APPENDIX IV

Twenty-Year Plan

- Status
- Twenty-Year Plan
- Correspondence [addendum]

March 2001

Twenty-Year Plan Status

The status of the Twenty-Year Plans [as of March 26, 2001] is as follows:

Forest District	TFL 39 Blocks	Status of Twenty-Year Plan
Sunshine Coast	Block 1	Accepted [December 19, 2001]
Campbell River	Blocks 2 & 5	Accepted [February 7, 2001]
Port McNeill	Blocks 3 & 4	Accepted [February 22, 2001]
Queen Charlotte Islands	Block 6	Not yet accepted. Have responded to questions
Mid Coast	Block 7	Initial TYP was not accepted. Have responded with another TYP and a just-completed operational review.

Tree Farm Licence 39
Management Plan 8

Twenty-Year Plan
2001–2020

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Weyerhaeuser Company Limited
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September 2000

Changes made March 2001

Weyerhaeuser

TABLE OF CONTENTS

LIST OF TABLES

LIST OF APPENDICES

1 Introduction

This report, together with the accompanying maps, demonstrates the spatial feasibility of initial harvest levels proposed in the associated Timber Supply Analysis (TSA). This is done by developing a hypothetical twenty-year harvest schedule for each of six working circles within TFL 39 (Table 1). The actual pattern of harvesting carried out, during the twenty years in question, may differ substantially from the schedule presented here. The purpose of this study is simply to demonstrate that the TSA harvest levels are feasible.

Table 1: Working Circles

Working Circle	Name	Weyerhaeuser Timberlands	Ministry of Forests Districts
Block 1	Powell River	Stillwater	Sunshine Coast
Block 2	Adam River	North Island	Campbell River
Blocks 3&4	Coast Islands/Port Hardy	Port McNeill	Port McNeill
Block 5	Phillips River	Stillwater	Campbell River
Block 6	Queen Charlotte Islands	Queen Charlotte	Queen Charlotte Islands
Block 7	Namu	Port McNeill	Mid Coast

2 Procedure

Harvest projections were developed to cover the twenty-year period from 2001 to 2020. This was done using automated harvest planning software developed at Weyerhaeuser. This software places harvest blocks at specific spatial locations, in such a way as to meet (but not exceed) TSA volume targets and comply with all applicable constraints. A more detailed description of the software is given in the Terms of Reference in Appendix 1.

For the most accurate representation of green-up requirements, second-growth volumes, etc., the software assigns an exact harvesting year to each block. For reporting purposes, harvesting is grouped into four, five-year periods.

2.1 Supporting Data and Assumptions

The Twenty-Year Plan (TYP), also referred to as the feasibility study, is based on forest inventory to 1995, updated for harvesting that occurred between 1996 and 1998. Assumed harvesting for the years 1999 and 2000 was simulated as part of the main planning process—i.e., the software was in fact run from 1999 to 2020.

The same data were used to prepare both the Timber Supply Analysis and the Twenty-Year Plan. The assumptions made in the TYP are also broadly the same as the TSA base case. These assumptions are documented in the Information Package accompanying the TSA and will not be repeated here. However, a few differences do exist. These are outlined below, together with relevant section numbers from the TSA Information Package (IP).

2.1.1 Deciduous Stands (TSA-IP 5.3.7)

50% of the volume in existing deciduous stands is available for harvesting in the spatial feasibility study.

2.1.2 Adjacent Cutblocks and Green-up (TSA-IP 8.3.1)

The spatial location of cutblocks is explicitly represented by the twenty-year plan model, to ensure full compliance with green-up restrictions. Cutblocks are restricted to a maximum gross size of 40 ha.

2.1.3 Visual Landscape (TSA-IP 8.3.2)

The spatial feasibility study (TYP) applies the appropriate cover class constraint to each individual visual landscape polygon. In the TSA, the constraint is applied to entire recommended visual quality classes within a working circle.

2.2 Cover Class Constraints

The harvest schedules were produced to take account of several issues modelled as cover class constraints:

- Visual landscape
- Avalanche areas
- Community watersheds
- Coastal watershed assessment procedures (CWAPs)
- Landscape biodiversity (old seral)

These constraints can all be expressed as a requirement that no more than a certain percentage of the affected area may be below a certain age. The planning software operates in such a way as to ensure that no new violations of these constraints are introduced. However, in some cases the inventory data indicates that the constraints were already violated at the outset. In this case, harvesting is only permitted under special circumstances. Specifically, no harvest will be planned that increases the magnitude of the violation, and the area concerned will be brought into compliance as quickly as possible.

For most cover class constraints, accounting is based on the net harvested area after netdowns (both spatial and aspatial—refer to Section 2.3). For example, if a stand of fifty-year-old timber is harvested with 20% retention, in an area subject to a visual landscape constraint, then only 80% of the cutblock is subsequently assumed to be below visually effective green-up. The only exceptions to this rule are the old seral constraints, where aspatial constraints do not contribute to old seral (i.e., they are assumed to be part of the harvested area).

Results for cover class constraints are reported in the appendices. (Note that the maturity ages for visual landscape constraints include a one-year regeneration delay.)

2.2.1 Old Seral Constraints

Old seral constraints are expressed as a maximum allowable percentage of area below 250 years of age. These percentages are based on those listed in Section 8.4.2 of the TSA information package. It should be noted, however, that the percentages shown in the appendices have been adjusted to account for scrub areas within each affected zone. Since areas of scrub do not contribute to old seral targets, but the total size listed *includes* scrub area, this adjustment has the effect of excluding scrub areas from the calculation completely.

2.2.2 Coastal Watershed Assessment Procedures (CWAPs)

In the Information Package, Section 8.3.5, CWAPs are expressed using a maximum annual rate-of-cut. This has been implemented in the spatial feasibility study by using a cover class constraint with a maturity age of one year.

2.3 Retention Levels

For every harvest block shown on the accompanying maps, it is assumed that some timber is to be retained. The level of retention is not explicitly represented on the maps, but varies from about 7% to 85%. The following factors contribute to the final retention level:

- Netdowns applied spatially. These include netdowns for inoperable areas, sensitive sites and non-timber resources.
- Netdowns applied aspatially

  These include:
  - Variable retention harvesting: 5%–70%, see Table 2.
  - Wildlife Tree Patches (WTPs): 2%–4%, see Table 3.
  - Unmapped streams: 1% uniformly.
  - Retention of deciduous stands: 50% where applicable.

2.3.1 Netdowns Applied Spatially

Netdowns are applied for economically and physically inoperable areas, sensitive sites, and non-timber resources. This is done as defined in the Information Package (IP) and according to the procedure outline in the Terms of Reference (Appendix 1).

2.3.2 Netdowns Applied Aspatially

Variable Retention Harvesting

All harvesting is carried out using variable retention. As described in the Information Package (IP), it is assumed that the incremental impact of variable retention is half of the minimum retention level by stewardship zone. This assumes that other reserves contribute to the remainder of the required retention. The resulting incremental retention levels are shown in Table 2. For the timber and habitat stewardship zones the 5% and 7.5% are half of the minimum retention levels of 10% and 15% for these zones.

Two-thirds of each old-growth zone is to be reserved spatially. Because the final location of the reserved areas is not currently known, these spatially reserved portions are distributed throughout the zone. An aspatial netdown of 70%, applied to the remaining third of old-growth zones is based on uneven aged management (multiple harvest entries) and variable retention. It is expected that on average there will be three harvest entries and that only one of these entries will occur during the next 20 years. In addition it is assumed that the minimum requirement of 20% retention in harvest blocks will result in incremental retention of 10%.

Table 2: Incremental allowances for variable retention by stewardship zone

Zone	Timber	Habitat	Old Growth
Retention	5.0%	7.5%	70.0%

WTPs and Unmapped Streams

Additional retention is applied uniformly for unmapped streams (1%), and by block for wildlife tree patches (WTPs, Table 3).

Table 3: Retention levels for WTPs

Block	1	2	3	4	5	6	7
Retention	3.0%	2.4%	3.6%	3.1%	2.0%	2.0%	1.0%

Deciduous Stands

In deciduous-leading stands, an additional 50% of the volume is retained. This is consistent with the IP base case assumption that 50% of the deciduous area is harvested.

Table 4 shows overall retention levels, from netdowns applied aspatially, to both deciduous and coniferous areas.

Table 4: Overall retention levels from netdowns assigned aspatially

	Coniferous Areas by Stewardship Zone			Deciduous Areas by Stewardship Zone		
Block	**Timber**	**Habitat**	**Old Growth**	**Timber**	**Habitat**	**Old Growth**
1	8.8%	11.2%	71.2%	54.4%	55.6%	85.6%
2	8.2%	10.6%	71.0%	54.1%	55.3%	85.5%
3	9.3%	11.7%	71.4%	54.7%	55.9%	85.7%
4	8.9%	11.3%	71.2%	54.4%	55.6%	85.6%
5	7.8%	10.3%	70.9%	53.9%	55.1%	85.4%
6	7.8%	10.3%	70.9%	53.9%	55.1%	85.4%
7	6.9%	9.3%	70.6%	53.4%	54.7%	85.3%

3 Results

Results for TFL 39 are summarised here. Detailed results for each working circle are presented in the appendices.

The harvest projection for Block 7 has been revised from that presented in September, 2000. Refer to correspondence with the Mid Coast Forest District documented in the Addendum to the TYP.

3.1 Harvest Levels

The harvest levels obtained in the TYP are consistent with those in the first twenty years of the Timber Supply Analysis. For Blocks 1, 2, 5 and 6 harvest levels are the same as for the base option in the TSA. For Blocks 3 & 4 harvest levels are a little higher than the TSA base option for the first two periods. The Block 7 harvest schedule is the same as for Option 13(3) in the TSA. Table 5 gives the annual harvest rate, by block, for each of the five-year periods. Table 6 gives total harvest volumes.

Table 5: Projected annual harvest rates (1000 m^3/year)

Working Circle	2001–2005	2006–2010	2011–2015	2016–2020
Block 1	550	575	600	625
Block 2	1 335	1 305	1 275	1 245
Blocks 3 & 4	420	410	400	400
Block 5	95	92	89	86
Block 6	1 150	1 120	1 090	1 060
Block 7	150	125	115	105
Total	**3 700**	**3 627**	**3 569**	**3 521**

Table 6: Projected harvest totals (1000 m^3)

Working Circle	2001–2005	2006–2010	2011–2015	2016–2020	Total
Block 1	2 750	2 875	3 000	3 125	11 750
Block 2	6 675	6 525	6 375	6 225	25 800
Blocks 3 & 4	2 100	2 050	2 000	2 000	8 150
Block 5	475	460	445	430	1 810
Block 6	5 750	5 600	5 450	5 300	22 100
Block 7	750	625	575	525	2 475
Total	**18 500**	**18 134**	**17 845**	**17 605**	**72 083**

3.2 Constraints on Harvesting

The software used does not allow violations of the various constraints on harvesting. The harvest schedule therefore shows no violation of adjacency (green-up) rules, or maximum opening sizes.

Some cover class constraints (Section 2.2) were violated at the outset of the planning period, even with no harvest scheduled. Most of these violations do not extend to the end of the planning period, because of the low maturity ages involved (e.g., approximately 15 years for visual landscape constraints). The exception is the old seral requirements for landscape biodiversity. Only Blocks 4 and (particularly) 1 have violations of old seral constraints at the end of the twenty-year period.

It should be noted that the maturity ages for visual landscape constraints, as shown in the tables of the appendices, include a one year regeneration delay.

All applicable netdowns are observed by the planning software. In particular, no cutblocks are placed in areas of 100% netdown. (This includes physically and economically inoperable areas.) Netdowns of 50%–99% restrict the total size of cutblocks that can be placed in the affected area. Netdowns of 1%–49% do not restrict cutblock size, but instead reduce the volume available from them. For further details on the modelling of netdowns, see Section 2.3.1 and the documents it refers to.

3.3 Physical and Economic Operability Profiles

Table 7 gives harvest totals by block for mature and second-growth (SG) timber. Results are broken down according to conventional (C), non-conventional (NC), economic (Econ) and marginally economic operability. Mature is defined as timber of 135 years or older at the start of the planning period.

