

2012 Fraser sockeye escapement plan options- DRAFT for DISCUSSION

Last Updated: 24-Feb-12

Scenario 1: Like Last Year

Harvest Rule Parameters						
Management Unit	ER Floor	TAM Cap	No fishing reference/Fixed Escapement Target	Cut-back Point	Pre-season pMA	
Early Stuart	10%	60%	108,000	270,000	0.66	
Early Summer (w/o misc)	10%	60%	120,000	300,000	0.31	
Summer	10%	60%	520,000	1,300,000	0.07	
Late (w/o misc)	20%	60%	400,000	1,000,000	0.91	
Cultus	20%					

Management Unit	Pre-season Forecast Return					
	p10	p25	p50	p75	p90	
Early Stuart	forecast	40,000	61,000	99,000	161,000	270,000
	TAM Rule (%)	0%	0%	0%	33%	60%
	Escapement Target	40,000	61,000	99,000	108,000	108,000
	MA	26,400	40,300	65,300	71,300	71,300
	Esc. Target + MA	66,400	101,300	164,300	179,300	179,300
	ER floor	10%	10%	10%	10%	10%
	ER at Return	0%	0%	0%	0%	34%
	Allowable ER	10%	10%	10%	10%	34%
	TAC	4,000	6,100	9,900	16,100	90,700
<u>2012 Performance</u>						
	Projected S (after MA)	22,000	33,000	54,000	87,000	108,000
	BY Spawners	30,000	30,000	30,000	30,000	30,000
	Proj. S as % BY S	73%	110%	180%	290%	360%
	cycle avg S	41,000	41,000	41,000	41,000	41,000
	Proj. S as % cycle S	54%	80%	132%	212%	263%

Management Unit	Pre-season Forecast Return					
	p10	p25	p50	p75	p90	
Early Summer	no fishing (w misc)	210,000	227,000	223,000	220,000	228,000
	cut back (w misc)	524,000	569,000	558,000	551,000	569,000
	forecast (incl. misc)	110,000	199,000	361,000	667,000	1,211,000
	TAM Rule (%)	0%	0%	38%	60%	60%
	Escapement Target	110,000	199,000	223,000	266,800	484,400
	MA	34,100	61,700	69,100	82,700	150,200
	Esc. Target + MA	144,100	260,700	292,100	349,500	634,600
	ER floor	10%	10%	10%	10%	10%
	ER at Return	0%	0%	19%	48%	48%
	Allowable ER	10%	10%	19%	48%	48%
	TAC	11,000	19,900	68,900	317,500	576,400
<u>2012 Performance</u>						
	Projected S (after MA)	76,000	137,000	223,000	267,000	484,000
	BY Spawners	189,000	189,000	189,000	189,000	189,000
	Proj. S as % BY S	40%	72%	118%	141%	256%
	cycle avg S	150,000	150,000	150,000	150,000	150,000
	Proj. S as % cycle S	51%	91%	149%	178%	323%

Management Unit	Pre-season Forecast Return					
	p10	p25	p50	p75	p90	
Summer	forecast	529,000	828,000	1,420,000	2,449,000	4,160,000
	TAM Rule (%)	2%	37%	60%	60%	60%
	Escapement Target	520,000	520,000	568,000	979,600	1,664,000
	MA	36,400	36,400	39,800	68,600	116,500
	Esc. Target + MA	556,400	556,400	607,800	1,048,200	1,780,500
	ER floor	10%	10%	10%	10%	10%
	ER at Return	0%	33%	57%	57%	57%
	Allowable ER	10%	33%	57%	57%	57%
	TAC	52,900	271,600	812,200	1,400,800	2,379,500
<u>2012 Performance</u>						
	Projected S (after MA)	445,000	520,000	568,000	980,000	1,664,000
	BY Spawners	564,000	564,000	564,000	564,000	564,000
	Proj. S as % BY S	79%	92%	101%	174%	295%
	cycle avg S	669,000	669,000	669,000	669,000	669,000
	Proj. S as % cycle S	67%	78%	85%	146%	249%

