, and Proposed Gladstone Wilderness Area. See map in Schedule "D".
- 22.12 Subject to the following, the Licensee shall continue the employment of all of the following persons:
- (a) persons employed as of April 1, 1992, at, or on the recall list for, the Castlegar sawmill,
 - (b) persons employed as of April 1, 1992, within, or on the recall list for, employment within Westar Timber Ltd.'s (or an affiliate company's) log transportation infrastructure associated with timber harvested from this Licence,
 - (c) persons employed as of April 1, 1992, at, or on the recall list for, employment at Westar Timber Ltd.'s (or an affiliated company's) woodlands divisions associated with this Licence.
- Termination of any of the above-noted employees must be for one or more of the following reasons:

- (a) reduction of the allowable annual cut for this Licence pursuant to the *Forest Act*,
- (b) other legitimate fiscal reasons, or
- (c) just cause.

In the event of termination of any employees, other than for just cause, each terminated employee shall be treated as though he or she has been continuously employed since he or she last commenced employment with Westar Timber Ltd. (or any of its affiliates).

- 22.13 The Licensee will make available for purchase by traditional local buyers, cedar volumes suitable for the manufacture of shakes, harvested from the Licence Area.

23.00 INTERPRETATION

- 23.01 In this Licence, unless the context otherwise requires,
- (a) "aboriginal activities" means cultural, spiritual, religious, and sustenance activities associated with traditional aboriginal life, including aboriginal rights,
 - (b) "aboriginal people" includes registered and non-registered Indians, Inuits and Metis,
 - (c) "allowable annual cut" means the allowable annual cut determined for the Licence Area by the Chief Forester under the *Forest Act*, as increased or decreased under the *Forest Act*,
 - (d) "close" or "closure" means cessation of production of the principal forest products normally produced by a timber processing facility,
 - (e) "community forest" means a community forest as defined by the Licensor,
 - (f) "cultural heritage resource" means an object or site that is of historic, cultural, or archaeological significance,
 - (g) "cutting permit" means a cutting permit referred to in paragraph 5.01, or issued under paragraph 5.03 or 5.09,
 - (h) "deposit" means the deposit which the Licensee is required to maintain under paragraph 10.03,
 - (i) "development plan" means a plan which
 - (i) details the proposed location and scheduling of development activities within the Licence Area, over a period of at least five years, including the location and scheduling of harvesting and road construction and deactivation activities,

- (ii) provides information to be considered in assessing the proposed location and scheduling of development activities, and
 - (iii) subject to paragraph 4.15, is replaced every one or two years, depending on its term,
- (j) "*Forest Act*" means
 - (i) the *Forest Act*, R.S.B.C. 1979, c. 140, as amended, or the successor to this act, or a part of this act if all or a part of it is repealed, and
 - (ii) the regulations enacted under this act or its successor,
- (k) "free use permit" means a free use permit issued under the *Forest Act* to the Licensee, or to a person other than the Licensee,
- (l) "guideline" means a guideline, policy, procedure or manual regarding forest practices applicable to all or part of the Licence Area, which has been set or approved by the Ministry ,
- (m) "harvest" includes entry onto land for the purpose of cutting and removing timber, cutting the timber and removing the timber from the land,
- (n) "land and resource management plan" means a plan, approved by an appropriate official of the Government of British Columbia, which provides direction for land use, and establishes resource management objectives and strategies, for all or part of the Licence Area,
- (o) "Licence Area" means Schedule A Land and Schedule B Land,
- (p) "local resource use plan" means a plan approved by the District Manager which provides guidelines for resource use and development in all or part of the Licence Area,
- (q) "logging plan" means one or more detailed maps setting out how the Licensee proposes to conduct harvesting and related operations on one or more cut blocks covered or to be covered by a cutting permit,
- (r) "Log transportation infrastructure" means all facilities related to the scaling, dumping, booming, towing and storage of logs, chips, wood products or other related material or equipment,
- (s) "management plan" means a plan for managing, protecting and conserving both the timber resources and the non-timber values and resources of the Licence Area, and integrating harvesting and related activities with use of the Licence Area for purposes other than timber production,

- (t) "manual" means a guideline, policy, procedure, or manual set or approved by the Ministry for preparation of
- (i) a Statement of Management Objectives, Options and Procedures,
 - (ii) a Timber Supply Analysis Information Package,
 - (iii) a timber supply analysis,
 - (iv) a management plan,
 - (v) a development plan,
 - (vi) a cutting permit application,
 - (vii) an annual report referred to in Part 8.00, or
 - (viii) inventories referred to in Part 2.00,
- (u) "Ministry" means the Ministry of Forests,
- (v) "ministry officer" means an employee of the Ministry,
- (w) "operable land base" mean those areas within the Licence Area, which, based on the highest log prices obtained over the previous decade for timber of the type and quality principally found on the areas, are economically feasible to develop and harvest with the technology currently available to the Licensee,
- (x) "person" includes a corporation and a partnership,
- (y) "pest" means any animal, insect, fungus, bacteria, virus, nematode, or other organism which is detrimental to effective forest management,
- (z) "pre-harvest silviculture prescription" means a prescription required prior to harvesting under Section 129.3 of the *Forest Act*,
- (aa) "resource agencies" means any governmental agency, ministry or department having jurisdiction over a resource which may be affected by any activity or operation, including but not restricted to harvesting activities or operations, engaged in or carried out under or associated with this Licence or a road permit,
- (bb) "review strategy" means a plan for obtaining input from resource agencies and interested persons regarding management and development of the Licence Area,
- (cc) "road" includes bridges and culverts,
- (dd) "Road Deactivation Plan" means a road deactivation plan referred to in paragraph 11.05,
- (ee) "Road Maintenance Plan" means a road maintenance plan referred to in paragraph 11.04,
- (ff) "road permit" means a road permit granted to the Licensee under the *Forest Act* which provides access to timber harvested, or to be harvested, under this Licence,
- (gg) "Schedule A Land" means the land described in the Schedule "A" to this Licence,

- (hh) "Schedule B Land" means the Crown land described in Schedule "B" to this Licence,
 - (ii) "special deposit" means a special deposit which the Licensee is required to maintain under paragraph 10.11,
 - (jj) "special use permit" means a special use permit issued under the *Forest Act* to authorize the Licensee to use or occupy Crown land within the Licence Area,
 - (kk) "timber supply analysis" means an analysis of the short-term and long-term availability of timber for harvesting in the Licence Area, including an analysis of the short- and long-term effect of management practices on the availability of timber,
 - (ll) "Timber Supply Analysis Information Package" means information relating to the preparation of a timber supply analysis, including information regarding the assumptions to be incorporated into a timber supply analysis, and the methodology to be used in the timber supply analysis,
 - (mm) "Timber Supply Forester" means the ministry officer designated by the Chief Forester to review the Timber Supply Analysis Information Package and the timber supply analysis,
 - (nn) "20-year plan" means a plan prepared in support of a timber supply analysis, which indicates the availability of timber over a period of not less than 20 years.
- 23.02 Unless otherwise provided in paragraph 23.01, if a word or phrase used in this Licence is defined in the *Forest Act*, the definition in the *Forest Act* applies to this Licence, and where the word or phrase in the *Forest Act* is replaced by a new word or phrase, this Licence is deemed to have been amended accordingly.
- 23.03 Where a provision of the *Forest Act* referred to in this Licence is renumbered, the reference in this Licence is to be construed as a reference to the provision as renumbered.
- 23.04 In this Licence, unless the context otherwise requires,
- (a) the singular includes the plural and the plural includes the singular, and
 - (b) the masculine, the feminine and the neuter are interchangeable.

23.05 This Licence is divided into parts, paragraphs, subparagraphs, clauses and subclauses, illustrated as follows

1.00 part,

1.01 paragraph,

(a) subparagraph,

(i) clause,

(A) subclause,

and a reference to a subparagraph, clause or subclause be construed as a reference to a subparagraph, clause or subclause of the paragraph, subparagraph or clause, as the case may be, in which the reference occurs.

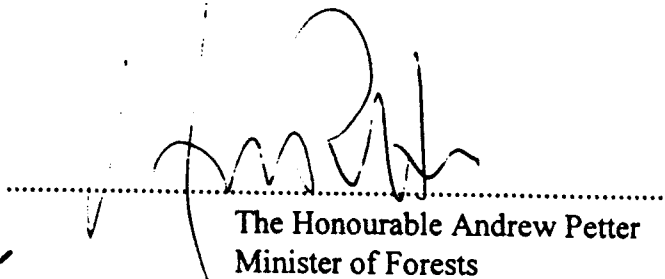
IN WITNESS WHEREOF this Licence has been executed by the Minister and the Licensee.

SIGNED on Feb 28 1995

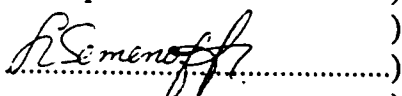
by the Minister)
on behalf of Her Majesty)
the Queen in Right of)
the Province of)
British Columbia in the)
presence of:)



(Type in Name) J. Long


The Honourable Andrew Petter
Minister of Forests

THE COMMON SEAL of)
the Licensee was affixed)
on Feb 16 1995)
in the presence of:)



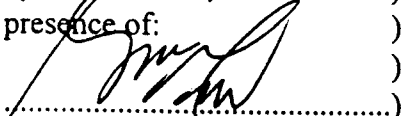
(Type in Name) L. Semeneff

c/s

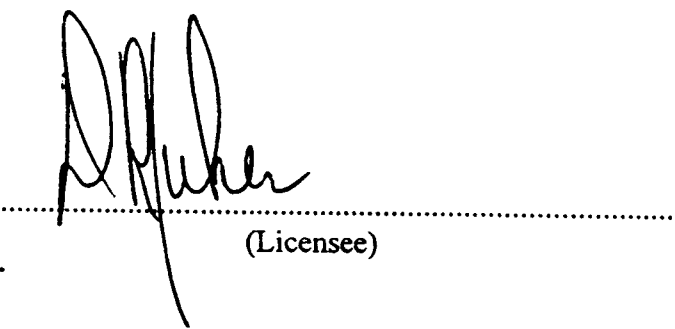
(or)

SIGNED on Feb 16 1995

by the Licensee, in the)
presence of:)



(Type in Name) G. McGrath


(Licensee)

SCHEDULE "A"
ARROW LAKES TREE FARM LICENCE
TREE FARM LICENCE NUMBER 23

Forest lands and merchantable timber in other tenures owned or controlled by the
Licensee in Tree Farm Licence Number 23.

BLOCK 1

Now Tree Farm Licence Number 55 (Selkirk).

Crown Grants

Nil

Timber Licences

Nil

BLOCK 2

<u>Crown Grants</u>	<u>Land District</u>	<u>Land Titles Parcel Identifier</u>	<u>Hectares</u>
The East half of District Lot 770	Kootenay	014-044-471	64.752
The West half of District Lot 770	Kootenay	014-044-544	64.752
District Lot 772	Kootenay	014-045-346	64.752
District Lot 5069	Kootenay	014-015-617	75.274
District Lot 7045	Kootenay	014-045-826	35.209
District Lot 7046	Kootenay	014-045-842	37.637

<u>Crown Grants</u>	<u>Land District</u>	<u>Land Titles Parcel Identifier</u>	<u>Hectares</u>
District Lot 7648 Except Parcel A (See D. D. 13449I)	Kootenay	014-046-458	
and			
Parcel A (See D.D. 13449I) District Lot 7648	Kootenay	014-046-407	64.983
District Lot 7959 Except (1), Parcel 1 (Reference Plan 5828I) and Part included in Plan 1321	Kootenay	014-046-482	109.259
District Lot 8653	Kootenay	014-045-907	43.708
District Lot 9126	Kootenay	014-045-869	<u>16.188</u>
		TOTAL	<u>576.514</u>

BLOCK 2
Timber Licences

<u>Timber Licences</u>	<u>Replaces Special Timber Licences</u>	<u>Land District</u>	<u>Hectares</u>
T0420	TL 2671P	Kootenay	64
T0442	TL 2737P	Kootenay	70
T0490	TL 7318P	Kootenay	<u>71</u>
		TOTAL	<u>205</u>

BLOCK 3
Crown Granted Lands

<u>Crown Grants</u>	<u>Land District</u>	<u>Land Titles Parcel Identifier</u>	<u>Hectares</u>
Assigned Parcel 4, District Lot 373 Plan X13, Except Parcel 1 (Reference Plan 110363I)	Kootenay	012-490-628	62.728
Parcel A (sketch Plan 596I) District Lot 811	Kootenay	014-045-443	2 257.416
District Lot 860	Kootenay	014-045-508	1 082.977
District Lot 870	Kootenay	014-015-595	303.102
District Lot 2719	Kootenay	014-015-609	55.039
District Lot 7682, except part included in Plan NEP 20435	Kootenay	014-025-001	32.376
Lot 17 of District Lots 7893 and 7894, Plan 1194	Kootenay	014-025-191	7.082
Lot 18 of District Lots 7893 and 7894, Plan 1194	Kootenay	014-025-221	7.082
Lot 20 of District Lots 7893 and 7894, Plan 1194	Kootenay	014-025-256	7.082

<u>Crown Grants</u>	<u>Land District</u>	<u>Land Titles Parcel Identifier</u>	<u>Hectares</u>
Lot 21 of District Lots 7893 and 7894, Plan 1194	Kootenay	014-025-299	7.082
Lot 22 of District Lots 7893 and 7894, Plan 1194	Kootenay	014-025-311	8.903
Lot 23 of District Lots 7893 and 7894, Plan 1194	Kootenay	014-025-361	7.082
Lot 24 of District Lots 7893 and 7894, Plan 1194	Kootenay	014-025-396	8.903
Lot 25 of District Lots 7893 and 7894, Plan 1194	Kootenay	014-025-434	6.523
Lot 26 of District Lots 7893 and 7894, Plan 1194	Kootenay	014-025-451	8.903
Lot 27 of District Lots 7893 and 7894, Plan 1194	Kootenay	014-025-477	5.730

<u>Crown Grants</u>	<u>Land District</u>	<u>Land Titles Parcel Identifier</u>	<u>Hectares</u>
Lot 28 of District Lots 7893 and 7894, Plan 1194	Kootenay	014-025-515	8.903
Lot 29 of District Lots 7893 and 7894, Plan 1194	Kootenay	014-025-558	5.431
Lot 30 of District Lots 7893 and 7894, Plan 1194	Kootenay	014-025-639	8.648
Lot 31 of District Lots 7893 and 7894, Plan 1194	Kootenay	014-025-663	5.673
Lot 32 of District Lots 7893 and 7894, Plan 1194	Kootenay	014-025-680	8.142
Lot 33 of District Lots 7893 and 7894, Plan 1194	Kootenay	014-025-701	5.766
Lot 34 of District Lots 7893 and 7894, Plan 1194	Kootenay	014-025-728	7.891

<u>Crown Grants</u>	<u>Land District</u>	<u>Land Titles Parcel Identifier</u>	<u>Hectares</u>
Lot 35 of District Lots 7893 and 7894, Plan 1194	Kootenay	014-025-752	5.378
Lot 36 of District Lots 7893 and 7894, Plan 1194	Kootenay	014-025-779	7.891
Lot 37 of District Lots 7893 and 7894, Plan 1194	Kootenay	014-025-787	5.961
Lot 40 of District Lots 7893 and 7894, Plan 1194	Kootenay	014-025-795	4.641
Lot 42 of District Lots 7893 and 7894, Plan 1194	Kootenay	014-025-809	2.994
Lot 43 of District Lots 7893 and 7894, Plan 1194	Kootenay	014-025-817	3.974
Lot 44 of District Lots 7893 and 7894, Plan 1194	Kootenay	014-025-825	4.734

<u>Crown Grants</u>	<u>Land District</u>	<u>Land Titles Parcel Identifier</u>	<u>Hectares</u>
Lot 49 of District Lots 7893 and 7894, Plan 1194	Kootenay	014-025-984	4.111
Lot 50 of District Lots 7893 and 7894, Plan 1194	Kootenay	014-025-841	4.047
Lot 77 of District Lots 7893 and 7894, Plan 1194	Kootenay	014-025-868	5.042
Lot 83 of District Lots 7893 and 7894, Plan 1194	Kootenay	014-025-892	8.903
Lot 85 of District Lots 7893 and 7894, Plan 1194	Kootenay	014-025-914	8.903
Lot 86 of District Lots 7893 and 7894, Plan 1194	Kootenay	014-025-949	8.903
Lot 20 of District Lot 8029, Plan 822	Kootenay	014-029-235	4.310
Lot 21 of District Lot 8029, Plan 822	Kootenay	014-029-286	4.200

<u>Crown Grants</u>	<u>Land District</u>	<u>Land Titles Parcel Identifier</u>	<u>Hectares</u>
Lot 22 of District Lot 8029, Plan 822	Kootenay	014-029-316	4.200
Lot 23 of District Lot 8029, Plan 822	Kootenay	014-029-332	<u>4.431</u>
TOTAL			<u>4011.087</u>

<u>Timber Licences</u>	<u>Replaces Timber Berth</u>	<u>Land District</u>	<u>Hectares</u>
T0160	333	Kootenay	63
T0190	392	Kootenay	780
T0220	499	Kootenay	<u>27</u>
TOTAL			<u>870</u>

<u>Timber Licences</u>	<u>Replaces Special Timber Licences</u>	<u>Land District</u>	<u>Hectares</u>
T0109	TL 595P	Kootenay	49
T0120	TL 600P	Kootenay	41
T0145	TL 604P	Kootenay	18
T0150	TL 607P	Kootenay	26
T0159	TL 879P	Kootenay	122
T0170	TL 880P	Kootenay	223
T0215	TL 881P	Kootenay	55
T0240	TL 882P	Kootenay	223

<u>Timber Licences</u>	<u>Replaces Special Timber Licences</u>	<u>Land District</u>	<u>Hectares</u>
T0300	TL 883P	Kootenay	185
T0350	TL 884P	Kootenay	12
T0370	TL 885P	Kootenay	221
T0460	TL 4842P	Kootenay	27
T0479	TL 4843P	Kootenay	40
T0480	TL 4845P	Kootenay	62
T0500	TL 10014P	Kootenay	10
T0519	TL 10015P	Kootenay	46
T0540	TL 10016P	Kootenay	37
T0558	TL 10017P	Kootenay	113
T0570	TL 10019P	Kootenay	152
T0595	TL 10029P	Kootenay	87
T0610	TL 10030P	Kootenay	102
T0620	TL 2982P	Kootenay	147
T0631	TL 2983P	Kootenay	259
T0639	TL 2984P	Kootenay	84
T0642	TL 2985P	Kootenay	125
T0649	TL 10031P	Kootenay	<u>67</u>
	TOTAL		<u>2 533</u>

BLOCK 4

<u>Crown Grants</u>	<u>Land District</u>	<u>Land Titles Parcel Identifier</u>	<u>Hectares</u>
Sublot 6, District Lot 4599, Plan X35	Kootenay	014-036-002	56.658
Lot 1 of Lot 6549, Plan 1605	Kootenay	014-018-217	6.070
Lot 2 of Lot 6549, Plan 1605	Kootenay	014-018-241	6.475
Lot 3 of Lot 6549, Plan 1605	Kootenay	014-018-268	6.576
Lot 4 of Lot 6549, Plan 1605	Kootenay	014-018-284	6.649
Lot 5 of Lot 6549, Plan 1605	Kootenay	014-018-306	6.240
Lot 7 of Lot 6549, Plan 1605	Kootenay	014-018-322	5.451
Lot 8 of Lot 6549, Plan 1605	Kootenay	014-018-357	5.613
Lot 9 of Lot 6549, Plan 1605	Kootenay	014-018-390	6.159
Lot 10 of Lot 6549, Plan 1605	Kootenay	014-018-403	4.289
Lot 11 of Lot 6549, Plan 1605	Kootenay	014-018-420	3.982

<u>Crown Grants</u>	<u>Land District</u>	<u>Land Titles Parcel Identifier</u>	<u>Hectares</u>
Lot 12 of Lot 6549, Plan 1605	Kootenay	014-018-438	3.978
Lot 6 of District Lot 6549, Plan 853	Kootenay	014-045-699	<u>4.261</u>

CROWN GRANT	<u>122 401</u>
--------------------	-----------------------

SUMMARY

Total Crown Grants	4 710 002
Total Timber Licences	<u>3 608 000</u>
GRAND TOTAL	<u>8 318 002</u>

SCHEDULE "B"
ARROW LAKES TREE FARM LICENCE
TREE FARM LICENCE NUMBER 23

1. Schedule "B" Land

- 1.1 For the purposes of the definition of "Schedule 'B' Land" in Paragraph 24.01 of this Licence, "Crown land described in Schedule 'B'" means all Crown land within the boundaries described in Paragraph 2, except for Alienated Crown Land.