Table 7: Harvested volume by operability class, 2001-2020 (1000 m^3)

Operability	Block 1	Block 2	Blocks 3 & 4	Block 5	Block 6	Block 7	Total
Mature C-Econ	1 898	16 729	2 531	381	15 337	1 265	38 141
Mature Marginal	295	645	179	53	1 701	367	3 241
Mature NC-Econ	1 878	3 681	1 657	1 301	1 176	838	10 531
SG C-Econ	6 949	4 735	3 783	74	3 885	5	19 431
SG Marginal	0	10	0	0	0	0	10
SG NC-Econ	728	0	0	0	0	0	729
Total	**11 750**	**25 800**	**8 150**	**1 810**	**22 100**	**2 475**	**72 083**

Harvested Volume by Operability Class

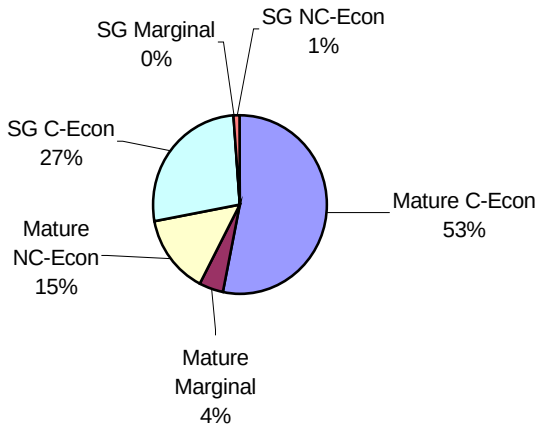


Table 8 gives the initial operability breakdown for available timber. "Available" timber is unretained timber that is not netted-down or subject to age/volume based access restrictions. Cover class constraints and green-up are not considered.

Table 8: Available Volume by Operability Class, 1999 (1000 m^3)

Operability	Block 1	Block 2	Blocks 3 & 4	Block 5	Block 6	Block 7	Total
Mature C-Econ	4 194	29 322	4 421	844	28 153	2853	69 787
Mature Marginal	690	1 546	388	169	3 973	934	7 698
Mature NC-Econ	3 858	6 730	2 706	2 378	2 368	2191	20 231
SG C-Econ	19 151	7 941	7 474	88	8 771	10	43 434
SG Marginal	65	40	3	0	0	0	109
SG NC-Econ	2 469	82	23	12	76	0	2663
Total	**30 426**	**45 660**	**15 016**	**3 491**	**43 341**	**5 987**	**143921**

Available Volume by Operability Class, 1999

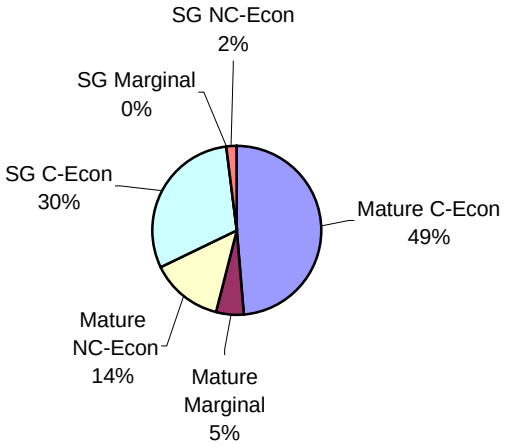
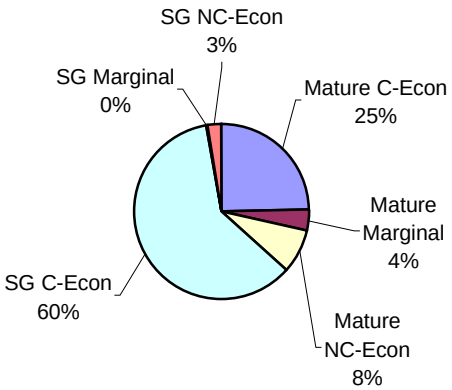


Table 9 gives the final operability breakdown for available timber.

Table 9: Projected available volume by operability class, 2020 (1000 m^3)

Operability	Block 1	Block 2	Blocks 3 & 4	Block 5	Block 6	Block 7	Total
Mature C-Econ	2 024	10 504	1 540	336	11 243	1 341	26 987
Mature Marginal	386	837	192	110	2 145	544	4 214
Mature NC-Econ	1 881	2 923	826	1 011	1 165	1 295	9 101
SG C-Econ	21 256	17 235	10 834	746	16 280	6	66 357
SG Marginal	75	37	4	0	0	0	117
SG NC-Econ	2 445	167	33	52	113	0	2 811
Total	**28 068**	**31 704**	**13 428**	**2 255**	**30 946**	**3 186**	**109 587**

Available Volume by Operability Class, 2020



Detailed results for each block are given in the following appendices. These include:

- Breakdown of harvested volume by period, operability, and age category.
- Breakdown of net harvested area by period, operability, and age category.
- Summary of visual landscape class status.
- Detailed report on cover class constraints, by polygon.

4 Conclusion

The Twenty-Year Plan (spatial feasibility study) described here has demonstrated that, from a strategic point of view, the harvest levels proposed in the first twenty years of the Timber Supply Analysis can be achieved without violating any of the applicable constraints.

Appendix 1: Terms of Reference

Purpose

To comply with the Tree Farm Licence (TFL) Agreement that requires a spatial representation of the harvest levels presented in the base case of the Timber Supply Analysis (TSA). The Twenty-Year Plan (TYP) provides supporting evidence for the TSA review by the Chief Forester and Ministry of Forests staff.

Assumptions and Procedures

Period Covered by the Harvest Schedule

The harvest schedule will cover a 20-year period from 2001 to 2020.

Areas to be Covered by Twenty-Year Plan Analyses

Separate analysis will be prepared for each Working Circle:

Block #	Block Name	Weyerhaeuser Timberlands	MoF District
1	Powell River	Stillwater	Sunshine Coast
2	Adam River	North Island	Campbell River
3 & 4	Islands (3) Port Hardy (4)	Port McNeill	Port McNeill
5	Phillips River	Stillwater	Campbell River
6	Queen Charlotte Islands	Queen Charlotte	Queen Charlotte Islands
7	Namu	Port McNeill	Mid-Coast

The harvest schedule will include SBFEP volumes, but these harvest areas will not be identified separately.

Procedure

The TYP will be produced by a computer model using the optimization technique called *simulated annealing.* This technique allows the model to maximize given objectives while satisfying defined constraints. The model tests the feasibility of achieving proposed harvest levels while meeting spatial constraints by identifying and scheduling potential harvest blocks for the first 20 years of the analysis period used in the TSA. The blocks and schedule are tested against the various spatial constraints (including adjacency, block size and visual landscape requirements), demonstrating the spatial feasibility of the TSA base case option harvest levels.

Assumptions

Assumptions are based on those described in the TFL 39, MP #8 Timber Supply Analysis Information Package (draft: October, 1999).

Netdowns

Netdowns are represented spatially as follows:

- All cells with netdowns of 100% are labeled as reserve areas.
- Areas with netdowns between 50% and 99% are made spatially explicit by randomly assigning a 100% netdown to cells in proportion to the netdown percentage.
- Netdowns of less than 50% are not represented spatially. These netdowns are applied against the volume that is available for harvest. The unharvested area is recognized in accounting for cover class constraints such as those applied for visual landscapes and old seral targets.

Maximum Opening Size: 40 ha

Adjacency: minimum of 300 m between openings

Green-up: 10 years

Harvest Entry: The current model portrays only one harvest entry for an opening.

Visual Landscape: Visual landscape cover class constraints will be applied to each visual landscape polygon rather than by Zone (retention, partial retention and modification) as in the TSA.

Format of the Twenty-Year Plan

The TYP report will be presented in digital format, as an MSWORD document. The final version of the TYP will be included in the Management Plan.

Maps

Maps presented for each Block will include:

- Scale of 1:100 000
- Plan harvest blocks colour-coded by five-year period.
- Forest cover in broad classes:
  - Non-productive and non-forest.
  - Productive forest: 0-20 years; 21-40 years; *41-250 years 250+ (old growth)*
- Existing roads
- Licence boundaries
- Community watersheds

- Visual landscape areas
- Landscape unit boundaries
- Broad classification for harvest system and operability:
  - Conventional, economic
  - Non-conventional, economic
  - Marginal
  - Uneconomic
  - Physically inoperable
- Net-down categories:
  - Polygons with 100% netdowns.
  - Polygons with netdowns between 50% and 99%.
  - Polygons with netdowns of less than 50%.

Report

Tabular reports for each working circle will include:

- Total volume harvested by five-year period.
- Volume of mature coniferous harvested by operability/harvest method class:
  - Conventional, economic
  - Non-conventional, economic
  - Marginal
  - Uneconomic
  - Physically inoperable
- Profile of the forest at the beginning and end of the plan in terms of percent of total available timber in conventional economic, non-conventional economic and marginal classes.
- A summary of visual landscape class status by period (individual polygon statistics will be appended).

Preliminary Review with Timberlands and Ministry of Forests

Prior to May 15, 2000, a preliminary presentation will be made to staff at each appropriate Timberlands and District Office of the Ministry of Forests.

The purpose of the review is to describe the rationale and approach and to review preliminary results—both maps and numerical summaries. It is not intended to seek approval at this time; however, any suggestions by District staff will be considered for incorporation in the final draft harvest schedule.

Attachment 1

Harvest Planning Using Simulated Annealing

This report describes a software system for strategic-level harvest planning in forestry. The system was developed by Weyerhaeuser, B.C. Coastal Group to enable the production of spatially-explicit strategic harvest plans. The report concentrates on the use of the software in demonstrating the spatial feasibility of a given annual harvest level.

Purpose of the System

The system's purpose is to demonstrate that a given annual harvest level can be achieved without violating any of the many constraints that must be observed when logging is carried out. Although it is not intended to produce operational plans, the system does model the forest in sufficient detail to demonstrate that the given harvest level is feasible. In practice, there may be an infinite number of harvest plans that meet a given harvest level without violating the applicable constraints. The system's task is to find one such plan, and thereby prove the attainability of the level.

For present purposes, a harvest plan is simply a collection of spatially-explicit harvest blocks, each of which has an assigned harvesting date. The system's output is therefore most naturally represented as a map, showing where harvesting is to occur and when.

Method of Operation

The production of harvest plans is driven by optimisation. The user defines, in mathematical terms, what the characteristics of the resulting plan should be; plan production then proceeds automatically. This method of operation contrasts with semi-automatic tools, which would require user decision-making with regard to block layout and/or scheduling. The optimisation technique used is known as simulated annealing[1].

Block Building

Block building and scheduling are carried out simultaneously. Each harvest block is constructed from a number of smaller spatial units, which are created using standard GIS software. These smaller units each contain approximately uniform timber, in terms of age, yield and other relevant attributes.

Objective Function

The simulated annealing algorithm requires a precise quantitative definition of plan quality in order to operate. This is implemented as a function which, when

1 S. Kirkpatrick, C.D. Gelatt, Jr., and M.P. Vecchi, "Optimization by Simulated Annealing", *Science*, Vol. 220, No. 4598, pp. 671-680, May 1983.

applied to any given harvest plan, gives a single number representing the quality of the plan. This function is known as the objective function, and defines what the plan is intended to achieve. Perhaps the simplest example of such a function would be total harvested volume. Such a function would add up all the volume harvested from all blocks, and produce a single total (in cubic metres) for the entire plan.

For the purposes of demonstrating the spatial feasibility of a given annual harvest level, the objective function used is one that measures deviation from the given level. A set of volume targets is specified, one for each planning period. The actual harvest level in each period is compared to the corresponding target, and the function's result is the sum of the absolute deviation for each period.

Constraints

The system incorporates the requirements of the B.C. Forest Practices Code, and other legislation, using several classes of 'hard' constraints. The system will not produce a schedule that violates these constraints. The major classes of constraint modeled by the system are:

- opening size restrictions,
- green-up restrictions on adjacent harvest blocks, and
- cover class constraints.

In addition, the system observes all applicable netdowns (see below).

Opening Size Restrictions: The gross area of any harvest block is limited to a given maximum, e.g., 40 ha. No block will exceed this size, although many will be smaller**.**

Green-up Restrictions: A temporal delay is enforced between the harvesting of adjacent blocks, to simulate green-up requirements. The definition of adjacency includes a specifiable distance. Any blocks within this distance (e.g. 300 m) are considered adjacent.

Cover Class Constraints: A number of different requirements are modelled using cover class constraints. These specify that, within a given area of forest, no more than a certain percentage of the area can be occupied by timber below a certain age. For example, within a visual landscape area it may be required that no more than 15% of the area be below fifteen years. The requirements modelled this way are those concerning:

- visual landscape areas,
- old seral targets,
- avalanche run-out zones,
- community watersheds, and
- coastal watershed assessment procedures (CWAPs).

Forest Model

The optimisation process is based on a model of the forest that incorporates the necessary features for strategic-level harvest planning.

Netdowns

Netdowns may be imposed to protect non-timber values by requiring that a certain percentage of timber, in a given area, be retained after harvesting. The modelling of 100% netdowns is straightforward; the reserved area is delineated spatially and no harvesting occurs within it. Netdowns of between 1% and 99% are handled by two different methods, depending on the retention percentage. Both methods reflect the fact that it is not known where the areas of retention will finally be located. Netdowns of 50% to 99% are made spatially explicit, by converting the affected area to a smaller area of 100% netdown. For example, an area subject to a 50% netdown will be subdivided so that approximately half of it is fully netted-down, and the remainder is unreserved. The subdivision is performed randomly. Netdowns of less than 50% are not made spatially explicit. Instead, the volume yield of the affected area is reduced by the appropriate percentage. Figure 1illustrates how inventory netdowns are applied spatially.

