

Muskeg Confluence 3a

Run Scenarios in database with Individual Blocks

Select Scenario: **MC_3a** [Run Scenario] [Return to Main]

Simulate Each Unit From **1983** for **200** years with **1** year time steps

Watershed Area, km²: **15.4** Total Area Cut, ha: **1126.1** Percent Watershed Cut: **73.0%**

Appropriate Forest and Unit Group: **GRANDE PRAIRIE G3 TO G7** Yield Data Selection: **Forest Unit Stations** Region: **New England/Boreal**

Watershed Yield Data Source: **Muskeg River near Grande Cache** Year Progress

Statistic **AVG** Period **1972-2003** Yld, mm: **226.4** Area, km²: **706**

Precipitation Data Source: **GRANDE CACHE** Units Progress

Statistic **AVG** Period **1985-1995** Annual Ppt, mm: **590.4**

Cut Block Details: **frmRunScenarios, Individual Blocks** [Table View]

Annual Harvest Data, Operational Unit

Cut, ha	21.2	Year Cut	1983
# Blks	1	Blk Size, ha	21.2
Aspect	S	Block Elev, m	1348.0

Surrounding Stand Data

Stand Species	DECIDUOUS		
Stand BA	29.2	Stand TH	19.0

Regional (Base) Silvicultural Data

Base BA	20.0	Years To Base BA	80
Base TH, m	20.0	Years To Base TH	80

Record: 1 of 89

Results Scenario MC_3a

Year	Yield, mm	%
1982	0.0	0.0%
1983	2.2	1.0%
1984	7.6	3.4%
1985	10.5	4.6%
1986	17.7	7.8%
1987	15.3	6.8%
1988	16.2	7.1%
1989	26.4	11.7%
1990	30.3	13.4%
1991	27.2	12.0%
1992	26.4	11.7%
1993	25.9	11.4%
1994	25.2	11.1%
1995	24.2	10.7%
1996	23.3	10.3%
1997	22.4	9.9%

MAX Yield Increase, mm: **39.2** Calibration value: **1.145**

MAX Percent Increase: **17.3%** Base Yield, mm: **226.4**

Year of MAX: **2012** Precipitation, mm: **590.4**

Scenario Name: **MC_3a** Region: **New England/Boreal**

[Save Yield Data] [ECA Mature Ba] [ECA Max Yld] [Max Day's Analysis] [Peak Flow Analysis] [Return]

MC_3a ECA based on Maximum Water Yield Increase

Year	Eca, ha	Eca, %
1982	0.0	0.0%
1983	21.2	1.9%
1984	79.4	7.0%
1985	107.0	9.5%
1986	171.9	15.3%
1987	147.4	13.1%
1988	153.5	13.6%
1989	255.6	22.7%
1990	296.1	26.3%
1991	264.2	23.5%
1992	256.3	22.8%
1993	251.0	22.3%
1994	244.4	21.7%
1995	234.6	20.8%
1996	224.6	19.9%
1997	216.0	19.2%
1998	208.2	18.5%
1999	198.8	17.7%
2000	188.4	16.7%
2001	178.2	15.8%
2002	167.9	14.9%
2003	152.0	13.5%
2004	142.4	12.7%

Maximum Eca, ha: **370.8** Max Eca, %: **32.9%**

Year of max Eca: **2012**

Scenario: **MC_3a** Region: **New England/Boreal**

[About Eca Max Yield] [Save Data to Excel] [Return]

Maximum day's flow results with scenario MC_3a

Predicted Annual Day's Maximum Flow and Yield

Recurrence Interval	Without Harvest		With Harvest			
	Flow m ³ /s	Yield mm	Flow m ³ /s	Yield mm	Change m ³ /s	Percent Increase
2 Years	1.2	6.5	1.5	8.5	0.37	31.5%
5 Years	2.1	11.7	2.8	15.5	0.67	32.0%
10 Years	2.7	15.0	3.4	19.2	0.75	28.1%
20 Years	3.2	18.1	4.0	22.3	0.75	23.3%
50 Years	3.9	21.9	4.7	26.1	0.75	19.3%
100 Years	4.4	24.6	5.1	28.8	0.75	17.1%

Area Harvested, km²: **11.3** 73.0%

Watershed Area, km²: **15.4**

Peak Year: **2011**

Peak Flow Function: **GRANDE PRAIRIE G3 TO G7**

[About Peak Flows] [Save Data To Excel] [Return to Results]

Muskeg Confluence 4a

Run Scenarios in database with Individual Blocks

Select Scenario **MC_4a** Run Scenario Return to Main

Simulate Each Unit From **1987** for **200** years with **1** year time steps

Watershed Area, km²: **7.7** Total Area Cut, ha: **583.1** Percent Watershed Cut: **75.6%**

Appropriate Forest and Unit Group: **GRANDE PRAIRIE G3 TO G7** Yield Data Selection: **New England/Boreal** Region: **New England/Boreal**

Watershed Yield Data Source: **Muskeg River near Grande Cache** Year Progress

Statistic **AVG** Period **1972-2003** Yld, mm: **226.4** Area, km²: **706**

Precipitation Data Source: **GRANDE CACHE** Units Progress

Statistic **AVG** Period **1985-1995** Annual Ppt. mm: **590.4**

Cut Block Details: frmRunScenarios, Individual Blocks Table View

Annual Harvest Data, Operational Unit

Cut, ha: **2.1** Year Cut: **1987**

Blks: **1** Blk Size, ha: **2.5**

Aspect: **EW** Block Elev, m: **1270.0**

Regeneration Sp: **DECIDUOUS**

Basal Area Func: **DECID FAIR BA**

Tree Height Func: **DECID FAIR TH**

Surrounding Stand Data

Stand Species: **CONIFEROUS**

Stand BA: **31.2** Stand TH: **4.0**

Regional (Base) Silvicultural Data

Base BA: **20.0** Years To Base BA: **80**

Base TH, m: **20.0** Years To Base TH: **80**

Record: 14 of 47

Results Scenario MC_4a

Year	Yield, mm	%
1986	0.0	0.0%
1987	14.1	6.2%
1988	41.8	18.5%
1989	47.1	20.8%
1990	41.1	18.1%
1991	37.7	16.7%
1992	35.7	15.8%
1993	33.1	14.6%
1994	30.8	13.6%
1995	28.9	12.8%
1996	27.3	12.1%
1997	25.7	11.4%
1998	23.6	10.4%
1999	21.4	9.5%
2000	19.3	8.5%
2001	25.3	11.2%

MAX Yield Increase, mm: **47.1** Calibration value: **1.132**

MAX Percent Increase: **20.8%** Base Yield, mm: **226.3**

Scenario Name: **MC_4a** Year of MAX: **1989** Precipitation, mm: **590.4**

Region: **New England/Boreal**

Save Yield Data ECA Mature Ba ECA Max Yld Max Day's Analysis Peak Flow Analysis Return

MC_4a ECA based on Maximum Water Yield Increase

Year	Eca, ha	Eca, %
1986	0.0	0.0%
1987	70.4	12.1%
1988	207.7	35.6%
1989	233.1	40.0%
1990	203.1	34.8%
1991	186.6	32.0%
1992	176.6	30.3%
1993	164.0	28.1%
1994	152.4	26.1%
1995	143.2	24.6%
1996	135.3	23.2%
1997	127.3	21.8%
1998	116.9	20.1%
1999	106.1	18.2%
2000	95.4	16.4%
2001	119.6	20.5%
2002	110.9	19.0%
2003	104.1	17.9%
2004	104.5	17.9%
2005	99.7	17.1%
2006	94.6	16.2%
2007	114.0	19.6%
2008	102.9	17.6%