2. Boundaries

- 2.1 The boundaries referred to in Paragraph 1 are as follows:

"Metes and bounds legal description"

3. Interpretation

- 3.1 "Alienated Crown Land" means Crown land which is not available for inclusion in Schedule "B" Land and, without restricting the generality of the foregoing, includes Crown land which:
- (a) is, as of the effective date of this Licence, within the area of:
 - (i) a park or ecological reserve;
 - (ii) a lease, licence of exclusive occupation, or timber licence held by a person other than the Licensee, or
 - (iii) a highway (or road) right of way where the highway (or road) is or is deemed, declared or determined to be a public highway under the *Highway Act* (or a Forest Service road under the *Forest Act*); or
 - (b) becomes vested in the Crown by escheat, reversion, transfer or otherwise during the term of this Licence, except as provided in this Licence.
- 3.2 Paragraph 24.02 of this Licence applies to this Schedule.
- 3.3 The map(s) accompanying this Schedule are for convenience only, and if there is any discrepancy between the map(s) and the description of boundaries in Paragraph 2, the description in Paragraph 2 will be deemed to be correct.
- 3.4 In this Schedule and on the accompanying map(s), identification of land which is within the boundaries described in Paragraph 2, but is not Schedule "B" Land does not mean all other land which is within these boundaries, but is not so identified is Schedule "B" Land.

Note: Crown land does not include land owned by an agent of the Crown, nor land vested in the federal Crown.

SCHEDULE "B"
ARROW LAKES TREE FARM LICENCE
TREE FARM LICENCE NUMBER 23

1. Schedule "B" Land

- 1.1 For the purposes of the definition of "Schedule 'B' Land" in Paragraph 24.01 of this Licence, "Crown land described in Schedule 'B'" means all Crown land within the boundaries described in Paragraph 2, except for Alienated Crown Land.

2. Boundaries

- 2.1 The boundaries referred to in Paragraph 1 are as follows:

"Metes and bounds legal description"

3. Interpretation

- 3.1 "Alienated Crown Land" means Crown land which is not available for inclusion in Schedule "B" Land and, without restricting the generality of the foregoing, includes Crown land which:

(a) is, as of the effective date of this Licence, within the area of:

- (i) a park or ecological reserve;
- (ii) a lease, licence of exclusive occupation, or timber licence held by a person other than the Licensee, or
- (iii) a highway (or road) right of way where the highway (or road) is or is deemed, declared or determined to be a public highway under the *Highway Act* (or a Forest Service road under the *Forest Act*); or

(b) becomes vested in the Crown by escheat, reversion, transfer or otherwise during the term of this Licence, except as provided in this Licence.

- 3.2 Paragraph 24.02 of this Licence applies to this Schedule.

- 3.3 The map(s) accompanying this Schedule are for convenience only, and if there is any discrepancy between the map(s) and the description of boundaries in Paragraph 2, the description in Paragraph 2 will be deemed to be correct.

- 3.4 In this Schedule and on the accompanying map(s), identification of land which is within the boundaries described in Paragraph 2, but is not Schedule "B" Land does not mean all other land which is within these boundaries, but is not so identified is Schedule "B" Land.

Note: Crown land does not include land owned by an agent of the Crown, nor land vested in the federal Crown.

SCHEDULE "B"
ARROW LAKES TREE FARM LICENCE
TREE FARM LICENCE NUMBER 23

All Crown lands not otherwise alienated within the area outlined in bold black on the accompanying maps except Crown land reverted subsequent to 1971, which was subject to an old temporary tenure (within the meaning of the *Forest Act* assented to March 30, 1972) and held by a person other than the licensee.

BLOCK 1

Removed by Instrument Number 135, now forms Selkirk Tree Farm Licence Number 55 and Goldstream Tree Farm Licence Number 56.

BLOCK 2

Area A

Commencing at the northwest corner of Lot 863, Kootenay Land District, also being a point on the natural boundary of Upper Arrow Lake on the easterly shore thereof; thence in a general northwesterly direction along the natural boundary of said Upper Arrow Lake on the easterly shore thereof to the southeast corner of Lot 8130; thence northerly and westerly along the easterly and northerly boundaries of Lots 8130 and 8408 to the natural boundary of aforesaid Upper Arrow Lake on the easterly shore thereof; thence in a general northerly direction along the natural boundary of said Upper Arrow Lake on the easterly shore thereof to the southwest corner of Lot 1139; thence easterly and northerly along the southerly and easterly boundaries of said Lot 1139 to the southwest corner of Lot 3945; thence easterly along the southerly boundary of said Lot 3945 to the northwest corner of Lot 1138; thence southerly and easterly along the westerly and southerly boundaries of said Lot 1138 to the southeast corner thereof; thence northerly and westerly along the

easterly and northerly boundaries of said Lots 1138 and 3945 to the northwest corner of said Lot 3945; thence southerly along the westerly boundary of said Lot 3945 to the northeast corner of aforesaid Lot 1139; thence westerly along the northerly boundary of said Lot 1139 to the natural boundary of aforesaid Upper Arrow Lake on the easterly shore thereof; thence in a general northwesterly direction along the natural boundary of said Upper Arrow Lake on the easterly shore thereof to the northwest corner of Lot 5069; thence easterly along the northerly boundary of said Lot 5069 to the westerly limit of the right of way of Highway No. 23; thence in a general northerly direction along the westerly limit of the right of way of said Highway No. 23 to a point 372 metres north and 1.251 kilometres west of the northeast corner of said Lot 5069; thence west to the natural boundary of aforesaid Upper Arrow Lake on the easterly shore thereof; thence in a general northerly direction along the natural boundary of said Upper Arrow Lake on the easterly shore thereof to the southwest corner of Lot 11005; thence easterly and northerly along the southerly and easterly boundaries of Lots 11005, 2451 and 100 to the northeast corner of said Lot 100; thence westerly along the northerly boundary of said Lot 100 to the natural boundary of aforesaid Upper Arrow Lake on the easterly shore thereof; thence in a general northerly direction along the natural boundary of said Upper Arrow Lake on the easterly shore thereof to a point 107 metres south and 464 metres west of the southwest corner of Lot 12459; thence south 3.181 kilometres; thence east 1.615 kilometres; thence north to the southerly boundary of Lot 1146; thence easterly along the southerly boundary of said Lot 1146 to the southeast corner thereof; thence northerly along the easterly boundary of said Lot 1146 to the southerly boundary of Lot 7044; thence easterly and northerly along the southerly and easterly boundaries of said Lot 7044 to the southerly boundary of Lot 7635; thence easterly along the southerly boundary of said Lot 7635 to the westerly boundary of Lot 10633; thence southerly, easterly, northerly, easterly and northerly along the westerly, southerly, easterly, southerly and easterly boundaries of said Lot 10633 to the southerly boundary of Lot 1143; thence easterly along the southerly

boundary of said Lot 1143 to the southeast corner thereof; thence northerly along the easterly boundaries of Lots 1143 and 2112 to the northeast corner of said Lot 2112; thence due north to the southerly boundary of Lot 7818; thence easterly along the southerly boundary of said Lot 7818 to the southeast corner thereof; thence northerly along the easterly boundaries of Lots 7818, 8668, 7956 and 7957 to the northeast corner of said Lot 7957; thence northerly along the westerly boundary of Lot 6012 to the northwest thereof; thence northerly in a straight line to the southeast corner of Lot 8406; thence northerly along the easterly boundary of said Lot 8406 to the southwest corner of Lot 7584; thence easterly and northerly along the southerly and easterly boundaries of said Lot 7584 to the northeast corner thereof; thence westerly along the northerly boundaries of Lots 7584, 8308, 8309, 8683 and 8614 to the northwest corner of said Lot 8614; thence southerly along the westerly boundary of said Lot 8614 to the northerly boundary of Lot 2111; thence westerly along the northerly boundaries of Lots 2111 and 8407 to the northwest corner of said Lot 8407; thence southerly along the westerly boundary of said Lot 8407 to the natural boundary of Galena Bay on the westerly shore thereof; thence in a general southwesterly direction along the natural boundary of said Galena Bay on the westerly shore thereof to the natural boundary of aforesaid Upper Arrow Lake on the easterly shore thereof; thence in a general northerly direction along the natural boundary of said Upper Arrow Lake on the easterly shore thereof to the natural boundary of the Northeast Arm of said Upper Arrow Lake on the southerly shore thereof; thence in a general northeasterly direction along the natural boundary of the Northeast Arm of said Upper Arrow Lake on the southeasterly shore thereof to a point 998 metres south and 3.793 kilometres west of the southwest corner of Lot 11331; thence east to the natural boundary of Beaton Creek on the right bank thereof; thence in a general northerly direction along the natural boundary of said Beaton Creek on the right bank thereof to the southerly boundary of Lot 505; thence easterly and northerly along the southerly and easterly boundaries of said Lot 505 to the southerly boundary of Lot 502; thence easterly

along the southerly boundary of said Lot 502 to the southwest corner of Lot 7959; thence northerly along the westerly boundary of said Lot 7959 to the southwest corner of Lot 1 of said Lot 7959, Plan 1321, Nelson Land Title Office; thence easterly along the southerly boundaries of Lots 1 and 2 of said Lot 7959, Plan 1321 to the southeast corner of said Lot 2; thence northerly along the easterly boundary of said Lot 2 to the northeast corner thereof; thence due north to the southerly boundary of Assigned Parcel Number 1 (Reference Plan 5828-I); thence in a general easterly, northerly, westerly, southwesterly and southerly direction along the southerly, easterly, northerly, northwesterly and westerly boundaries of said Assigned Parcel Number 1 (Reference Number 5828-I) to the northerly limit of Camborne Road, Plan 1521; thence in a general southwesterly direction along the northerly limit of said Camborne Road, Plan 1521 to the westerly boundary of aforesaid Lot 7959; thence northerly along the westerly boundary of said Lot 7959 to the natural boundary of the Northeast Arm of aforesaid Upper Arrow Lake on the southerly shore thereof; thence in a general southeasterly, northerly and westerly direction along the natural boundary of the Northeast Arm of said Upper Arrow Lake on the southerly, easterly, and northerly shores thereof to the southwest corner of Lot 503; thence northerly along the westerly boundary of said Lot 503 to the northwest corner thereof; thence easterly along the northerly boundary of said Lot 503 101 metres; thence north 1.127 kilometres; thence west 111 metres; thence northwesterly in a straight line to the summit of Comaplix Mountain, also being a point on the westerly boundary of the watershed of Incomappleux River; thence in a general northerly direction along westerly boundary of the watershed of said Incomappleux River to the northerly boundary of the watershed of MacDougal Creek, also being a point on the southerly boundary of Glacier National Park; thence in a general easterly direction along the southerly boundary of said Glacier National Park to the easterly boundary of the watershed of aforesaid Incomappleux River; thence in a general southerly direction along the easterly boundary of the watershed of said Incomappleux River to the northwesterly boundary of Lot 1973; thence southwesterly

along the northwesterly boundary of said Lot 1973 to the northeasterly boundary of Lot 2150; thence northwesterly along the northeasterly boundaries of Lots 2150, 2151 and 2147 to the most northerly corner of said Lot 2147; thence southwesterly along the northwesterly boundary of said Lot 2147 to the most westerly corner thereof; thence southeasterly along the southwesterly boundaries of Lots 2147, 2151 and 2150 to the most southerly corner of said Lot 2150; thence northeasterly along the southeasterly boundary of said Lot 2150 to the southwesterly boundary of aforesaid Lot 1973; thence southeasterly along the southwesterly boundary of said Lot 1973 to the easterly boundary of the watershed of aforesaid Incomappleux River; thence in a general southerly direction along the easterly boundary of the watershed of said Incomappleux River to the northeasterly boundary of the watershed of Ferguson Creek; thence in a general southeasterly direction along the northeasterly boundary of the watershed of said Ferguson Creek to the northwesterly boundary of Lot 4705; thence southwesterly, southeasterly and northeasterly along the northwesterly, southwesterly and southeasterly boundaries of said Lot 4705 to the easterly boundary of the watershed of said Ferguson Creek; thence in a general southerly direction along the easterly boundary of the watershed of said Ferguson Creek to the northerly boundary of the watershed of Lardeau Creek; thence in a general northeasterly direction along the northerly boundary of the watershed of said Lardeau Creek to the southwesterly boundary of Lot 4725; thence southeasterly along the southwesterly boundary of said Lot 4725 to the northwesterly boundary of Lot 4722; thence southwesterly, southeasterly, northeasterly and northwesterly along the northwesterly, southwesterly, southeasterly and northeasterly boundaries of said Lot 4722 to the northerly boundary of the watershed of aforesaid Lardeau Creek; thence in a general northeasterly direction along the northerly boundary of the watershed of said Lardeau Creek to the southwesterly boundary of Lot 4568; thence southeasterly and northeasterly along the southwesterly and southeasterly boundaries of said Lot 4568 to the northerly boundary of the watershed of said Lardeau Creek; thence in

a general northeasterly and southerly direction along the northerly and easterly boundaries of the watershed of said Lardeau Creek to a point due east of the most southerly corner of Lot 8681; thence west to the southeasterly boundary of Lot 5696; thence northeasterly, northwesterly and southwesterly along the southeasterly, northeasterly and northwesterly boundaries of said Lot 5696 to the southeasterly boundary of Lot 7433; thence northeasterly, northwesterly and southwesterly along the southeasterly, northeasterly and northwesterly boundaries of said Lot 7433 to the most westerly corner thereof; thence southeasterly along the southwesterly boundaries of Lots 7433 and 5696 to a point due east of the most southerly corner of aforesaid Lot 8681; thence west to the most easterly northeast boundary of Lot 13044; thence northwesterly and southwesterly along the northeasterly and northwesterly boundaries of said Lot 13044 to the northeasterly boundary of Lot 13046; thence northwesterly and southwesterly along the northeasterly and northwesterly boundaries of said Lot 13046 to the northwesterly boundary of Lot 13048; thence southwesterly along the northwesterly boundary said Lot 13048 to a point due east of the most southerly corner of aforesaid Lot 8681; thence west to the most southerly corner of said Lot 8681; thence northeasterly, southeasterly, northeasterly and northwesterly along the southeasterly, southwesterly, southeasterly and northeasterly boundaries of said Lot 8681 to the southerly boundary of Lot 8680; thence easterly, northerly, westerly, southerly and easterly along the southerly, easterly, northerly, westerly and southerly boundaries of said Lot 8680 to the northwesterly boundary of said Lot 8681; thence southwesterly and southeasterly along the northwesterly and southwesterly boundaries of said Lot 8681 to the most southerly corner thereof; thence south 37 degrees west 1.851 kilometres; thence south 44 degrees west 2.300 kilometres, more or less, to a point on the natural boundary of Trout Lake on the northeasterly shore thereof; thence in a general northwesterly direction along the natural boundary of said Trout Lake on the northeasterly shore thereof to the southerly boundary of Lot 10645; thence easterly, northerly and westerly along the southerly, easterly and northerly boundaries of said Lot

10645 to the southeast corner of Lot 769; thence northerly along the easterly boundaries of Lots 769 and 1147 to the northeast corner of said Lot 1147; thence westerly along the northerly boundary of said Lot 1147 to the easterly boundary of Lot 771; thence northerly, westerly, southerly and easterly along the easterly, northerly, westerly and southerly boundaries of said Lot 771 to the northwest corner of Lot 11328; thence southerly and easterly along the westerly and southerly boundaries of Lots 11328 and 190 to the natural boundary of aforesaid Trout Lake on the southwesterly shore thereof; thence in a general southeasterly direction along the natural boundary of said Trout Lake on the southwesterly shore thereof to a point 242 metres north and 280 metres west of the northwest corner of Lot 15703; thence south 60 degrees west 13.325 kilometres, more or less, to the easterly boundary of the watershed of Halfway River; thence in a general southerly direction along the easterly boundary of the watershed of said Halfway River to the northerly boundary of the watershed of Kuskanax Creek; thence in a general southwesterly direction along the northerly boundary of the watershed of said Kuskanax Creek to a point due east of the northeast corner of Lot 11743; thence west to the northeast corner of said Lot 11743; thence westerly along the northerly boundaries of Lots 11743 and 863 to the northwest corner of said Lot 863, being the point of commencement.

Excluding thereout all that foreshore and land covered by water within the above described area.