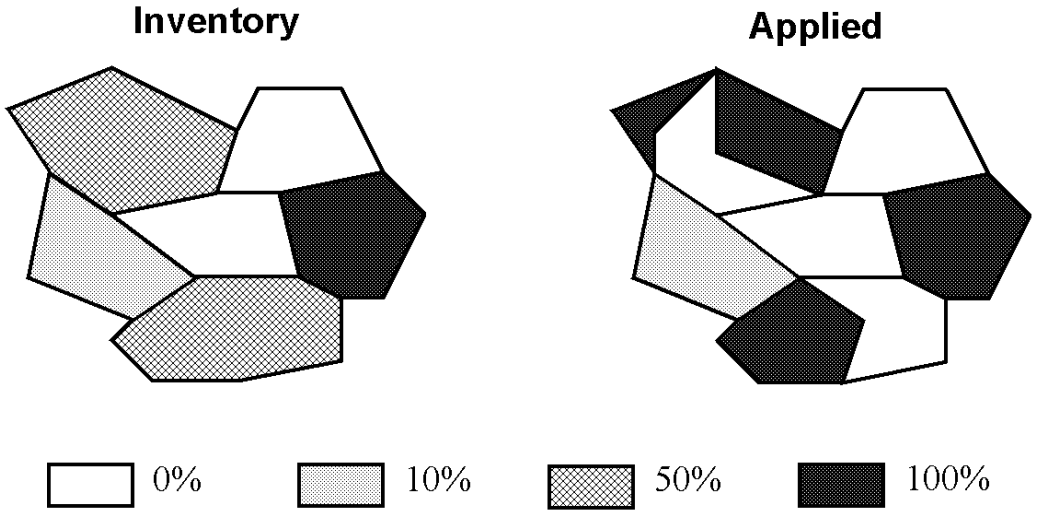


Figure 1: Inventory and applied netdowns

Variable Retention

All harvesting is assumed to be performed using variable retention, to model the impact of the Forest Project. The appropriate level of retention is applied incrementally, i.e., in addition to any netdowns in effect, and each stand's yield is correspondingly reduced.

Growth of the Forest

Old-growth stands are assumed to have static volume. The volume of second growth stands increases over time, as specified by the assigned yield table.

Conclusions

The software system described uses a powerful optimisation technique, simulated annealing, to attempt to find a harvest plan that meets a given volume objective, while satisfying all relevant constraints. The system is based on a forest model which, although not detailed enough for operational planning, is appropriate for strategic purposes. By finding such a plan, where possible, the system is able to demonstrate the feasibility of the proposed harvest volume level.

Appendix 2: Block 1 Results

Table 2–1: Block 1 harvest totals by operability (1000 m^3)

Operability	2001–2005	2006–2010	2011–2015	2016–2020	Total
Mature C-Econ	599	524	493	282	1898
Mature Marginal	103	50	43	99	295
Mature NC-Econ	314	443	483	638	1878
SG C-Econ	1 689	1 518	1 863	1 879	6 949
SG Marginal	0	0	0	0	0
SG NC-Econ	45	339	118	226	728
Total	**2 750**	**2 875**	**3 000**	**3 125**	**11 750**

Table 2–2: Block 1 net harvested area by operability (ha)

Operability	2001–2005	2006–2010	2011–2015	2016–2020	Total
Mature C-Econ	809	679	611	439	2 537
Mature Marginal	168	91	96	202	558
Mature NC-Econ	408	597	619	893	2 517
SG C-Econ	2 168	1 886	2 200	2 402	8 656
SG Marginal	0	0	0	0	0
SG NC-Econ	52	336	122	210	719
Total	**3 605**	**3 588**	**3 649**	**4 146**	**14 988**

Table 2–3: Block 1 avalanche and watershed constraints

						Max values (ha)			
Name	**Maturity (yr)**	**Limit (%)**	**Size (ha)**	**Limit (ha)**	**1999 (ha)**	**2001-2005**	**2006-2010**	**2011-2015**	**2016-2020**
Avalanche	30	20	5 151	1 030	146	174	175	220	245
Lois CWAP	1	3	927	28	0	28	22	1	27
Whittal CWAP	1	1.4	698	10	0	9	9	7	9
Jefferd CWS	5	5	52	3	0	0	0	0	3
Lang CWS	5	5	1 782	89	45	83	84	82	82

Table 2–4: Block 1 old seral constraints

Name	Limit (%)	Size (ha)	Limit (ha)	1999 (ha)	Max values (ha) 2001–2005	2006–2010	2011–2015	2016–2020
Powell Daniels AT p	98.80	4 030	3 982	3 974	3 974	3 974	3 974	3 981
Powell Daniels MH mm 1	98.26	10 394	10 213	9 251	9 342	9 380	9 476	9 582
Powell Daniels CWH vm 2	95.61	8 341	7 975	5 841	6 027	6 188	6 415	6 648
Powell Daniels CWH vm 1	92.38	7 283	6 728	5 617	5 734	5 829	5 999	6 103
Powell Daniels CWH dm	94.45	947	894	905	905	905	905	905
Powell Lake AT p	96.55	5 736	5 538	5 560	5 560	5 559	5 559	5 559
Powell Lake MH mm 1	95.69	14 862	14 221	12 546	12 867	12 962	13 144	13 293
Powell Lake CWH vm 2	94.16	13 214	12 443	11 690	11 844	11 958	12 011	12 103
Powell Lake CWH vm 1	92.18	2 939	2 709	2 702	2 703	2 703	2 705	2 705
Powell Lake CWH dm	94.37	12 100	11 419	12 084	12 084	12 084	12 084	12 084
Bunster AT p	97.69	553	540	538	538	538	538	538
Bunster MH mm 1	95.06	4 148	3 943	3 633	3 706	3 686	3 729	3 789
Bunster CWH vm 2	93.70	4 315	4 043	4 012	4 021	4 024	4 024	4 042
Bunster CWH dm	93.72	4 971	4 659	4 887	4 887	4 862	4 862	4 862
Bunster CWH xm 1	94.44	584	551	584	584	584	584	584
Brittain CWH vm 2	92.97	1 907	1 773	1 710	1 736	1 744	1 757	1 769
Brittain CWH dm	94.15	3 523	3 317	3 277	3 307	3 314	3 314	3 314
Lois AT p	87.59	1 130	990	1 028	1 028	1 010	1 010	1 010
Lois MH mm 1	92.35	9 128	8 430	7 433	7 592	7 609	7 808	7 791
Lois CWH vm 2	91.70	10 971	10 060	9 909	10 029	10 002	10 022	10 046
Lois CWH dm	93.86	21 024	19 733	20 410	20 410	20 381	20 381	20 370
Lois CWH xm 1	93.88	863	810	863	863	863	863	863
Haslam MH mm 1	87.87	165	145	161	161	161	161	158
Haslam CWH vm 2	91.08	1 459	1 328	1 366	1 366	1 337	1 337	1 329
Haslam CWH dm	93.70	5 412	5 071	5 269	5 269	5 269	5 269	5 255
Haslam CWH xm 1	93.82	1 597	1 498	1 563	1 563	1 563	1 563	1 563

Table 2–5: Block 1 visual landscape constraints (summary)

Name	Maturity (yr)	Limit (%)	Totals (ha)						
			Size	Limit	1999	2001–2005	2006–2010	2011–2015	2016–2020
Modification	16	25	21 308	5 327	2 088	2 180	1 983	1 433	1 727
Partial Retention	16	15	48 077	7 212	1 859	3 405	4 199	4 403	4 766
Retention	16	5	487	24	2	3	5	5	12

Table 2–6: Block 1 visual landscape constraints

ID	Maturity (yr)	Limit (%)	Size (ha)	Limit (ha)	1999 (ha)	Max values (ha)			
						2001–2005	2006–2010	2011–2015	2016–2020
1	16	25	60	15	0	7	7	14	14
2	16	25	73	18	22	0	0	0	12
3	16	25	532	133	46	46	58	26	26
4	16	25	167	42	14	39	39	28	34
5	16	15	818	123	13	55	70	62	84
6	16	25	382	96	26	25	25	27	20
7	16	25	205	51	16	16	23	19	14
8	16	25	417	104	116	116	94	7	12
9	16	25	438	109	76	76	76	17	30
10	16	15	628	94	0	0	16	16	25
11	16	25	264	66	0	0	0	0	9
12	16	25	95	24	0	0	0	0	0
13	16	25	271	68	1	1	1	0	0
14	16	25	1 021	255	67	79	103	138	98
15	16	25	236	59	0	33	33	58	58
16	16	25	92	23	0	0	0	0	0
17	16	25	230	58	0	0	0	0	6
18	16	25	170	43	85	76	31	11	11
19	16	25	658	165	157	157	155	54	89
20	16	25	662	166	75	114	114	40	56
21	16	15	596	89	0	35	35	52	53
22	16	15	1362	204	0	32	64	64	64
24	16	25	369	92	2	2	2	0	11
25	16	25	119	30	1	1	0	0	0

						Max values (ha)			
ID	Maturity (yr)	Limit (%)	Size (ha)	Limit (ha)	1999 (ha)	2001–2005	2006–2010	2011–2015	2016–2020
26	16	25	518	129	142	80	100	45	55
27	16	25	785	196	4	4	28	64	82
30	16	15	195	29	0	0	0	0	7
31	16	15	1 194	179	0	74	127	137	157
32	16	25	1 410	353	185	149	58	59	68
34	16	25	397	99	23	23	48	25	39
35	16	25	203	51	0	0	0	0	0
36	16	15	222	33	0	13	13	13	20
37	16	25	630	158	25	26	20	1	18
38	16	15	441	66	0	0	0	0	0
39	16	25	543	136	25	25	25	0	39
40	16	15	59	9	0	8	8	8	8
41	16	25	484	121	4	4	37	37	33
42	16	15	830	125	0	0	63	72	76
43	16	25	570	143	105	141	141	55	87
44	16	15	373	56	0	16	16	49	49
45	16	25	52	13	0	0	0	0	0
46	16	15	169	25	0	0	0	0	18
47	16	15	175	26	0	0	0	7	7
48	16	15	515	77	17	55	55	62	75
50	16	25	842	210	37	37	64	27	64
51	16	15	366	55	0	0	14	14	24
52	16	15	746	112	4	50	60	71	77
53	16	15	102	15	0	0	0	0	0
54	16	25	119	30	0	0	22	22	24
55	16	15	392	59	0	7	37	37	49
56	16	15	115	17	61	61	61	15	2
57	16	15	253	38	0	0	0	0	14
58	16	15	3	0	0	0	0	0	0
59	16	15	779	117	25	71	110	117	98
60	16	25	25	6	11	11	1	3	3
61	16	25	92	23	0	0	0	0	3
62	16	15	145	22	0	0	0	0	0
63	16	15	331	50	34	34	34	34	48

						Max values (ha)			
ID	Maturity (yr)	Limit (%)	Size (ha)	Limit (ha)	1999 (ha)	2001–2005	2006–2010	2011–2015	2016–2020
64	16	15	102	15	0	0	0	0	14
65	16	15	45	7	0	0	0	0	6
66	16	15	25	4	0	0	0	0	0
67	16	15	1 328	199	0	0	96	96	165
69	16	15	358	54	8	8	29	39	48
70	16	15	301	45	1	1	5	5	10
71	16	15	604	91	0	0	34	44	50
73	16	15	387	58	0	27	46	46	58
74	16	15	75	11	0	0	0	0	0
75	16	15	57	9	0	0	0	0	0
76	16	15	83	12	0	0	0	0	0
77	16	15	491	74	0	0	22	22	28
78	16	15	119	18	6	16	16	16	10
79	16	15	57	9	0	8	8	8	0
80	16	15	712	107	0	13	13	15	13
81	16	15	155	23	0	3	3	4	4
84	16	15	470	71	55	64	68	71	69
85	16	15	312	47	11	13	33	22	20
86	16	15	191	29	21	23	25	25	5
87	16	15	496	74	0	66	66	72	72
88	16	25	128	32	6	4	0	31	31
89	16	15	45	7	0	0	0	0	0
91	16	15	891	134	116	116	130	133	124
92	16	15	1 342	201	0	73	132	182	184
94	16	25	721	180	382	360	175	58	51
95	16	15	135	20	0	0	20	20	20
96	16	15	115	17	0	3	3	3	3
97	16	15	239	36	27	27	31	31	26
98	16	15	378	57	0	18	18	41	41
99	16	25	52	13	13	13	7	7	7
100	16	15	135	20	0	11	11	11	11
102	16	15	745	112	0	12	12	43	84
103	16	15	27	4	0	0	0	0	0
104	16	15	48	7	0	0	0	0	0

