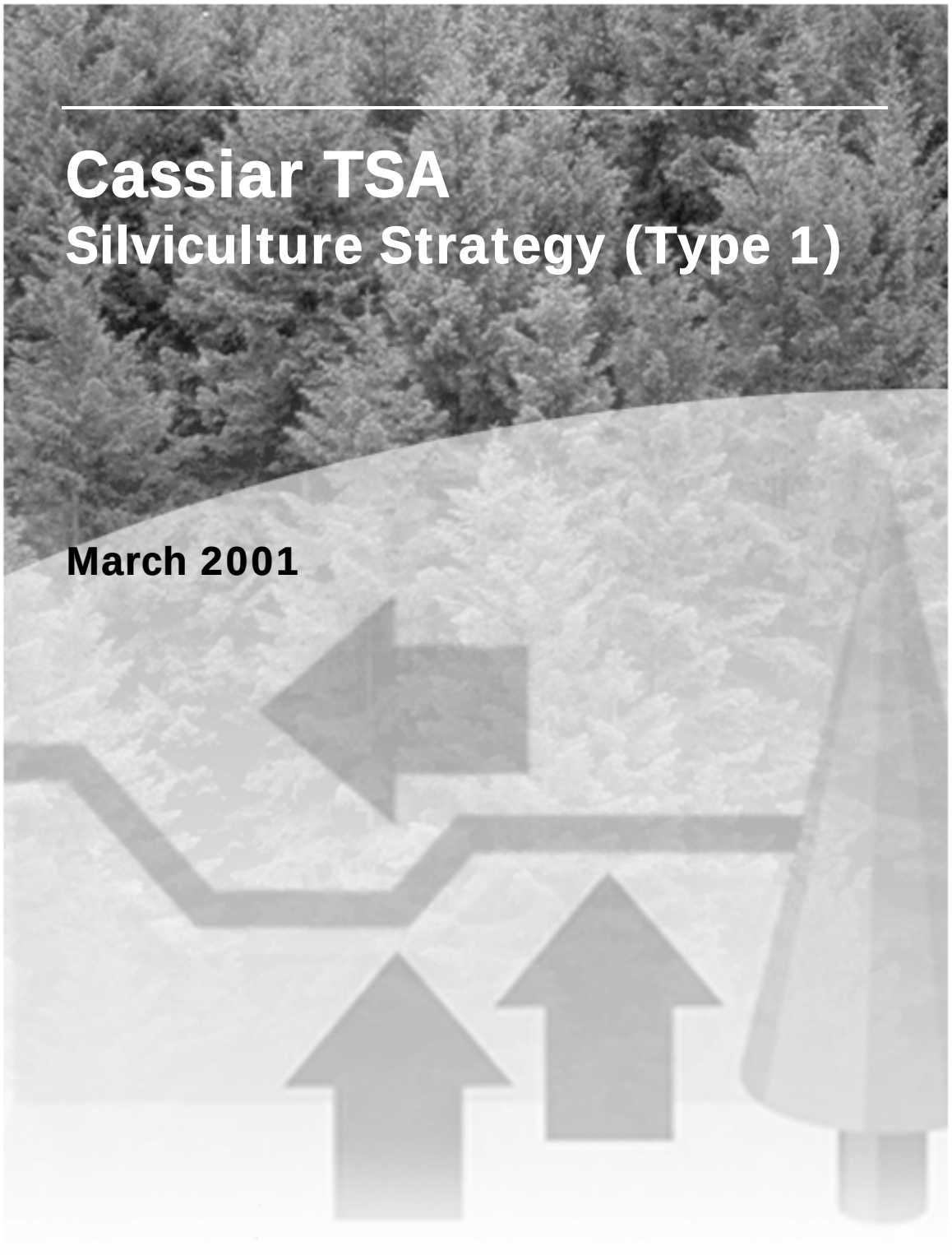
Cassiar TSA
Silviculture Strategy (Type 1)

March 2001



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Cassiar TSA Silviculture Strategy (Type 1)

Acknowledgements

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	Name	Organization
1	Rick Braam	District of Bulkley/Cassiar
2	Glen Buhr	District of Bulkley/Cassiar
3	Bill Camenzind	District of Bulkley/Cassiar
4	Neil Endacott	Prince Rupert Forest Region
5	Bruce Hartley	District of Bulkley/Cassiar
6	Peter Tweedie	Tyhee Forestry Consultants
7	Jordan Tanz	Cortex Consultants Inc.
8	Laird Pittman	Pittman Consulting

Preface

The development of silviculture strategies for TSAs and TFLs is motivated by the desire to clarify the relationship between investments in silviculture and the critical forest-level issues specific to the management unit.