Area B

Commencing at the northwest corner of Lot 12769, Kootenay Land District; thence north 402 metres; thence east 1.609 kilometres; thence north 402 metres; thence east 1.609 kilometres; thence south 402 metres; thence east 1.609 kilometres; thence south 805 metres; thence west 1.609 kilometres; thence south 402 metres; thence west 1.609

kilometres; thence north 402 metres; thence west 1.609 kilometres, more or less, to the westerly boundary of aforesaid Lot 12769; thence northerly along the westerly boundary of said Lot 12769 to the northwest corner thereof, being the point of commencement.

Excluding thereout all that foreshore and land covered by water within the above described area.

Area C

Commencing at the southeast corner of Lot 12459, Kootenay Land District; thence southerly along the westerly boundary of Lot 1146 68.470 metres; thence due west to the natural boundary of Upper Arrow Lake on the easterly shore thereof; thence in a general northeasterly direction along the natural boundary of said Upper Arrow Lake on the easterly shore thereof to the westerly boundary of aforesaid Lot 12459; thence southerly and easterly along the westerly and southerly boundaries of said Lot 12459 to the southeast corner thereof, being the point of commencement.

Excluding thereout all that foreshore and land covered by water within the above described area, and those areas of land described below, which are currently active amendments and instruments within Tree Farm Licence 23, Block 2.

<u>Document</u>	<u>Date</u>	<u>Particulars</u>
Am #8	56-10-19	Removes Lots 8291, 8292 and 10373, Kootenay Land District.
Am #9	57-01-04	Removes Lots 15771 - 15778, Kootenay Land District
Am #15	58-10-23	Removes Lookout site.
Am #33	61-05-03	Removal for proposed Park.

<u>Document</u>	<u>Date</u>	<u>Particulars</u>
Am #34	61-05-02	Removal for proposed Park
Am #60	65-01-06	Removes Blocks 1 - 34, 36 - 41, 50 & 55 Plan 6713, Nelson Land Title Office
Am #80	68-05-17	Removes 2 gravel pits
Am #90	69-11-06	Removes 14.4 acres (north of Lot 7952, Kootenay Land District)
Instr #114	78-10-05	Removes area near Galena Bay
Instr #119	80-02-27	Removes Pipeline R/W and parking lot
Instr #134	91-10-02	Removes Lot 16952, Kootenay Land District

BLOCK 3

Commencing at the northeast corner of Lot 10391, Kootenay Land District, also being a point on the natural boundary of Lower Arrow Lake on the westerly shore thereof; thence westerly and southerly along the northerly and westerly boundaries of said Lot 10391 to the northerly boundary of Lot 8180; thence westerly along the northerly boundary of said Lot 8180 to the easterly boundary of Lot 8409; thence northerly and westerly along the easterly and northerly boundaries of Lots 8409 and 10026 to the northwest corner of said Lot 10026; thence southerly along the westerly boundary of said Lot 10026 to the most northerly northeast corner of Lot 10387; thence westerly along the northerly boundary of said Lot 10387 to the northwest corner thereof; thence southerly along the westerly boundaries of Lots 10387 and 8101 to the northerly boundary of Lot 9148; thence westerly along the northerly boundary of said Lot 9148 to the northwest corner thereof; thence south 37 degrees west to a point lying due east of the southeast corner of Lot 8546; thence west to the southeast corner of said Lot 8546; thence westerly and northerly along the southerly and westerly boundaries of said Lot 8546 to the southeast corner of Lot 7893; thence westerly along the southerly boundary of said Lot 7893 to the southwest

corner thereof, also being the southwest corner of Block 86 of Lot 7893, Plan 1194, Nelson Land Title Office; thence northerly along the westerly boundaries of Blocks 86 and 85 to the northwest corner of said Block 85; thence easterly along the northerly boundary of said Block 85 to the northeast corner thereof; thence easterly in a straight line to the northwest corner of Block 18; thence easterly along the northerly boundary of said Block 18 to the southeast corner of Block 19; thence northerly along the easterly boundary of said Block 19 to the southeast corner of Block 20; thence westerly along the southerly boundary of said Block 20 to the southwest corner thereof; thence westerly in a straight line to the southeast corner of Block 83; thence westerly along the southerly boundary of said Block 83 to the southwest corner thereof; thence northerly along the westerly boundaries of Blocks 83, 22, 24, 26, 28, 30, 32 and 34 to the southwest corner of Block 36; thence northerly and easterly along the westerly and northerly boundaries of Blocks 36 and 43 to a point due south of the southwest corner of Block 44; thence northerly in a straight line to the southwest corner of said Block 44; thence northerly and easterly along the westerly and northerly boundaries of said Block 44 to the northwest corner of Block 40; thence easterly, southerly and easterly along the northerly, easterly and northerly boundaries of said Block 40 to the most easterly northeast corner thereof; thence southerly along the easterly boundary of said Block 40 to the southeast corner thereof; thence due south to the northerly boundary of Block 42; thence easterly along the northerly boundary of said Block 42 to the northeast corner thereof; thence easterly in a straight line to the northwest corner of Block 37; thence easterly along the northerly boundary of said Block 37 to the northeast corner thereof, also being a point on the natural boundary of Barnes Creek on the right bank thereof; thence in a general southerly direction along the easterly boundaries of Blocks 37, 35, 33, 31, 29, 27 and 25 to the northerly boundary of Block 23; thence easterly along the northerly boundary of said Block 23 to the northeast corner thereof, also being a point on the westerly boundary of aforesaid Lot 8546; thence northerly and easterly along the westerly and northerly

boundaries of said Lot 8546 to the southeast corner of Lot 8186; thence northerly along the easterly boundary of said Lot 8186 to the southerly boundary of Lot 8548; thence easterly along the southerly boundary of said Lot 8548 to the southeast corner thereof; thence northerly and westerly along the easterly and northerly boundaries of Lots 8548 and 8170 to the northwest corner of said Lot 8170, also being a point on the natural boundary of Whatshan Lake on the easterly shore thereof; thence in a general southerly, westerly and northerly direction along the natural boundary of said Whatshan Lake on the easterly, southerly and westerly shores thereof to the southeast corner of Lot 8187; thence westerly and northerly along the southerly and westerly boundaries of said Lot 8187 to the most southerly southeast corner of Lot 8189; thence westerly along the southerly boundaries of Lots 8189 and 8544 to the southwest corner of said Lot 8544; thence due west to the westerly boundary of the watershed of aforesaid Barnes Creek; thence in a general northerly direction along the westerly boundaries of the watersheds of Barnes Creek, Whatshan Lake, Arrow Park Creek and Upper Arrow Lake to the southerly boundary of Monashee Provincial Park, established by Order In Council 1201, approved and ordered August 2, 1990; thence in a general easterly and northwesterly direction along the southerly, and northeasterly boundaries of said Monashee Provincial Park to the westerly boundary of the watershed of aforesaid Upper Arrow Lake; thence in a general northerly direction along the westerly boundary of the watershed of said Upper Arrow Lake to a point due west of the southwest corner of the southeast quarter of Section 5, Township 23, Range 2, W6M; thence east to the southwest corner of the southeast quarter of said Section 5; thence easterly along the southerly boundaries of Sections 5, 4 and 3 to the northwest corner of Section 34, Township 22, Range 2, W6M; thence easterly along the northerly boundary of said Section 34 to the northwest corner of Section 35; thence southerly and easterly along the westerly and southerly boundaries of said Section 35 to the natural boundary of aforesaid Upper Arrow Lake on the westerly shore thereof; thence in a general southerly direction along the natural boundary of said

Upper Arrow Lake on the westerly shore thereof to the easterly boundary of Section 7, Township 22, Range 1, W6M; thence southerly along the easterly boundaries of Sections 7 and 6 to the northwest corner of the southwest quarter of Section 5; thence easterly and southerly along the northerly and easterly boundaries of the southwest quarter of said Section 5 to the northerly boundary of Section 32, Township 21, Range 1, W6M; thence easterly along the northerly boundary of said Section 32 to the westerly limit of the right of way of Highway No. 23; thence in a general southeasterly direction along the westerly limit of the right of way of said Highway No. 23 to the easterly boundary of aforesaid Section 32; thence southerly along the easterly boundary of said Section 32 to the northwest corner of the southwest quarter of Section 33; thence easterly along the northerly boundary of the southwest quarter of said Section 33 to the westerly limit of the right of way aforesaid Highway No. 23; thence in a general southeasterly direction along the westerly limit of the right of way of said Highway No. 23 to the easterly boundary of the southwest quarter of said Section 33; thence southerly along the easterly boundary of the southwest quarter of said Section 33 to the northwest corner of the northeast quarter of Section 28; thence easterly and southerly along the northerly and easterly boundaries of the northeast quarter of said Section 28 to the northerly boundary of Legal Subdivision 12 of Section 27; thence easterly along the northerly boundaries of Legal Subdivisions 12 and 11 to the natural boundary of aforesaid Upper Arrow Lake on the westerly shore thereof; thence in a general southeasterly direction along the natural boundary of said Upper Arrow Lake on the westerly shore thereof to the easterly boundary of the west half of Section 23; thence southerly along the easterly boundary of the west half of said Section 23 to the northerly boundary of Section 14; thence easterly along the northerly boundary of said Section 14 to the northeast corner thereof; thence southerly along the easterly boundaries of Sections 14 and 11 to the northwest corner of Section 1; thence easterly and southerly along the northerly and easterly boundaries of the northwest quarter and the southeast quarter of said Section 1 to the northeast corner of Section 36, Township 20,

Range 1, W6M; thence southerly along the easterly boundary of said Section 36 to the northwest corner of the fractional south half of Section 31, Township 20, Range 29, W5M; thence easterly along the northerly boundary of the fractional south half of said Section 31 to the northeast corner thereof; thence southerly along the easterly boundaries of Sections 31 and 30 to the southwest corner of fractional Section 29; thence easterly along the southerly boundary of said fractional Section 29 to a point due north of the northwest corner of Lot 5092; thence south to the northwest corner of said Lot 5092; thence southerly and easterly along the westerly and southerly boundaries of said Lot 5092 to the northwest corner of Lot 3257; thence southerly along the westerly boundary of said Lot 3257 to the natural boundary of aforesaid Upper Arrow Lake on the westerly shore thereof; thence in a general southerly direction along the natural boundary of said Upper Arrow Lake on the westerly shore thereof to the westerly boundary of Lot 1095; thence southerly and easterly along the westerly and southerly boundaries of said Lot 1095 to the natural boundary of said Upper Arrow Lake on the westerly shore thereof; thence in a general southeasterly direction along the natural boundary of said Upper Arrow Lake on the westerly shore thereof to the westerly boundary of Lot 3259; thence southerly and easterly along the westerly and southerly boundaries of said Lot 3259 to the natural boundary of said Upper Arrow Lake on the westerly shore thereof; thence in a general southeasterly direction along the natural boundary of said Upper Arrow Lake on the westerly shore thereof to the westerly boundary of Lot 1096; thence southerly and easterly along the westerly and southerly boundaries of Lots 1096 and 445 to the natural boundary of aforesaid Upper Arrow Lake on the westerly shore thereof; thence in a general southerly direction along the natural boundary of said Upper Arrow Lake on the westerly shore thereof to the northerly boundary of Lot 8312; thence westerly along the northerly boundary of said Lot 8312 to the northwest corner thereof; thence southerly along the westerly boundaries of Lots 8312 and 12898 to the southwest corner of said Lot 12898, also being a point on the natural boundary of aforesaid Upper Arrow Lake on the westerly

shore thereof; thence in a general southerly direction along the natural boundary of said Upper Arrow Lake on the westerly shore thereof to the natural boundary of an unnamed creek on the right bank thereof, said unnamed creek flowing southeasterly into said Upper Arrow Lake at a point 117 metres south and 435 metres east of the most southerly southwest corner of Lot 7902; thence in a general northwesterly direction along the natural boundary of said unnamed creek on the right bank thereof to a point 5 metres north and 201 metres east of the most southerly southwest corner of said Lot 7902; thence south 1.152 kilometres; thence due east to the natural boundary of aforesaid Upper Arrow Lake on the westerly shore thereof; thence in a general southerly direction along the natural boundary of said Upper Arrow Lake on the westerly shore thereof to the northerly boundary of Lot 4576; thence westerly along the northerly boundaries of Lots 4576 and 7897 to the northwest corner of said Lot 7897; thence southerly and easterly along the westerly and southerly boundaries of Lots 7897 and 7677 to the southwest corner of Lot 7676; thence easterly along the southerly boundary of said Lot 7676 to the natural boundary of aforesaid Upper Arrow Lake on the westerly shore thereof; thence in a general southerly direction along the natural boundary of said Upper Arrow Lake on the westerly shore thereof to the northerly boundary of Lot 10591; thence westerly, southerly and easterly along the northerly, westerly and southerly boundaries of said Lot 10591 to the natural boundary of aforesaid Upper Arrow Lake on the westerly shore thereof; thence in a general southerly direction along the natural boundary of said Upper Arrow Lake on the westerly shore thereof to the westerly boundary of Lot 12325; thence southerly and easterly along the westerly and southerly boundaries of said Lot 12325 to the natural boundary of said Upper Arrow Lake on the westerly shore thereof; thence in a general southerly direction along the natural boundary of said Upper Arrow Lake on the westerly shore thereof to the northerly boundary of Lot 8033; thence westerly and southerly along the northerly and westerly boundaries of said Lot 8033 to the northerly boundary of Lot 8034; thence westerly along the northerly boundary of said Lot 8034 to the northeast

corner of Lot 8510; thence westerly and southerly along the northerly and westerly boundaries of Lots 8510, 12774, 8564, and 12775 to the northerly boundary of Lot 8566; thence westerly along the northerly boundary of said Lot 8566 to the easterly boundary of Lot 12340; thence northerly and westerly along the easterly and northerly boundaries of said Lot 12340 to the northeast corner of Lot 8333; thence westerly and southerly along the northerly and westerly boundaries of said Lot 8333 to the northerly boundary of Lot 373; thence westerly and southerly along the northerly and westerly boundaries of Lots 373 and 8029 to the southwest corner of said Lot 8029; thence easterly along the southerly boundary of said Lot 8029 to the northwest corner of Lot 8030; thence southerly along the westerly boundaries of Lots 8030 and 12776 to the southwest corner of said Lot 12776; thence easterly along the southerly boundaries of Lots 12776 and 7105 to the northwest corner of Lot 7104; thence southerly along the westerly boundaries of Lots 7104 and 8512 to the southwest corner of said Lot 8512; thence easterly along the southerly boundary of said Lot 8512 to the northwest corner of Lot 8027; thence southerly and easterly along the westerly and southerly boundaries of said Lot 8027 to the westerly boundary of Lot 3619; thence southerly along the westerly boundaries of Lots 3619, 3620 and 7690 to the southwest corner of said Lot 7690; thence easterly along the southerly boundary of said Lot 7690 to the northwest corner of Lot 7691; thence southerly along the westerly boundaries of Lots 7691 and 12777 to the southwest corner of said Lot 12777; thence easterly along the southerly boundaries of Lots 12777, 8159 and 7692 to the natural boundary of aforesaid Lower Arrow Lake on the westerly shore thereof; thence in a general southerly and southwesterly direction along the natural boundary of said Lower Arrow Lake on the westerly and northerly shores thereof to the easterly boundary of Lot 7967; thence northerly along the easterly boundary of said Lot 7967 to the northeast corner thereof; thence westerly along the northerly boundaries of Lots 7967 and 8691 to the easterly boundary of Lot 10593; thence northerly and westerly along the easterly and northerly boundaries of said Lot 10593 to the easterly boundary of

Lot 12786; thence northerly along the easterly boundaries of Lots 12786, 12785 and 9892 to the northeast corner of said Lot 9892; thence westerly and southerly along the northerly and westerly boundaries of said Lot 9892 to the northerly boundary of Lot 9889; thence westerly along the northerly boundaries of Lots 9889 and 11162 to the northwest corner of said Lot 11162; thence southerly along the westerly boundaries of Lots 11162, 12784 and 9893 to the southwest corner of said Lot 9893; thence easterly along the southerly boundary of said Lot 9893 to the northwest corner of Lot 9895; thence southerly and easterly along the westerly and southerly boundaries of said Lot 9895 to the southeast corner thereof; thence northerly along the easterly boundaries of Lots 9895 and 9894 to the southwest corner of aforesaid Lot 12786; thence easterly along the southerly boundaries of said Lot 12786 and aforesaid Lot 10593 to the westerly boundary of aforesaid Lot 8691; thence southerly along the westerly boundaries of Lots 8691 and 12895 to the southwest corner of said Lot 12895; thence south 805 metres; thence west 604 metres; thence south to the natural boundary of aforesaid Lower Arrow Lake on the westerly shore thereof; thence in a general southwesterly direction along the natural boundary of said Lower Arrow Lake on the westerly shore thereof to the northeast corner of aforesaid Lot 10391, being the point of commencement.

Excluding thereout all that foreshore and land covered by water within the above described area, and those areas of land described below, which are currently active amendments and instruments within Tree Farm Licence 23, Block 3.

<u>Document</u>	<u>Date</u>	<u>Particulars</u>
Am #4	56-01-09	Removes R/W
Am #14	58-05-20	Removes Hydro R/W
Am #19	59-10-05	Removes Lookout site
<u>Document</u>	<u>Date</u>	<u>Particulars</u>

Am #21	60-01-12	Removes Lots 16071 - 16080, 16088 - 16095, 16101, 16111 & 16112, Kootenay Land District
Am #22	60-03-09	Removes lookout site
Am #25	60-08-02	Removes T.V. transmission site
Am #27	60-10-20	Removes Hydro R/W
Am #32	62-04-19	Removes special use area
Am #37	61-09-25	Removes T.V. transmission site
Am #42	62-10-30	Removes picnic site
Am #53	64-07-21	Removes Ptn. of Lot 8543, Kootenay Land District
Am #72	66-11-28	Removes hydro sites
Am #75	67-06-22	Removes hydro R/W
Am #97	70-08-24	Removes navigational aid sites
Am #98	70-12-16	Removes hydro R/W
Am #102	71-08-31	Removes snow course reserve
Am #103	71-09-15	Removes hydro R/W
Am #106	72-07-31	Removes highway rest area
Am #109	72-12-05	Removes repeater site
Instr #123	85-10-15	Removes special use area

BLOCK 4

Area A

Commencing at the southeast corner of Sub Lot 17 of Lot 7159, Kootenay Land District, also being a point on the natural boundary of Lower Arrow Lake on the westerly shore thereof; thence in a general southerly direction along the natural boundary of said Lower Arrow Lake on the westerly shore thereof to a point due north of the most northerly corner of Lot A of Sub Lot 12 of Lot 7159, Plan 6505, deposited in Nelson Land Title Office; thence south to the most northerly corner of Lot A of said Plan 6505; thence

southerly along the westerly boundary of Lot A of said Plan 6505 to the southwest corner thereof; thence easterly along the southerly boundary of Lot A of said Plan 6505 and the easterly prolongation thereof to the natural boundary of aforesaid Lower Arrow Lake on the westerly shore thereof; thence in a general southerly direction along the natural boundary of said Lower Arrow Lake on the westerly shore thereof to the northerly boundary of Lot 8069; thence westerly along the northerly boundary of said Lot 8069 to the northwest corner thereof; thence southerly along the westerly boundary of said Lot 8069 and the southerly prolongation thereof to the northerly boundary of Sub Lot 37 of Lot 5817; thence easterly along the northerly boundary of said Sub Lot 37 to the southwest corner of Sub Lot 10; thence easterly along the southerly boundary of said Sub Lot 10 to the southeast corner thereof, also being a point on the natural boundary of aforesaid Lower Arrow Lake on the westerly shore thereof; thence in a general southerly direction along the natural boundary of said Lower Arrow Lake on the westerly shore thereof to the northerly boundary of Sub Lot 24 of aforesaid Lot 5817; thence westerly along the northerly boundary of said Sub Lot 24 to the northwest corner thereof; thence southwesterly in a straight line to a point, said point being 1.050 kilometres north and 5.507 kilometres west of the northeast corner of Lot 6613; thence west to the westerly boundary of the watershed of aforesaid Lower Arrow Lake; thence in a general northerly direction along the westerly boundary of the watershed of said Lower Arrow Lake to a point due west of the southwest corner of Sub Lot 17 of aforesaid Lot 7159; thence east to the southwest corner of said Sub Lot 17; thence easterly along the southerly boundary of said Sub Lot 17 to the southeast corner thereof, being the point of commencement.