Maximum Eca, ha: **233.1** Max Eca, %: **40.0%**

Year of max Eca: **1989**

Scenario: **MC_4a** Region: **New England/Boreal**

About Eca Max Yield Save Data to Excel Return

Maximum day's flow results with scenario MC_4a

Predicted Annual Day's Maximum Flow and Yield

Recurrence Interval	Without Harvest		With Harvest		Change m ³ /s	Percent Increase
	Flow m ³ /s	Yield mm	Flow m ³ /s	Yield mm		
2 Years	0.6	6.5	0.8	9.2	0.24	41.2%
5 Years	1.0	11.7	1.4	15.6	0.34	32.9%
10 Years	1.3	14.9	1.7	18.7	0.34	25.9%
20 Years	1.6	17.8	1.9	21.7	0.34	21.6%
50 Years	1.9	21.4	2.3	25.3	0.34	18.0%
100 Years	2.2	24.1	2.5	28.0	0.34	16.0%

Area Harvested, km²: **5.8** 75.6%

Watershed Area, km²: **7.7**

Peak Year: **1988**

Time Course of Maximum Day's Flow

Peak Year: **1988**

Peak Flow Function: **GRANDE PRAIRIE G3 TO G7**

About Peak Flows Save Data To Excel Return to Results

Muskeg Confluence 5a

Run Scenarios in database with Individual Blocks

Select Scenario: **MC_5a** [Run Scenario] [Return to Main]

Simulate Each Unit From **1987** for **200** years with **1** year time steps

Watershed Area, km²: **12.3** Total Area Cut, ha: **797.3** Percent Watershed Cut: **65.1%**

Appropriate Forest and Unit Group: **GRANDE PRAIRIE G3 TO G7** Yield Data Selection: [] Region: **New England/Boreal**

Watershed Yield Data Source: **Muskeg River near Grande Cache** Year Progress: []

Statistic: **AVG** Period: **1972-2003** Yld, mm: **226.4** Area, km²: **706**

Precipitation Data Source: **GRANDE CACHE** Units Progress: []

Statistic: **AVG** Period: **1985-1995** Annual Ppt, mm: **590.4**

Cut Block Details: **frmRunScenarios, Individual Blocks** [Table View]

Annual Harvest Data, Operational Unit

Cut, ha	39.4	Year Cut	1987
# Blks	1	Blk Size, ha	39.4
Aspect	S	Block Elev, m	1300.0
Regeneration Sp	DECIDUOUS		
Basal Area Func	DECID FAIR BA		
Tree Height Func	DECID FAIR TH		

Surrounding Stand Data

Stand Species	DECIDUOUS
Stand BA	29.2
Stand TH	19.0

Regional (Base) Silvicultural Data

Base BA	20.0	Years To Base BA	80
Base TH, m	20.0	Years To Base TH	80

Record: 1 of 64

Results Scenario MC_5a

Year	Yield, mm	%
1986	0.0	0.0%
1987	7.4	3.3%
1988	21.6	9.5%
1989	20.7	9.2%
1990	19.0	8.4%
1991	17.4	7.7%
1992	15.9	7.0%
1993	14.6	6.5%
1994	13.4	5.9%
1995	12.1	5.4%
1996	10.9	4.8%
1997	9.7	4.3%
1998	8.5	3.8%
1999	7.3	3.2%
2000	15.9	7.0%
2001	12.3	5.4%

MAX Yield Increase, mm: **21.6** Calibration value: **1.125**
 MAX Percent Increase: **9.5%** Base Yield, mm: **226.4**
 Year of MAX: **1988** Precipitation, mm: **590.4**

Scenario Name: **MC_5a** Region: **New England/Boreal**

[Save Yield Data] [ECA Mature Ba] [ECA Max Yld] [Max Day's Analysis] [Peak Flow Analysis] [Return]

MC_5a ECA based on Maximum Water Yield Increase

Year	Eca, ha	Eca, %
1986	0.0	0.0%
1987	58.2	7.3%
1988	185.3	23.2%
1989	179.1	22.5%
1990	163.7	20.5%
1991	149.8	18.8%
1992	137.3	17.2%
1993	126.3	15.8%
1994	115.4	14.5%
1995	104.7	13.1%
1996	94.1	11.8%
1997	83.7	10.5%
1998	73.5	9.2%
1999	63.5	8.0%
2000	132.7	16.6%
2001	102.6	12.9%
2002	84.1	10.5%
2003	81.0	10.2%
2004	79.5	10.0%
2005	74.9	9.4%
2006	71.9	9.0%
2007	86.6	10.9%
2008	85.7	10.7%

Maximum Eca, ha: **185.3** Max Eca, %: **23.2%**
 Year of max Eca: **1988**

Scenario: **MC_5a** Region: **New England/Boreal**

[About Eca Max Yield] [Save Data to Excel] [Return]

Maximum day's flow results with scenario MC_5a

Predicted Annual Day's Maximum Flow and Yield

Recurrence Interval	Without Harvest		With Harvest			
	Flow m ³ /s	Yield mm	Flow m ³ /s	Yield mm	Change m ³ /s	Percent Increase
2 Years	0.9	6.5	1.0	7.0	0.06	7.0%
5 Years	1.7	11.7	1.8	12.6	0.12	7.1%
10 Years	2.1	15.0	2.3	16.0	0.15	7.3%
20 Years	2.5	18.0	2.7	19.3	0.19	7.4%
50 Years	3.1	21.7	3.3	23.3	0.23	7.4%
100 Years	3.5	24.4	3.7	26.3	0.26	7.5%

Area Harvested, km²: **8.0** 65.1% [] [1987] []
 Watershed Area, km²: **12.3** [Displayed Above]

Time Course of Maximum Day's Flow

Peak Year: **1987**

Peak Flow Function: **GRANDE PRAIRIE G3 TO G7** [About Peak Flows] [Save Data To Excel] [Return to Results]

Muskeg Confluence 6a

Run Scenarios in database with Individual Blocks

Select Scenario: **MC_6a** [Run Scenario] [Return to Main]

Simulate Each Unit From **2008** for **200** years with **1** year time steps

Watershed Area, km²: **12.0** Total Area Cut, ha: **737.9** Percent Watershed Cut: **61.5%**

Appropriate Forest and Unit Group: **GRANDE PRAIRIE G3 TO G7** Yield Data Selection: **Forest Unit Stations** Region: **New England/Boreal**

Watershed Yield Data Source: **Muskeg River near Grande Cache** Year Progress

Statistic: **AVG** Period: **1972-2003** Yld, mm: **226.4** Area, km²: **706**

Precipitation Data Source: **GRANDE CACHE** Units Progress

Statistic: **AVG** Period: **1985-1995** Annual Ppt, mm: **590.4**

Cut Block Details: **frmRunScenarios, Individual Blocks** [Table View]

Annual Harvest Data, Operational Unit

Cut, ha: **27.8** Year Cut: **2008**

Blks: **1** Blk Size, ha: **55.4**

Aspect: **EW** Block Elev, m: **1244.0**

Regeneration Sp: **CONIFEROUS**

Basal Area Func: **LPP FAIR BA**

Tree Height Func: **LPP FAIR TH**

Surrounding Stand Data

Stand Species: **CONIFEROUS**

Stand BA: **28.8** Stand TH: **10.0**

Regional (Base) Silvicultural Data

Base BA: **35.0** Years To Base BA: **130**

Base TH, m: **20.0** Years To Base TH: **160**

Record: **14** of 53

Results Scenario MC_6a

Year	Yield, mm	%
2007	0.0	0.0%
2008	10.8	4.8%
2009	18.3	8.1%
2010	20.8	9.2%
2011	18.4	8.1%
2012	28.0	12.4%
2013	24.4	10.8%
2014	22.1	9.8%
2015	22.7	10.0%
2016	23.9	10.6%
2017	24.0	10.6%
2018	26.0	11.5%
2019	26.5	11.7%
2020	31.3	13.8%
2021	35.8	15.8%
2022	31.4	13.9%