						Max values (ha)			
ID	**Maturity (yr)**	**Limit (%)**	**Size (ha)**	**Limit (ha)**	**1999 (ha)**	**2001–2005**	**2006–2010**	**2011–2015**	**2016–2020**
105	16	15	61	9	31	31	31	13	5
106	16	15	270	41	54	54	54	54	18
107	16	15	16	2	0	0	0	2	2
109	16	15	164	25	4	9	14	14	10
110	16	15	1 413	212	10	134	138	209	211
111	16	15	39	6	4	4	4	4	2
112	16	15	179	27	0	18	18	27	27
113	16	15	438	66	1	63	63	63	63
114	16	15	17	3	0	0	0	0	0
116	16	15	613	92	106	106	88	33	58
117	16	15	158	24	52	52	52	52	19
121	16	15	633	95	2	5	52	63	63
122	16	15	133	20	0	0	0	0	17
123	16	15	481	72	0	38	50	50	50
124	16	25	248	62	10	10	45	45	42
125	16	15	549	82	0	60	67	81	81
126	16	25	298	75	0	11	11	33	33
127	16	25	200	50	46	46	0	0	0
128	16	25	184	46	4	12	8	8	0
129	16	25	133	33	0	16	16	19	19
130	16	15	23	3	3	3	2	0	1
131	16	15	122	18	0	8	8	8	8
134	16	15	577	87	0	69	69	85	85
136	16	25	146	37	34	34	34	34	12
137	16	15	219	33	24	25	32	26	24
139	16	25	64	16	0	0	0	0	0
140	16	15	142	21	0	15	15	15	18
141	16	25	971	243	185	214	105	73	81
142	16	25	89	22	12	1	20	20	20
143	16	15	23	3	0	0	0	0	0
144	16	15	611	92	0	13	45	45	79
145	16	15	41	6	0	0	0	0	0
146	16	5	184	9	0	0	1	1	9
147	16	25	122	31	0	6	6	6	6

						Max values (ha)			
ID	Maturity (yr)	Limit (%)	Size (ha)	Limit (ha)	1999 (ha)	2001–2005	2006–2010	2011–2015	2016–2020
148	16	5	24	1	0	0	0	0	0
150	16	25	25	6	0	0	0	0	0
151	16	25	241	60	19	19	19	0	0
153	16	15	432	65	0	5	26	37	33
154	16	15	167	25	0	0	5	5	6
155	16	15	329	49	0	27	27	27	46
156	16	5	8	0	0	0	0	0	0
157	16	15	617	93	0	15	43	43	50
158	16	25	257	64	0	0	17	27	27
159	16	15	241	36	0	0	12	12	12
160	16	15	129	19	0	0	18	18	18
161	16	25	131	33	0	0	0	0	0
162	16	15	817	123	0	0	0	0	0
164	16	15	315	47	33	33	46	46	46
165	16	25	412	103	14	12	0	2	5
166	16	15	449	67	10	34	66	61	67
167	16	5	53	3	0	0	0	0	0
168	16	5	70	4	2	2	2	0	0
169	16	15	187	28	12	0	0	0	0
170	16	25	12	3	0	0	0	0	0
171	16	15	212	32	0	0	0	0	5
172	16	5	54	3	0	0	0	2	2
173	16	15	200	30	0	13	26	30	30
174	16	15	214	32	0	0	0	12	30
175	16	5	42	2	0	0	0	0	0
176	16	25	351	88	0	0	0	0	21
177	16	15	54	8	0	0	0	0	0
178	16	5	53	3	0	1	1	1	1
179	16	15	119	18	0	0	15	15	15
180	16	15	105	16	0	11	11	11	11
182	16	15	635	95	112	112	61	66	78
184	16	25	150	38	9	0	0	0	0
185	16	25	141	35	5	0	0	0	0
186	16	15	770	116	0	33	34	73	51

						Max values (ha)			
ID	Maturity (yr)	Limit (%)	Size (ha)	Limit (ha)	1999 (ha)	2001–2005	2006–2010	2011–2015	2016–2020
187	16	15	184	28	26	26	26	26	21
189	16	25	308	77	0	2	2	17	15
190	16	25	98	25	0	0	0	0	0
191	16	15	97	14	0	5	13	13	13
192	16	15	362	54	41	47	47	50	36
193	16	15	168	25	0	15	15	21	21
194	16	15	270	40	2	2	9	9	28
195	16	15	690	104	38	40	6	6	40
196	16	15	36	5	0	0	0	0	0
197	16	25	1 229	307	9	22	84	81	130
198	16	15	249	37	0	12	24	35	34
200	16	15	825	124	109	91	64	18	8
201	16	15	69	10	0	0	0	0	0
204	16	15	62	9	0	7	7	7	7
205	16	15	183	27	2	16	16	25	9
206	16	15	1	0	0	0	0	0	0
208	16	15	39	6	1	1	1	1	0
209	16	15	427	64	122	122	111	60	47
210	16	25	93	23	1	1	1	20	20
211	16	15	450	67	5	41	36	36	56
212	16	15	83	12	0	10	10	10	4
213	16	25	11	3	0	0	0	0	0
214	16	15	40	6	22	22	22	0	0
215	16	15	633	95	36	36	37	12	24
216	16	25	46	12	31	28	22	22	1
217	16	25	10	2	0	0	0	0	0
218	16	15	27	4	0	4	4	4	4
219	16	25	32	8	0	0	0	0	0
220	16	15	26	4	0	0	0	0	0
221	16	15	36	5	0	0	2	2	2
222	16	15	531	80	102	102	102	35	34
223	16	25	44	11	1	1	6	6	6
224	16	15	538	81	98	94	76	49	51
225	16	15	96	14	0	6	9	9	10

						Max values (ha)			
ID	Maturity (yr)	Limit (%)	Size (ha)	Limit (ha)	1999 (ha)	2001–2005	2006–2010	2011–2015	2016–2020
226	16	15	166	25	0	8	8	21	21
227	16	15	44	7	0	0	0	0	0
228	16	15	44	7	12	12	3	3	4
229	16	15	706	106	16	45	59	85	87
230	16	15	49	7	25	25	25	0	0
231	16	15	802	120	0	69	99	118	118
232	16	15	357	53	0	20	37	37	50
234	16	15	298	45	0	19	19	43	33
235	16	15	144	22	0	3	3	3	3
236	16	15	461	69	105	105	105	39	37
237	16	15	471	71	27	34	34	66	50
238	16	15	10	2	0	0	0	0	0
239	16	25	43	11	0	7	7	7	7
240	16	15	431	65	19	52	64	64	52
241	16	25	445	111	44	69	59	81	98
242	16	15	16	2	0	0	0	0	0
243	16	15	36	5	0	0	0	0	0
244	16	15	213	32	2	16	23	26	26
245	16	15	42	6	0	0	0	0	2
246	16	25	244	61	0	0	7	12	12
247	16	15	753	113	160	160	106	113	112
248	16	15	86	13	0	0	0	0	9
249	16	25	46	11	0	0	0	0	0
250	16	15	3	0	0	0	0	0	0
251	16	25	217	54	0	7	7	23	41
252	16	15	240	36	2	2	15	15	29
253	16	15	234	35	3	33	33	32	33
254	16	25	55	14	0	0	0	3	3
255	16	25	86	21	0	0	13	13	15
256	16	15	99	15	3	0	0	10	10
260	16	15	702	105	4	43	43	83	99
261	16	15	16	2	0	0	0	0	0
262	16	15	954	143	16	44	73	104	138
263	16	15	177	27	0	0	0	17	19

						Max values (ha)			
ID	**Maturity (yr)**	**Limit (%)**	**Size (ha)**	**Limit (ha)**	**1999 (ha)**	**2001–2005**	**2006–2010**	**2011–2015**	**2016–2020**
264	16	15	132	20	16	15	14	14	14
265	16	25	37	9	0	0	0	0	0
266	16	25	16	4	0	0	0	0	0
267	16	25	48	12	0	0	10	10	10
268	16	15	16	2	0	0	0	0	0
269	16	15	45	7	0	5	5	5	5
271	16	15	31	5	0	0	0	0	4

Appendix 3: Block 2 Results

Table 3–1: Block 2 harvest totals by operability (1000m^3)

Operability	2001–2005	2006–2010	2011–2015	2016–2020	Total
Mature C-Econ	4 657	4 356	4 310	3 405	16 729
Mature Marginal	203	80	181	180	645
Mature NC-Econ	1 068	1 046	624	943	3 681
SG C-Econ	746	1 040	1 260	1 688	4 735
SG Marginal	0	2	0	8	10
SG NC-Econ	0	0	0	0	0
Total	**6 675**	**6 525**	**6 375**	**6 225**	**25 800**

Table 3–2: Block 2 net harvested area by operability (ha)

Operability	2001–2005	2006–2010	2011–2015	2016–2020	Total
Mature C-Econ	6 032	5 383	5 846	4 426	21 686
Mature Marginal	438	181	428	412	1 459
Mature NC-Econ	1 298	1 304	779	1 191	4 573
SG C-Econ	1 223	1 669	1 887	2 525	7 304
SG Marginal	0	3	0	14	18
SG NC-Econ	0	0	0	0	0
Total	**8 991**	**8 540**	**8 940**	**8 569**	**35 039**

Table 3–3: Block 2 avalanche and watershed constraints

						Max values (ha)			
Name	Maturity (yr)	Limit (%)	Size (ha)	Limit (ha)	1999 (ha)	2001–2005	2006–2010	2011–2015	2016–2020
Rooney CWAP	1	1.41	1 778	25	95	21	24	25	24
Elk N CWAP	1	1.06	473	5	4	0	0	4	4
Kim CWAP	1	1.23	2 757	34	14	33	34	33	34
Elk S CWAP	1	0.67	749	5	0	5	5	4	5
Akan CWAP	1	16.56	1 148	190	0	13	52	35	24
Russell CWAP	1	1.45	3 179	46	31	35	44	45	39
Muskeg CWAP	1	1.02	1 959	20	33	19	18	20	20
Basin 11 CWAP	1	6.23	64	4	0	0	0	0	0
Newcastle CWS	5	5	907	45	0	27	37	17	40
Avalanche	30	20	643	129	35	68	87	101	115

Table 3–4: Block 2 old seral constraints

Name	Limit (%)	Size (ha)	Limit (ha)	1999	Max values (ha) 2001–2005	2006–2010	2011–2015	2016–2020
Bonanza CWH vm 1	90.3	549	496	60	60	98	98	98
Bonanza CWH vm 2	90.3	232	209	83	83	83	83	83
Bonanza MH mm 1	85.8	353	303	116	116	174	174	174
Tsitika CWH vm 1	90.6	11 234	10 178	4 935	5 328	5 652	5 490	5 747
Tsitika CWH vm 2	91.2	8 087	7 376	2 201	2 567	2 969	3 129	3 503
Tsitika MH mm 1	92.7	6 417	5 948	3 310	3 474	3 584	3 684	3 777
Tsitika AT p	92.9	1 660	1 542	1 522	1 525	1 525	1 526	1 542
Naka CWH vm 1	91.8	391	359	142	152	152	152	164
Adam-Eve CWH vm 1	90.8	30 380	27 585	22 145	23 533	24 167	25 018	25 513
Adam-Eve CWH vm 2	91.3	19 983	18 244	8 112	9 306	10 531	11 395	12 019
Adam-Eve MH mm 1	92.2	15 463	14 257	7 943	8 965	9 614	10 272	10 753
Adam-Eve AT p	93	1 865	1 734	1 725	1 729	1 734	1 734	1 734
Salmon CWH vm 1	90.5	1 161	1 050	596	693	696	793	793
Salmon CWH vm 2	92.2	572	528	261	292	295	331	337
Salmon MH mm 1	90.8	5 452	4 951	2 491	3 054	3 145	3 470	3 766
Salmon AT p	94	211	198	195	195	195	195	195
Salmon CWH xm 2	93.7	16 909	15 843	15 982	15 982	15 865	15 864	15 845
Salmon CWH mm 2	93.8	9 015	8 456	5 133	5 469	5 760	6 149	6 408
Salmon CWH mm 1	93.6	24 480	22 913	17 595	18 145	18 948	19 286	20 069
Sayward CWH xm 2	93.6	5 750	5 382	5 341	5 380	5 377	5 381	5 381
Sayward CWH mm 2	93.8	270	253	91	134	138	138	161
Sayward CWH mm 1	93.5	539	503	373	395	386	398	422
White CWH vm 1	90.8	16 145	14 660	10 159	11 086	11 352	12 005	12 129
White CWH vm 2	91.8	10 165	9 331	3 906	4 803	5 044	5 799	6 163
White MH mm 1	93.1	9 668	9 000	5 437	6 223	6 330	6 810	7 083
White AT p	92.3	1 026	947	931	934	936	936	945
White CWH xm 2	93.6	1 636	1 531	1 405	1 428	1 452	1 452	1 469
White CWH mm 2	94	555	522	212	238	276	291	351
White CWH mm 1	93.5	793	741	569	569	558	640	640