Excluding thereout all that foreshore and land covered by water within the above described area.

Area B

Commencing at the northwest corner of Lot 7630, Kootenay Land District, also being a point on the natural boundary of Lower Arrow Lake on the easterly shore thereof; thence southerly, easterly, northerly and easterly along the westerly, southerly, easterly and southerly boundaries of said Lot 7630 to the southwest corner of Lot 7629; thence easterly along the southerly boundaries of Lots 7629 and 7628 to the most southerly southeast corner of said Lot 7628; thence northerly and easterly along the easterly and southerly boundaries of said Lot 7628 to the southwest corner of Lot 8032; thence easterly along the southerly boundaries of Lots 8032 and 7977 to the most southerly southeast corner of said Lot 7977; thence northerly and easterly along the easterly and southerly boundaries of said Lot 7977 to the westerly boundary of Lot 8026; thence southerly and easterly along the westerly and southerly boundaries of Lots 8026, 8160 and 7696 to the northwest corner of Lot 8161; thence southerly along the westerly boundary of said Lot 8161 to the northerly boundary of Lot 8700; thence westerly, southerly and easterly along the northerly, westerly and southerly boundaries of said Lot 8700 to the westerly boundary of Lot 8031; thence southerly, easterly and northerly along the westerly, southerly and easterly boundaries of said Lot 8031 to the most westerly southwest corner of Lot 8047; thence easterly, southerly and easterly along the southerly, westerly and southerly boundaries of said Lot 8047 to the southwest corner of Lot 8048; thence easterly, northerly and westerly along the southerly, easterly and northerly boundaries of said Lot 8048 to the southeast corner of Lot 7980; thence northerly along the easterly boundary of said Lot 7980 to the northeast corner thereof; thence due north to the northerly boundary of the watershed of Snow Creek; thence in a general easterly direction along the northerly boundary of the watershed of said Snow Creek to the northwesterly boundary of Lot 2204; thence southwesterly along the northwesterly boundary of said Lot 2204 to the northerly boundary of Lot 2205; thence westerly along the northerly boundaries of Lots 2205 and 2207 to the northwest corner of said Lot 2207; thence southerly along the westerly boundary of said Lot 2207 to the northerly boundary

of Lot 2206; thence westerly, southerly, easterly and northerly along the northerly, westerly, southerly and easterly boundaries of said Lot 2206 to the southerly boundary of aforesaid Lot 2205; thence easterly and northerly along the southerly and easterly boundaries of said Lot 2205 to the southwesterly boundary of aforesaid Lot 2204; thence southeasterly along the southwesterly boundary of said Lot 2204 to the westerly boundary of Lot 2209; thence southerly and northeasterly along the westerly and southeasterly boundaries of said Lot 2209 to the most southerly corner of aforesaid Lot 2204; thence northeasterly along the southeasterly boundary of said Lot 2204 to the southwesterly boundary of Lot 2208; thence southeasterly and northeasterly along the southwesterly and southeasterly boundaries of said Lot 2208 to the northerly boundary of the watershed of aforesaid Snow Creek; thence in a general easterly direction along the northerly boundary of the watershed of said Snow Creek to the westerly boundary of Valhalla Provincial Park, established by Order In Council 1201, approved and ordered August 2, 1990; thence in a general southerly direction along the westerly boundary of said Valhalla Provincial Park to the southerly boundary of the watershed of Burton Creek; thence in a general westerly direction along the southerly boundary of the watershed of said Burton Creek to the easterly boundary of the watershed of Lower Arrow Lake; thence in a general southerly direction along the easterly boundary of the watershed of said Lower Arrow Lake to the northerly boundary of the watershed of Deer Creek; thence in a general westerly and southerly direction along the northerly and westerly boundaries of the watershed of said Deer Creek to a point due west of the northwest corner of Sub Lot 31 of Lot 5817; thence east to the northwest corner of said Sub Lot 31; thence southerly along the westerly boundaries of Sub Lots 31, 8, 7, 6 and 3 to the most northerly northeast corner of Sub Lot 17; thence westerly along the northerly boundary of said Sub Lot 17 to the easterly boundary of Sub Lot 21; thence northerly and westerly along the easterly and northerly boundaries of said Sub Lot 21 to the natural boundary of aforesaid Lower Arrow Lake on the easterly shore thereof; thence in a general northerly direction along the natural

boundary of said Lower Arrow Lake on the easterly shore thereof to the southerly boundary of Sub Lot 1 of aforesaid Lot 5817; thence easterly, northerly and westerly along the southerly, easterly and northerly boundaries of said Sub Lot 1 to the southeast corner of Lot 15 of Sub Lots 1 and 19 of aforesaid Lot 5817, Plan 841, deposited in Nelson Land Title Office; thence westerly, northerly and easterly along the southerly, westerly and northerly boundaries of said Lot 15 to the northeast corner thereof; thence northerly along the easterly boundaries of Lots 16 and 23 to the northeast corner of said Lot 23; thence westerly along the southerly boundary of Lot 24 to the southwest corner thereof; thence southerly, westerly and northerly along the easterly, southerly and westerly boundaries of Lot 22 to the northwest corner thereof; thence westerly along the southerly boundary of Lot 26 to the natural boundary of aforesaid Lower Arrow Lake on the easterly shore thereof; thence in a general northerly direction along the natural boundary of said Lower Arrow Lake on the easterly shore thereof to the northerly boundary of said Lot 26; thence easterly along the northerly boundaries of Lots 26, 25 and 24 to the northeast corner of said Lot 24, also being a point on the easterly boundary of aforesaid Sub Lot 19; thence northerly and westerly along the easterly and northerly boundaries of Sub Lot 19 of said Lot 5817 to the natural boundary of aforesaid Lower Arrow Lake on the easterly shore thereof; thence in a general northerly direction along the natural boundary of said Lower Arrow Lake on the easterly shore thereof to the southerly boundary of Block 5 of Sub Lot 27 of aforesaid Lot 5817, Plan 5319; thence easterly along the southerly boundary of said Block 5, Plan 5319 to the southeast corner thereof; thence northerly along the easterly boundaries of Blocks 5, 4, 3 and 2 to the northeast corner of said Block 2; thence westerly along the northerly boundary of said Block 2 to the natural boundary of aforesaid Lower Arrow Lake on the easterly shore thereof; thence in a general northerly direction along the natural boundary of said Lower Arrow Lake on the easterly shore thereof to the southerly boundary of Lot 1 of aforesaid Plan 5319; thence easterly, northerly and westerly along the southerly, easterly and northerly

boundaries of said Lot 1 to the natural boundary of aforesaid Lower Arrow Lake on the easterly shore thereof; thence in a general northerly direction along the natural boundary of said Lower Arrow Lake on the easterly shore thereof to the southerly boundary of Sub Lot 30 of aforesaid Lot 5817; thence easterly, northerly and westerly along the southerly, easterly and northerly boundaries of said Sub Lot 30 to the natural boundary of said Lower Arrow Lake on the easterly shore thereof; thence in a general northerly direction along the natural boundary of said Lower Arrow Lake on the easterly shore thereof to the southerly boundary of Lot 8066; thence easterly, northerly, and westerly along the southerly, easterly and northerly boundaries of said Lot 8066 to the natural boundary of aforesaid Lower Arrow Lake on the easterly shore thereof; thence in a general northerly direction along the natural boundary of said Lower Arrow Lake on the easterly shore thereof to the southerly boundary of Lot 8065; thence easterly, northerly and westerly along the southerly, easterly and northerly boundaries of said Lot 8065 to the natural boundary of aforesaid Lower Arrow Lake on the easterly shore thereof; thence in a general northerly direction along the natural boundary of said Lower Arrow Lake on the easterly shore thereof to a point 2.100 kilometres north and 405 metres west of the northeast corner of aforesaid Lot 8065; thence east 300 metres; thence north 400 metres; thence west 300 metres, more or less, to the natural boundary of aforesaid Lower Arrow Lake on the easterly shore thereof; thence in a general northerly direction along the natural boundary of said Lower Arrow Lake on the easterly shore thereof to a point 380 metres west and 399 metres south of the southeast corner of Lot 8063; thence east 105 metres; thence south 45 degrees east 275 metres; thence east 302 metres, more or less, to the easterly boundary of Lot 8062; thence northerly along the easterly boundary of said Lot 8062 543 metres; thence north 33 degrees west 60 metres, more or less, to the northerly boundary of said Lot 8062; thence westerly along the northerly boundary of said Lot 8062 to the southeast corner of aforesaid Lot 8063; thence northerly along the easterly boundary of said Lot 8063 302 metres; thence west 95 metres, more or less, to the natural

boundary of aforesaid Lower Arrow Lake on the easterly shore thereof; thence in a general northerly direction along the natural boundary of said Lower Arrow Lake on the easterly shore thereof to the southerly boundary of Lot 7771; thence easterly along the southerly boundary of said Lot 7771 to the southeast corner thereof; thence easterly and northerly along the southerly and easterly boundaries of Lots 9144, 9146 and 6902 to the northeast corner of said Lot 6902; thence westerly along the northerly boundary of said Lot 6902 to the southeast corner of Lot 8097; thence northerly along the easterly boundaries of said Lots 8097, 6900 and 8095 to the northeast corner of said Lot 8095; thence westerly along the northerly boundary of said Lot 8095 to the southwest corner of Lot 11910; thence northerly and easterly along the westerly and northerly boundaries of said Lot 11910 to the northeast corner thereof; thence northerly along the easterly boundaries of Lots 10588, 7670 and 7126 to the northeast corner of said Lot 7126; thence easterly and northerly along the southerly and easterly boundaries of Lot 9159 to the northeast corner thereof; thence northerly along the easterly boundary of Lot 10389 to the northeast corner thereof; thence easterly and northerly along the southerly and easterly boundaries of Lot 9158 to the northeast corner thereof; thence northerly along the easterly boundary of Lot 8164 to the northeast corner thereof; thence easterly and northerly along the southerly and easterly boundaries of Lot 8165 to the southerly boundary of Lot 18 of Lots 8165 and 8799, Plan 1043, Nelson Land Title Office; thence easterly and northerly along the southerly and easterly boundaries of said Lot 18 to the southeast corner of Lot 17; thence northerly and westerly along the easterly and northerly boundaries of said Lot 17 to the easterly boundary of aforesaid Lot 8165; thence northerly and westerly along the easterly and northerly boundaries of said Lot 8165 to the southeast corner of Lot 8163; thence northerly along the easterly boundary of said Lot 8163 to the southwest corner of Lot 10029; thence easterly and northerly along the southerly and easterly boundaries of Lots 10029, 8808 and 8809 to the natural boundary of aforesaid Lower Arrow Lake on the easterly shore thereof; thence in a general northeasterly direction along the natural

boundary of said Lower Arrow Lake on the easterly shore thereof to the southerly boundary of Lot 7631; thence easterly along the southerly boundary of said Lot 7631 765 metres; thence northeasterly in a straight line to the most northerly northeast corner of said Lot 7631; thence westerly along the northerly boundary of said Lot 7631 to the natural boundary of aforesaid Lower Arrow Lake on the easterly shore thereof; thence in a general northerly direction along the natural boundary of said Lower Arrow Lake on the easterly shore thereof to the southerly boundary of Lot 8688; thence easterly, northerly and westerly along the southerly, easterly and northerly boundaries of said Lot 8688 to the natural boundary of aforesaid Lower Arrow Lake on the easterly shore thereof; thence in a general northerly direction along the natural boundary of said Lower Arrow Lake on the easterly shore thereof to the northwest corner of said Lot 7630, being the point of commencement.

Excluding thereout all that foreshore and land covered by water within the above described area.

Area C

Commencing at the northeast corner of Lot 9154, Kootenay Land District; thence westerly and southerly along the northerly and westerly boundaries of Lots 9154 and 9068 to the natural boundary of Lower Arrow Lake on the easterly shore thereof; thence in a general northerly direction along the natural boundary of said Lower Arrow Lake on the easterly shore thereof to the easterly boundary of Lot 9429; thence northerly, westerly and southerly along the easterly, northerly and westerly boundaries of said Lot 9429 to the natural boundary of said Lower Arrow Lake on the easterly shore thereof; thence in a general northerly direction along the natural boundary of said Lower Arrow Lake on the easterly shore thereof to the easterly boundary of Lot 8070; thence northerly, westerly and southerly along the easterly, northerly and westerly boundaries of said Lot 8070 to the

natural boundary of said Lower Arrow Lake on the easterly shore thereof; thence in a general northerly direction along the natural boundary of said Lower Arrow Lake on the easterly shore thereof to the easterly boundary of Lot 400; thence northerly and westerly along the easterly and northerly boundaries of said Lot 400 to the southeasterly boundary of the watershed of Deer Creek; thence in a general northeasterly direction along the southeasterly boundary of the watershed of said Deer Creek to the northerly boundary of the watershed of Cayuse Creek; thence in a general easterly and southerly direction along the northerly and easterly boundaries of the watershed of said Cayuse Creek to the northeasterly boundary of the watershed of Tulip Creek; thence in a general southeasterly and southerly direction along the northeasterly and easterly boundaries of the watershed of said Tulip Creek to a point due north of the northeast corner of aforesaid Lot 9154; thence south to the northeast corner of said Lot 9154, being the point of commencement.

Excluding thereout all that foreshore and land covered by water within the above described area, and those areas of land described below, which are currently active amendments and instruments within Tree Farm Licence 23, Block 4.

<u>Document</u>	<u>Date</u>	<u>Particulars</u>
Am #12	58-04-24	Removes lookout site
Am #20	59-12-23	Removes 3 cabin sites
Am #26	60-10-07	Removes transmission line R/W
Am #59	64-12-23	Removes Lot 2 of Sub Lot 12, Kootenay Land District, Plan 5818, Nelson Land Title Office
Am #97	70-08-24	Removes navigational aids

APPENDIX 1

I.2 List of Amendments and Deletions to TFL23

List of Amendments and Deletions

The original indenture for Arrow Lakes Tree Farm Licence #23 was issued on July 20, 1955. Subsequent to this date, amendments made to the licence are as follows.

Number	Date	Description
Addendum		
1	Aug 3, 1955	Removed two mineral claims near headwaters of Boyd Creek and two lots near headwaters of McCulloch Creek from Schedule B lands.
2	Sep 2, 1955	Incorporated TL's 10016, 10018 and 10019 into Schedule A lands within the TFL.
3	Sep 20, 1955	Withdrew 21 mineral claims near headwaters of Standard Creek from Schedule B lands.
Amendment		
1	Oct 20, 1955	Referred to licensor's right to grant direct timber sales for short period.
2	Dec 9, 1955	Deleted one mineral claim near headwaters of Standard Creek from Schedule B lands.
3	Jan 9, 1956	Deleted road between STL 3880 and 871 KD from Schedule B for right-of-way to private timber in Pingston Creek.
4	Jan 9, 1956	Deleted road in Sec. 33, TP 21, R1 W6M from Schedule B for right-of-way from Gold Creek to bend of Cranberry Creek.
5	May 11, 1956	Added Parcel B, Lot 7648 KD into Schedule A.
6	May 23, 1956	Deleted Margie Lake watershed from Schedule B for a park reserve.
7	July 13, 1956	Deleted seven acres (2.83 ha) from NW 1/4, Sec. 4, TP 3, KD for 60-mile boathouse from Schedule B.
8	Oct 19, 1956	Deleted three mineral claims near Mohawk Creek from Schedule B, approximately 123 acres (49.78 ha).
9	Jan 4, 1957	Deleted eight mineral claims near Pool Creek from Schedule B, 366 acres (148.12 ha).
10	Feb 19, 1957	Deleted Lot 11, Sublot of Lot 5817, Plan 841, a three acre (1.21 ha) homesite near Broadwater from Schedule B.

Number	Date	Description
11	Jan 24, 1957	STL's 10014, 10015, 10028, 10029 and 10030 incorporated into Schedule A FML 23 and deleted from Schedule A (timber leases and licences - cutting rights only) 3,200 acres (1,295 ha).
12	Apr 24, 1958	Deleted 10 acres (4.05 ha) of Lot 5817 for Bulldog Lookout from Schedule B.
13	Feb 24, 1961	Deleted part of Lot 862 from Schedule B for park reserve near mouth of Fosthall Creek.
14	May 20, 1958	Deleted 42.63 acres (17.25 ha) for BC Power Commission transmission line right-of-way between Needles and Burton from Schedule B.
15	Oct 23, 1958	Deleted 10 acres (4.05 ha) for a lookout on Great Northern Mountain, northwest end of Trout Lake, from Schedule B.
16	Apr 24, 1959	Deleted 940 acres (380.40 ha), 24 mining claims in vicinity of LaForme Creek from Schedule B.
17	Sep 14, 1959	Metes and bounds of Schedule B adjusted from Albert Peak to Comaplix Mountain, north of Beaton.
18	Aug 27, 1959	Deleted 10 acres (4.05 ha) for Carnes Lookout from Schedule B.
19	Oct 5, 1959	Deleted 40 acres (16.19 ha) for Whatshan Lookout from Schedule B.
20	Dec 23, 1959	Removed three cabin sites in Cayuse Creek from Schedule B, one acre (0.40 ha).
21	Jan 12, 1960	Deleted mineral claims near Trout and Sunshine Creeks, Big Ledge, from Schedule B.
22	Mar 9, 1960	Deleted a lookout and cabin site on Saddle Mountain from Schedule B.
23	May 2, 1960	Timber Sale X51867 added to Schedule B in CP 669.
24	May 30, 1960	Timber Sales X54651 and X55442 added to Schedule B in CP 583 and CP 120.
25	Aug 2, 1960	Deleted 2.5 acres (1.01 ha) for a TV site on Saddle Mountain from Schedule B.
26	Oct 7, 1960	Deleted right-of-way for BC Power Commission transmission line, Lot 11910, Plans R/R 290, 283, 286 from Schedule B.
27	Oct 20, 1960	Deleted 0.05 acres (0.02 ha) for Whatshan Dam intake from Schedule B.
28	Dec 6, 1960	Added Timber Licences 601 and 602 in Mosquito Valley to Schedule A.
29	Dec 23, 1960	Assigned Celgar's estate in TFL 23 to National Trust Company, Toronto.