Record: **14**

MAX Yield Increase, mm: **35.8** Calibration value: **1.048**

MAX Percent Increase: **15.8%** Base Yield, mm: **226.4**

Year of MAX: **2021** Precipitation, mm: **590.4**

Scenario Name: **MC_6a** Region: **New England/Boreal**

[Save Yield Data] [ECA Mature] [ECA Max Yld] [Max Day's Analysis] [Peak Flow Analysis] [Return]

MC_6a ECA based on Maximum Water Yield Increase

Year	Eca, ha	Eca, %
2007	0.0	0.0%
2008	91.8	12.4%
2009	166.3	22.5%
2010	186.2	25.2%
2011	164.3	22.3%
2012	257.5	34.9%
2013	222.8	30.2%
2014	201.6	27.3%
2015	205.5	27.9%
2016	216.9	29.4%
2017	218.1	29.6%
2018	233.1	31.6%
2019	237.6	32.2%
2020	282.9	38.3%
2021	327.0	44.3%
2022	286.0	38.8%
2023	260.8	35.3%
2024	254.0	34.4%
2025	237.8	32.2%
2026	222.5	30.2%
2027	210.4	28.5%
2028	201.2	27.3%
2029	192.3	26.1%

Maximum Eca, ha: **327.0** Max Eca, %: **44.3%**

Year of max Eca: **2021**

Scenario: **MC_6a** Region: **New England/Boreal**

[About Eca Max Yield] [Save Data to Excel] [Return]

Maximum day's flow results with scenario MC_6a

Recurrence Interval	Without Harvest		With Harvest			
	Flow m ³ /s	Yield mm	Flow m ³ /s	Yield mm	Change m ³ /s	Percent Increase
2 Years	0.9	6.5	1.2	8.4	0.27	29.5%
5 Years	1.6	11.7	2.1	15.0	0.45	27.7%
10 Years	2.1	15.0	2.5	18.2	0.45	21.7%
20 Years	2.5	18.0	2.9	21.2	0.45	18.1%
50 Years	3.0	21.7	3.5	24.9	0.45	15.0%
100 Years	3.4	24.4	3.8	27.7	0.45	13.3%

Area Harvested, km²: **7.4** 61.5%

Watershed Area, km²: **12.0**

Peak Flow Function: **GRANDE PRAIRIE G3 TO G7**

Time Course of Maximum Day's Flow

Peak Year: **2020**

[About Peak Flows] [Save Data To Excel] [Return to Results]

Muskeg Confluence 8a

Run Scenarios in database with Individual Blocks

Select Scenario: **MC_8a** [Run Scenario] [Return to Main]

Simulate Each Unit From **1999** for **200** years with **1** year time steps

Watershed Area, km²: **9.3** Total Area Cut, ha: **391.1** Percent Watershed Cut: **42.1%**

Appropriate Forest and Unit Group: **GRANDE PRAIRIE G3 TO G7** Yield Data Selection: **Forest Unit Stations** Region: **New England/Boreal**

Watershed Yield Data Source: **Muskeg River near Grande Cache** Year Progress

Statistic: **AVG** Period: **1972-2003** Yld, mm: **226.4** Area, km²: **706**

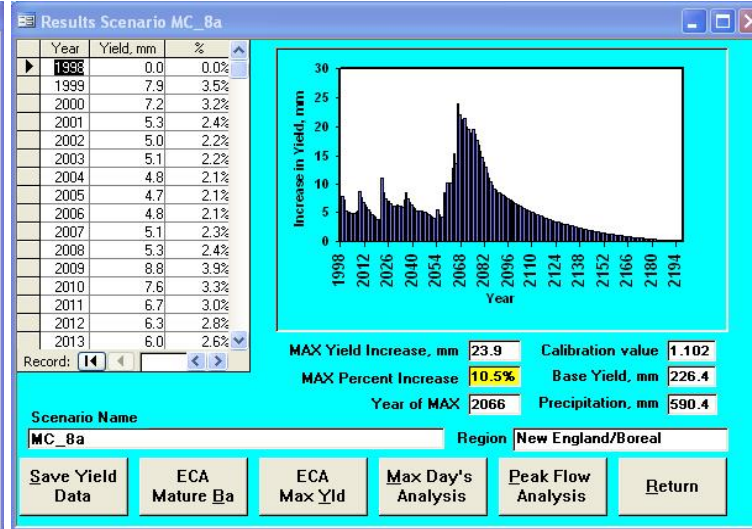
Precipitation Data Source: **GRANDE CACHE** Units Progress

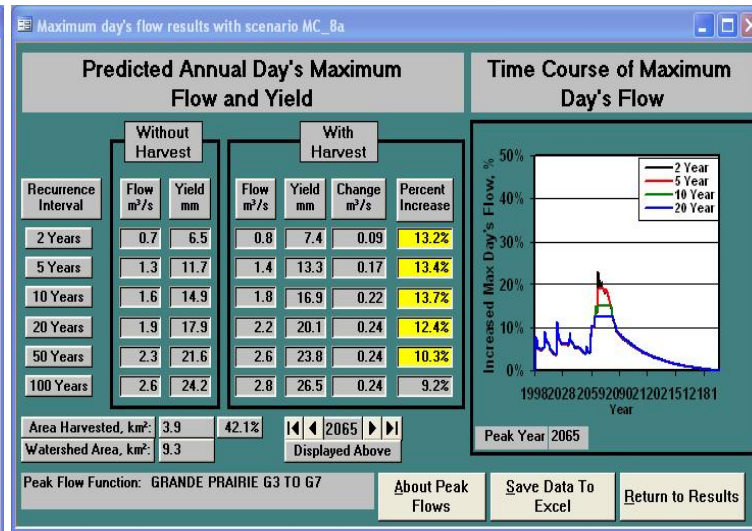
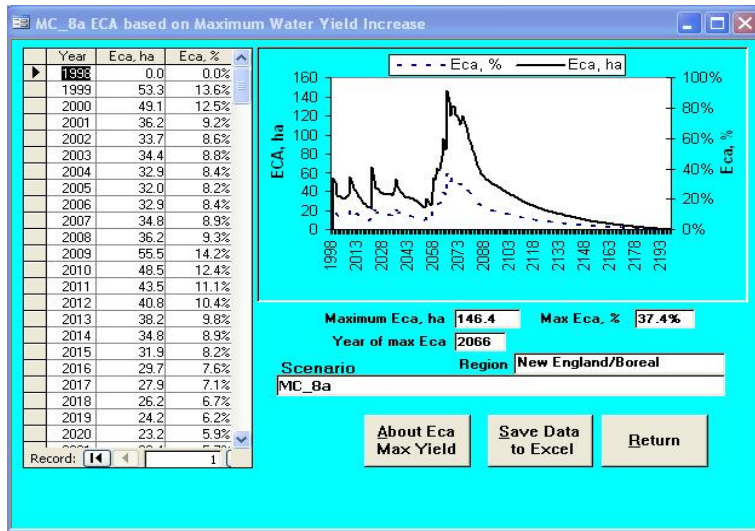
Statistic: **AVG** Period: **1985-1995** Annual Ppt, mm: **590.4**

Cut Block Details: **frmRunScenarios, Individual Blocks** [Table View]