Table 3–5: Block 2 Visual landscape constraints (summary)

Name	Maturity (yr)	Limit (%)	Totals (ha)						
			Size	Limit	1999	2001–2005	2006–2010	2011–2015	2016–2020
Modification	16	25	15 797	3 949	2 443	2 755	2 349	2 407	2 347
Partial Retention	15	15	11 072	1 661	801	1 034	1 048	1 165	1 214
Retention	19	5	1 540	77	171	171	120	112	86

Table 3–6: Block 2 visual landscape constraints

ID	Maturity (yr)	Limit (%)	Size (ha)	Limit (ha)	Max values (ha)				
					1999	2001-2005	2006-2010	2011-2015	2016-2020
19	15	15	257	39	0	0	2	2	2
20	15	15	364	55	0	0	17	17	17
21	15	15	327	49	0	0	8	8	8
23	15	15	285	43	0	0	12	12	12
24	15	15	497	75	49	57	63	63	70
25	15	15	397	60	77	60	56	56	58
26	16	25	20	5	5	5	3	0	0
27	15	15	17	2	0	0	0	0	0
28	15	15	348	52	69	57	30	30	42
29	15	15	537	81	0	31	74	74	80
30	15	15	877	132	203	181	103	130	131
31	15	15	63	9	48	16	0	0	1
32	15	15	384	58	0	42	56	56	58
33	15	15	645	97	109	102	70	79	87
34	15	15	574	86	18	62	82	82	72
35	15	15	106	16	14	14	9	9	9
37	15	15	503	75	15	36	36	62	75
38	15	15	586	88	73	80	87	87	87
39	15	15	234	35	14	28	35	35	35
40	16	25	348	87	91	91	73	55	28
41	15	15	227	34	0	30	30	30	28
42	15	15	33	5	0	0	0	0	0
43	15	15	77	12	0	1	1	11	10
44	16	25	65	16	0	0	0	10	10

ID	Maturity (yr)	Limit (%)	Size (ha)	Limit (ha)	1999	Max values (ha) 2001-2005	2006-2010	2011-2015	2016-2020
45	15	15	225	34	0	10	10	20	20
46	15	15	67	10	6	6	6	0	5
47	16	25	869	217	157	185	210	217	108
48	15	15	104	16	0	0	6	6	6
49	15	15	312	47	76	26	36	37	37
50	15	15	131	20	0	0	0	0	0
51	15	15	126	19	12	18	15	15	15
52	15	15	34	5	0	0	0	0	5
53	16	25	195	49	0	33	33	44	10
54	16	25	66	16	0	4	4	15	11
55	16	25	171	43	11	19	19	29	33
56	15	15	1 097	165	0	87	110	125	163
57	15	15	148	22	0	19	19	19	0
58	15	15	150	23	0	0	0	9	9
59	15	15	238	36	0	4	4	12	8
60	16	25	315	79	12	48	78	78	68
61	16	25	276	69	31	60	60	43	43
62	16	25	129	32	4	6	28	31	31
63	16	25	277	69	34	46	58	25	40
64	16	25	206	51	18	39	39	21	38
66	16	25	70	18	0	0	2	2	2
67	16	25	53	13	0	0	0	0	0
68	16	25	108	27	25	25	22	19	23
69	16	25	458	115	60	108	66	65	58
70	16	25	1 083	271	371	200	166	194	206
71	16	25	31	8	0	0	0	5	5
72	16	25	110	28	0	3	3	3	7
73	16	25	354	89	29	35	69	69	88
74	15	15	309	46	0	17	17	17	20
75	16	25	503	126	43	71	46	98	97
76	16	25	182	45	29	45	44	28	28
77	16	25	58	15	0	7	7	14	14
78	16	25	300	75	28	31	31	67	61
79	16	25	73	18	26	20	20	0	11

ID	Maturity (yr)	Limit (%)	Size (ha)	Limit (ha)	1999	Max values (ha) 2001-2005	2006-2010	2011-2015	2016-2020
80	16	25	92	23	10	10	10	0	0
81	16	25	79	20	5	4	13	13	14
82	16	25	85	21	0	0	0	0	0
83	15	15	287	43	19	36	36	17	0
84	16	25	64	16	30	30	30	30	2
85	16	25	152	38	0	28	28	28	7
86	16	25	363	91	52	52	30	30	53
87	16	25	178	45	1	25	42	44	43
88	16	25	264	66	87	7	6	6	6
89	16	25	24	6	1	1	0	5	5
90	15	15	402	60	0	4	4	30	33
91	16	25	121	30	0	0	0	0	0
92	16	25	61	15	2	2	2	0	0
93	16	25	869	217	370	366	77	87	134
94	15	15	107	16	0	9	12	12	12
95	16	25	215	54	0	15	31	31	24
96	16	25	187	47	5	11	11	11	21
97	16	25	68	17	24	24	6	0	0
98	16	25	107	27	13	13	19	6	20
99	16	25	523	131	10	29	55	55	57
100	16	25	258	64	16	29	29	31	19
101	16	25	369	92	3	58	58	82	55
102	16	25	439	110	8	24	50	42	79
103	16	25	392	98	66	96	96	92	92
104	16	25	253	63	39	42	19	29	54
105	16	25	56	14	0	0	3	3	10
106	16	25	418	105	86	86	43	57	57
107	16	25	6	2	0	0	0	0	0
108	16	25	98	25	3	20	22	22	24
109	16	25	483	121	118	88	48	64	64
110	16	25	117	29	0	4	4	7	7
111	16	25	9	2	0	0	0	0	0
113	16	25	59	15	0	9	9	9	9
114	16	25	8	2	0	0	0	0	0

ID	Maturity (yr)	Limit (%)	Size (ha)	Limit (ha)	1999	Max values (ha) 2001-2005	2006-2010	2011-2015	2016-2020
115	16	25	70	17	0	0	0	0	3
116	16	25	281	70	73	73	63	56	69
117	16	25	221	55	31	35	11	51	40
118	16	25	142	35	44	44	32	20	34
119	16	25	11	3	0	0	0	0	0
120	16	25	67	17	30	30	30	1	7
121	16	25	145	36	29	29	31	31	2
122	16	25	46	12	0	0	0	0	0
123	16	25	88	22	26	26	26	26	12
124	16	25	18	5	0	4	4	4	3
125	16	25	88	22	0	6	6	19	19
127	16	25	30	8	0	0	0	0	3
128	16	25	90	23	0	16	16	16	16
129	16	25	166	42	2	23	23	22	37
130	16	25	146	36	19	19	33	33	13
131	16	25	114	29	21	28	28	28	18
132	16	25	202	50	53	53	10	10	9
133	16	25	18	5	0	0	5	5	5
134	16	25	40	10	0	0	8	8	8
135	16	25	64	16	51	51	5	5	4
136	16	25	29	7	0	0	0	0	0
137	16	25	15	4	0	0	1	1	1
138	16	25	116	29	18	18	29	11	26
139	16	25	19	5	0	0	0	0	0
140	16	25	174	44	31	39	43	43	16
141	16	25	56	14	1	1	1	1	5
142	16	25	345	86	80	83	83	63	81
143	16	25	83	21	0	0	0	0	0
144	16	25	42	10	9	8	8	8	8
145	16	25	116	29	10	10	26	26	28
146	16	25	30	7	0	6	6	6	3
147	19	5	338	17	37	37	37	15	17
148	19	5	332	17	25	25	2	14	14
149	19	5	95	5	0	1	1	2	2

ID	Maturity (yr)	Limit (%)	Size (ha)	Limit (ha)	1999	Max values (ha) 2001-2005	2006-2010	2011-2015	2016-2020
151	19	5	102	5	0	0	0	0	0
152	19	5	593	30	110	110	82	82	53

Appendix 4: Blocks 3 & 4 Results

Table 4–1: Blocks 3 & 4 harvest totals by operability (1000m^3)

Operability	2001–2005	2006–2010	2011–2015	2016–2020	Total
Mature C-Econ	852	630	608	441	2 531
Mature Marginal	60	40	24	55	179
Mature NC-Econ	446	514	380	317	1 657
SG C-Econ	742	866	988	1 187	3 783
SG Marginal	0	0	0	0	0
SG NC-Econ	0	0	0	0	0
Total	**2 100**	**2 050**	**2 000**	**2 000**	**8 150**

Table 4–2: Blocks 3 & 4 net harvested area by operability (ha)

Operability	2001–2005	2006–2010	2011–2015	2016–2020	Total
Mature C-Econ	1 112	881	818	624	3 436
Mature Marginal	143	94	44	119	400
Mature NC-Econ	518	672	383	428	2 000
SG C-Econ	1 119	1 215	1 387	1 814	5 536
SG Marginal	0	0	0	0	0
SG NC-Econ	0	0	0	0	1
Total	**2 892**	**2 863**	**2 633**	**2 986**	**11 373**

Table 4–3: Blocks 3&4 avalanche and watershed constraints

						Max values (ha)			
Name	Maturity (yr)	Limit (%)	Size (ha)	Limit (ha)	1999 (ha)	2001–2005	2006–2010	2011–2015	2016–2020
Avalanche	30	20	1 127	225	41	47	76	79	96
Waukwass 1 CWAP	1	2.1	4 351	91	17	45	69	55	49
Waukwass 2 CWAP	1	1.8	332	6	16	1	0	4	5
Benson Craft CWAP	1	1.1	1 622	18	0	17	17	15	16
Benson 7 CWAP	1	1.9	2 603	49	48	36	38	33	31

Table 4–4: Blocks 3&4 old seral constraints

Name	Limit (%)	Size (ha)	Limit (ha)	1999 (ha)	Max values (ha) 2001–2005	2006–2010	2011–2015	2016–2020
Broughton CWH vm 1	90.6	6 117	5 542	4 465	4 857	4 875	4 968	5 112
Gilford CWH vm 1	90.8	8 236	7 479	7 349	7 388	7 396	7 463	7 478
Bonanza CWH vm 1	90.8	673	611	584	584	610	610	610
Keogh CWH vm 1	90.6	2 543	2 304	2 080	2 146	2 198	2 244	2 290
Keogh CWH vm 2	93.5	618	578	467	485	516	549	511
Holberg CWH vm 1	90.7	2 417	2 192	2 317	2 317	2 313	2 313	2 313
Marble CWH vm 1	90.9	17 194	15 629	14 662	15 072	15 456	15 503	15 601
Marble CWH vm 2	92.6	8 969	8 305	5 914	6 356	6 694	6 849	7 108
Marble MH mm 1	94.9	5 410	5 134	3 989	4 237	4 429	4 579	4 684
Cluxewe CWH vm 1	90.6	5 764	5 222	5 003	5 135	5 165	5 216	5 222
Cluxewe CWH vm 2	93.2	2 223	2 071	1 076	1 268	1 401	1 557	1 670
Cluxewe MH mm 1	95.5	1 384	1 322	995	1 065	1 148	1 152	1 213
Lower Nimpkish CWH vm 1	90.6	1 163	1 054	970	1 012	1 015	1 033	1 053
Lower Nimpkish CWH vm 2	93.8	231	217	114	137	141	163	163
Lower Nimpkish MH mm 1	99.9	130	129	129	129	129	129	129

Table 4–5: Blocks 3&4 visual landscape constraints (summary)

Name	Maturity (yr)	Limit (%)	Totals (ha) Size	Limit	1999	2001–2005	2006–2010	2011–2015	2016–2020
Modification	16	25	716	179	98	144	88	162	107
Partial Retention	15	15	6 331	950	581	707	616	688	604
Retention	14	5	93	5	12	12	0	0	0

Table 4–6: Blocks 3 & 4 visual landscape constraints

ID	Maturity (yr)	Limit (%)	Size (ha)	Limit (ha)	1999 (ha)	Max values (ha) 2001–2005	2006–2010	2011–2015	2016–2020
1	15	15	108	16	6	13	7	9	14
2	15	15	147	22	0	11	20	20	21
4	15	15	178	27	56	56	17	17	26
5	15	15	27	4	0	0	2	2	2