Number	Date	Description
30	Dec 24, 1960	Consented to as Assignment (by way of Deed of Trust and Mortgage) by Celgar Limited of all its estate in TFL 23 to National Trust Company Limited, Toronto.
31	Dec 29, 1960	Sammons Limits added to Schedule A of TFL 23 and deleted from Schedule A (Timber leases and licences - cutting rights only).
32	Apr 19, 1962	Withdrew a 200 ft strip, 6 acres (2.4 ha) surrounding the Revelstoke Hydro Reservoir near bend in Cranberry Creek.
33	May 3, 1961	Withdrew park reserve near Armstrong Lake from Schedule B under Clause 10, 7 acres (2.83 ha).
34	May 2, 1961	Withdrew park reserve near Staubert Lake from Schedule B under Clause 10, 14 acres (5.67 ha).
35	July 11, 1961	Included 8, 636.5 acres (3,495.07ha) of 17 timber sales in TFL 23, Schedule B.
36	July 18, 1961	Included in Schedule A 1,629 acres (659.23 ha) of various Crown grants acquired by Celgar Limited.
37	Sep 25, 1961	Deleted 10 acres (4 ha) from Schedule B for Arrow Lakes TV transmitter site on Saddle Mountain, SUP 4322.
38	Dec 1, 1961	Deleted Lot 822 KD from Schedule A, Crown grants - cutting rights only.
39	Dec 1, 1961	TL 2235, Lot 11235 removed from Schedule A and incorporated into Schedule B.
40	Mar 7, 1962	Incorporated west half of Lot 770 KD, 160 acres (64.75 ha), into Schedule A.
41	Sep 14, 1962	Minister consented to assignment of TFL 1 to Trustee of Celgar Limited. Bond holders became subject to reservation of rights of Minister provided for within TFL 23.
42	Oct 30, 1962	Withdrew 35 acres (14.16 ha) of Lot 8543 near Whatshan Lake from Schedule B for picnic site.
43	Jan 11, 1963	Found to be defective. Cancelled and replaced by Amendment 48.
44	June 24, 1963	Timber Sale X59288 added to Schedule B.
45	Aug 19, 1963	Incorporated a portion of Lot 7959 KD into Schedule A, 270 acres (109.27 ha).

Number	Date	Description
46	Aug 20, 1963	Removed Clause 8 from first indenture dated July 20, 1955 and replaced with new Clause 8 to clarify watershed and drainage basins for purposes of Section 36(8) of the Forest Act.
47	Oct 2, 1963	Withdrew a portion of Lot 8835 KD near Keystone Creek from Schedule B for a sawmill and log storage site, 18.25 acres (7.3 ha).
48	Oct 24, 1963	Cancelled and replaced Amendment 43. Withdrew a portion of Sublot 27 of Lot 5817 KD near Two Bit Creek from Schedule B for summer homesites, 2.5 acres (1 ha).
49	Feb 17, 1964	Transferred STL 596, Lot 11236 from Schedule A to Schedule B.
50	May 7, 1964	Incorporated TL's 2328P and 5372P, Schedule A.
51	Apr 10, 1964	Incorporated legal subdivision 10 of Sec. 13, TP 21, R1, W6M, KD into Schedule A.
52	June 3, 1964	Expired TS X70295 added to Schedule B.
53	July 21, 1964	Withdrew area of proposed Coursier Lake reservoir from Schedule B.
54	Aug 19, 1964	Timber Licences 4898P, 12439P and 12440P added to Schedule A.
55	Aug 19, 1964	Timber Licences 2981P, 2983P and 2985P added to Schedule A.
56	Oct 26, 1964	Removed temporarily from Schedule B, area of 20 acres (8.09 ha) for flagstone quarry during lifetime of SUP 5252.
57	Oct 26, 1964	Removed 20 acres (8.09 ha) from Schedule B for homesite purposes near Halfway Creek.
58	Dec 22, 1964	Withdrew 3 acres (1.21 ha) from Schedule B for a public park, SUP 5407, near mouth of Stevens Creek.
59	Dec 23, 1964	Withdrew portion of Sublot 12 of Lot 7159 KD from Schedule B, near Bowman Creek, for purchase by BC Hydro.
60	Jan 6, 1965	Withdrew townsite of Ferguson from Schedule B.
61	June 15, 1965	Timber Sales X31321, X57853 and X60432 added to Schedule B.
62	May 18, 1965	Deleted clearing areas A, B, C, H and F from Schedule B for Arrow Dam project, around perimeter of Upper and Lower Arrow Lakes, 543 acres (219.74 ha).
63	June 11, 1965	Defective and replaced by Amendment 73.
64	Nov 26, 1965	Transferred expired Timber Licence 2236P, Lot 11237 KD from Schedule A to Schedule B.
65	Jan 7, 1966	Deleted right-of-way on Carnes Creek for mining access.
66	Jan 10, 1966	Withdrew logging access right-of-way at Pingston Creek from Schedule B.

Number	Date	Description
67	Jan 24, 1966	Withdrew from Schedule B 5.74 acres (2.32 ha) for radio site at LaForme Creek.
68	Mar 8, 1966	Transferred expired Timber Licences 599P, 4844P and 11278P from Schedule A to Schedule B.
69	July 11, 1966	Withdrew part of TB 392 KD near Greenslide from Schedule A because of High Arrow flooding. Withdrew from Schedule B all lands below 1,449 ft contour on west side of Columbia River between south boundary of Lot 447 KD and northerly boundary of south half of Sec. 27, TP 21, R1, W6M.
70	Nov 9, 1966	Withdrew 0.23 acres (0.09 ha) from Schedule B for radio site near Kirbyville Creek.
71	Mar 3, 1967	Cancelled and replaced by Amendment 74.
72	Nov 28, 1966	Withdrew 2 acres (0.81 ha) from Schedule B for BC Hydro borrow pit near Revelstoke Powerhouse.
73	Feb 6, 1967	Replaced Amendment 63 and withdrew 5.74 acres (2.32 ha) from Schedule A for use as a radio site near Goldstream.
74	Feb 13, 1967	Withdrew 0.23 acres (0.09 ha) from Schedule B for a radio site near Mica Creek.
75	June 22, 1967	Withdrew 2.87 acres (1.16 ha) from Schedule B for powerline right-of-way near Whatshan Lake.
76	Nov 29, 1967	Cancelled by Amendment 78.
77	Dec 12, 1967	Provided for transfer from Schedule A to Schedule B TL's 597P, 592P, 886P, 888P and part of TL 2671P, 2,509 acres (1,015.36 ha).
78	Dec 15, 1967	Removed 2 acres (0.81 ha) for Nicholls Creek radio site from TFL 323. Cancelled and replaced Amendment 76.
79	Mar 19, 1968	Replaced Clause 53A. Deletion of Downie Street Reserve for a period of 8 years allowing Minister to let timber sales to local logging firm.
80	May 17, 1968	Withdrew from Schedule B, 9.44 acres (3.82 ha) and 4.13 acres (1.67 ha) respectively, near Cape Horn Creek for Department of Highways' gravel pits.
81	May 17, 1968	Withdrew from Schedule B logging road right-of-way crossing Lot 8835 near Keystone Creek.
82	July 11, 1968	Withdrew 130 acres (52.61 ha) from Schedule B near Shelter Bay for Department of Highways' use.

Number	Date	Description
83	Nov 18, 1968	Withdrew from Schedule B 0.52 acres (0.21 ha) near Liberty Creek for a radio site.
84	Dec 10, 1968	Withdrew from Schedule B lands flooded by High Arrow. Description incorrect and corrected by Amendment 99, 1,671 acres (676.23 ha).
85	Feb 16, 1969	Deletion of TL's in Schedule A and incorporation of these lands into Schedule B, 9,470 acres (3,832.38 ha).
86	Mar 5, 1969	Deleted 10 acres (4.05 ha) from Schedule B near Keystone Creek for highway right-of-way.
87	Apr 24, 1969	Deleted 27 acres (10.93 ha) from Schedule B, part of expired TL 11247P KD near Birch Creek.
88	June 4, 1969	Deleted 30 acres (12.14 ha) from Schedule B, an island in Columbia River near Birch Creek, for use as trailer site.
89	Aug 12, 1969	Incorporated Lot 811 KD in Schedule A, 5,578 acres (2,257.34 ha).
90	Nov 6, 1969	Withdrew 14.4 acres (5.83 ha) from Schedule B near Cape Horn Creek for Department of Highways' powder magazine.
91	Sep 24, 1969	Withdrew 0.46 acres (0.19 ha) from Schedule B for water testing station on Kirbyville Creek.
92	Dec 12, 1969	Withdrew logging right-of-way over Lots 8835 and 8301A KD near Keystone Creek from Schedule B.
93	Jan 1, 1970	Minister consented to assignment of assets of Celgar Limited to Skeena Kraft Limited.
94	Jan 1, 1970	Amendment to indenture for TFL 23.
95	July 6, 1970	Withdrew 6.6 acres (2.67 ha) from Schedule B at Old Goldstream Valley for Dept. of Highways' building site.
96	July 27, 1970	Re-incorporated 27 acres (10.93 ha) of Schedule B at Mica Creek originally withdrawn as trailer site and then found unsatisfactory.
97	Aug 24, 1970	Deleted 11 navigational aid sites along Arrow Lakes, each 10 ft ² .
98	Dec 16, 1970	Deleted powerline right-of-way at Cranberry Dam from Schedule B.
99	Mar 30, 1971	Corrected description of lands as given in Amendment 84.
100		Prepared between March 30 and July, 1971 "...never issued...refused to sign..."
101	July 2, 1971	Removed a repeater station site of BC Hydro on Whatshan Peak.
102	Aug 31, 1971	Removed a snow course in Fisher Creek area, Compartment 202, 16 acres (6.47 ha).

Number	Date	Description
103	Sep 15, 1971	Removed BC Hydro powerline right-of-way between Whatshan Lake and High Arrow Reservoir, 81.5 acres (32.6 ha).
104	Feb 9, 1972	Replaced by Amendment 108.
105	June 28, 1972	Withdrew 460 acres (186.16 ha) near Soards Creek for use by BC Hydro.
106	July 31, 1972	Withdrew 2.80 acres (1.13 ha) near Cranberry Creek for roadside park.
107	Aug 7, 1972	Withdrew powerline right-of-way to trailer court south of Mica Village, 3.5 acres (1.4 ha).
108	Sep 1, 1972	Withdrew powerline right-of-way from Mica Dam to Downie, 1,130 acres (452 ha).
109	Dec 5, 1972	Withdrew Ingersoll radio repeater site used by BC Forest Service, 1 acre (0.40 ha).
110	Oct 11, 1977	Withdraws land lying below 1880 ft contour of Columbia River Valley, Phase I.
111	Aug 22, 1977	Withdrew 49 acres (19.83 ha) required for consolidation of Blanket Creek Park.
112	Apr 12, 1978	Withdraws lands lying below 1880 ft contour of Columbia River Valley, Phase II.
113	Sep 26, 1978	Deletions for Downie Street Sawmills Ltd., all Soards Block and that portion of Kirbyville Block north of Downie Slide, 91,887 acres (37,185 ha).
114	Oct 5, 1978	Removed 12.67 acres (5.1 ha) from Schedule B lands for a diversion pipeline and spawning channel for fish enhancement program.
115	Oct 5, 1978	Withdraws lands lying below 1880 ft contour of Columbia River Valley, Phase III.
116	Sep 26, 1978	Amendment 113 cancelled and replaced with Amendment 116. Description of lands included in new Downie Street Reserve was revised in this amendment.
117	Feb 15, 1979	Withdraws lands lying below 1880 ft contour of Columbia River Valley containing 1,497 acres (606 ha) more or less, Phase IV.
118	Aug 27, 1979	Removed portion of Lots 8062 and 8063 for proposed Octopus Creek Park (29.2 ha) from Schedule B.
119	Feb 27, 1980	Removed additional 5 ha from Schedule B for parking lot and diversion pipeline for Hill/MacKenzie fish enhancement program.
120	-	Deletion proposed for road corridor, Downie Creek Park (not signed).
121	Apr 30, 1984	Removed Deer Creek Forest Road (1.14 ha) from Schedule B land.

Number	Date	Description
122	Nov 1, 1985	Amended Part 3 of licence by substituting words "Regional Manager or District Manager" for words "Regional Manager" in paragraph 3.102, 3.03 and 3.04.
123	Oct 15, 1985	Removed 34.72 ha from Schedule B for Blanket Mountain Ski Lift and base camp.
124	-	To delete portion of Lime-Kiln Forest Service Road (cancelled, not required).
125	-	To delete portion of Goldstream River Forest Service Road (cancelled, not required).
126	-	To delete portion of Bigmouth Forest Service Road (cancelled, not required).
127	-	To delete portion of Nissan Forest Service Road (cancelled, not required).
128	-	To delete portion of Downie Forest Service Road (cancelled, not required).
129	Jan 1, 1987	Downsizing of TFL by deleting area north of Revelstoke. Includes Soards, Kirbyville, Bigmouth and Carnes blocks consisting of approximately 263,218 ha; area below operable line being approximately 172 646 ha.
130	Apr 11, 1988	Deletion for Valhalla Provincial Park of 680 ha of Schedule B lands at headwaters of Woden Creek within compartment 396.
131	Oct 19, 1988	Pit Creek recreation site of plus or minus 17 ha of Schedule B lands along Lake Revelstoke within compartment 810.
132	Oct 9, 1988	Deleted 9 ha for Bugaboo Helicopter Skiing Lodge facility from Schedule B lands within compartment 746, DL 16941, Goldstream Valley.
133	-	To formalize the Small Business Forest Enterprise Program within TFL 23, authorized under Sec. 35 Forest Amendment Act (not signed).
134	Oct 2, 1991	Deleted 9 ha from Schedule B lands for Canadian Mountain Holidays Ski Lodge facility within compartment 572 of the Lardeau River.
135	Apr 15, 1992	Subdivided TFL 23 by withdrawing Schedule A and B lands in Block 1 (Revelstoke area) under Sec. 33.1 Forest Act; assigned TFL 23 (west of Arrow Lake and south of Trans Canada Highway to Pingston Creek) consisting of approximately 554 900 ha from Westar Timber Ltd. to Pope & Talbot Ltd. to be harvested exclusively under agreements entered into under the SBFEP.

Number	Date	Description
136	Aug 10, 1995	Removed Lot 16968 Kootenay land district (3.5 ha) from Schedule B lands for the purpose of a ski hut.
137	June 8, 1996	Removed Block A of District Lot 6011, Kootenay land district (.111 ha) from Schedule B lands for residential purposes

APPENDIX I

I.3 History of Tree Farm Licence 23

TABLE OF CONTENTS

History of Tree Farm Licence 23

PREFACE	ii
INTRODUCTION	1
Early Development.....	1
Manufacturing Facilities.....	1
Pulpmill	2
Sawmill	2
LICENCE HOLDER	3
Licensee	3
Boundary Revisions	3
FOREST MANAGEMENT.....	6
Harvesting and Log Transportation	6
Planning	7
Timber Inventory	9
Forest Protection.....	9
SILVICULTURE	10

PREFACE

The history of TFL 23 summarizes the major events in a chronological sequence concerning the development and management of the licence since its inception. It is intended to be a dynamic document that would be updated with the preparation of each new management plan.

HISTORY OF ARROW LAKES TREE FARM LICENCE 23

INTRODUCTION

EARLY DEVELOPMENT

The first European interest in the Arrow Lakes district began with the fur-traders and explorers in the 1830's, who used the access provided by the Columbia River. Subsequently a Hudson's Bay Company trading-post was established at Fosthall, on the west side of the Upper Arrow Lake, 12 miles north of Nakusp.

Free gold was discovered in the Big Bend of the Columbia River in 1860. By 1865 it was reputed that some 10,000 placer miners had taken out four to five million dollars worth of gold. The settlement and homesteading of the district began after the CPR railway was completed in 1885. At that time Revelstoke began to be established. Settlers purchased land grants from the railroad company and began homesteading forested land between the two Arrow Lakes. Homesites were established, and alluvial land was cleared for fruit and mixed farming. Local markets for agricultural produce proved to be unreliable. The settlers became dependent on the mining and sawmilling activity in the region. Various small sawmills operated for varying periods.

At Nakusp the first sawmill was established in 1893. The White Pine Lumber Company operated in Nakusp for a number of years, until it burnt down in 1929. The Big Bend Lumber Company built a sawmill on the same site in 1935, which operated until 1960 when it was shutdown. Some of the employees moved to Castlegar to work at the new sawmill constructed by Columbia Cellulose Ltd. The company obtained their logs from various small contractors who were logging along the Upper Arrow Lakes. One of the larger harvesting areas was at Fosthall. Logs were transported to the Nakusp mill site by towing in flatbooms across the lake.

In many cases "stump ranches" were abandoned by the settlers to work in the mines and woods. By the early 1950's, with the exception of Revelstoke, on the main line of the CPR the only surviving communities from the early settlement days are those that have been supported continuously by the forest industry.

MANUFACTURING FACILITIES

Utilization of the Arrow Lakes forests entered a new era in the 1950's when the Celgar Development Company showed an interest in establishing a pulpmill at Castlegar. The Celanese Corporation of America operated a successful textile business in the US. After World War II Celanese began searching for a new source of raw material. This led the company to British Columbia. In 1952 the company made application to the BC government for a forest management licence over the Arrow Lakes forest. After holding public hearings on the application the

government awarded the licence, stipulating as a condition that Celgar Ltd. construct and operate an integrated pulpmill and sawmill complex at Castlegar.