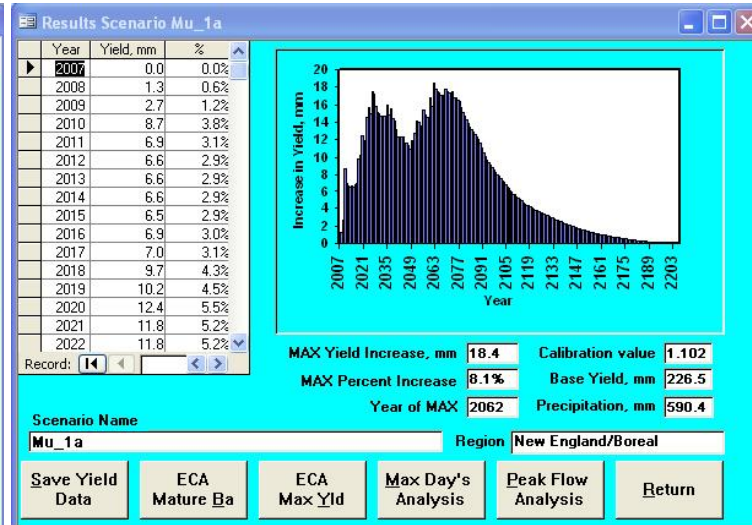
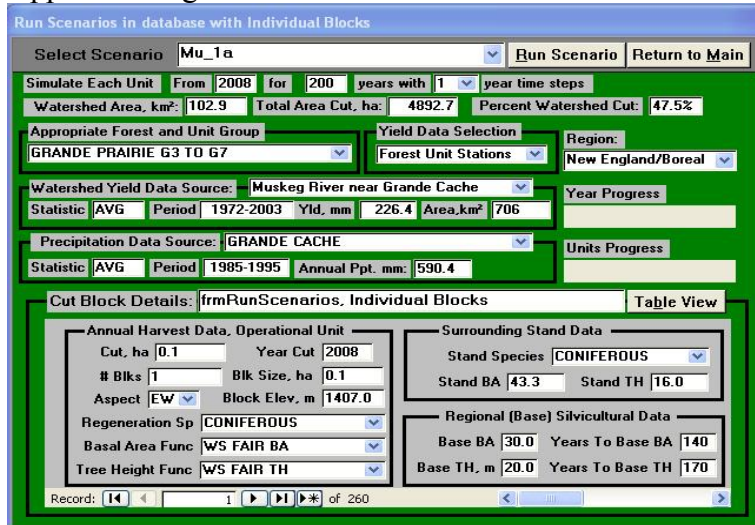
Annual Harvest Data, Operational Unit		Surrounding Stand Data	
Cut, ha	21.2	Year Cut	1999
# Blks	1	Blk Size, ha	34.6
Aspect	EW	Block Elev, m	1505.0
Regeneration Sp	CONIFEROUS	Stand Species	CONIFEROUS
Basal Area Func	LPP FAIR BA	Stand BA	40.5
Tree Height Func	LPP FAIR TH	Stand TH	13.0
Regional (Base) Silvicultural Data			
Base BA	35.0	Years To Base BA	130
Base TH, m	20.0	Years To Base TH	160

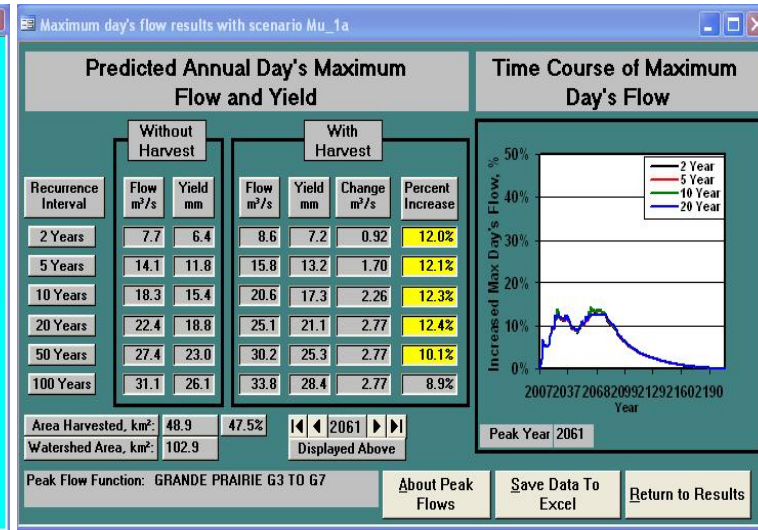
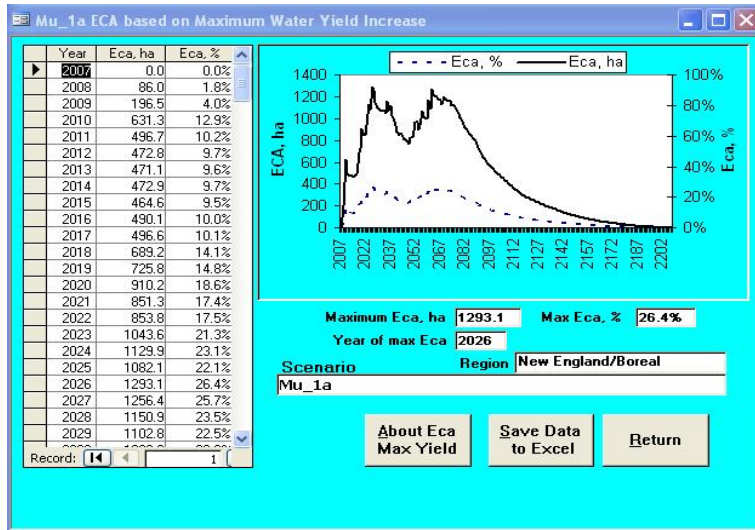
Record: 1 of 33





Upper Muskeg 1a





Upper Muskeg 1b

Run Scenarios in database with Individual Blocks

Select Scenario: **Mu_1b** Run Scenario Return to Main

Simulate Each Unit From **2011** for **200** years with **1** year time steps

Watershed Area, km²: **107.8** Total Area Cut, ha: **3697.7** Percent Watershed Cut: **34.3%**

Appropriate Forest and Unit Group: **GRANDE PRAIRIE G3 TO G7** Yield Data Selection: **GRANDE PRAIRIE G3 TO G7** Region: **New England/Boreal**

Watershed Yield Data Source: **Muskeg River near Grande Cache** Year Progress

Statistic **AVG** Period **1972-2003** Yld, mm **226.4** Area, km² **706**

Precipitation Data Source: **GRANDE CACHE** Units Progress

Statistic **AVG** Period **1985-1995** Annual Ppt. mm: **590.4**

Cut Block Details: **frmRunScenarios, Individual Blocks** Table View

Annual Harvest Data, Operational Unit

Cut, ha: **8.4** Year Cut: **2011**

Blks: **1** Blk Size, ha: **8.4**

Aspect: **EW** Block Elev, m: **1356.0**

Regeneration Sp: **CONIFEROUS**

Basal Area Func: **WS FAIR BA**

Tree Height Func: **WS FAIR TH**

Surrounding Stand Data

Stand Species: **CONIFEROUS**

Stand BA: **42.0** Stand TH: **22.0**

Regional (Base) Silvicultural Data

Base BA: **30.0** Years To Base BA: **140**

Base TH, m: **20.0** Years To Base TH: **170**

Record: 1 of 195

Results Scenario Mu_1b

Year	Yield, mm	%
2010	0.0	0.0%
2011	0.1	0.1%
2012	0.1	0.1%
2013	0.3	0.1%
2014	0.8	0.4%
2015	1.8	0.8%
2016	2.0	0.9%
2017	2.6	1.2%
2018	4.8	2.1%
2019	5.8	2.6%
2020	6.5	2.9%
2021	6.8	3.0%
2022	8.3	3.7%
2023	8.6	3.8%
2024	9.5	4.2%
2025	9.9	4.4%

Record: 14

MAX Yield Increase, mm: **16.2** Calibration value: **1.073**

MAX Percent Increase: **7.2%** Base Yield, mm: **226.4**

Year of MAX: **2077** Precipitation, mm: **590.4**

Scenario Name: **Mu_1b** Region: **New England/Boreal**

Save Yield Data ECA Mature Ba ECA Max Yld Max Day's Analysis Peak Flow Analysis Return