The Type 1 analysis is workshop-based. It draws on the expert knowledge of the participants to identify the critical issues, derive objectives with respect to those issues, specify regimes to meet those issues, and identify the regime activities that can be implemented in the next five years. After consideration of the benefits and costs of each of the activities on each of the forest-level objectives, the participants rank the silviculture activities by priority. The result is a prioritized list of silviculture activities that are explicitly linked to the critical issues of the management unit.

Type 2 analyses are model-based, but the analysis process is fundamentally identical to the Type 1 analysis. A forest-level model is used to evaluate the impacts of regimes on the forest-level objectives, to identify the silviculture activities constituting the "preferred management scenario", and to rank those activities.

The Type 2 (model-based) analysis will result in a silviculture strategy that is considerably more appropriate and robust than the Type 1 approach, but it is more expensive and demanding of scarce modeling expertise. Hence the Type 1 (workshop-based) approach has been designed to produce an interim silviculture strategy that will serve until a Type 2 analysis can be completed.

Cassiar TSA

The Cassiar TSA is a huge, sparsely populated area, with little opportunity for employment, poor access, and high forestry and logging costs. There are no permanent timber processing facilities in the TSA. Annual harvesting activity has been sporadic, and very low relative to the allowable annual cut (AAC). Therefore, the main objective of forest management here is seen to be to achieve social goals such as creating employment. In the short term, and because the AAC is small and significantly undercut, there is currently little justification for expenditures other than for training opportunities. Future activities will be updated when the next strategy is prepared.

Strategy Summary

Issues Addressed by the Strategy

1. Overstocked stands
2. NSR
3. Security and maintenance of timber supply
4. Scarcity of specialty logs for local use
5. Local employment
6. Unsalvaged losses
7. Seed supply
8. Maintenance of natural-stand characteristics
9. Uncertainty of site productivity estimates
10. Wildlife habitat management
11. Supply of botanical forest products

Elements of the Strategy, by Issue

Issue 1. Identify low site or problem forest type stands and verify status. Treat where required by a spacing treatment to optimum stocking densities to meet Free Growing.

Issue 2. Survey NSR stands and confirm their status. Reclassify NSR stands as necessary according to the Cassiar Opening Decision Matrix and develop prescriptions for those stands that remain NSR. Treat those stands that are NSR as per their individual requirements to ensure they become SR.

Issue 3. Review and confirm priorities of the regional fire control plan to ensure that due consideration is given to the protection of the Timber Harvesting Land Base in the Cassiar TSA.

Issue 4. Identify stands that are in close proximity to local communities and high use residential recreation areas with suitable trees that could be set aside for the purpose of specialty log supply.

Issue 5. Provide training in anticipation of future demand for silviculture treatments as a result of licence opportunities. This training should be considered and developed in conjunction with the local college in the area. On the job training is considered as a good means to promote training in this area.

Issue 6. Confirm and refine estimates of unsalvaged losses in the TSA.

Issue 7. Identify candidate stands or plantations that would be a source of quality seed and establish those areas as seed production areas.

Issue 8. Review stocking standards and other forest management guidelines in the Cassiar TSA to ensure they are suitable to local conditions.

Issue 9. Improve estimates of site index for Old-Growth stands. Improve estimates of site index for Second-Growth stands. Improve BEC mapping and add the requirement for operational surveys to routinely collect site index information.

Issue 10. Ensure maintenance of critical grizzly bear habitat in the development of all prescriptions and forest cover requirements. Ensure maintenance of critical caribou habitat, especially in leading pine stands aged 80-120 years, in the development of all prescriptions.

Issue 11. The incorporation of broadcast burning as a post harvesting treatment should be considered where appropriate to help promote berry production in suitable areas. Partial harvesting systems should be considered and promoted as the silvicultural system in areas of mushroom production to further support their production and growth.

