Slave Lake Pulp Corporation 2000 Detailed Forest Management Plan

Conifer Harvest Level	Deciduous Harvest Level
(m ³ /yr – 15/10 utilization standard)	(m ³ /yr – 15/10 utilization standard)
586,000	547,587

Table H-15: TSA Results – Single Pass with Harvest Constraint





Forest Structure After 160 Years



Harvest Flow Summary

Growing Stock



Graph Descriptions

Initial age class distribution: Current net area in each ten-year age class, by cover group. Harvest flow summary: Illustrates the scheduled coniferous and deciduous harvest volume by five-year period over the planning horizon. Average harvest age: Summary of the area-weighted average age of all stands scheduled for harvest in each five-year period, over the planning horizon. Growing stock: Summary of total, conifer and deciduous merchantable volume on the net landbase, by five-year period, over the planning horizon. Forest structure after 160 years: Projected structure of the net landbase after 160 years. The age class distribution (bars) and harvest age volume (growth capacity - line symbol) associated with each age class are presented.



H.3.3.6 Single Pass with Harvest Constraint and Stand Density Management (SDM)

Table H-16: Run Control Parameters – Single Pass with Harvest Constraint and SDM

CONSTRAINT	SIMULATION PARAMETER
FMU	FMA (S1S, S2S, S6S) + S1, S6, S2
Planning horizon	160 years
Targeted average harvest age at the end of the planning horizon:	80+/-5
Minimum harvest age:	1) Conifer 70 Years 2) Deciduous 50 Years
Landbase	Single Landbase
Sorting rules:	1) Oldest First 2) Modulate deciduous flow 3) Maximize conifer harvest
Harvest flow constraint:	Dual Even flow
Yield curve sets:	Nonlinear plot based - 15/10 utilization
Cull deductions:	Applied – 2% Conifer (1.5% conifer in S6S + S6), 10% deciduous
Yield curves:	Net yield curves with Stand Density Management
Regeneration transition:	Stand Density Management
Introduce harvest plans:	Yes
Spatial stand adjacency:	Not applied
Adjacency: Time horizon:	Not applied
Adjacency: Green-up:	Not applied
Adjacency: Accumulate adjacent stands:	Not applied
Modulation	Applied
Operating unit sequencing:	Not applied
Number of compartments open simultaneously:	Not applied



Table H-17: TSA Results – Single Pass with Harvest Constraint and SDM

Conifer Harvest Level	Deciduous Harvest Level
(m ³ /yr – 15/10 utilization standard)	(m ³ /yr – 15/10 utilization standard)
593,500	543,132



Average Harvest Age



Forest Structure After 160 Years



100.000 500.0000 500.000 500.000 500.000 500.000 500.000 500.000 50

Harvest Flow Summary

Growing Stock



Graph Descriptions

Initial age class distribution: Current net area in each ten-year age class, by cover group. Harvest flow summary: Illustrates the scheduled coniferous and deciduous harvest volume by five-year period over the planning horizon. Average harvest age: Summary of the area-weighted average age of all stands scheduled for harvest in each five-year period, over the planning horizon. Growing stock: Summary of total, conifer and deciduous merchantable volume on the net landbase, by five-year period, over the planning horizon. Forest structure after 160 years: Projected structure of the net landbase after 160 years. The age class distribution (bars) and harvest age volume (growth capacity - line symbol) associated with each age class are presented.



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H.3.3.7 Single Pass with Harvest Constraint, Stand Density Management and Carry-Over

 Table H-18: Run Control Parameters – Single Pass with Harvest Constraint, Stand Density

 Management and Carry-Over

CONSTRAINT	SIMULATION PARAMETER
FMU	FMA (S1S, S2, S2S, S6, S6S)
Planning horizon	160 years
Targeted average harvest age at the end of the planning horizon:	80+/- 5
Minimum harvest age:	1) Conifer 70 Years 2) Deciduous 50 Years
Landbase	Single Landbase
Sorting rules:	1) Oldest First 2) Modulate deciduous flow 3) Maximize conifer harvest
Harvest flow constraint:	Dual Even flow with carry over in conifer
Yield curve sets:	Nonlinear plot based - 15/10 utilization
Cull deductions:	Applied – 2% Conifer (1.5% conifer in S6S + S6), 10% deciduous
Yield curves:	Net yield curves with Stand Density Management
Regeneration transition:	Stand Density Management
Introduce harvest plans:	Yes
Spatial stand adjacency:	Not applied
Adjacency: Time horizon:	Not applied
Adjacency: Green-up:	Not applied
Adjacency: Accumulate adjacent stands:	Not applied
Modulation	Applied
Operating unit sequencing:	Not applied
Number of compartments open simultaneously:	Not applied



 Table H-19: TSA Results – Single Pass with Harvest Constraint, Stand Density

 Management and Carry-Over

Conifer Harvest Level	Deciduous Harvest Level
(m ³ /yr – 15/10 utilization standard)	$(m^{3}/yr - 15/10 \text{ utilization standard})$
722,000 (yr. 1-5)	543,194
step down to 593,500 (yr. 6-160)	



Average Harvest Age



Forest Structure After 160 Years



Harvest Flow Summary







Initial age class distribution: Current net area in each ten-year age class, by cover group. Harvest flow summary: Illustrates the scheduled coniferous and deciduous harvest volume by five-year period over the planning horizon. Average harvest age: Summary of the area-weighted average age of all stands scheduled for harvest in each five-year period, over the planning horizon. Growing stock: Summary of total, conifer and deciduous merchantable volume on the net landbase, by five-year period, over the planning horizon. Forest structure after 160 years: Projected structure of the net landbase after 160 years. The age class distribution (bars) and harvest age volume (growth capacity - line symbol) associated with each age class are presented.