Mu_1b ECA based on Maximum Water Yield Increase

Year	Eca, ha	Eca, %
2010	0.0	0.0%
2011	7.9	0.2%
2012	7.9	0.2%
2013	18.3	0.5%
2014	58.7	1.6%
2015	134.6	3.6%
2016	148.7	4.0%
2017	201.6	5.5%
2018	375.1	10.1%
2019	439.4	11.9%
2020	481.3	13.0%
2021	501.8	13.6%
2022	599.1	16.2%
2023	628.2	17.0%
2024	692.8	18.7%
2025	722.2	19.5%
2026	787.4	21.3%
2027	783.6	21.2%
2028	808.4	21.9%
2029	784.8	21.2%
2030	764.1	20.7%
2031	766.3	20.7%
2032	742.9	20.1%

Maximum Eca, ha: **1224.4** Max Eca, %: **33.1%**

Year of max Eca: **2077**

Scenario: **Mu_1b** Region: **New England/Boreal**

About Eca Max Yield Save Data to Excel Return

Maximum day's flow results with scenario Mu_1b

Predicted Annual Day's Maximum Flow and Yield

Recurrence Interval	Without Harvest		With Harvest			
	Flow m ³ /s	Yield mm	Flow m ³ /s	Yield mm	Change m ³ /s	Percent Increase
2 Years	8.0	6.4	8.9	7.1	0.85	10.5%
5 Years	14.7	11.8	16.3	13.1	1.57	10.7%
10 Years	19.2	15.4	21.3	17.1	2.09	10.9%
20 Years	23.4	18.8	25.7	20.6	2.26	9.6%
50 Years	28.7	23.0	31.0	24.8	2.26	7.9%
100 Years	32.6	26.1	34.8	27.9	2.26	6.9%

Area Harvested, km²: **37.0** **34.3%**

Watershed Area, km²: **107.8**

Peak Year: **2076**

Time Course of Maximum Day's Flow

Peak Year: **2076**

Peak Flow Function: **GRANDE PRAIRIE G3 TO G7** About Peak Flows Save Data To Excel Return to Results

Upper Muskeg 1c

Run Scenarios in database with Individual Blocks

Select Scenario: **Mu_1c** [Run Scenario] [Return to Main]

Simulate Each Unit From **1981** for **200** years with **1** year time steps

Watershed Area, km²: **76.3** Total Area Cut, ha: **4116.1** Percent Watershed Cut: **53.9%**

Appropriate Forest and Unit Group: **GRANDE PRAIRIE G3 TO G7** Yield Data Selection: [] Region: **New England/Boreal**

Watershed Yield Data Source: **Muskeg River near Grande Cache** Forest Unit Stations: [] Year Progress: []

Statistic: **AVG** Period: **1972-2003** Yld, mm: **226.4** Area, km²: **706**

Precipitation Data Source: **GRANDE CACHE** Units Progress: []

Statistic: **AVG** Period: **1985-1995** Annual Ppt, mm: **590.4**

Cut Block Details: **frmRunScenarios, Individual Blocks** [Table View]

Annual Harvest Data, Operational Unit

Cut, ha	62.7	Year Cut	1981
# Blks	1	Blk Size, ha	62.7
Aspect	EW	Block Elev, m	1627.0
Regeneration Sp	CONIFEROUS		
Basal Area Func	LPP FAIR BA		
Tree Height Func	LPP FAIR TH		

Surrounding Stand Data

Stand Species	CONIFEROUS
Stand BA	37.5
Stand TH	10.0

Regional (Base) Silvicultural Data

Base BA	35.0	Years To Base BA	130
Base TH, m	20.0	Years To Base TH	160

Record: 1 of 227

Results Scenario Mu_1c

Year	Yield, mm	%
1980	0.0	0.0%
1981	1.1	0.5%
1982	0.8	0.3%
1983	0.6	0.3%
1984	0.6	0.3%
1985	0.6	0.3%
1986	0.6	0.2%
1987	0.5	0.2%
1988	0.6	0.2%
1989	0.6	0.3%
1990	0.6	0.3%
1991	0.6	0.3%
1992	0.6	0.3%
1993	0.5	0.2%
1994	0.5	0.2%
1995	0.5	0.2%

MAX Yield Increase, mm: **22.7** Calibration value: **1.065**

MAX Percent Increase: **10.0%** Base Yield, mm: **226.4**

Year of MAX: **2023** Precipitation, mm: **590.4**

Scenario Name: **Mu_1c** Region: **New England/Boreal**

[Save Yield Data] [ECA Mature Ba] [ECA Max Yld] [Max Day's Analysis] [Peak Flow Analysis] [Return]

Mu_1c ECA based on Maximum Water Yield Increase

Year	Eca, ha	Eca, %
1980	0.0	0.0%
1981	62.7	1.5%
1982	43.2	1.0%
1983	32.5	0.8%
1984	32.2	0.8%
1985	33.1	0.8%
1986	31.1	0.8%
1987	30.5	0.7%
1988	31.6	0.8%
1989	33.5	0.8%
1990	34.2	0.8%
1991	33.3	0.8%
1992	32.1	0.8%
1993	30.6	0.7%
1994	28.1	0.7%
1995	25.7	0.6%
1996	23.3	0.6%
1997	21.1	0.5%
1998	18.9	0.5%
1999	16.9	0.4%
2000	15.0	0.4%
2001	13.3	0.3%
2002	12.9	0.3%

Maximum Eca, ha: **1278.8** Max Eca, %: **31.1%**

Year of max Eca: **2023**

Scenario: **Mu_1c** Region: **New England/Boreal**

[About Eca Max Yield] [Save Data to Excel] [Return]

Maximum day's flow results with scenario Mu_1c

Predicted Annual Day's Maximum Flow and Yield

Recurrence Interval	Without Harvest		With Harvest		Change m ³ /s	Percent Increase
	Flow m ³ /s	Yield mm	Flow m ³ /s	Yield mm		
2 Years	5.7	6.4	6.6	7.4	0.88	15.5%
5 Years	10.4	11.8	12.0	13.6	1.63	15.7%
10 Years	13.5	15.3	15.7	17.8	2.16	16.0%
20 Years	16.5	18.7	18.8	21.3	2.36	14.3%
50 Years	20.2	22.8	22.5	25.5	2.36	11.7%
100 Years	22.8	25.8	25.2	28.5	2.36	10.3%

Area Harvested, km²: **41.2** 53.9%

Watershed Area, km²: **76.3**

Time Course of Maximum Day's Flow

Peak Year: **2022**

Area Harvested, km²: **41.2** 53.9%

Watershed Area, km²: **76.3**

Peak Flow Function: **GRANDE PRAIRIE G3 TO G7**

[About Peak Flows] [Save Data To Excel] [Return to Results]

Upper Muskeg 2

Run Scenarios in database with Individual Blocks

Select Scenario: **Mu_2** Run Scenario Return to Main

Simulate Each Unit From **1986** for **200** years with **1** year time steps

Watershed Area, km²: **165.4** Total Area Cut, ha: **8827.3** Percent Watershed Cut: **53.4%**

Appropriate Forest and Unit Group: **GRANDE PRAIRIE G3 TO G7** Forest Unit Stations: **Forest Unit Stations** Region: **New England/Boreal**