Tactical Priorities

The tactical priorities set by the participants represent a balance between the participants' strategic objectives for the management unit and the silvicultural opportunities available on the TSA in the next 5 years. Given the low levels of harvest relative to the AAC, there is little pressure on timber supply. The emphasis for silviculture is to undertake activities that would generate employment by spacing overstocked stands on accessible, productive sites that are close to communities, and to eliminate NSR in the TSA.

Table S-1 lists activities identified by the participants and the rank (priority) assigned to each activity.

Table S-1. Silviculture activities and areas selected by the workshop participants

Activities/Treatments	Opportunity (ha)	Workshop Rank
Spacing	2100	1
Confirm area of NSR	7874	2
Reclassify NSR	7874	3
Treat NSR as needed:		
site preparation	20	3
planting or cultivation	1000	3
brushing	250	3
surveys	2000	3

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1. Introduction

The Silviculture Strategy (Type 1) workshop draws on the expert knowledge of the participants to identify the key issues that should guide silvicultural planning on the TSA, derive objectives with respect to those issues, specify regimes to meet those issues, and identify the regime activities that can be implemented in the next five years. The key idea is that this line of logic from issues to silvicultural activities can be retraced when evaluating funding levels, ensuring that activities are funded that address critical TSA issues.

The first step in developing this line of logic is to identify the key issues that should guide silvicultural planning on the TSA. Next, the participants' objectives with respect to these issues are clearly stated. Strategies for meeting these objectives are identified, together with the silvicultural target (stand types) to which these strategies are to be applied. A plan of action, most often a silvicultural regime, is then developed to implement each strategy. This sequence constitutes the "strategic analysis" part of the workshop and the resulting compilation of issues, objectives, strategies and regimes is the silviculture strategy.

After developing the strategy, the workshop identifies opportunities to implement the regimes in the next five years and develops a program of silvicultural activities that is consistent with the strategy and is feasible with respect to the operational realities of the TSA. The impacts of these silvicultural activities on selected objectives are estimated by the workshop participants, and in a final step, the activities are ranked as to their importance with respect to the TSA issues. Development of the 5-year plan of silvicultural activity and estimating impacts and evaluating ranks of the activities constitutes the tactical analysis part of the workshop.

This report documents the results of a workshop to develop a strategy and a 5-year plan for the Cassiar TSA. Following this introduction, section 2 summarizes the results of the strategic analysis and section 3 presents the analysis of the 5-year plan. Issues that influence silviculture planning on the TSA were obtained from a questionnaire sent to the District, the most recent Resource Management Plan, and other documents identified by the District. Appendix A includes the executive summary of the interim provincial incremental silviculture strategy. Appendix B is the summary of the workshop evaluations.

2. Issues and Strategies

This section identifies the critical issues that guide silviculture planning on the TSA and strategies developed in the workshop for addressing them. Workshop participants assessed the appropriateness and efficacy of the strategies. Some of these strategies were selected by the participants as feasible and desirable for the TSA, and are listed in Table 1-1. This set of strategies constitutes the silviculture strategy for the Cassiar TSA, as determined by the workshop participants.

Issue 1: Overstocked Stands

A number of stands exist as a result of wild fire that are considered to be overstocked and thus are classified as low site or problem forest type stands. These stands should be treated to bring them back into the Timber Harvesting Land Base.

Strategies:

- Identify these stands and verify status.

- Treat where required by a spacing treatment to optimum stocking densities to meet Free Growing.

Issue 2: NSR

A number of areas exist in the Cassiar TSA that are currently classified as NSR. The goal is to eliminate the NSR status and bring these sites back into the Timber Harvesting Land Base.

Strategies:

- Survey these stands and confirm their status.
- Reclassify the stands as necessary according to the Cassiar Opening Decision Matrix and develop prescriptions for those stands that remain NSR.
- Treat those stands that are NSR as per their individual requirements to ensure they become SR.

Issue 3: Security and Maintenance of Timber Supply

Due to isolation and condition of stands in the Cassiar TSA, fire history and the opportunity for wildfire is a concern that could potentially negatively impact the Timber Harvesting Land Base.

Strategies

- Review and confirm priorities of the regional fire control plan to ensure that due consideration is given to the protection of the Timber Harvesting Land Base in the Cassiar TSA.