						Max values (ha)			
ID	Maturity (yr)	Limit (%)	Size (ha)	Limit (ha)	1999 (ha)	2001–2005	2006–2010	2011–2015	2016–2020
6	14	5	93	5	12	12	0	0	0
7	15	15	74	11	0	6	6	6	6
10	15	15	25	4	0	1	1	1	1
12	15	15	65	10	16	4	4	4	9
13	15	15	71	11	0	10	10	10	10
14	15	15	63	9	7	7	9	9	3
15	15	15	47	7	42	17	0	0	0
16	15	15	122	18	53	38	8	18	18
17	15	15	73	11	6	6	11	5	9
18	15	15	102	15	6	15	9	9	13
19	15	15	43	6	0	0	0	0	0
20	15	15	41	6	0	0	0	0	6
21	15	15	21	3	0	0	0	0	0
22	15	15	48	7	9	0	0	0	0
24	15	15	33	5	0	3	3	3	3
25	15	15	26	4	0	3	3	3	3
26	15	15	77	11	0	10	10	10	10
27	15	15	34	5	0	0	0	0	0
28	15	15	113	17	4	14	14	14	16
29	15	15	100	15	2	7	6	6	13
30	15	15	65	10	20	6	0	7	7
31	15	15	85	13	20	12	7	7	11
32	15	15	45	7	1	0	1	1	4
33	15	15	95	14	14	14	14	14	14
34	15	15	65	10	12	12	12	12	0
35	15	15	105	16	16	16	16	16	4
36	15	15	95	14	19	19	19	19	11
38	15	15	74	11	11	11	11	11	1
39	15	15	95	14	10	10	10	10	8
40	15	15	41	6	0	0	0	0	0
41	15	15	67	10	6	6	6	6	0
43	15	15	71	11	1	1	1	1	5
44	15	15	41	6	0	0	0	4	4
45	15	15	85	13	0	0	0	0	0

						Max values (ha)			
ID	Maturity (yr)	Limit (%)	Size (ha)	Limit (ha)	1999 (ha)	2001–2005	2006–2010	2011–2015	2016–2020
46	15	15	107	16	0	4	13	13	9
47	15	15	58	9	0	7	7	7	7
48	15	15	88	13	5	5	13	13	12
49	15	15	90	14	0	0	0	7	7
50	15	15	97	14	20	20	20	20	0
51	15	15	20	3	0	2	2	2	2
52	15	15	121	18	34	34	16	16	16
53	15	15	52	8	1	1	5	4	4
54	15	15	107	16	0	12	12	12	4
55	15	15	36	5	0	0	0	0	0
57	15	15	25	4	0	0	0	0	0
58	15	15	61	9	0	0	0	0	1
60	15	15	36	5	0	0	0	0	0
1003	16	25	136	34	10	10	10	33	32
61	15	15	17	3	0	0	0	0	0
62	15	15	23	3	0	0	0	0	0
1004	16	25	29	7	0	0	0	1	1
63	15	15	10	1	0	0	0	0	0
1005	16	25	53	13	0	8	8	8	0
64	15	15	111	17	0	0	8	8	15
1006	16	25	25	6	10	10	10	10	0
1007	16	25	474	118	78	116	60	111	74
67	15	15	12	2	0	0	0	0	0
68	15	15	19	3	0	0	2	2	2
69	15	15	27	4	0	0	2	2	4
72	15	15	85	13	0	9	9	9	8
73	15	15	41	6	0	5	5	5	5
74	15	15	58	9	23	23	23	23	3
75	15	15	92	14	30	30	30	30	3
76	15	15	82	12	0	3	3	3	12
77	15	15	14	2	0	0	0	0	0
78	15	15	20	3	0	0	0	0	0
79	15	15	46	7	0	6	6	6	0
80	15	15	80	12	0	4	4	11	11

						Max values (ha)			
ID	Maturity (yr)	Limit (%)	Size (ha)	Limit (ha)	1999 (ha)	2001–2005	2006–2010	2011–2015	2016–2020
81	15	15	8	1	0	0	0	0	0
84	15	15	50	8	0	3	3	3	3
85	15	15	87	13	0	0	0	0	6
86	15	15	100	15	0	0	0	9	9
87	15	15	96	14	13	13	11	11	11
88	15	15	38	6	0	4	4	4	4
90	15	15	57	9	0	8	8	8	8
91	15	15	40	6	0	4	4	4	4
92	15	15	63	9	8	8	0	8	8
93	15	15	67	10	4	8	8	8	8
94	15	15	129	19	0	15	15	15	16
95	15	15	110	17	14	14	16	16	16
96	15	15	77	11	1	1	1	11	10
98	15	15	110	16	21	21	21	21	9
99	15	15	212	32	49	30	21	24	31
100	15	15	51	8	0	0	0	0	1
101	15	15	17	2	0	0	0	0	0
102	15	15	123	18	27	27	27	27	5
103	15	15	58	9	0	0	0	8	8
104	15	15	184	28	0	14	16	18	26
105	15	15	40	6	0	0	0	0	0
106	15	15	326	49	0	47	47	47	43

Appendix 5: Block 5 Results

Table 5–1: Block 5 harvest totals by operability (1000m^3)

Operability	2001–2005	2006–2010	2011–2015	2016–2020	Total
Mature C-Econ	100	102	120	60	381
Mature Marginal	14	8	14	17	53
Mature NC-Econ	362	350	310	279	1 301
SG C-Econ	0	0	0	74	74
SG Marginal	0	0	0	0	0
SG NC-Econ	0	0	0	0	0
Total	**475**	**460**	**445**	**430**	**1 810**

Table 5–2: Block 5 net harvested area by operability (ha)

Operability	2001–2005	2006–2010	2011–2015	2016–2020	Total
Mature C-Econ	142	119	170	74	505
Mature Marginal	32	20	33	36	121
Mature NC-Econ	429	379	354	333	1 496
SG C-Econ	0	0	0	139	139
SG Marginal	0	0	0	0	0
SG NC-Econ	0	0	0	0	0
Total	**604**	**519**	**557**	**582**	**2 261**

Table 5–3: Block 5 avalanche and old seral constraints

						Max values (ha)			
Name	Maturity (yr)	Limit (%)	Size (ha)	Limit (ha)	1999 (ha)	2001–2005	2006–2010	2011–2015	2016–2020
Avalanche	30	20	560	112	0	11	20	43	45
Phillips MH mm 1	250	98.1	11 603	11 382	10 124	10 223	10 321	10 475	10 564
Phillips CWH vm 2	250	95.1	10 416	9 905	6 251	6 669	6 965	7 225	7 331
Phillips CWH vm 1	250	92.2	8 952	8 254	5 854	6 024	6 133	6 215	6 283
Phillips CWH dm	250	93.7	792	742	710	725	725	725	733

Table 5–4: Block 5 visual landscape constraints (summary)

Name	Maturity (yr)	Limit (%)	Totals (ha)						
			Size	Limit	1999	2001–2005	2006–2010	2011–2015	2016–2020
Modification	18	25	132	33	0	22	22	22	22
Partial Retention	16	15	1 798	270	15	68	87	90	115
Retention									

Table 5–5: Block 5 visual landscape constraints

ID	Maturity (yr)	Limit (%)	Size (ha)	Limit (ha)	1999 (ha)	Max values (ha)			
						2001–2005	2006–2010	2011–2015	2016–2020
1	16	15	3	0	0	0	0	0	0
2	16	15	229	34	4	4	6	3	3
3	16	15	5	1	0	0	0	0	0
4	16	15	143	21	11	12	16	5	10
5	16	15	134	20	0	0	0	12	12
6	16	15	287	43	0	36	36	42	41
7	18	25	87	22	0	21	21	21	21
9	18	25	32	8	0	0	0	0	0
10	16	15	22	3	0	0	0	0	0
11	16	15	106	16	0	0	0	0	1
12	16	15	402	60	0	0	0	0	23
13	16	15	61	9	0	2	2	2	2
14	16	15	30	4	0	3	3	3	3
15	16	15	124	19	0	0	13	13	13
16	16	15	63	9	0	1	1	1	1
17	16	15	5	1	0	0	0	0	0
18	16	15	64	10	0	3	3	3	0
19	16	15	122	18	0	8	8	8	8
20	18	25	9	2	0	0	0	0	0
21	18	25	5	1	0	0	0	0	0

Appendix 6: Block 6 Results

Table 6–1: Block 6 harvest totals by operability (1000 m^3)

Operability	2001–2005	2006–2010	2011–2015	2016–2020	Total
Mature C-Econ	4 630	3 591	3 907	3 210	15 337
Mature Marginal	419	451	396	435	1 701
Mature NC-Econ	175	460	155	386	1 176
SG C-Econ	526	1 098	992	1 270	3 885
SG Marginal	0	0	0	0	0
SG NC-Econ	0	0	0	0	0
Total	**5 750**	**5 600**	**5 450**	**5 300**	**22 100**

Table 6–2: Block 6 net harvested area by operability (ha)

Operability	2001–2005	2006–2010	2011–2015	2016–2020	Total
Mature C-Econ	7 678	5 664	6 455	5 567	25 364
Mature Marginal	1 226	1 119	1 162	1 159	4 665
Mature NC-Econ	228	666	208	579	1 680
SG C-Econ	838	1 579	1 534	1 835	5 786
SG Marginal	0	0	0	0	0
SG NC-Econ	0	0	0	0	0
Total	**9 969**	**9 027**	**9 359**	**9 139**	**37 494**

Table 6–3: Block 6 watershed constraints

Name	Maturity (yr)	Limit (%)	Size (ha)	Limit (ha)	1999 (ha)	Max values (ha) 2001–2005	2006–2010	2011–2015	2016–2020
Honna CWS	5	5	2 316	116	179	141	115	113	115

Table 6–4: Block 6 old seral constraints

Name	Limit (%)	Size (ha)	Limit (ha)	1999 (ha)	Max values (ha) 2001–2005	2006–2010	2011–2015	2016–2020
Ian CWH wh 1	91.39	21 169	19 346	5 925	8 269	9 095	10 850	12 220
Ian CWH wh 2	92.79	5 527	5 128	1 901	2 541	2 756	3 077	3 436
Ian MH wh 2	89.10	770	686	295	327	346	411	437
Ian MH wh 1	94.41	429	405	260	269	283	283	295
Naikoon CWH wh 1	91.46	3 703	3 387	1 215	1 796	1 957	2 350	2 429
Otun CWH wh 1	91.49	693	634	88	288	288	337	426
Masset Inlet CWH wh 1	90.84	32 940	29 922	19 937	21 400	22 578	23 735	24 629
Masset Inlet CWH wh 2	91.92	13 007	11 956	5 330	6 198	6 564	7 033	7 542

Name	Limit (%)	Size (ha)	Limit (ha)	1999 (ha)	Max values (ha) 2001–2005	2006–2010	2011–2015	2016–2020
Masset Inlet MH wh 2	91.44	2 401	2 195	1 074	1 240	1 369	1 430	1 544
Masset Inlet MH wh 1	92.46	1 305	1 206	614	712	726	778	804
Masset Inlet AT p	91.80	114	105	104	104	104	104	104
Lower Yakoun CWH wh 1	91.28	23 416	21 374	14 103	15 143	16 318	16 986	18 091
Lower Yakoun CWH wh 2	91.33	1 538	1 404	792	857	928	979	1 036
Lower Yakoun MH wh 2	87.14	169	147	15	29	29	29	50
Rennell CWH wh 2	92.35	189	174	65	66	69	69	110
Rennell CWH vh 2	92.49	155	143	36	70	100	100	101
Yakoun Lake CWH wh 1	91.02	17 086	15 551	10 048	10 712	11 093	11 500	11 775
Yakoun Lake CWH wh 2	92.21	6 181	5 700	2 111	2 369	2 695	2 908	3 154
Yakoun Lake MH wh 2	90.60	1 000	906	354	387	398	403	409
Yakoun Lake MH wh 1	91.78	133	122	53	53	53	53	53
Tlell CWH wh 1	91.29	9 693	8 849	3 662	4 837	5 381	6 136	6 511
Tlell CWH wh 2	93.78	2 093	1 963	1 045	1 211	1 376	1 512	1 591
Honna CWH wh 1	91.00	1 390	1 265	834	890	927	969	1 061
Honna CWH wh 2	90.97	478	434	260	272	282	283	292
Skidegate Lake CWH wh 1	92.20	18 922	17 446	14 624	15 121	15 200	15 393	15 711
Skidegate Lake CWH wh 2	91.23	3 112	2 839	2 221	2 472	2 417	2 538	2 637
Skidegate Lake MH wh 2	89.26	361	322	257	314	254	258	259
Hibben CWH wh 1	93.13	2 221	2 068	1 334	1 334	1 327	1 327	1 327
Hibben CWH wh 2	95.04	1 748	1 661	860	860	860	860	860
Hibben MH wh 2	97.33	1 218	1 185	994	994	994	994	994
Hibben MH wh 1	94.28	1 140	1 075	678	678	678	678	678
Hibben CWH vh 2	94.10	17 822	16 771	7 711	7 711	7 688	7 699	7 498
Sewell CWH wh 1	91.34	3 924	3 584	1 425	1 730	1 908	2 007	2 216
Sewell CWH wh 2	93.23	2 093	1 951	675	686	851	872	949
Sewell MH wh 2	94.00	852	800	493	493	527	527	533
Louise Island CWH wh 1	90.82	16 903	15 351	10 205	10 625	11 116	11 258	11 781
Louise Island CWH wh 2	91.71	5 690	5 218	2 388	2 463	2 727	2 678	2 800
Louise Island MH wh 2	94.05	3 436	3 231	2 125	2 129	2 180	2 176	2 203
Louise Island AT p	84.64	332	281	280	280	280	280	280