Watershed Yield Data Source: **Muskeg River near Grande Cache** Year Progress

Statistic **AVG** Period **1972-2003** Yld, mm: **226.4** Area, km²: **706**

Precipitation Data Source: **GRANDE CACHE** Units Progress

Statistic **AVG** Period **1985-1995** Annual Ppt. mm: **590.4**

Cut Block Details: **frmRunScenarios** Table View

Annual Harvest Data, Operational Unit

Cut, ha: **27.6** Year Cut: **1986**

Blks: **1** Blk Size, ha: **27.6**

Aspect: **S** Block Elev, m: **1353.0**

Regeneration Sp: **CONIFEROUS**

Basal Area Func: **LPP FAIR BA**

Tree Height Func: **LPP FAIR TH**

Surrounding Stand Data

Stand Species: **CONIFEROUS**

Stand BA: **40.5** Stand TH: **13.0**

Regional (Base) Silvicultural Data

Base BA: **35.0** Years To Base BA: **130**

Base TH, m: **20.0** Years To Base TH: **160**

Record: 14 of 496

Results Scenario Mu_2

Year	Yield, mm	%
1986	0.0	0.0%
1986	3.5	1.5%
1987	5.9	2.6%
1988	5.4	2.4%
1989	5.5	2.4%
1990	7.2	3.2%
1991	7.0	3.1%
1992	7.0	3.1%
1993	6.6	2.9%
1994	6.6	2.9%
1995	6.6	2.9%
1996	6.6	2.9%
1997	6.5	2.9%
1998	6.4	2.8%
1999	6.3	2.8%
2000	6.1	2.7%

MAX Yield Increase, mm: **20.8** Calibration value: **1.079**

MAX Percent Increase: **9.2%** Base Yield, mm: **226.4**

Year of MAX: **2039** Precipitation, mm: **590.4**

Scenario Name: **Mu_2** Region: **New England/Boreal**

Save Yield Data ECA Mature Ba ECA Max Yld Max Day's Analysis Peak Flow Analysis Return

Mu_2 ECA based on Maximum Water Yield Increase

Year	Eca, ha	Eca, %
1986	0.0	0.0%
1986	350.4	4.0%
1987	619.6	7.0%
1988	560.6	6.4%
1989	576.0	6.5%
1990	757.8	8.6%
1991	736.8	8.3%
1992	739.5	8.4%
1993	696.0	7.9%
1994	688.8	7.8%
1995	692.6	7.8%
1996	691.7	7.8%
1997	683.1	7.7%
1998	675.9	7.7%
1999	662.0	7.5%
2000	634.1	7.2%
2001	691.6	7.8%
2002	630.2	7.1%
2003	801.4	9.1%
2004	716.2	8.1%
2005	631.2	7.2%
2006	600.0	6.8%
2007	563.0	6.4%

Maximum Eca, ha: **2375.0** Max Eca, %: **26.9%**

Year of max Eca: **2039**

Scenario: **Mu_2** Region: **New England/Boreal**

About Eca Max Yield Save Data to Excel Return

Maximum day's flow results with scenario Mu_2

Predicted Annual Day's Maximum Flow and Yield

Recurrence Interval	Without Harvest		With Harvest		Change m³/s	Percent Increase
	Flow m³/s	Yield mm	Flow m³/s	Yield mm		
2 Years	12.3	6.4	14.0	7.3	1.70	13.8%
5 Years	22.6	11.8	25.8	13.5	3.16	14.0%
10 Years	29.6	15.5	33.8	17.7	4.21	14.2%
20 Years	36.3	18.9	41.3	21.6	5.04	13.9%
50 Years	44.6	23.3	49.6	25.9	5.04	11.3%
100 Years	50.7	26.5	55.7	29.1	5.04	9.9%

Area Harvested, km²: **88.3** 53.4%

Watershed Area, km²: **165.4** Displayed Above

Time Course of Maximum Day's Flow

Peak Year: **2038**

Area Harvested, km²: **88.3** 53.4%

Watershed Area, km²: **165.4** Displayed Above

Peak Flow Function: **GRANDE PRAIRIE G3 TO G7**

About Peak Flows Save Data To Excel Return to Results

Upper Muskeg 3

Run Scenarios in database with Individual Blocks

Select Scenario: **Mu_3** [Run Scenario] [Return to Main]

Simulate Each Unit From **2003** for **200** years with **1** year time steps

Watershed Area, km²: **49.1** Total Area Cut, ha: **1753.8** Percent Watershed Cut: **35.8%**

Appropriate Forest and Unit Group: **GRANDE PRAIRIE G3 TO G7** Yield Data Selection: **Forest Unit Stations** Region: **New England/Boreal**

Watershed Yield Data Source: **Muskeg River near Grande Cache** Year Progress

Statistic **AVG** Period **1972-2003** Yld, mm: **226.4** Area, km²: **706**

Precipitation Data Source: **GRANDE CACHE** Units Progress

Statistic **AVG** Period **1985-1995** Annual Ppt, mm: **590.4**

Cut Block Details: **frmRunScenarios, Individual Blocks** [Table View]

Annual Harvest Data, Operational Unit

Cut, ha: **0.6** Year Cut: **2003**

Blks: **1** Blk Size, ha: **0.6**

Aspect: **N** Block Elev, m: **1146.0**

Regeneration Sp: **CONIFEROUS**

Basal Area Func: **LPP FAIR BA**

Tree Height Func: **LPP FAIR TH**

Surrounding Stand Data

Stand Species: **CONIFEROUS**

Stand BA: **31.2** Stand TH: **4.0**

Regional (Base) Silvicultural Data

Base BA: **35.0** Years To Base BA: **130**

Base TH, m: **20.0** Years To Base TH: **160**

Record: **14** of 107

Results Scenario Mu_3

Year	Yield, mm	%
2002	0.0	0.0%
2003	0.0	0.0%
2004	0.0	0.0%
2005	0.0	0.0%
2006	0.0	0.0%
2007	0.1	0.0%
2008	3.2	1.4%
2009	3.7	1.6%
2010	2.7	1.2%
2011	2.4	1.1%
2012	2.5	1.1%
2013	3.5	1.6%
2014	3.4	1.5%
2015	3.9	1.7%
2016	3.9	1.7%
2017	3.9	1.7%

MAX Yield Increase, mm: **19.8** Calibration value: **1.052**

MAX Percent Increase: **8.7%** Base Yield, mm: **226.5**

Year of MAX: **2077** Precipitation, mm: **590.4**

Scenario Name: **Mu_3** Region: **New England/Boreal**

[Save Yield Data] [ECA Mature Ba] [ECA Max Yld] [Max Day's Analysis] [Peak Flow Analysis] [Return]

Mu_3 ECA based on Maximum Water Yield Increase

Year	Eca, ha	Eca, %
2002	0.0	0.0%
2003	0.6	0.0%
2004	0.4	0.0%
2005	0.3	0.0%
2006	0.3	0.0%
2007	4.3	0.2%
2008	113.2	6.5%
2009	130.4	7.4%
2010	95.9	5.5%
2011	86.3	4.9%
2012	87.0	5.0%
2013	119.4	6.8%
2014	116.8	6.7%
2015	131.6	7.5%
2016	132.0	7.5%
2017	132.3	7.5%
2018	131.0	7.5%
2019	128.7	7.3%
2020	124.5	7.1%
2021	165.8	9.5%
2022	177.8	10.1%
2023	290.2	16.5%
2024	295.6	16.9%

Maximum Eca, ha: **657.8** Max Eca, %: **37.5%**

Year of max Eca: **2077**

Scenario: **Mu_3** Region: **New England/Boreal**

[About Eca Max Yield] [Save Data to Excel] [Return]

Maximum day's flow results with scenario Mu_3

Predicted Annual Day's Maximum Flow and Yield

Recurrence Interval	Without Harvest		With Harvest			
	Flow m ³ /s	Yield mm	Flow m ³ /s	Yield mm	Change m ³ /s	Percent Increase
2 Years	3.7	6.5	4.2	7.5	0.58	15.9%
5 Years	6.7	11.8	7.7	13.5	0.99	14.9%
10 Years	8.6	15.2	9.6	17.0	0.99	11.5%
20 Years	10.5	18.5	11.5	20.2	0.99	9.5%
50 Years	12.8	22.5	13.8	24.3	0.99	7.8%
100 Years	14.5	25.5	15.5	27.3	0.99	6.9%