Issue 4: Scarcity of Specialty Logs for Local Use

Local communities and high use residential recreation areas in the Cassiar TSA have an ongoing requirement for house building logs. Managers want to ensure that the availability of these specialty logs continues so that local residents have the opportunity to secure them through cash sales from the MOF.

Strategies:

- Identify stands that are in close proximity to local communities and high use residential recreation areas with suitable trees which could be set aside for the purpose of specialty log supply.

To Do List:

- Link identifying local sources of house-building logs to community development planning.

Issue 5: Local Employment

Lack of employment opportunities is a concern in the Cassiar TSA. In order to have a skilled work force when called upon it is important to ensure an ongoing need for these workers is maintained through the creation of employment opportunities in silviculture activities.

Strategies:

- Provide training in anticipation of future demand for silviculture treatments as a result of licence opportunities. This training should be considered and developed in conjunction with

the local college in the area. On the job training is considered as a good means to promote training in this area.

To Do List

- Review silviculture opportunities survey proposal from 1996 to determine if any training employment opportunities exist through silviculture treatments that are not mentioned in the context of this strategy.

Issue 6: Unsalvaged Losses

Unsalvaged losses are volumes that are deducted from the available harvesting volume in the TSA. In the Cassiar TSA it is calculated that 25,520 cubic meters are lost annually as a result of fire and losses to Balsam Bark Beetle.

Strategies:

- Confirm and refine estimates of unsalvaged losses in the TSA.

Issue 7: Seed Supply

Managers in the Cassiar TSA want to ensure that a quality supply of seed remains available to meet their needs. Some concern has been expressed as to the adequacy of supply of spruce seed, in particular in the Atlin area.

Strategies:

- Identify candidate stands or plantations that would be a source of quality seed and establish those areas as seed production areas.

To Do List:

- Refine seed zone boundaries, and seed availability

Issue 8: Maintenance of Natural-Stand Characteristics

It is important that natural stand characteristics are maintained such as, species composition, stocking densities and coarse woody debris.

Strategies:

- Review stocking standards and other forest management guidelines in the Cassiar TSA to ensure they are suitable to local conditions.

Issue 9: Uncertainty of Site Productivity Estimates

The productivity of a site largely depends on how quickly trees will grow. It therefore affects the timber volumes in regenerated stands, the time to reach pre-determined green-up and cover requirements and the age at which stands will reach merchantable size.

Results of recent province-wide research suggest that the estimated site productivity, which is measured by site index, may be significantly underestimated. Forest managers in the Cassiar TSA believe that site index is most likely underestimated in that area. Increases in site index in the Cassiar TSA can have large impacts on timber supply and timber flow.

Strategies:

- Improve estimates of site index for Old-Growth stands.
- Improve estimates of site index for Second-Growth stands.
- Improve BEC mapping and add the requirement for operational surveys to routinely collect site index information.

Issue 10: Wildlife Habitat Management

Although the Timber Harvesting Land Base (THLB) is relatively small in comparison to the Total Land Area in the Cassiar TSA, the THLB is also critical habitat for both grizzly bear and caribou.

Strategies:

- Ensure maintenance of critical grizzly bear habitat in the development of all prescriptions and forest cover requirements.

Ensure maintenance of critical caribou habitat, especially in leading pine stands aged 80-120 years, in the development of all prescriptions.

Issue 11: Supply of Botanical Forest Products

Botanical forest products remain as an important source of both income and sustenance to local residents of the Cassiar TSA. It is paramount that the maintenance of mushroom production areas and the maintenance and increase in berry production areas be considered in any treatment in the TSA.

Strategies:

- The incorporation of broadcast burning as a post harvesting treatment should be considered where appropriate to help promote berry production in suitable areas.
- Partial harvesting systems should be considered and promoted as the silvicultural system in areas of mushroom production to further support their production and growth.

To Do List:

- Identify high-value mushroom-producing areas and develop management strategies to ensure the maintenance of production and supply.

3. Silviculture Impacts and Priorities

The following worksheet, defining the elements of the interim strategy, was produced in the workshop in the Bulkley / Cassiar Forest District offices.

Table 1 Silviculture issues, objectives, strategies, activities, targets, and impacts, Cassiar TSA workshop.