Table 6–5: Block 6 visual landscape constraints (summary)

Name	Maturity (yr)	Limit (%)	Totals (ha)						
			Size	Limit	1999	2001–2005	2006–2010	2011–2015	2016–2020
Modification	17	25	30 298	7 575	6 810	6 701	5 486	4 902	4 710
Partial Retention	17	15	38 658	5 799	3 097	3 471	3 308	2 596	2 791
Retention	18	5	2 740	137	68	41	32	32	27

Table 6–6: Block 6 visual landscape constraints

ID	Maturity (yr)	Limit (%)	Size (ha)	Limit (ha)	1999 (ha)	Max values (ha)			
						2001–2005	2006–2010	2011–2015	2016–2020
1	18	5	39	2	0	1	1	1	1
2	17	25	1 163	291	50	240	273	290	290
3	17	15	66	10	2	2	3	5	5
4	17	15	287	43	0	8	16	27	36
5	18	5	16	1	0	0	0	0	0
6	18	5	177	9	0	0	5	5	8
7	18	5	13	1	0	0	0	0	0
9	17	25	161	40	17	17	39	39	33
10	17	25	413	103	0	79	79	99	102
11	17	15	1	0	0	0	0	0	0
12	17	25	75	19	0	18	18	18	18
13	17	25	109	27	38	38	5	5	5
14	17	25	967	242	105	135	192	240	242
15	17	25	93	23	0	14	14	14	22
17	17	25	132	33	127	13	0	0	0
18	17	25	103	26	32	7	4	4	5
19	17	25	52	13	0	5	5	5	12
20	17	25	1 224	306	125	153	215	201	214
21	17	15	14	2	0	0	0	0	0
22	17	25	671	168	82	94	162	162	139
23	17	15	78	12	0	3	3	3	9
24	17	25	297	74	121	121	121	116	53
25	17	15	2	0	0	0	0	0	0
26	17	25	404	101	5	69	70	101	70

						Max values (ha)			
ID	Maturity (yr)	Limit (%)	Size (ha)	Limit (ha)	1999 (ha)	2001–2005	2006–2010	2011–2015	2016–2020
27	18	5	66	3	0	0	0	0	1
28	17	25	405	101	67	100	100	100	95
29	17	25	429	107	14	16	9	55	58
30	17	25	1 365	341	638	548	336	152	201
31	18	5	87	4	0	0	0	0	0
32	17	25	8	2	0	0	0	0	0
33	17	15	62	9	2	4	4	4	8
34	17	25	208	52	16	21	22	14	6
35	17	25	213	53	34	34	35	53	53
36	17	25	1 563	391	355	331	202	130	221
37	17	15	230	34	0	6	18	29	29
39	17	25	57	14	0	8	8	8	8
40	17	15	901	135	682	682	508	91	55
41	17	15	174	26	131	131	131	16	15
43	17	15	124	19	0	0	0	0	0
44	17	25	132	33	0	0	13	13	13
45	18	5	10	0	0	0	0	0	0
47	17	25	194	48	0	6	12	12	33
48	17	15	352	53	104	104	72	51	52
49	17	15	269	40	58	40	25	25	25
50	18	5	13	1	0	0	0	0	0
51	17	15	1 010	152	3	134	150	151	151
52	17	15	25	4	0	0	0	0	0
54	17	15	75	11	0	3	3	9	9
55	17	25	111	28	0	0	12	12	22
56	17	15	44	7	0	0	0	0	0
58	17	25	71	18	37	28	0	0	0
59	17	25	494	123	466	366	13	19	19
60	17	25	368	92	330	251	30	30	30
61	17	25	1 411	353	385	385	385	328	263
62	17	15	131	20	8	8	0	12	15
63	17	25	82	21	1	1	0	0	0
64	18	5	21	1	1	1	0	0	0
65	17	25	147	37	81	81	17	22	22

						Max values (ha)			
ID	Maturity (yr)	Limit (%)	Size (ha)	Limit (ha)	1999 (ha)	2001–2005	2006–2010	2011–2015	2016–2020
66	17	25	94	24	0	23	23	23	23
67	17	15	42	6	15	15	0	3	3
68	17	15	1 229	184	35	180	180	180	184
70	17	25	115	29	0	0	0	0	5
71	18	5	22	1	9	0	0	0	0
72	17	15	88	13	58	58	8	2	4
73	17	25	28	7	0	0	0	0	0
74	17	25	302	75	100	100	49	71	71
75	17	25	391	98	54	66	88	94	74
76	17	25	1 150	288	317	317	315	246	166
77	17	15	46	7	0	6	6	6	6
78	17	15	141	21	0	6	6	19	19
79	17	15	67	10	10	10	5	5	5
81	17	25	142	35	24	24	31	31	34
82	17	15	25	4	0	0	0	0	0
83	17	15	178	27	0	24	24	24	24
84	17	25	31	8	0	2	2	2	7
85	17	25	117	29	88	83	17	17	17
86	17	25	386	96	17	45	96	96	82
87	17	15	192	29	71	71	27	27	27
88	17	25	5	1	0	0	0	0	0
90	17	15	222	33	30	30	33	25	32
91	17	15	131	20	12	19	9	9	9
93	17	25	456	114	89	94	108	90	90
94	17	25	555	139	52	53	134	134	95
96	17	25	966	242	310	245	97	143	186
97	17	25	140	35	76	22	19	19	17
98	17	25	689	172	371	321	177	76	131
99	17	25	188	47	0	14	23	30	30
100	17	25	192	48	25	37	45	45	43
101	17	25	119	30	15	15	10	10	10
102	17	25	136	34	0	32	32	32	32
103	17	25	140	35	7	7	0	0	16
104	17	25	294	73	226	226	217	148	12

ID	Maturity (yr)	Limit (%)	Size (ha)	Limit (ha)	1999 (ha)	Max values (ha) 2001–2005	2006–2010	2011–2015	2016–2020
105	17	25	72	18	2	2	9	9	7
106	17	25	20	5	0	0	0	0	0
107	17	25	167	42	46	46	28	41	41
108	17	25	247	62	177	177	177	122	19
109	17	15	149	22	7	7	21	21	19
110	17	25	63	16	42	42	42	0	3
111	17	25	16	4	0	0	0	0	0
112	17	25	79	20	35	20	16	0	0
113	17	25	65	16	0	0	9	10	10
114	17	25	131	33	4	16	16	15	31
115	17	25	73	18	16	16	0	0	0
116	17	25	27	7	17	0	0	0	0
117	17	15	166	25	9	9	20	21	21
118	17	25	28	7	0	0	0	0	0
119	17	15	39	6	3	0	0	3	3
120	17	15	159	24	54	5	19	19	22
121	17	15	135	20	0	0	5	16	16
122	17	25	143	36	14	21	30	30	33
123	17	25	100	25	0	10	17	17	24
124	17	25	30	7	0	1	1	1	4
125	17	25	255	64	27	34	55	55	55
126	17	25	33	8	2	2	1	1	1
127	17	25	32	8	0	0	0	0	0
128	17	25	67	17	0	7	7	7	7
129	17	25	343	86	119	83	19	19	34
130	17	25	98	25	12	12	23	23	23
131	17	25	64	16	4	12	12	12	15
132	17	25	90	22	10	10	10	22	22
133	17	25	31	8	30	30	21	0	0
134	17	25	97	24	0	12	24	24	21
135	17	25	121	30	19	16	5	5	23
136	17	25	158	39	4	30	30	30	30
137	17	25	66	16	0	7	7	7	15
138	17	25	523	131	70	71	129	129	124

						Max values (ha)			
ID	Maturity (yr)	Limit (%)	Size (ha)	Limit (ha)	1999 (ha)	2001–2005	2006–2010	2011–2015	2016–2020
139	17	25	205	51	59	59	59	59	47
140	17	25	70	18	34	34	0	0	0
141	17	25	24	6	24	24	24	0	0
142	17	25	557	139	206	124	39	39	52
143	17	25	118	29	0	0	0	0	0
144	17	25	101	25	41	41	4	4	4
145	17	25	7	2	0	1	1	1	0
146	17	25	47	12	43	43	43	43	2
147	17	25	27	7	27	27	27	0	0
149	17	25	139	35	110	110	0	0	0
150	17	25	146	37	43	43	0	0	0
151	17	25	122	31	14	14	14	27	14
152	17	25	239	60	126	126	38	38	0
153	18	5	146	7	11	11	5	5	0
154	17	25	20	5	0	0	0	0	0
155	17	25	95	24	0	0	0	0	0
156	17	15	393	59	0	0	3	3	3
157	18	5	111	6	0	0	0	0	0
159	17	25	24	6	0	0	0	0	0
160	17	25	67	17	31	31	0	0	0
161	17	25	37	9	11	11	0	0	4
162	17	15	197	30	0	0	0	0	4
163	17	15	58	9	0	0	0	0	7
164	18	5	102	5	0	0	0	0	0
165	17	25	266	67	192	172	147	11	17
166	17	25	15	4	0	0	0	0	0
167	17	25	31	8	0	0	0	0	0
168	17	15	286	43	0	0	3	3	6
169	17	15	52	8	0	0	0	0	0
170	17	25	30	8	0	0	0	1	1
171	17	15	177	26	0	0	0	0	0
172	18	5	54	3	0	0	0	0	0
173	17	25	219	55	0	11	24	24	24
174	17	15	144	22	0	0	0	0	0

						Max values (ha)			
ID	Maturity (yr)	Limit (%)	Size (ha)	Limit (ha)	1999 (ha)	2001–2005	2006–2010	2011–2015	2016–2020
175	17	15	11	2	0	0	0	0	0
176	17	15	158	24	0	0	0	0	0
177	17	15	123	18	0	0	0	0	0
178	17	25	38	9	0	0	0	0	0
179	17	25	30	8	0	0	0	0	3
180	17	25	57	14	0	0	0	0	0
181	17	15	70	11	0	0	0	0	0
182	17	15	122	18	0	0	0	0	0
183	17	15	49	7	0	0	0	0	0
184	17	15	134	20	0	0	0	0	0
185	17	15	542	81	132	131	73	68	80
186	17	15	316	47	27	24	32	42	30
187	18	5	195	10	31	23	9	9	4
188	17	15	212	32	0	29	32	32	32
189	17	25	122	31	53	53	53	6	6
190	17	25	87	22	26	0	0	0	0
191	17	25	146	37	62	5	8	8	8
192	17	25	64	16	36	22	0	0	0
193	17	25	87	22	0	6	6	17	20
194	17	25	171	43	83	22	11	11	11
195	17	25	170	42	0	34	34	34	34
196	17	25	1 955	489	0	59	349	381	464
197	17	25	68	17	0	0	0	0	0
198	17	25	65	16	0	0	0	0	0
199	18	5	103	5	11	1	1	1	1
200	17	15	293	44	0	0	0	0	0
201	17	15	2 059	309	6	6	6	6	12
202	17	15	431	65	0	0	0	0	0
204	17	25	24	6	0	0	0	0	0
205	17	15	106	16	0	0	0	0	0
206	17	15	94	14	0	0	0	0	0
207	17	25	134	33	0	0	0	25	25
208	18	5	342	17	0	0	0	0	0
209	17	25	23	6	0	0	0	0	0

						Max values (ha)			
ID	Maturity (yr)	Limit (%)	Size (ha)	Limit (ha)	1999 (ha)	2001–2005	2006–2010	2011–2015	2016–2020
210	17	15	82	12	0	0	0	0	0
211	17	25	124	31	0	0	0	0	0
212	17	15	440	66	2	11	25	32	66
213	17	15	395	59	0	0	0	0	0
214	17	25	9	2	0	0	0	0	0
215	17	15	85	13	0	0	0	0	0
216	17	15	61	9	0	2	2	2	2
217	17	15	169	25	0	0	0	0	0
218	17	15	158	24	0	0	0	0	0
219	17	15	123	18	0	0	0	0	0
220	17	15	27	4	0	0	0	0	0
221	17	15	86	13	0	0	0	0	0
222	17	25	11	3	9	9	9	0	0
223	17	15	83	12	0	0	0	0	0
224	17	15	193	29	0	0	0	18	27
225	17	15	246	37	0	0	0	0	0
226	17	15	424	64	0	0	0	0	0
227	17	15	69	10	0	0	0	0	0
228	17	15	37	6	0	0	0	0	0
229	17	15	505	76	21	20	21	20	3
230	17	15	430	65	0	31	31	61	61
231	17	15	217	32	0	0	0	0	0
232	17	15	100	15	0	0	0	0	0
233	17	15	180	27	0	0	0	0	0
234	17	15	92	14	0	0	0	0	0
237	17	25	16	4	0	0	0	0	0
238	17	15	198	30	0	17	23	23	26
239	17	15	139	21	0	0	0	0	0
240	17	25	48	12	0	0	0	0	0
241	17	15	954	143	0	0	11	11	15
242	17	15	290	44	0	0	0	0	0
243	17	15	514	77	0	0	0	0	0
245	17	15	251	38	0	0	0	0	0
246	17	15	81	12	0	0	0	0	0