PULPMILL

Construction of the combined pulpmill / sawmill complex began in 1958. Start-up of the pulpmill commenced in early 1961. It had a production capacity of 500 tonnes per day of bleached and semi-bleached kraft pulp. Associated with the pulpmill was a woodroom for whole log chipping, and a new sawmill.

In 1991 the new owners of the pulpmill, Celgar Pulp Company, built a new state-of-the-art bleach kraft pulpmill adjacent to the old pulpmill. This pulpmill has a capacity of 1,000 tonnes per day. In 1998 the owners put the operation into receivership and it is currently up for sale.

SAWMILL

In 1952 the Celgar Development Company acquired three sawmills that were cutting the majority of the timber on the proposed forest management licence area. These sawmills were:

Columbia River Timbers	at Sidmouth, north of Arrowhead.
Big Bend Lumber Company	at Nakusp
William Waldie and Sons Ltd.	at Castlegar

The Sidmouth sawmill was shut down in 1954. On being awarded the TFL, the company proceeded with plans to build a new sawmill at Castlegar. The last of these old sawmills was shutdown in 1960 coinciding with the opening of the modern three-line sawmill. The new mill had an annual capacity of 10 million board feet of lumber per year. Woodchips produced by the sawmill, and low quality roundwood from TFL 23 were to be the chief source of fibre for the pulpmill.

In 1985-86 the owners, at that time Westar, completed a major upgrading of the sawmill. This sawmill, now owned by Pope & Talbot, is still operating in Castlegar today after 28 years. Continued modifications have kept it modern and competitive.

LICENCE HOLDER

The TFL was originally awarded to Celgar Development Company Ltd. in July 20, 1955 as Forest Management Licence 23. At the time the licence covered 889,360 acres (359,923 ha.) between Mica Creek and Castlegar in the Upper Columbia River/Arrows Lakes valley. It was one of the largest tree farm licences in the Province but only about one-third of this area was estimated to be loggable. The balance is non-productive alpine mountain tops, glaciers, scrubland, lakes and rivers. Since that time there have been several changes in licence holder and in the size of TFL 23. Subsequently the forest management licence was replaced as a tree farm licence with a renewable term. In 1980 the licence was replaced and issued to the licensee, Canadian Cellulose Company Ltd. for a term of 25 years. The notable changes are listed below.

LICENSEE

TFL 23 has had changes in both licensee and name of the licensee during its 39 year history.

- | | |
|------|---|
| 1955 | Licence issued to Celgar Development Company Ltd. |
| 1958 | Name changed to Columbia Cellulose Company Ltd. (Celgar). |
| 1973 | Ownership acquired by B.C. provincial government, and licensee changed. A new company, Canadian Cellulose Company Ltd. (Cancel) was formed and assigned TFL 23. |
| 1980 | Name changed to BC Timber Ltd. Assets became part of British Columbia Investment Corporation (BRIC). |
| 1984 | Name changed to Westar Timber Ltd. |
| 1992 | Sawmill and tree farm licence assets acquired by Pope & Talbot Ltd. who became the new licence holder. |

The corporate logos of these previous owners are illustrated on the cover page.

BOUNDARY REVISIONS

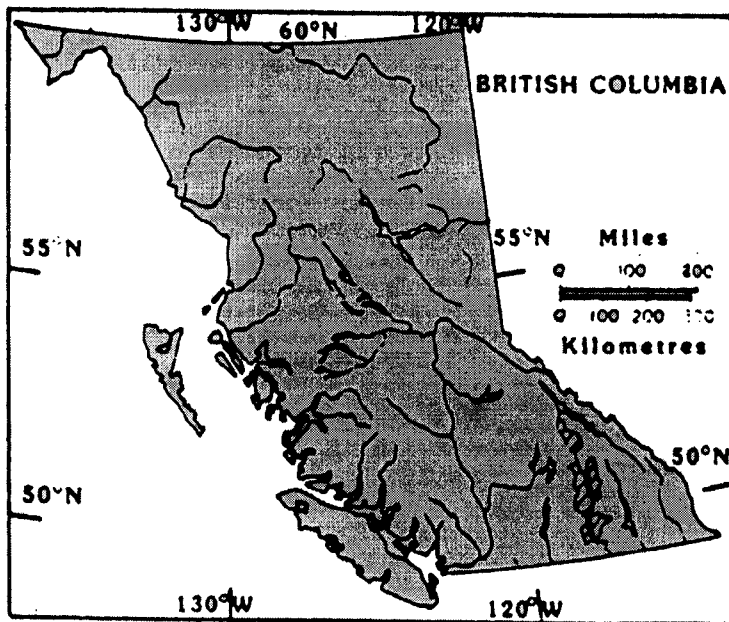
Since the original licence area was awarded, numerous parcels of Crown land have been deleted for other uses. This includes homesites, mineral claims, park reserves, lookout and cabin sites, TV and radio repeater sites, BC Hydro transmission line right-of-way, various access roads and highway gravel pits, and recreation sites. There have been 137 TFL amendments to June 8, 1996.

Three significant land removals have taken place:

- Removal for the Columbia River hydro project. In 1965-66, removal of Crown land was made around the perimeter of the Upper and Lower Arrow Lakes and the Columbia River for the clearing and creation of the High Arrow Reservoir. This was followed in turn in 1977-78 by the withdrawal of lands in Upper Columbia Valley north of Revelstoke to create the Upper Columbia Reservoir.

- In 1987 the TFL was downsized by deleting an area of approximately 244,868 hectares northwest of Revelstoke (the Downie Block). The area was added to the Revelstoke timber supply area.
- In 1992 the TFL 23 was subdivided, and all the remaining TFL lands north of Revelstoke were withdrawn to become the new TFL 55 and 56. The TFL 23 at that time was now reduced to 554 997 hectares.

As a consequence, between 1955 and 1992, the gross area of TFL 23 was reduced by 55 percent from 1 011 750 hectares to 544 997 hectares. The estimated productive area was reduced by 52 percent to 236 095 hectares. The former and current boundaries of TFL 23, are illustrated in the key map that follows.



LOCATION OF TFL 23

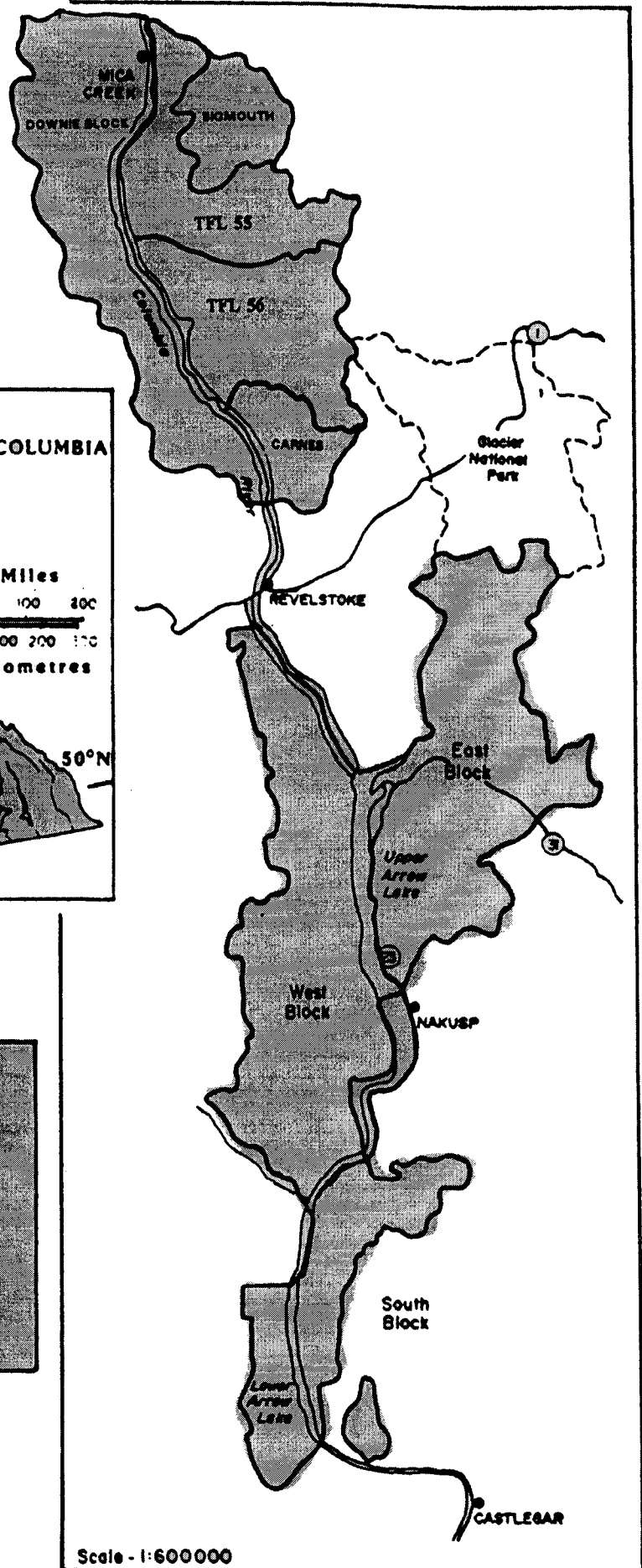
PRESENT TFL 23 BOUNDARY

PORTIONS OF ORIGINAL BOUNDARY

DOWNIE BLOCK

BIGMOUTH AND CARNES

TFL 55 AND TFL 56

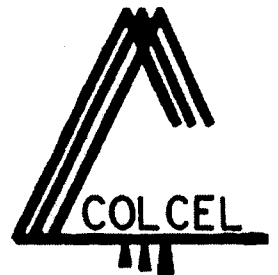


THE HISTORY OF TREE FARM LICENCE 23



COLUMBIA
CELLULOSE

A DIVISION OF THE CELANESE CORPORATION

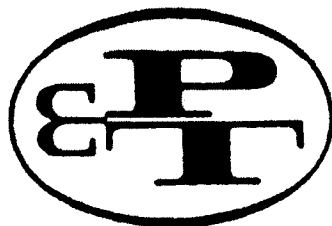


Canadian Cellulose

BC Timber
A Member of the BC Resource Group



Westar



FOREST MANAGEMENT

HARVESTING AND LOG TRANSPORTATION

The first logging was initiated on TFL 23 in 1957 to supply pulpwood for the new pulpmill, due to be commissioned in 1961. These initial operations were in the area between Arrowhead and Revelstoke and the Fosthall area. Logging commenced the following year north of Revelstoke in the Goldstream and Spikers Valley. The attached article from the Castlegar News in 1964 describes the operations on TFL 23 during these early years.

At the time water transport was an important part of the log transportation system. Logs were delivered by a combination of trucking, river drives on the Columbia River and towing in bundle booms down the lower Arrow Lake to Castlegar. River drives of logs took place on the Columbia River, and on the Canoe River. This system was to change with the announcement of the Columbia River hydro project.

BC Hydro plans for the construction of the three dams during the mid 1960's to the late 1970's; the High Arrow dam, the Mica dam and the Revelstoke dam caused a major change in how logs would be transported to Castlegar. River drives would cease, and new main logging roads would need to be constructed.

A new provincial highway from Nakusp to Galena Bay was opened in 1960. Clearing of the High Arrow Reservoir took place in 1967, and the High Arrow dam was closed in 1968. The last river drive on the Upper Columbia River to Galena Bay took place in 1963. River drives continued on the last open section of the Columbia River, until 1978 when the Revelstoke dam was closed. Since 1978 log transportation has been a dual combination of truck haul to a lake dumpsite, then towing in bundle booms down the Arrow Lakes to the Castlegar mill site. A system of mainline forestry roads were progressively constructed into all the main drainages. All were networked to link with the lake towing system.

Until the late 1960's selective harvesting of preferred species, ie, white pine, spruce, Douglas fir, larch and cedar poles, was a common system. The timber stands were regarded as defective and low in sawlog quality. Logging was by small crawler tractor. Early cutting patterns consisted of small clearcut blocks or strips, leaving areas of mature timber as fire breaks and seed blocks. This gradually evolved into a clearcutting system using rubber-tired skidders, with crawler tractors being used on increasingly steeper ground.

Cable harvesting was first introduced into the TFL in 1974. During the 1970's conventional interior ground-based skidding systems became well established. It was followed in the early 1980s by introduction of feller-buncher logging. The use of crawler tractors and FMC skidders on steeper ground (greater than 50 percent slope) attracted criticism for the amount of soil disturbance, sidecuts and skidtrails needed to log a cutblock.

Commencing in the 1980's cable yarding was introduced. Today more than 45 percent of the volume logged on TFL 23 is by various configurations of hi-lead tower and grapple yarding set-ups. More recently, long yarding cable configurations and helicopter logging (introduced in 1996) have substantially increased accessibility to merchantable timber.

Log utilization standards also changed over the years. In 1970 a major shift of the intermediate utilization standard to close utilization (CU) occurred, lowering the compulsory minimum harvestable tree diameter from 22.5 cm to 17.5 cm dbh. In the 1980 during the economic recession in the forest industry Westar obtained temporary relief from this standard so that lower quality logs did not have to be utilized. But by the mid 1980's the utilization was back to normal CU standard and by the early 1990's was exceeding the minimum standard, due to a buoyant market for low grade pulplogs.

PLANNING

The forest management of TFL 23 has been directed by eight successive management and working plans. Each MWP was written for a five-year period and approved by the provincial chief forester.

Table 1 indicates the term of each MWP, the cut level approved and the actual cut achieved. A more detailed listing of the harvesting record is in Table 2.

Table 1: AAC & Actual Cut by MWP period

MWP Period	Term	Cut Control Term	Periodic AAC (m ³)	Actual Cut (m ³)
1	1954-58	*1956-60	1,647,613	1,586,457
2	1958-61		1,738,227	1,820,855
3	1962-66	1961-65	4,247,520	4,140,517
4	1967-71	1966-70	4,451,401	3,964,237
5	1972-76	1971-75	5,756,005	4,674,238
	ext 77-79	1976-79	4,497,728	3,909,654
6	1980-84	**1980-84	5,333,545	4,084,668
	ext 1985-88	1985-89	4,921,121	5,002,068
7	1989-92	1990-94	3,571,900	3,436,278
	ext 1993-94			
8	1994-98	1995-99	2,996,500	-

* startup phase

** cut control period coincides with replacement of TFL document.

In 1978 Columbia Cellulose reached agreement with the MoF to provide Downie Street Sawmills of Revelstoke with a log supply from within the TFL. An operating area west of the Revelstoke reservoir, the Downie block, was allocated as a timber sale licence of 160,300 m³/year for a 12 year term. The volume was part of the TFL AAC. This agreement and the TSL was cancelled by the MoF in 1987 due to recurring undercut performance.

Table 2 - TFL 23 History of Volume Cut 1955-1998 (m3)

Period	Year	Allowable Cut	Actual Cut	Deviation from Allowance	
				m3	m3
Initial	1955	379,445	18,889		
1st Period	1956	379,445	238,495	-140,950	-37.1%
	1957	379,445	259,228	-120,217	-31.7%
	1958	312,193	228,097	-84,098	-26.9%
	1959	218,039	229,333	11,294	5.2%
	1960	358,491	631,305	272,814	76.1%
	Total	1,847,613	1,588,458	-259,155	-14.0%
2nd Period	1961	849,504	732,124	-117,380	-13.8%
	1962	849,504	748,223	-101,281	-11.9%
	1963	849,504	896,719	47,215	5.6%
	1964	849,504	896,923	47,419	5.6%
	1965	849,504	866,528	17,024	2.0%
	Total	4,247,520	4,140,517	-107,003	-2.5%
3rd Period	1966	849,504	847,349	-2,155	-0.3%
	1967	849,504	619,264	-230,240	-27.1%
	1968	849,504	901,117	51,613	6.1%
	1969	849,504	938,987	89,483	10.5%
	1970	1,053,385	657,520	-395,865	-37.6%
	Total	4,351,401	3,984,237	-367,164	-8.4%
4th Period	1971	1,056,217	815,558	-240,659	-22.8%
	1972	1,175,147	846,542	-328,605	-28.0%
	1973	1,175,147	1,080,377	-94,770	-8.1%
	1974	1,175,147	1,104,522	-70,625	-6.0%
	1975	1,175,147	827,239	-347,909	-29.6%
	Total	5,756,805	4,674,238	-1,082,567	-18.8%
5th Period	1976	1,175,147	1,022,356	-152,791	-13.0%
	1977	1,175,147	924,730	-250,417	-21.3%
	1978	1,132,553	802,226	-330,327	-29.2%
	1979	1,014,881	1,160,342	145,461	14.3%
	Total	4,497,728	3,909,655	-588,073	-13.1%
6th Period	1980	1,066,709	1,194,697	127,988	12.0%
	1981	1,066,709	772,449	-294,260	-27.6%
	1982	1,066,709	440,358	-626,351	-58.7%
	1983	1,066,709	840,361	-226,348	-21.2%
	1984	1,066,709	836,803	-229,906	-21.6%
	Total	5,333,645	4,084,688	-1,248,957	-23.4%
7th Period	1985	1,066,709	905,930	-160,779	-15.1%
	1986	1,066,709	1,193,447	126,738	11.9%
	1987	977,000	965,430	-11,570	-1.2%
	1988	853,703	949,079	95,376	11.2%
	1989	857,000	988,182	131,182	15.3%
	Total	4,921,121	5,002,088	80,967	1.6%
8th Period	1990	857,000	846,177	-10,823	-1.3%
	1991	857,000	525,910	-331,090	-38.6%
	1992	619,300	579,455	-39,845	-6.4%
	1993	619,300	806,374	187,074	30.2%
	1994	619,300	678,362	59,062	9.5%
	Total	3,571,900	3,436,278	-135,622	-3.8%
9th Period	1995	599,300	433,669	-165,631	-27.6%
	1996	599,300	600,951	1,651	0.3%
	1997	599,300	705,435	106,135	17.7%
	1998	599,300			
	Total	2,996,800			

TIMBER INVENTORY

The initial forest inventory of TFL 23 was undertaken in 1952 to gather data for the proposed licence application. Columbia Cellulose used aerial photographic surveys as the basis for identifying and mapping the forest cover types.

In 1973 Reid Collins and Associates, forestry consultants of Vancouver, completed a comprehensive inventory, using the latest inventory techniques at that time of the BC Forest Service. The inventory has been periodically refined since then, including the identification of terrain slope classes and determination of an operable cutline.

In 1989 Westar Timber Ltd. retained Industrial Forest Services Ltd. of Prince George to undertake a re-inventory to the entire TFL. The re-inventory used new MoF Inventory Branch standards and focussed on reclassifying the forest cover of the younger age classes. The new inventory was entered into a computer data base and is accessible by a GIS system. Since that time the inventory has been maintained by Timberline Forest Inventory Consultants.