H.3.3.8 Single Pass with Harvest Constraints, SDM and Carry-Over for 10 Years Then Step Down to Two Pass (Risk Analysis)

Table H-20: Run Control Parameters – Single Pass with Harvest Constraints, SDM and Carry-Over for 10 Years Then Step Down to Two Pass

<u>CONSTRAINT</u>	SIMULATION PARAMETER
FMU	FMA (S1S, S2S, S6S) + S1, S6, S2
Planning horizon	160 years
Targeted average harvest age at the end of the planning horizon:	80+/-5
Minimum harvest age:	1) Conifer 70 Years 2) Deciduous 50 Years
Landbase	Single Landbase
Sorting rules:	1) Oldest First 2) Modulate deciduous flow 3) Maximize conifer harvest
Harvest flow constraint:	Dual Even flow with carry over in conifer
Yield curve sets:	Nonlinear plot based - 15/10 utilization
Cull deductions:	Applied – 2% Conifer (1.5% conifer in S6S + S6), 10% deciduous
Yield curves:	Net yield curves
Regeneration transition:	DFMP Team Transition
Introduce harvest plans:	Yes
Spatial stand adjacency:	Yes
Adjacency: Time horizon:	50 Years
Adjacency: Green-up:	15 Conifer / 10 Deciduous
Adjacency: Accumulate adjacent stands:	Yes (Maximum 300 ha) after initial 10 years of harvest
Modulation	Applied
Operating unit sequencing:	Not applied
Number of compartments open simultaneously:	Not applied



Table H-21: TSA Results - Single Pass with Harvest Constraints, SDM and Carry-Over for 10 Years Then Step Down to Two Pass

Conifer Harvest Level	Deciduous Harvest Level
(m ³ /yr – 15/10 utilization standard)	(m ³ /yr – 15/10 utilization standard)
722,000 (yr. 1-5) step down to	503,307
593,500 (yr. 6-10) step down to	
549,000 (yr. 11-160)	

Initial Age Class Distribution

















CONVOLUM - DECVOLUM - TOTVOLUM

Graph Descriptions Initial age class distribution: Current net area in each ten-year age class, by cover group. Harvest flow summary: Illustrates the scheduled coniferous and deciduous harvest volume by five-year period over the planning horizon. Average harvest age: Summary of the area-weighted average age of all stands scheduled for harvest in each five-year period, over the planning horizon. Growing stock: Summary of total, conifer and deciduous merchantable volume on the net landbase, by five-year period, over the planning horizon. Forest structure after 160 years: Projected structure of the net landbase after 160 years. The age class distribution (bars) and harvest age volume (growth capacity - line symbol) associated with each age class are presented.

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H.3.3.9 Single Pass with Harvest Constraints and SDM for 10 Years then Step Down to Single Pass (Risk Analysis)

 Table H-22: Run Control Parameters – Single Pass with Harvest Constraints and SDM for

 10 Years then Step Down to Single Pass

CONSTRAINT	SIMULATION PARAMETER
FMU	FMA (S1S, S2S, S6S) + S1, S6, S2
Planning horizon	160 years
Targeted average harvest age at the end of the planning horizon:	80+/-5
Minimum harvest age:	1) Conifer 70 Years 2) Deciduous 50 Years
Landbase	Single Landbase
Sorting rules:	1) Oldest First 2) Modulate deciduous flow 3) Maximize conifer harvest
Harvest flow constraint:	Dual Even flow with SDM Drop to Single Pass Level
Yield curve sets:	Nonlinear plot based - 15/10 utilization
Cull deductions:	Applied – 2% Conifer (1.5% conifer in S6S + S6), 10% deciduous
Yield curves:	Net yield curves
Regeneration transition:	DFMP Team Transition
Introduce harvest plans:	Yes
Spatial stand adjacency:	Not applied
Adjacency: Time horizon:	Not applied
Adjacency: Green-up:	Not applied
Adjacency: Accumulate adjacent stands:	Not applied
Modulation	Applied
Operating unit sequencing:	Not applied
Number of compartments open simultaneously:	Not applied



Table H-23: TSA Results – Single Pass with Harvest Constraints and SDM for 10 Years then Step Down to Single Pass

Conifer Harvest Level	Deciduous Harvest Level
(m°/yr – 15/10 utilization standard)	(m°/yr – 15/10 utilization standard)
593,500 (yr. 1-10) step down to 586,000 (yr. 11-160)	547,785



Average Harvest Age



Forest Structure After 160 Years



Harvest Flow Summary



75 80 us Volume 📥 Deciduous Volum

70

Graph Descriptions Initial age class distribution: Current net area in each ten-year age class, by cover group. Harvest flow summary: Illustrates the scheduled coniferous and deciduous harvest volume by five-year period over the planning horizon. Average harvest age: Summary of the area-weighted average age of all stands scheduled for harvest in each five-year period, over the planning horizon. Growing stock: Summary of total, conifer and deciduous merchantable volume on the net landbase, by five-year period, over the planning horizon. Forest structure after 160 years: Projected structure of the net landbase after 160 years. The age class distribution (bars) and harvest age volume (growth capacity - line symbol) associated with each age class are presented.