						Max values (ha)			
ID	Maturity (yr)	Limit (%)	Size (ha)	Limit (ha)	1999 (ha)	2001–2005	2006–2010	2011–2015	2016–2020
247	18	5	67	3	0	1	1	1	1
248	17	15	89	13	0	0	0	0	0
249	17	15	497	74	0	42	71	71	61
250	17	15	14	2	0	0	0	0	0
251	17	15	237	36	0	28	28	28	28
252	17	15	134	20	0	4	10	10	12
253	17	15	526	79	6	14	35	42	51
254	17	15	1 294	194	51	82	169	175	189
256	17	15	886	133	0	0	0	0	0
257	17	15	66	10	0	0	0	0	0
258	17	15	21	3	0	0	0	0	0
259	17	15	45	7	0	0	0	0	0
260	17	15	12	2	0	0	0	0	0
263	17	15	86	13	21	21	3	3	8
264	18	5	19	1	0	0	0	0	0
265	18	5	3	0	0	0	0	0	0
266	17	25	87	22	0	0	10	10	10
267	17	15	209	31	9	14	19	11	31
268	17	15	197	30	0	0	0	0	0
269	18	5	65	3	3	0	2	2	3
270	17	15	408	61	0	0	22	22	44
271	17	15	16	2	0	0	0	0	0
273	17	15	115	17	16	16	16	8	14
274	17	15	202	30	14	14	0	0	0
275	17	15	177	26	0	0	0	0	0
276	17	15	21	3	0	0	0	0	0
277	17	25	42	11	2	2	2	2	2
278	17	15	502	75	161	85	66	51	65
279	17	15	629	94	166	89	92	82	91
280	17	15	192	29	0	0	0	0	0
281	18	5	32	2	0	0	0	0	0
282	17	25	34	9	0	0	0	0	0
283	17	15	411	62	43	43	61	58	54
284	17	25	35	9	0	0	0	0	0

						Max values (ha)			
ID	Maturity (yr)	Limit (%)	Size (ha)	Limit (ha)	1999 (ha)	2001–2005	2006–2010	2011–2015	2016–2020
285	17	25	58	15	0	0	0	2	2
287	17	15	355	53	0	0	24	44	51
288	17	15	118	18	11	11	0	0	0
289	17	15	136	20	0	0	0	0	0
290	17	25	58	15	0	0	0	0	0
291	17	15	345	52	0	0	0	0	0
292	17	15	146	22	0	0	0	0	0
293	17	15	551	83	0	14	70	70	80
294	17	15	563	84	266	206	55	81	80
295	17	15	144	22	0	0	0	0	0
296	17	25	126	32	0	0	0	0	0
297	17	15	301	45	0	0	0	0	0
298	17	15	279	42	0	0	0	0	0
299	17	15	298	45	0	0	0	0	0
300	17	15	560	84	0	0	0	0	0
301	17	15	22	3	0	0	0	0	0
302	17	15	174	26	0	0	0	0	0
303	17	15	320	48	0	0	0	0	6
304	17	15	225	34	0	0	0	0	0
305	17	15	318	48	0	0	0	0	0
306	17	15	472	71	0	0	0	0	0
307	17	25	49	12	0	0	0	0	0
308	17	15	88	13	0	0	0	0	0
309	17	15	110	16	0	0	0	0	0
310	17	15	363	54	0	25	40	40	47
311	17	25	70	17	0	0	10	10	10
313	17	15	635	95	92	84	87	76	55
315	17	15	41	6	0	0	0	0	0
316	17	15	264	40	22	22	26	33	19
317	17	25	163	41	0	0	0	0	0
318	18	5	120	6	0	0	0	0	0
319	17	15	149	22	0	0	0	0	0
320	17	15	239	36	46	34	35	35	35
321	18	5	137	7	0	0	0	0	0

ID	Maturity (yr)	Limit (%)	Size (ha)	Limit (ha)	1999 (ha)	Max values (ha) 2001–2005	2006–2010	2011–2015	2016–2020
322	17	15	34	5	0	0	0	0	0
323	17	15	123	18	0	0	16	16	16
324	17	15	14	2	0	0	0	0	0
325	17	15	259	39	9	11	29	29	38
326	17	25	39	10	0	0	0	0	0
327	18	5	24	1	0	0	0	0	0
330	18	5	10	1	0	0	0	0	0
331	18	5	157	8	0	0	0	0	0
332	18	5	115	6	0	0	0	0	0
333	17	15	131	20	0	0	0	0	0
334	17	15	153	23	0	0	0	0	0
336	17	15	20	3	0	0	0	0	0
337	18	5	23	1	0	0	0	0	0
338	17	15	317	48	164	164	74	43	42
339	17	25	33	8	0	0	0	0	0
340	17	25	59	15	40	40	0	3	3
341	17	25	50	12	0	0	0	0	0
342	18	5	127	6	0	0	0	0	0
343	17	15	239	36	0	0	20	20	35
344	18	5	39	2	0	0	0	0	0
345	17	15	542	81	11	72	72	71	80
346	17	15	69	10	0	0	0	0	5
347	17	15	541	81	52	63	80	81	76
348	17	15	202	30	12	27	27	15	19
349	17	15	15	2	1	1	1	1	0
350	17	15	515	77	189	189	189	77	74
351	17	15	145	22	23	23	23	9	6
352	17	25	59	15	1	1	1	1	0
353	17	25	261	65	0	0	7	7	7
355	18	5	84	4	0	0	0	0	0
356	18	5	102	5	0	0	5	5	5
357	17	15	258	39	1	1	37	35	35
358	17	15	220	33	24	24	24	0	2
359	17	15	615	92	120	120	120	88	90

ID	Maturity (yr)	Limit (%)	Size (ha)	Limit (ha)	1999 (ha)	Max values (ha) 2001–2005	2006–2010	2011–2015	2016–2020
360	17	15	294	44	82	82	82	15	43
361	17	25	39	10	0	0	6	6	8
363	17	15	142	21	6	6	13	15	15
364	18	5	103	5	3	3	3	3	3
365	17	15	119	18	0	0	17	17	17

Appendix 7: Block 7 Results

Table 7–1: Block 7 harvest totals by operability (1000 m^3)

Operability	2001–2005	2006–2010	2011–2015	2016–2020	Total
Mature C-Econ	349	318	381	216	1 265
Mature Marginal	53	99	119	97	367
Mature NC-Econ	345	206	75	212	838
SG C-Econ	3	2	0	0	5
SG Marginal	0	0	0	0	0
SG NC-Econ	0	0	0	0	0
Total	**750**	**625**	**575**	**525**	**2 475**

Table 7–2: Block 7 net harvested area by operability (ha)

Operability	2001–2005	2006–2010	2011–2015	2016–2020	Total
Mature C-Econ	536	476	508	351	1 871
Mature Marginal	124	236	290	251	901
Mature NC-Econ	487	304	104	344	1 239
SG C-Econ	3	2	0	0	5
SG Marginal	0	0	0	0	0
SG NC-Econ	0	0	0	0	0
Total	**1 150**	**1 018**	**902**	**946**	**4 016**

Table 7–3: Block 7 avalanche and old seral constraints

						Max values (ha)			
Name	Maturity (yr)	Limit (%)	Size (ha)	Limit (ha)	1999 (ha)	2001–2005	2006–2010	2011–2015	2016–2020
Avalanche	30	20	506	101	11	37	40	44	50
Nootum/Koeye CWHvh2	250	93.61	40 066	37 506	17 732	18 860	19 794	20 122	20 828
Nootum/Koeye CWHvm2	250	95.06	2 993	2 845	1 606	1 821	1 823	1 900	1 943
Nootum/Koeye MHmm1	250	97.03	1 862	1 807	1 468	1 469	1 469	1 469	1 469
Nootum/Koeye MHwh1	250	96.24	4 394	4 229	3 336	3 394	3 406	3 419	3 426
Kwatna/Quatlena CWHvh2	250	92.99	148	137	95	100	58	58	58

Table 7–410: Block 7 visual landscape constraints (summary)

Name	Maturity (yr)	Limit (%)	Totals (ha)						
			Size	Limit	1999	2001–2005	2006–2010	2011–2015	2016–2020
Modification	24	25	860	215	0	6	77	90	138
Partial Retention	22	15	3671	551	34	114	293	301	320
Retention	22	5	318	16	0	0	0	6	6

Table 7–5: Block 7 visual landscape constraints

ID	Maturity (yr)	Limit (%)	Size (ha)	Limit (ha)	1999 (ha)	Max values (ha)			
						2001–2005	2006–2010	2011–2015	2016–2020
1	22	15	391	59	0	0	0	0	0
2	22	5	34	2	0	0	0	0	0
9	22	15	113	17	0	0	0	0	0
17	22	15	278	42	0	0	0	0	0
22	22	15	303	45	0	0	26	26	29
24	22	15	352	53	0	0	35	45	46
26	24	25	766	192	0	6	77	90	130
27	22	15	261	39	0	0	19	19	28
33	22	15	396	59	0	0	0	0	0
34	22	15	210	31	0	0	25	25	29
36	24	25	29	7	0	0	0	0	0
37	22	15	233	35	0	4	30	30	34
38	24	25	66	16	0	0	0	0	8
41	22	15	277	41	0	41	41	41	41
47	22	15	309	46	23	46	46	44	44
49	22	15	144	22	12	22	22	22	10
55	22	15	10	1	0	0	0	0	0
57	22	15	396	59	0	0	48	48	58
58	22	5	284	14	0	0	0	6	6

Appendix 8: Maps

Maps for TFL 39, MP #8 are provided in paper and digital formats. In both media, the maps are organized by Block (for Blocks 1 to 7).

- The paper atlas for each Block provides overview maps for the different resource inventories and for the Spatial Twenty-Year Feasibility Study (STYFs).
- The CD contains digital files for all the MP #8 spatial data. This allows viewing of user selected combinations of map themes included polygon specific data.

Paper Atlas

- The Block paper map atlases provide an overview of resource inventories.
- The scale varies by Block according to Block size and geographic compactness:

Block	Scale	# Maps for Coverage of Block
Block 1	1:125 000	1
Block 2	1:85 000	2
Block 3	1:90 000	1
Block 4	1:90 000	1
Block 5	1:75 000	1
Block 6 • 20-Year Feasibility Study • Other	 1:90 000 1:125 000	 2 2
Block 7	1:75 000	1

- Contents of each Block Map Atlas:
  - Block location map
  - Terms of Reference for maps
  - Block Maps (where applicable)
    - Block and property boundaries (tenure)
    - 20-Year feasibility study—harvest blocks
    - Guiding, trapping and mineral claims
    - Visual landscape and recreation
    - Soils and snow avalanche
    - Community watersheds and streams, lakes and wetlands
    - Wildlife
    - Biogeoclimatic variants
    - Physical features
- The map of the Spatial Twenty-Year Feasibility Study includes a number of themes:
  - Productive forest in broad age classes
  - Non-productive forest and non-forest
  - Other ownerships
  - Protected areas including ecological reserves

- Harvest blocks by 5-year harvest period
- Community watershed boundaries
- Existing main roads
- Netdown areas: 100% and 50% to 99%
- Operability (physical and economic)

For presentation purposes, not all combinations of the above themes are shown on the Spatial Twenty-Year Feasibility Study Map. Specifically:

- Forest age classes are not shown for areas classified as non-conventional, physically inoperable, marginally economic or uneconomic.
- Similarly marginal economic and uneconomic areas are not shown where areas are also non-conventional or physically inoperable.

These relatively small-scale paper maps are intended to provide an overview. For more detailed (larger scale) or more specific (selected map themes) viewing use the options provided on the CD.

Digital Maps on a CD

The CD includes ArcView APR files and ArcExplorer AEP files for all the MP #8 spatial data. ArcView software must be installed on your computer to view the ArcView files. For viewers without ArcView, the ArcExplorer software may be installed (from the CD) and used.

Follow the instructions listed on the inside of the CD jacket and in the file “welcome.pdf”. Both sets of software have online help assistance. In addition, a help phone line is referenced on the inside of the CD jacket.

Both ArcView and ArcExplorer allow the viewer to select the Block and themes of interest. For example there may be interest in looking at the Spatial Twenty-year Feasibility Study harvest blocks relative to wildlife habitat polygons for say Block 5. Further, the data assigned to the individual polygons (e.g., harvest blocks and wildlife in the example) may be viewed.