Growth and Yield

Between 1959 and 1965 Columbia Cellulose established some 400 growth and yield permanent sample plots to monitor the growth rates of immature stands. Re-measurement was scheduled for five and ten-year intervals. By 1994 over 200 plots were still being maintained and measured by the MoF. The results have been entered into the provincial interior growth and yield data base.

FOREST PROTECTION

In the time since TFL 23 was awarded the licence the area has been relatively stable and protected from major catastrophic events such as wildfire or disease outbreaks. Forest fires, both of lightning origin and from operations, have occurred from time to time, but have been contained without major losses.

White pine blister rust became noticeable in the early 1950's. This disease has been progressively infecting white pine trees in mature stands and in regeneration. Over time, it has proven to be the most difficult pathogen to control on the TFL since infection is dispersed and salvage logging is ineffective.

In 1981/82 an outbreak of spruce bark beetle infestation was noted in Plant Creek and Pingston Creek. Mountain pine beetle attacked scattered lodgepole pine stands in Cayuse, Gladstone, Hutchison creeks during 1989. In 1991/92 gray spruce looper severely defoliated hemlock stands on the west side of the lake across from Nakusp. It resulted in harvesting of 250,000 m³. A strong windstorm in the fall of 1993 caused extensive blowdown damage of approximately 60,000 m³ in the Beaton River drainage. Timber losses to these and other major insect infestations have been minimized by prompt salvage logging.

SILVICULTURE

In the early 1960's the harvesting and silviculture systems used on the TFL were designed to encourage natural regeneration. There was a reliance upon clearcutting and leaving trees under five inches in diameter as seed and shade trees. The leave blocks were also seen to act as a seed source. This system continued until about 1969 when a shift to more planting occurred.

At the same time it was recognized that to regenerate preferred species, such as Douglas-fir and spruce some planting was needed. A bare-root nursery was established in 1960 at Box Lake east of Nakusp to supply seedlings for a planting program. The first seedlings were planted on TFL 23 in May 1957; 3,200 Douglas fir seedlings from Taite Creek were planted on a 1945 burn on the backside of Saddle Mountain.

The first plantation of about 50,000 seedlings, was established in 1961 at Fosthall, Trout Lake, and Big Bend. Planting continued at a modest rate until the mid 1970's when it was recognized that more extensive planting was required to successfully re-establish preferred conifer species and to prevent unwanted woody brush species from occupying the sites. By 1969 mechanical site preparation had started and broadcast burning became increasingly common. The company's nursery had closed when the BC Forest Service took the responsibility to supply all licensees with seedlings.

Between 1960 and 1997 approximately 48.6 million seedlings and 40,220 hectares were planted. Plantations were established with a mixture of two or more species. Table 3 and Figures 1a, 1b show the increase in the planting program during this period.

Efforts were also made to re-establish white pine through Westar's white pine management program. This involved co-operation with the US Forest Service and the BC Forest Service in a tree improvement program and reforestation with genetically improved rust-resistant seedlings. Harvesting of rust-infected white pine trees also received priority. Pope & Talbot has built upon these early initiatives. The company continues to plant rust-resistant white pine in mixed species plantations and carry out low pruning of white pine in conjunction with juvenile spacing treatment to minimize plantation losses.

In 1987 the new *Silviculture Regulation* passed technical and financial responsibility for the reforestation program from that date onwards to the company. The licensee at that time, Westar, began placing more emphasis on practices to improve the survival, establishment and growth of the plantations. Improvements began at the initial reforestation planning level. Detailed ecosystem-based pre-harvest silviculture prescriptions were now being prepared for every cutblocks prior to harvesting.

By 1989 a program, the Forest Renewal Initiative, to restock and brush 12 000 hectares of backlog NSR commenced, and was substantially completed by 1994. Since 1994, Pope & Talbot has been able to carry out enhanced forestry, watershed restoration and resource inventory projects under the auspices of Forest Renewal BC.

In 1990 changes in site preparation strategy were implemented. This called for less broadcast burning and planting over a larger area. Mechanical site preparation switched from crawler tractors with brush blades to mounding with backhoes.

The nutrient rich valley bottom sites were proving difficult to re-establish with conifers due to the dense regrowth of brush species that occurred after logging. Stand tending brush control also was recognized as needing a higher priority. Various hand brush control techniques were tried in this period. During 1990 to 1993 up to 4,000 sheep were used to graze brush on plantations and to browse herbaceous brush in areas to get them ready for planting. Recently, the planting of deciduous species has been prescribed on many such sites to minimize the need for aggressive vegetation management.

Table 3: TFL 23 - Summary of Forestry Activities 1957 -1977

Activity	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977
Area Logged (ha)	1,046.0	1,226.4	1,634.0	2,324.9	2,974.1	3,134.0	3,450.1	3,055.5	2,463.7	2,765.7	3,381.7	3,134.4	1,567.2	2,144.0	2,773.3	2,427.7	2,538.6	1,719.8	1,885.7	1,328.0
Area Planted (ha)	-	-	-	-	24.3	61.5	16.1	94.7	160.3	95.9	97.1	161.1	370.8	168.4	199.9	260.7	138.0	779.1	550.5	213.0
Trees Planted (000)	-	-	-	-	10.1	24.8	5.0	51.6	72.4	50.0	43.0	60.0	176.5	n/a	121.2	248.8	96.2	888.2	646.0	209.2
Area Spaced (ha)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Area Brushed (ha)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Area Site Prep - Mech (ha)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Area Site Prep - Burned (ha)	-	-	-	-	-	-	-	-	-	-	1,300.1	674.3	3,272.8	1,138.6	1,227.6	2,325.7	2,105.1	1,404.1	2,747.0	1,075.4
Area Pruned (ha)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Area Surveyed (ha)	-	-	-	-	-	-	-	1,497.6	1,615.0	2,327.7	1,559.1	944.3	*2392.5	*3096.7	*4198.2	*3014.2	*1088.8	*1184.7	*5571.0	*9486

Table 3 (continued) : TFL 23 - Summary of Forest Activities 1978-1998

Activity	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
Area Logged (ha)	2,587.0	2,687.0	3,098.0	1,887.0	1,901.0	2,767.0	2,235.0	2,747.0	2,742.0	2,742.0	2,784.0	2,807.0	2,218.1	1,313.2	1,963.1	1,806.2	1,917.7	1,513.5	1,718.4	1,825.3	
Area Planted (ha)	945.0	1,030.2	972.6	983.5	777.3	837.0	1,121.1	860.8	1,531.2	1,507.7	2,356.0	3,852.2	5,293.5	4,139.0	1,897.6	1,452.6	1,963.0	1,910.0	1,815.2	1,583.2	
Trees Planted (000)	1,115.0	1,166.1	1,007.7	1,156.6	935.3	959.4	1,397.8	1,028.8	1,798.3	1,907.6	3,447.0	5,268.1	6,844.8	4,762.4	2,082.6	1,774.5	2,560.3	2,379.6	2,319.8	1,957.5	
Area Spaced (ha)	-	-	3.0	15.0	30.6	170.7	185.0	115.0	98.0	188.0	73.4	50.0	207.0	151.5	18.5	17.9	30.5	7.3	94.5	263.0	
Area Brushed (ha)	-	-	-	-	98.0	51.0	-	43.0	11.5	-	66.7	330.3	1,954.1	3,687.0	2,627.9	2,100.3	1,355.0	1,618.3	1,435.5	1,724.0	
Area Site Prep - Mech (ha)	132.0	161.9	415.0	274.7	324.0	650.0	410.7	667.6	649.2	832.8	1,504.5	1,648.0	1,526.6	552.3	167.5	449.7	373.4	160.8	175.5	302.6	
Area Site Prep - Burned (ha)	-	1,926.0	4,511.5	1,748.6	2,304.2	2,348.2	1,094.5	695.7	2,045.5	1,380.8	1,468.0	915.1	360.5	659.2	156.1	231.8	368.8	204.9	245.2	194.2	
Area Pruned (ha)	-	-	3.0	12.0	150.6	399.0	57.0	88.0	129.0	127.8	110.6	48.5	98.1	151.6	6.0	20.9	181.7	570.0	504.9	295.8	
Area Surveyed (ha)	*6852.0	*2370.7	*7924.1	*5122.6	*3852.3	5,830.5	5,688.5	5,113.6	6,171.3	4,902.9	6,612.7	10,000.0	13,410.0	13,583.6	12,964.0	14,656.4	11,926.7	13,787.2	11,884.7	12,133.7	

A Visit to the Celgar Woods Division Columbia Cellulose Company, Limited --- Nakusp, B.C.



By BURT CAMPBELL, Editor

Reprinted from the

CASTLEGAR NEWS

August 13, 1964

Columbia Cellulose's Celgar pulp division here turns out pulp and the company's modern sawmill turns out lumber, but just how do the bundles of logs that land on the log decks of the two plants ready to be turned into a finished product get here?

Nobody would be naive enough to believe that they grow that way — some 30 or 40 logs all wrapped up in two steel cables. But it's not generally appreciated just how extensive are the procedures and steps followed by each log before it ends up in a bundle on the log decks here ready to be converted into either high grade bleached kraft pulp or Celgar lumber.

Recently this reporter had the opportunity of spending two days touring Columbia Cellulose's Celgar woods division learning just what happens to a tree as it makes its journey from the forests in the Arrow Lakes region to the mills here at Castlegar.

Celgar's Tree Farm Licence

No. 23 covers some 2½ million acres. Of this acreage, only about one acre in every three is productive forest land. The rest is marshes, lakes, rivers, creeks, rocks or mountain tops.

Of this total productive forest of some 870,000 acres, about half of it is immature growth (trees still growing to maturity) while the other half is made up of mature, fully-grown trees ready to be harvested. The annual cut of mature trees is about 300,000 cunits — or 990,000 logs from 600,000 trees!

The whole Tree Farm Licence is divided into four main areas and these in turn are divided into a total of 15 management units each of which is associated naturally with some drainage basin. The whole Tree Farm Licence is then further broken down in about 800 cutting permit areas of roughly 2,000 acres apiece.

The whole Tree Farm Licence is managed on a sustained yield basis under the con-

trol of company foresters. Cutting practices are carried out that promote high utilization and salvage of timber in all forest stands. Seed blocks (areas of growing trees interlaced with logged areas) are laid out to encourage natural regeneration (reforestation.)

Areas which are not stocked by natural means are planted or seeded to ensure the establishment of future stands of trees for a continuing harvest on a sustained yield basis.

An area in the TFL to be set up as a cutting permit area is first cruised (investigated) by a company forester to see what species and age of trees are in it. The B.C. Forest Service then goes in and, after study, sets the cutting permit requirements (these include determining what stands of trees can or cannot be cut and establishing what stumpage — royalties — must be paid on each log by the company to the provincial treasury.)

On the TFL, logging is

done by company operations in the Shelter Bay area located near Galena Bay at the north end of Upper Arrow Lake, the Pingston and Fosthall areas which are just north and south of Nakusp, and in the Whatshan area located south of Nakusp. The remainder of the licence is logged by private contractors who supply their own men and equipment but who work on the company's Tree Farm Licence area. (It is a stipulation of the company's licence that it contract some 30 per cent of its annual cut from the licence area to independent operators.)

All of the TFL north of Revelstoke is logged by private contractors while in the southern part of the licence such private contractors as Mike Bilinski's high-balling, smooth-operating Barnes Creek Logging at Fauquier work to make sure that the two mills at Castlegar never go hungry.

Ron Jordan, Celgar woods division manager, counts 325 persons employed in the woods division with an annual pay-

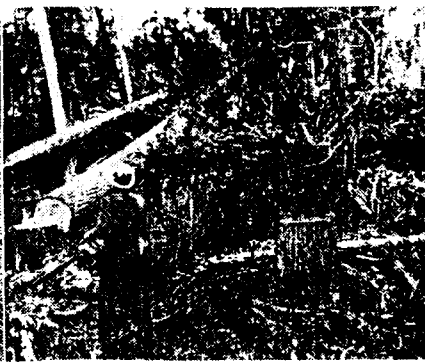
roll of nearly \$2 million. This doesn't include the 240 men employed by the independent operators contracting for the company who have an annual payroll in addition to the company's of close to \$1 million. Mr. Jordan says his company's main objective in the woods division "is to maintain a safe, efficient logging organization and to provide year-round employment for all logging personnel in this region."

It was to view this extensive operation first-hand and to report it to those who directly and indirectly make their living from the turning of the woods division's product into lumber and pulp that this reporter visited Nakusp and certain areas of TFL No. 23.

Also along were Kingsley Harris, public information officer for Columbia Cellulose, Vancouver, and Gordon Pettitt, Castlegar photographer. We were shown about by Orville Scheelar, production manager, Celgar woods division; George (continued on page two)



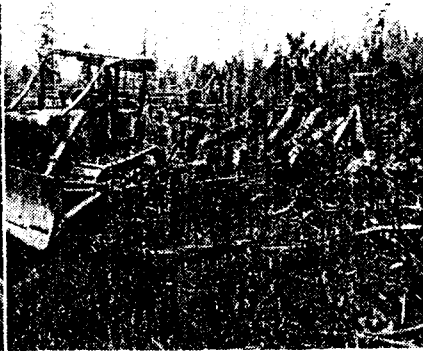
Fallers are employed by the company but own their own chain saws. The faller at right is shown falling a 130-ft.-high hemlock. He can fall 60 to 70 trees a day. The faller first makes a cut near the base of the tree and then makes a second cut on the other side



of the tree just above the first cut. Timber . . . and the tree falls to the ground with a crash. Before falling the tree however, the faller first determines which way he wants it to fall to make the job of dragging it butt-end out of the bush easier for the tractors.



Chokerman, such as in the left picture, next attach wire nooses called chokers to the butt end of the trees. These cables are then winched up to the tractor where the logs hang several feet off the ground so that they



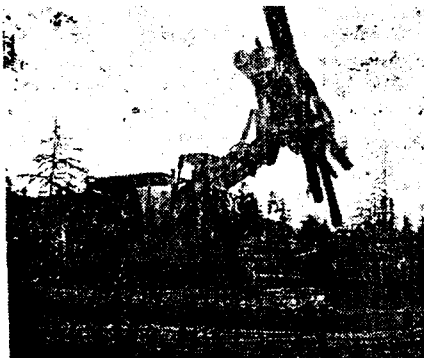
clear obstructions while being skidded (dragged) out of the bush. As many as 10 logs will be skidded (right picture) out of the bush at one time by the tractor depending upon the proximity of the fallen trees to each other and the difficulty of the terrain.



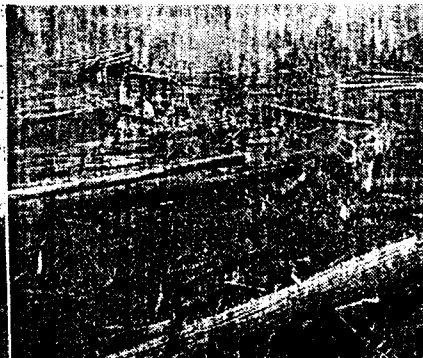
At the sorting area, after being skidded out of the bush, a cutting permit number is hammered into the end of each log while at the same time the remaining tree branches are "limbed" off the logs while the logs



themselves are bucked (cut) up into appropriate lengths. Once the log leaves its sorting area the only identification it has as to where it came from is the cutting permit number hammered into the butt.



Next the logs are sorted according to whether they're sawlogs or pulp logs and at the same time they're sorted by species. The tractor shown at left with a "grab" or logs takes them and distributes them to one of the



many sorting piles shown in the picture at right. A tremendous size sorting area is required for as many as 10 sorts may be required depending on the species to be found in the cutting permit area.

A visit to the . . . Celgar Woods Division

(continued from page one)

Richards, forester in charge of working plans, Nakusp, and Ed Smith, superintendent of the woods division's Fosthall logging area.

The scope of what these men showed us was impressive — the number of men, amount of equipment, network of roads and the logging and regeneration procedures followed indicate that Celgar is here to stay, and on a substantial and sustained basis.

Our first stop was at a plot of immature trees where the growth of the forest is measured. This was one of 300 to 400 such plots already established or planned throughout the Tree Farm Licence area. George Richards, who is responsible for regeneration, explained that the trees are checked at five- or 10-year intervals, depending on the growth capacity of the soil. By these checks the potential growth of immature stands can be judged. Just like capital in a business, the rate of growth of the forest determines what return is to be obtained over what period of time on an investment of time, machinery, men and equipment.

After several more stops to view some samples of natural regeneration (small trees which have grown on their own), we came face to face with what logging is all about. These are the steps which just about every tree follows before it winds up on the log deck of either the pulp mill or sawmill here at Castlegar:

- Felling
- Limbing
- Skidding
- Stamping
- Bucking, Limbing
- Sorting
- Loading
- Scaling
- Hauling
- Strapping
- Dumping
- Rafting
- Towing

To take them in order:

FALLING — Using a power saw which he owns himself, the faller makes a first cut near the base of the tree and then on the other side of the tree just above the first cut he makes a second one. Timber . . . and the tree falls to the ground with a crash. Before falling the tree however, the faller first determines which way he wants it to fall to make the job of dragging it butt-end out of the bush easier.

LIMBING — The faller then walks out on the tree which he has fallen and cuts off some of the larger branches that would get snagged in the bush when the tree is skidded (dragged) out.

SKIDDING — A tractor ("It's tractor, not 'Cat,'" admonishes Ed Smith, "we've got all makes of tractors") then backs up to the fallen tree. Chokermen hook cables from the tractor onto the tree butt (and onto as many as nine other trees at the same time, depending on size, length and the terrain) and the tractor skids them out of the bush.

STAMPING — When the logs arrive at the sorting area, the Cutting Permit number is stamped onto the end of them. The number is "raised" on the end of the sledge hammer purchased from the Forest Service



Ron Jordan, Manager
Celgar Woods Division

and it's stamped onto the end of the log. Once the log leaves the sorting area its identity is lost forever except for the number it carries and if the B.C. Forest Service were to later find an unstamped log . . . could again collect stump on the log on top of the stumpage which was recorded earlier at the sorting area.

BUCKING and LIMBING — Now the rest of the limbs are cut off the tree and it is bucked (cut) up into required lengths.

SORTING — The next step is one necessitated by the building of the pulp mill and the new high-production sawmill here. The logs are sorted according to whether they're sawlogs or pulp logs and at the same time are sorted by species. These sorts may be by pure species — such as cedar — or in combinations such as fir-larch. A tremendous size area is needed for as many as 10 sorts may be required. A tractor with a front-end loader is used to move the logs about.