	Issues	Objectives	Strategies	Target	Activities	Opportunity Area (ha)	Jobs Days/ha	Cost ($)	Rank
1	security/maintenance of timber supply (social issues)	reduce losses to fire in THLB	Review and confirm priorities of fire control plan	THLB					
2	scarcity of specialty logs for local use	provide supply of house-building logs for local use	identify sources of house-building logs	high S.I.; close to local communities;	identify & locate stands with suitable trees				
3	NSR	eliminate NSR in THLB	reclassify or treat NSR		confirm condition of NSR in THLB			$15000 total	2
					classify NSR according to criteria in Cassiar Opening Decision Matrix	7874			
					treat areas as needed:				
					- survey, prescription	1000	0.1	$30/ha	3
					- walk-through	2000	0.05	$15/ha	3
					- site prep	20	1.0	$950/ha	3
					- planting or cultivation	1000	1.0	$650/ha	3
					- survey	2000	0.1	$30/ha	3
					- brushing	250	2.0	$700/ha	3
					- survey	2000	0.1	$35/ha	3
4	over-stocked stands	treat to bring back into THLB	identify stands	(accessible; close to communities; high site productivity); 2000 ha (Low fire); 100 ha (Pine fire)	spacing	2100	3.0	$900/ha	1
5	local employment	create employment through silviculture activities	provide training in anticipation of future demand for silviculture treatments; sponsor training at local college; provide on-the-job training require silviculture contractors to use local labour force	local communities; basic forestry skills					
6	unsalvaged losses	confirm/refine estimates of unsalvaged losses							
7	seed supply	establish seed production areas	identify candidate stands or plantations	spruce (Atlin area; dk)					
8	maintenance of natural-stand characteristics (spp. compostion, density, CWD)	review stocking standards w.r.t. suitability to local conditions							
9	Uncertainty of site productivity estimates	Improve/correct BEC mapping	add requirements for operational surveys to routinely collect site index information						
10	Wildlife habitat management	maintain critical grizzly bear habitat maintain critical caribou habitat	forest cover requirements to maintain critical grizzly habitat 80-120 yr pine-leading stands						
11	Supply of botanical forest products	increase berry production maintain mushroom production	prescribed burning to stimulate berry production partial-cutting systems to support mushroom growth						

Table 2. Summary of silvicultural activities, Cassiar TSA

Issue	Strategy	Activity	Target	Opportunity Area	Rank
1	Identify and treat overstocked stands to bring them into the THLB	spacing	Overstocked stands that are accessible, close to communities, and on high productivity sites.	2000 ha (Low fire); 100 ha (Pine fire)	1
2	Reclassify or treat NSR	reconnaissance (truck, helicopter)	NSR	7874	2
		classify (use Cassiar Opening Decision Matrix)		7874	3
		site preparation		20	3
		planting or cultivation		1000	3
		brushing		250	3
		survey		2000	3
4	Identify sources of house-building logs	identify and locate suitable stands	high site index, close to communities	?	4 ?

4. Silviculture Program

4.1 Tactical Priorities

Tactical priorities for Cassiar TSA were defined in the workshop by having participants ranking strategies and activities for implementation in the next five years. Priorities were assigned through discussion and consensus among the participants, and produced a clear sense of the most important activities from the participants' perspectives.

In Cassiar TSA, there is little pressure on timber supply because of the low levels of harvest relative to the AAC. In the short term, and because the AAC is small and significantly undercut, there is currently little justification for expenditures other than for training opportunities.

Workshop participants felt that the most important task is to undertake activities that would generate employment by identifying and spacing about 2100 ha of overstocked stands that resulted from fires in the Low and Pine areas to bring these stands back into the timber harvesting land base (Issue #1). The second and third priorities related to eliminating NSR (Issue #2) by confirming the condition of area labelled NSR, and then surveying and treating it as needed.

4.2 Program Costs and Benefits

The costs and benefits of the program developed in the workshop are summarized in Tables 3-6, below.

Table 3 shows the assumed unit costs and employment associated with each activity. Employment multipliers were estimated by the consultant and should be verified by the District.

Table 4 shows the area treated by activity and program year.

Table 5 shows expenditures in thousands of dollars by activity and program year.

Table 6 shows the person-days of employment generated by undertaking the activities listed in the preceding tables.