Area Harvested, km²: **17.5** 35.8%

Watershed Area, km²: **49.1**

Peak Flow Function: **GRANDE PRAIRIE G3 TO G7**

Time Course of Maximum Day's Flow

Peak Year: **2076**

[About Peak Flows] [Save Data To Excel] [Return to Results]

Upper Muskeg 4

Run Scenarios in database with Individual Blocks

Select Scenario: **Mu_4** Run Scenario Return to Main

Simulate Each Unit From **2019** for **200** years with **1** year time steps

Watershed Area, km²: **31.1** Total Area Cut, ha: **1210.4** Percent Watershed Cut: **38.9%**

Appropriate Forest and Unit Group: **GRANDE PRAIRIE G3 TO G7** Yield Data Selection: **Forest Unit Stations** Region: **New England/Boreal**

Watershed Yield Data Source: **Muskeg River near Grande Cache** Year Progress

Statistic **AVG** Period **1972-2003** Yld, mm: **226.4** Area, km²: **706**

Precipitation Data Source: **GRANDE CACHE** Units Progress

Statistic **AVG** Period **1985-1995** Annual Ppt. mm: **590.4**

Cut Block Details: **frmRunScenarios, Individual Blocks** Table View

Annual Harvest Data, Operational Unit

Cut, ha	88.9	Year Cut	2019
# Blks	1	Blk Size, ha	92.3
Aspect	EW	Block Elev, m	1562.0
Regeneration Sp	CONIFEROUS		
Basal Area Func	WS FAIR BA		
Tree Height Func	WS FAIR TH		

Surrounding Stand Data

Stand Species	CONIFEROUS
Stand BA	43.3
Stand TH	16.0

Regional (Base) Silvicultural Data

Base BA	30.0	Years To Base BA	140
Base TH, m	20.0	Years To Base TH	170

Record: 1 of 76

Results Scenario Mu_4

Year	Yield, mm	%
2018	0.0	0.0%
2019	3.8	1.7%
2020	6.2	2.7%
2021	5.5	2.4%
2022	5.1	2.3%
2023	7.8	3.5%
2024	10.9	4.8%
2025	10.4	4.6%
2026	10.4	4.6%
2027	10.5	4.6%
2028	10.5	4.6%
2029	10.6	4.7%
2030	10.7	4.7%
2031	10.8	4.8%
2032	10.9	4.8%
2033	10.9	4.8%

MAX Yield Increase, mm: **25.6** Calibration value: **1.055**

MAX Percent Increase: **11.3%** Base Yield, mm: **226.4**

Year of MAX: **2077** Precipitation, mm: **590.4**

Scenario Name: **Mu_4** Region: **New England/Boreal**

Save Yield Data ECA Mature Ba ECA Max Yld Max Day's Analysis Peak Flow Analysis Return

Mu_4 ECA based on Maximum Water Yield Increase

Year	Eca, ha	Eca, %
2068	333.6	27.6%
2069	294.7	24.4%
2070	295.6	24.4%
2071	305.9	25.3%
2072	298.2	24.6%
2073	330.5	27.3%
2074	445.1	36.8%
2075	496.4	41.0%
2076	519.3	42.9%
2077	522.5	43.2%
2078	496.4	41.0%
2079	480.4	39.7%
2080	468.8	38.7%
2081	457.5	37.8%
2082	450.7	37.2%
2083	442.0	36.5%
2084	432.6	35.7%
2085	422.5	34.9%
2086	411.6	34.0%
2087	399.9	33.0%
2088	389.3	32.2%
2089	380.1	31.4%
2090	369.1	30.5%

Maximum Eca, ha: **522.5** Max Eca, %: **43.2%**

Year of max Eca: **2077**

Scenario: **Mu_4** Region: **New England/Boreal**

About Eca Max Yield Save Data to Excel Return

Maximum day's flow results with scenario Mu_4

Predicted Annual Day's Maximum Flow and Yield

Recurrence Interval	Without Harvest		With Harvest			
	Flow m ³ /s	Yield mm	Flow m ³ /s	Yield mm	Change m ³ /s	Percent Increase
2 Years	2.3	6.5	2.8	7.9	0.51	21.9%
5 Years	4.2	11.8	4.9	13.6	0.65	15.4%
10 Years	5.5	15.1	6.1	17.0	0.65	12.0%
20 Years	6.6	18.3	7.3	20.1	0.65	9.9%
50 Years	8.0	22.3	8.7	24.1	0.65	8.1%
100 Years	9.1	25.1	9.7	27.0	0.65	7.2%

Area Harvested, km²: **12.1** 38.9%

Watershed Area, km²: **31.1**

Peak Flow Function: **GRANDE PRAIRIE G3 TO G7**

Time Course of Maximum Day's Flow

Peak Year: **2076**

About Peak Flows Save Data To Excel Return to Results

Upper Muskeg 5

Run Scenarios in database with Individual Blocks

Select Scenario: **Mu_5** [Run Scenario] [Return to Main]

Simulate Each Unit From **1975** for **200** years with **1** year time steps

Watershed Area, km²: **86.1** Total Area Cut, ha: **2815.7** Percent Watershed Cut: **32.7%**

Appropriate Forest and Unit Group Selection: **GRANDE PRAIRIE G3 TO G7** Yield Data Selection: **Forest Unit Stations** Region: **New England/Boreal**

Watershed Yield Data Source: **Muskeg River near Grande Cache** Year Progress

Statistic **AVG** Period **1972-2003** Yld. mm: **226.4** Area, km²: **706**

Precipitation Data Source: **GRANDE CACHE** Units Progress

Statistic **AVG** Period **1985-1995** Annual Ppt. mm: **590.4**

Cut Block Details: **frmRunScenarios. Individual Blocks** Table View

Annual Harvest Data, Operational Unit

Cut, ha	50.8	Year Cut	1975
# Blks	1	Blk Size, ha	50.8
Aspect	S	Block Elev., m	1441.0
Regeneration Sp	CONIFEROUS		
Basal Area Func	LPP FAIR BA		
Tree Height Func	LPP FAIR TH		

Surrounding Stand Data

Stand Species	CONIFEROUS
Stand BA	46.0
Stand TH	19.0

Regional (Base) Silvicultural Data

Base BA	35.0	Years To Base BA	130
Base TH, m	20.0	Years To Base TH	160

Record: 1 of 191

Results Scenario Mu_5

Year	Yield, mm	%
1974	0.0	0.0%
1975	0.9	0.4%
1976	0.7	0.3%
1977	0.5	0.2%
1978	0.5	0.2%
1979	0.5	0.2%
1980	0.5	0.2%
1981	0.5	0.2%
1982	0.5	0.2%
1983	0.5	0.2%
1984	0.5	0.2%
1985	0.5	0.2%
1986	0.5	0.2%
1987	0.4	0.2%
1988	0.4	0.2%
1989	0.4	0.2%

MAX Yield Increase, mm: **14.6** Calibration value: **1.110**

MAX Percent Increase: **6.4%** Base Yield, mm: **226.4**

Scenario Name: **Mu_5** Year of MAX: **2077** Precipitation, mm: **590.4**

Region: **New England/Boreal**

Save Yield Data | ECA Mature Ba | ECA Max Yld | Max Day's Analysis | Peak Flow Analysis | Return

Mu_5 ECA based on Maximum Water Yield Increase

Year	Eca, ha	Eca, %
1974	0.0	0.0%
1975	50.8	1.8%
1976	35.7	1.3%
1977	27.3	1.0%
1978	26.9	1.0%
1979	27.4	1.0%
1980	25.5	0.9%
1981	24.8	0.9%
1982	25.3	0.9%
1983	26.4	0.9%
1984	27.1	1.0%
1985	26.3	0.9%
1986	25.3	0.9%
1987	24.3	0.9%
1988	22.4	0.8%
1989	20.5	0.7%
1990	18.7	0.7%
1991	17.0	0.6%
1992	15.3	0.5%
1993	13.8	0.5%
1994	12.3	0.4%
1995	11.0	0.4%
1996	10.7	0.4%