LOADING — A front-end loader then picks up a "grab" of logs and starts to load a huge 11-ton trailer truck. About 15 minutes later the truck is ready to start its run to the dumping grounds.

SCALING — At the same time a scaler, standing on the cab of the truck, keeps a record of all logs loaded to determine the stumpage and the amounts of each species of tree taken out of the particular Cutting Permit area.

HAULING — The trucks carry an average load of about 40 to 50 tons. In the Fosthall area on that day the trucks were making four round trips each trip 13 miles one way. Each truck load is a "bundle" and contains between 30 to 40 logs.

STRAPPING — At the water dump the load is strapped with steel cable while it is still on the truck to form a single bundle with a maximum circumference of 35 feet. At this stage a colored tape (white for hemlock sawlogs, red for cedar and yellow for pine) is attached to the bundle so that its species is marked. Then the bundle is dumped into either the sawlog pond or the pulp log pond. (There are two dumps employed: one high up for use during high water, the other lower down for use during low water.)

RAFTING — The sawlog or pulp log booms are then laced together by tow tugs into large "rafts." Then starts

(continued on page three)

Arrow Lakes Forests Make Very Good Pulp

Because of the major species found in the Celgar woods division, Celgar bleached kraft pulp has balanced strength properties.

Its bursting strength compares with northeastern and Scandinavian krafts while its high tear strength properties are similar to west coast and southern krafts.

Papermakers find that Celgar kraft is one of the fastest developing — if not the fastest developing — of the North American krafts available today. Because of its unique properties it compares closely with the best Scandi-

navian krafts.

Celgar semi-bleached kraft differs from Celgar bleached kraft only in brightness. All its other qualities remain substantially unchanged.

Celgar west coast type kraft is a specialty pulp blended from wood species chosen for their long, thick-walled fibres. Like west coast krafts, Celgar west coast type kraft has high tearing resistance with, however, the added advantage of easier repulping by the paper manufacturer. Celgar west coast type kraft is available in both bleached and semi-bleached grades.

Tree Farm Licences Agreement Between Company, Government

Tree Farm Licences in B.C. involve an agreement between the provincial government and the company issued the licence. The government, on its part, undertakes to provide a security of tenure to the licence holder as long as the holder continues to fulfill the obligations assumed by him at the time that the licence was granted.

Normally the agreement stipulates that the licence holder shall manage the licence area under lease, together with any privately-owned forest bordering on or located within the licence area, in a manner to provide sustained yield.

The licence holder also agrees that both his short and long range working plans will be submitted to a government representative for approval. Furthermore, the holder frequently has to arrange to dispose of his annual cut in a manner in the interest of the province as well as of himself. In many cases this stipulation will involve him in the outlay of vast capital sums, not only for the development of the licence area for logging, but also for the provision of mills to process the logs through to a finished product.

In the case of Columbia Cellulose's Tree Farm Licence No. 23, the company agreed to manage any private holdings of timber, together with the licence's forest lands, to provide for a sustained yield of timber in perpetuity.

The current maximum annual cut was set at 30 million cubic feet and the company undertook to build a pulp mill capable of manufacturing at least 300 tons of pulp per day (actually it built a 500-ton-per-day mill that is now producing nearly 570 tons daily, while its modern sawmill, the most modern in Canada produces 110 million board feet of lumber a year.)

The company further agreed to balance its logging within 10 per cent of the allowable cut over five-year periods. Since it is obliged to keep all potentially productive forest land in growing stock, if natural regeneration fails then the company must reforest by seeding or planting. In addition, Columbia Cellulose under-

took to pay 50 per cent of the cost of control measures during periods of major insect infestation and to provide fire protection for the area as defined in a forest protection plan.

In addition to the logs provided from the Tree Farm Licence and purchased from independent operators outside the TFL, pulp chips are purchased from sawmills as far away as Cranbrook and Midway and are also manufactured as a byproduct of the company's sawmill here.

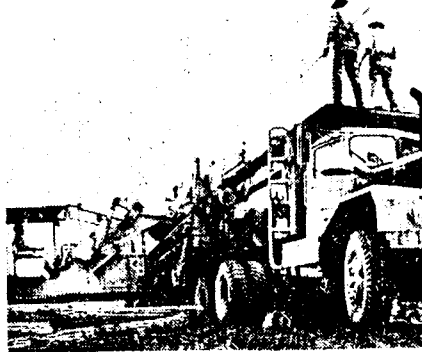
Celgar Woods Division

(continued from page two)
the final step, that of TOWING the booms down the river to Castlegar.

From then on responsibility passes and the conversion of the logs to pulp and lumber becomes the job of others. But the lumber and pulp mill divisions can carry on their uninterrupted operations only because — as the editor of Pulp and Paper Magazine of Canada once wrote — "Ron Jordan and his staff can boast of a well-organized, efficient and economical integrated logging operation."



"The River Drive is On" — These words send the excitement up and down the spine of every logger and few, if any, river drives in B.C. are larger than that of the Celgar woods division. The picture at left shows the catch works where loose logs, bundles, driftwood (and even Revelstoke city garbage) are caught as high water rises. All the logs cut by the private contractors in the Big Bend Country north of Revelstoke since late August of last year are picked up by high water and carried down the Columbia river. They're caught in the log boom shown at left



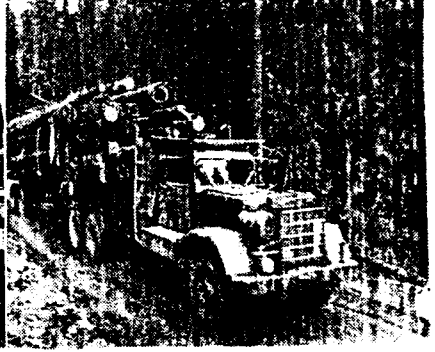
Next step is the loading of the 11-ton trailer trucks for the haul to the water dumping grounds. A tractor with a front-end loader drops grab upon grab of logs onto the truck trailer. Logs as long as 55 feet will be loaded in this way and loads will often weigh between 40 and 50 tons. The truck then starts



When the truck arrives at the dumping area, where the logs will be deposited into the water, the truck-load of logs is first "banded" or "bundled." That is, wire cables are placed around the bundle and metal bands are criss-



After banding the bundle is rolled off the trailer by a truck-powered winch and a gin-pole and is dropped into the water. The aerial view at right is of the holding grounds at the water landing. It shows the truck-load-size



out for the dumping grounds. Careful scaling (measuring) of the wood is carried out as the truck is being loaded (see left photo) in order that stumpage (royalties) may be paid on it and an accurate record kept of the amount of wood taken out of a particular cutting permit area.



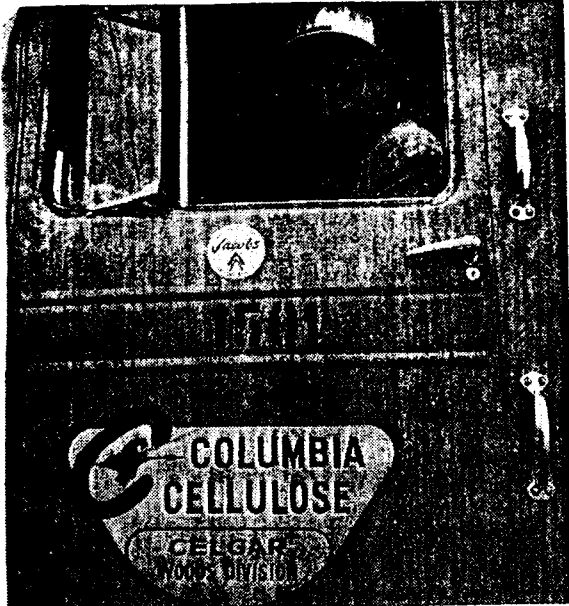
bed to lock them. A bundle of logs must not exceed 10 feet in diameter. Also at this stage a colored marker is tacked onto each bundle to identify it as either sawlogs or pulp logs and its species.



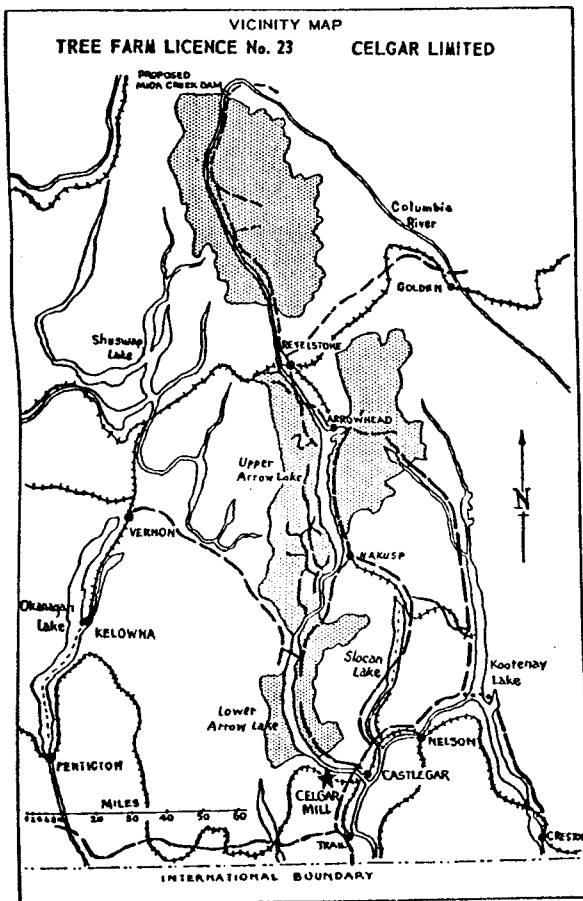
Bundles in the water circled by a boom. These booms, when full, are then towed down the river to Castlegar where the individual log bundles are not broken until they land on the log decks of either the pulp mill or sawmill.



at the mouth of the river and are then taken to the Galena Bay temporary holding grounds shown in the middle picture and in the one at right. Six boats were working on the river drive and four of them were being double-shifted at the time the pictures were taken. The booms are then towed to Nakusp where the logs are bundled and rafted. The company's manager of forestry and engineering, Fred Waldie, estimated there were between 60,000 and 80,000 cunits (between 120,000 and 200,000 logs) in the Galena Bay holding grounds. By the time they arrive at Castlegar some will have travelled 250 miles.



Men like Les Clark, shown here in the cab of his huge 11-ton trailer truck, are representative of company employees in the Celgar woods division. This truck carries an average load of 40 to 50 tons of logs and Les does his part to see that the company's lumber and pulp divisions at Castlegar never go hungry as 600,000 trees yearly are converted into either high grade bleached kraft pulp or Celgar lumber.



Columbia Cellulose's Tree Farm Licence No. 23, issued in July, 1955, covers 2½ million acres of which some 860,000 acres are productive forest land. The balance of the area on the Columbia river watershed harbours three public working circles managed by the B.C. Forest Service for public development, the Revelstoke National Park and some freehold forest tracts owned privately. The licence area extends from Syringa Creek in the south to Mica Creek in the north. This huge area is broken into four main blocks for forest management and operating purposes. These are the north block above Revelstoke, the south block which incorporates the forests around the Lower Arrow Lake, the east block which starts at Nakusp and includes the area northward towards Golden and to the east of Upper Arrow Lake, and the west block lying on the west of Upper Arrow Lake and the Columbia river and running north to within a few miles of Revelstoke.

Planes Are Used to Patrol After All Lightning Storms

Fire protection is a major item in the Celgar woods division's operations.

The company is responsible for all fire fighting in the TFL up to the amount of men and equipment it has which, comments fire protection officer Jack Fornelli, "is consider-

able."

Five ranger districts are worked in and patrol planes are sent out by Celgar immediately following any lightning storms. If a fire is spotted, men are sent in by plane or helicop-

ter to fight it right away.

"Prompt initial action is the key," says Fornelli. There were 68 lightning strikes last year and a plane was out looking for them between one and five hours every second day.

Photo Survey Used to Map Forest Cover

An initial forest inventory of Tree Farm Licence No. 23 was made up by Columbia Cellulose from a complete aerial photographic survey which was used as a basis for identification and mapping for forest cover types.

This inventory indicated a species distribution in the mature timber groups as follows:

Cedar 29%, hemlock 25%, spruce 22%, balsam 10%, Douglas fir 7%, and white pine 4%. In the 120-year age group Douglas fir has 36%, hemlock 17%, cedar 15%, white pine 10%, larch 9% and spruce 6%. In the 80-year age group, Douglas fir has 33%, white pine 19%, hemlock 13%, larch 10%, cedar 9% and spruce 6%.

These figures show that 40 per cent of the existing forest stand can be used for saw logs and, with good management, this stock will increase with the years.



Boats, airplanes, Volkswagens, pick-up trucks and all types of transportation are used in the Celgar woods division to reach all areas of the Tree Farm Licence. The Arrow I, which pushes a barge, is used daily by men working in the Fosthall logging area while a five-passenger Beaver float plane, shown here, is used by company officials to view operations from the air, to spot fires, and to get quickly from one logging area to another.



Rate of growth of the forest is watched with hundreds of half-acre plots located throughout the Tree Farm Licence area. In these plots, at five and 10-year intervals, company forester George Richards, left, measures the rate of growth of the trees, each of which has been tagged for identification. The whole principle of sustained forest yield is an equally balanced growing and cutting cycle. The various plots provide information on the growing capacity of the soil and give the company an idea of the potential growth of immature stands of trees. In this particular plot the diameter of the trees is growing by an average half-inch a year, which is typical of tree growth on the coast. When the diameter is checked, often the nail used to measure from is buried in the tree's new growth. A patch system of clear-cutting is carried out by the company leaving seed blocks every 1,000 feet in conformity with TFL standards as well as leaving trees under five-inches diameter which act as seed and shade trees. The distance between seed blocks may vary depending upon terrain conditions. Natural regeneration is usually cheaper and better

than planting and is the preferred way of reforestation. The second picture shows a five or six-year-old spruce which has grown in forest on its own. The picture at right shows one of the nurseries which the company maintains in Nakusp. There are over 40,000 trees in 10 beds. Mr. Richards, and the company's public information officer Kingsley Harris, are looking at a bed of one-year-old Douglas firs. At two years the trees are ready for transfer to the woods and in 1962 the company planted over 50,000 of them. It has just recently completed planting 42,000 trees of various species in the Fosthall, Trout Lake and Big Bend areas. Before the seeds are planted in these beds, an attempt is made to simulate winter conditions. The seeds are soaked in cold water for 24 hours and are then put in a refrigerator for two weeks. After that they're planted in beds and for the first year the weeds have to be taken out of the beds with tweezers so that the trees are not destroyed in the process. The trees, of course, have to be watered and during the hot summer months they have to be shaded whenever the temperature goes over 90 degrees.

Figure 1a: TFL23 Silviculture Activities vs Logged Ha's 1977 - 1997

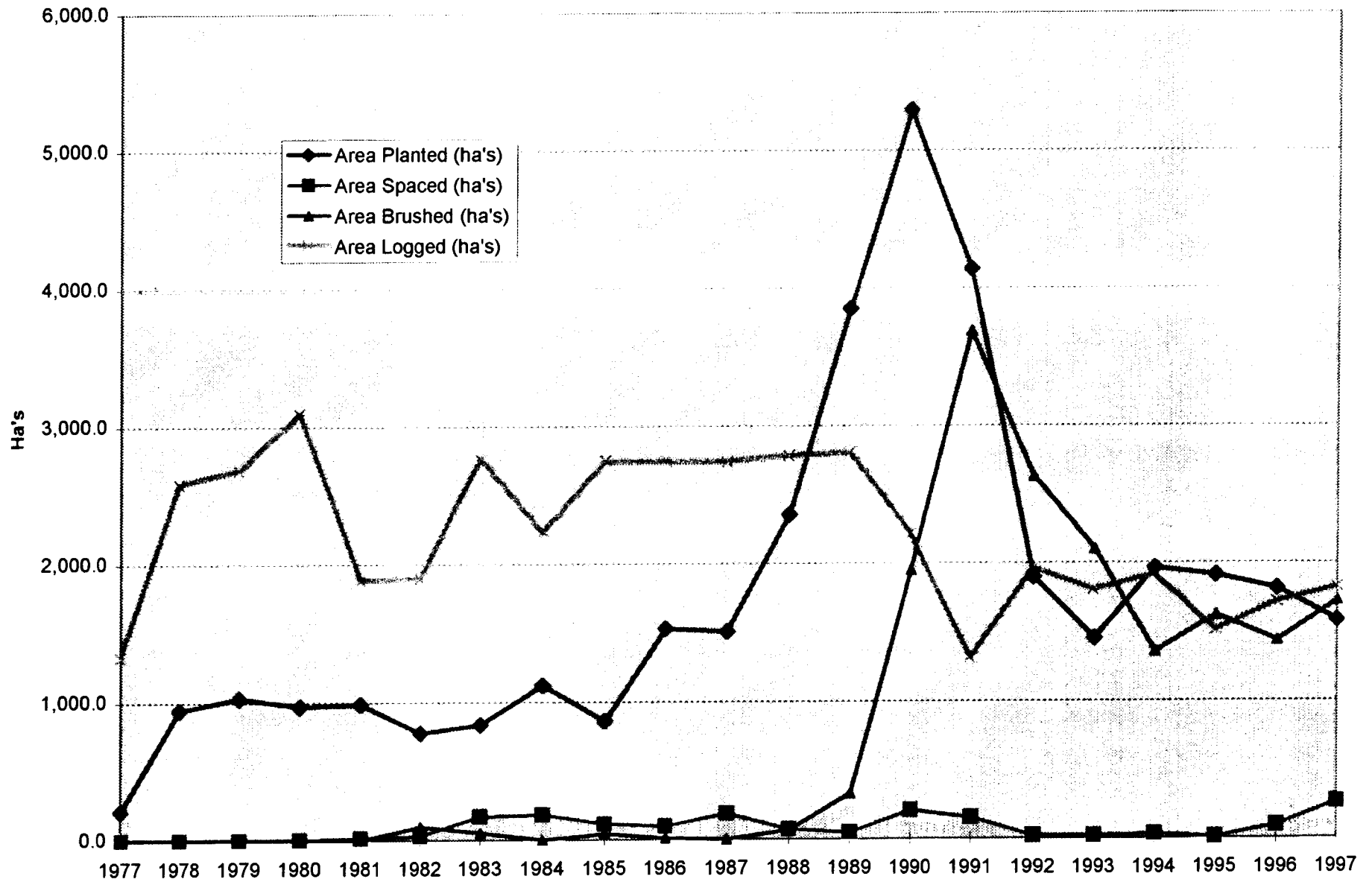


Figure 1b: TFL23 Silviculture Activities vs Logging 1957 - 1997