Table 3. Unit cost ($/ha) and employment (person-days/ha) assumptions

	Confirm condition of NSR[1]	Classify NSR	Survey, prescription	Walk-through	Site preparation	Plant or cultivate	Survey	Brush	Survey	Space
$/ha average	2		30	15	950	650	30	700	35	700
PDs/ha[5]			0.10	0.05	1.00	1.00	0.10	2.00	0.10	2.00

[1] $2/ha travel, helicopter

Table 4. Area (ha) treated by activity and year

Year	Confirm condition of NSR*	Classify NSR	Survey, prescription	Walk-through	Site preparation	Plant or cultivate	Survey	Brush	Survey	Space**	Total
1	15 000	7 874	200	400	4	0	0	50	0	210	23 738
2	0	0	200	400	4	200	0	50	0	210	1 064
3	0	0	200	400	4	200	200	50	0	210	1 264
4	0	0	200	400	4	200	200	50	0	210	1 264
5	0	0	200	400	4	200	200	50	200	210	1 464
Subtotal Yr 1-5	15 000	7 874	1 000	2 000	20	800	600	250	200	1 050	28 794
6 - 10	0	0	0	0	0	200	1 000	0	1 000	1 050	3 250
Total Yr 1-10	15 000	7 874	1 000	2 000	20	1 000	1 600	250	1 200	2 100	32 044

*$2/ha x total area of NSR reported in TSR analysis report
**historically have treated 50 to 100 ha/yr; could do 200 ha/yr to generate employment

Table 5. Expenditure ($ x 1000) by activity and year

Year	Confirm condition of NSR	Classify NSR	Survey, prescription	Walk-through	Site preparation	Plant or cultivate	Survey	Brush	Survey	Space	Total
1	15	0	6	6	4	0	0	35	0	147	213
2	0	0	6	6	4	130	0	35	0	147	328
3	0	0	6	6	4	130	6	35	0	147	334
4	0	0	6	6	4	130	6	35	0	147	334
5	0	0	6	6	4	130	6	35	7	147	341
Subtotal Yr 1-5	15	0	30	30	19	520	18	175	7	735	1 549
6 - 10	0	0	0	0	0	130	30	0	35	735	930
Total Yr 1-10	15	0	30	30	19	650	48	175	42	1 470	2 479

Table 6. Short term employment benefits (person-years*), by activity and year

Year	Confirm condition of NSR*	Classify NSR	Survey, prescription	Walk-through	Site preparation	Plant or cultivate	Survey	Brush	Survey	Space	Total
1	0.03	0.00	0.10	0.10	0.02	0.00	0.00	0.50	0.00	2.10	3
2	0.00	0.00	0.10	0.10	0.02	1.00	0.00	0.50	0.00	2.10	4
3	0.00	0.00	0.10	0.10	0.02	1.00	0.10	0.50	0.00	2.10	4
4	0.00	0.00	0.10	0.10	0.02	1.00	0.10	0.50	0.00	2.10	4
5	0.00	0.00	0.10	0.10	0.02	1.00	0.10	0.50	0.10	2.10	4
Subtotal Yr 1-5	0.0	0.0	0.5	0.5	0.1	4.0	0.3	2.5	0.1	10.5	18.5
6 - 10	0.0	0.0	0.0	0.0	0.0	1.0	0.5	0.0	0.5	10.5	12.5
Total Yr 1-10	0.0	0.0	0.5	0.5	0.1	5.0	0.8	2.5	0.6	21.0	31.0

* one person-year of employment is equivalent to 200 person-days of employment

5. Issues Requiring Investigation ("To Do List")

As various issues, objectives and strategies were discussed in the workshop, there were inevitably some that were clouded by lack of information. Either the lack of information itself was the issue (e.g., uncertainty about site index estimates for existing regenerated stands), or the issue could not be resolved until further investigation provided some clarification (e.g., the impact of silvicultural systems on wildlife habitat). These items were added to a running "To Do List" throughout the workshop. At the end of the workshop participants ranked these items by urgency (Table 6).