Maximum Eca, ha: **797.3** Max Eca, %: **28.3%**

Year of max Eca: **2077**

Scenario: **Mu_5** Region: **New England/Boreal**

About Eca Max Yield | Save Data to Excel | Return

Maximum day's flow results with scenario Mu_5

Predicted Annual Day's Maximum Flow and Yield

Recurrence Interval	Without Harvest		With Harvest			
	Flow m³/s	Yield mm	Flow m³/s	Yield mm	Change m³/s	Percent Increase
2 Years	6.4	6.4	7.1	7.2	0.71	11.0%
5 Years	11.7	11.8	13.1	13.1	1.31	11.2%
10 Years	15.3	15.3	17.0	17.1	1.74	11.4%
20 Years	18.6	18.7	20.5	20.6	1.88	10.1%
50 Years	22.8	22.9	24.7	24.8	1.88	8.3%
100 Years	25.8	25.9	27.7	27.8	1.88	7.3%

Area Harvested, km²: **28.2** 32.7% Watershed Area, km²: **86.1**

Time Course of Maximum Day's Flow

Peak Year: **2076**

Area Harvested, km²: **28.2** Watershed Area, km²: **86.1** Peak Flow Function: **GRANDE PRAIRIE G3 TO G7**

About Peak Flows | Save Data To Excel | Return to Results

Upper Simonette 30

Run Scenarios in database with Individual Blocks

Select Scenario: **USI30** [Run Scenario] [Return to Main]

Simulate Each Unit From **1984** for **200** years with **1** year time steps

Watershed Area, km²: **483.4** Total Area Cut, ha: **23714.6** Percent Watershed Cut: **49.1%**

Appropriate Forest and Unit Group: **GRANDE PRAIRIE G3 TO G7** Yield Data Selection: **Forest Unit Stations** Region: **New England/Boreal**

Watershed Yield Data Source: **simonette river near goodwin revised j** Year Progress

Statistic **AVG** Period **1970-1998** Yld, mm: **150.2** Area, km²: **5050**

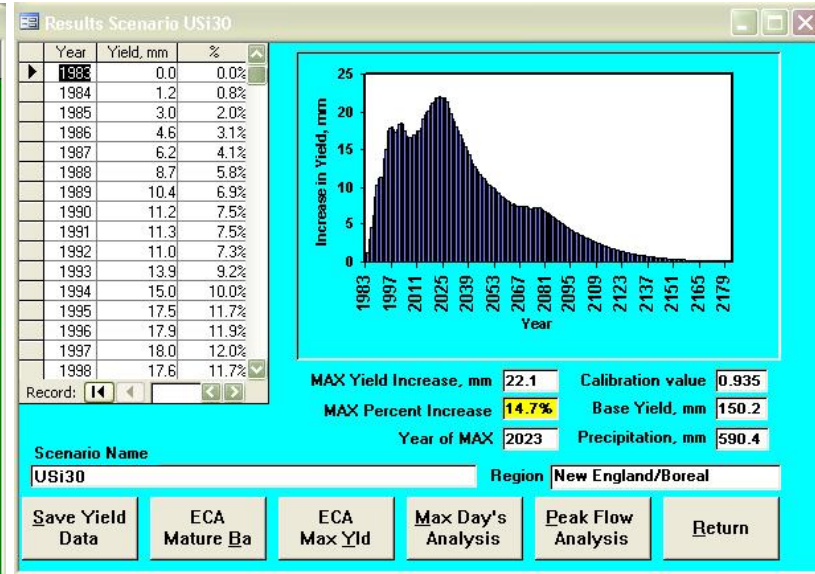
Precipitation Data Source: **GRANDE CACHE** Units Progress

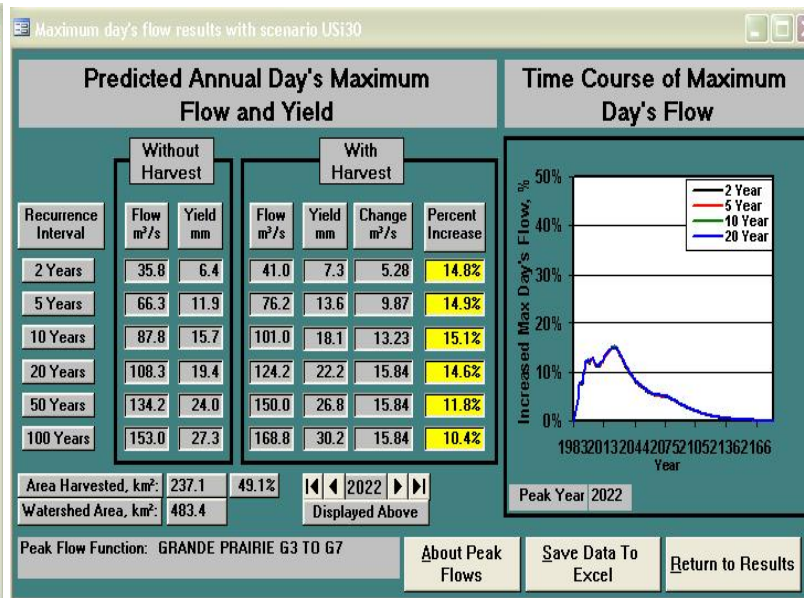
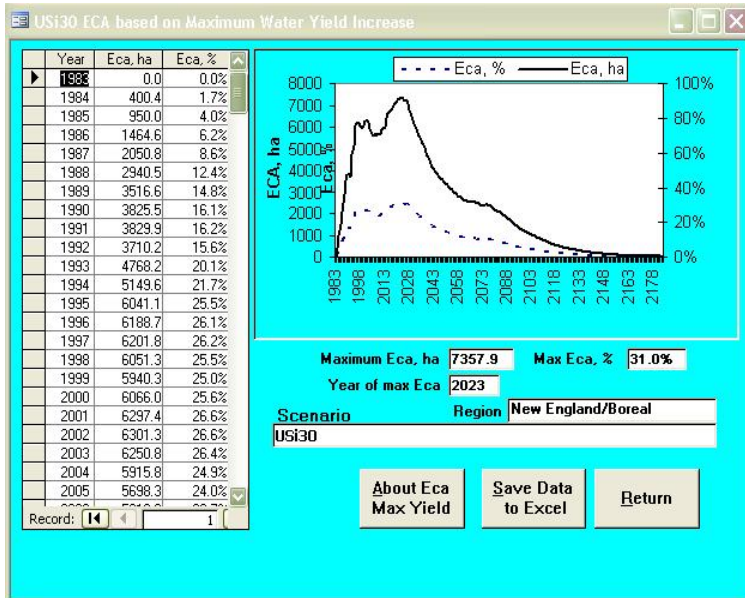
Statistic **AVG** Period **1985-1995** Annual Ppt. mm: **590.4**

Cut Block Details: **frmRunScenarios, Individual Blocks** [Table View]

Annual Harvest Data, Operational Unit		Surrounding Stand Data	
Cut, ha	85.1	Year Cut	1984
# Blks	1	Blk Size, ha	85.1
Aspect	N	Block Elev, m	1456.0
Regeneration Sp	CONIFEROUS	Stand Species	CONIFEROUS
Basal Area Func	WS FAIR BA	Stand BA	35.3
Tree Height Func	WS FAIR TH	Stand TH	16.0
Regional (Base) Silvicultural Data			
Base BA	30.0	Years To Base BA	140
Base TH, m	20.0	Years To Base TH	170

Record: **1** of 1560





Upper Simonette 0