Table 6 Issues identified in the workshop that require investigation, Cassiar TSA

Rank	Issue
1	Re-inventory TSA, focusing on THLB forest cover. The forest cover inventory appears to lack credible information which lends to the concern of timber supply and Growth and Yield forecasts.
2	Initiate and complete Predictive Ecosystem Mapping (PEM) on the Timber Harvesting Land Base of the Cassiar TSA. PEM is designed to use available spatial data and knowledge of ecological-landscape relationships to automate the computer generation of ecosystem maps.
3	Review silviculture opportunities survey proposal from 1996 to determine if any training employment opportunities exist through silviculture treatments that are not mentioned in the context of this strategy. (Bill Camenzind to send)
4	Refine seed zone boundaries, and seed availability. Changes in seed transfer guidelines and boundaries of zones, has an impact on the requirement for seed. A review will reveal any potential shortages that will need to be addressed.
5	Identify high-value mushroom-producing areas and develop management strategies and ensure the maintenance of production and supply. This may be achieved through adoption of alternative silviculture systems in the high-value areas.
6	Link identifying local sources of house-building logs to community development planning. Many locals rely on the local source of logs for construction of their homes. A plan that identifies future requirements would be helpful to ensure supply.

Appendix A—Executive Summary, Incremental Silviculture Strategy for BC

Purpose

This strategy provides guidance to the application of available funds for incremental silviculture activities. It is not tied to a specified funding level.

Government's Goals

- Sustainable Use
- Community Stability
- A Strong Forest Sector

Key Principles

1 Because the distant future cannot be foretold, the best and only course of action in managing the timber resource is that which minimizes risk and maintains options.

2 British Columbia's forests are import locally, provincially, nationally and globally and should be managed in this context.

3 Each generation of British Columbians becomes the steward of the province's forest resources and has a moral obligation to preserve this heritage for future generations.

Working Targets

Within the context of the guiding principles:

1 Minimize the anticipated interim reduction in timber supply so that provincial annual harvests of at least 65 million m^3 can be achieved.

2 Create a long-term timber supply capable of supporting a steady long-term provincial harvest level of at least 75 million m^3.

3 Over the long term, maintain the production of premium quality logs at or above 10% of total harvest.

Major Silvicultural Strategies

- Increase the use of alternative silvicultural systems and commercial thinning.
- Achieve earlier green-up of harvested areas.
- Increase regenerated stand volumes 20%.
- Eliminate all pre-1982 good and medium site backlog NSR and all 1982 to 1987 backlog NSR.
- Initiate a long-rotation quality management program for stands where harvesting must be delayed.

Other silvicultural and non-silvicultural strategies must also be implemented to achieve the working targets.

Strategy Implementation

Regional and management unit strategies must be developed, followed by programs and plans to implement them

Appendix B—
Summary of Workshop Evaluations, Cassiar TSA (15 March 2001)

Total and average scores are shown in parentheses

1 Length of session	5 too long	4	3 just right	2	1 too short
(Average: 2.8)			(4)	(1)	
2 Level of detail of content	5 too much	4	3 just right	2	1 not enough
(Average: 2.8)			(4)	(1)	
3 Instructional method (style, interaction, clarity)	5 excellent	4	3 adequate	2	1 poor
(Average: 3.8)	(1)	(2)	(2)		
4 Relevance to your interests/needs	5 extremely	4	3 average	2	1 not at all
(Average: 3.8)	(1)	(2)	(2)		
5 Extent to which your needs were met	5 entirely	4	3 average	2	1 not at all
(Average: 3.8)		(4)	(1)		
6 Usefulness of the handout graphics and texts	5 very	4	3 adequate	2	1 useless
(Average: 3.0)			(5)		

What were the strengths of this workshop?

- Good in describing what isn't appropriate for Cassiar.
- Good discussions.
- Brought out silviculture issues for Cassiar. It has been a low priority for this level of planning for the past several years.
- Addressed the problem in a systematic manner, consistent with other TSAs.

What were the weaknesses of this workshop?

- General lack of interest of participants, very little focus.
- Relevance to actual silviculture opportunities that might be carried out.
- Unit did not fit into the traditional mold, however that's not the workshop's fault. All in all the workshop did address all that it could.

How could this workshop be improved?

- Can't truly be improved, Cassiar situation doesn't lend itself well to a Type I strategy.
- More direct invitations to reps from industry and First Nations.

- It was good. The consultants did an admirable job for bringing out issues in a unique TSA. At times they really had to “pull” information from the participants.
- Pretty good it was.

Other comments?

- Looking forward to draft and final reports.