Management Unit	Pre-season Forecast Return					
	p10	p25	p50	p75	p90	
Late	no fishing (w misc)	426,000	425,000	423,000	420,000	417,000
	cut back (w misc)	1,066,000	1,063,000	1,057,000	1,049,000	1,042,000
	forecast	65,000	119,000	242,000	489,000	990,000
	TAM Rule (%)	0%	0%	0%	14%	58%
	Escapement Target	65,000	119,000	242,000	420,000	417,000
	MA	59,200	108,300	220,200	382,200	379,500
	Esc. Target + MA	124,200	227,300	462,200	802,200	796,500
	ER floor	20%	20%	20%	20%	20%
	ER at Return	0%	0%	0%	0%	20%
	Allowable ER	20%	20%	20%	20%	20%
	TAC	13,000	23,800	48,400	97,800	198,000
<u>2012 Performance</u>						
	Projected S (after MA)	27,000	50,000	101,000	205,000	415,000
	BY Spawners	32,000	32,000	32,000	32,000	32,000
	Proj. S as % BY S	84%	156%	316%	641%	1297%
	cycle avg S	121,000	121,000	121,000	121,000	121,000
	Proj. S as % cycle S	22%	41%	83%	169%	343%

Total TAC for International Sharing	80,900	321,400	939,400	1,832,200	3,244,600	
Total projected spawners	570,000	740,000	946,000	1,539,000	2,671,000	

2012 Fraser sockeye escapement plan options- DRAFT for DISCUSSION

Last Updated: 24-Feb-12

Scenario 2

Harvest Rule Parameters							
Management Unit	ER Floor	TAM Cap	No fishing reference/Fixed Escapement Target	Cut-back Point	Pre-season pMA		
Early Stuart	10%	60%	52,000	130,000	0.66		
Early Summer (w/o misc)	10%	60%	120,000	300,000	0.31		
Summer	10%	60%	520,000	1,300,000	0.07		
Late (w/o misc)	10%	60%	400,000	1,000,000	0.91		
Cultus	10%						

Management Unit	Pre-season Forecast Return						
	p10	p25	p50	p75	p90		
Early Stuart	forecast	40,000	61,000	99,000	161,000	270,000	
	TAM Rule (%)	0%	15%	47%	60%	60%	
	Escapement Target	40,000	52,000	52,000	64,400	108,000	
	MA	26,400	34,300	34,300	42,500	71,300	
	Esc. Target + MA	66,400	86,300	86,300	106,900	179,300	
	ER floor	10%	10%	10%	10%	10%	
	ER at Return	0%	0%	13%	34%	34%	
	Allowable ER	10%	10%	13%	34%	34%	
	TAC	4,000	6,100	12,700	54,100	90,700	
<u>2012 Performance</u>							
	Projected S (after MA)	22,000	33,000	52,000	64,000	108,000	
	BY Spawners	30,000	30,000	30,000	30,000	30,000	
	Proj. S as % BY S	73%	110%	173%	213%	360%	
	cycle avg S	41,000	41,000	41,000	41,000	41,000	
	Proj. S as % cycle S	54%	80%	127%	156%	263%	

Management Unit	Pre-season Forecast Return						
	p10	p25	p50	p75	p90		
Early Summer	no fishing (w misc)	210,000	227,000	223,000	220,000	228,000	
	cut back (w misc)	524,000	569,000	558,000	551,000	569,000	
	forecast (incl. misc)	110,000	199,000	361,000	667,000	1,211,000	
	TAM Rule (%)	0%	0%	38%	60%	60%	
	Escapement Target	110,000	199,000	223,000	266,800	484,400	
	MA	34,100	61,700	69,100	82,700	150,200	
	Esc. Target + MA	144,100	260,700	292,100	349,500	634,600	
	ER floor	10%	10%	10%	10%	10%	
	ER at Return	0%	0%	19%	48%	48%	
	Allowable ER	10%	10%	19%	48%	48%	
	TAC	11,000	19,900	68,900	317,500	576,400	
<u>2012 Performance</u>							
	Projected S (after MA)	76,000	137,000	223,000	267,000	484,000	
	BY Spawners	189,000	189,000	189,000	189,000	189,000	
	Proj. S as % BY S	40%	72%	118%	141%	256%	
	cycle avg S	150,000	150,000	150,000	150,000	150,000	
	Proj. S as % cycle S	51%	91%	149%	178%	323%	

Management Unit	Pre-season Forecast Return						
	p10	p25	p50	p75	p90		
Summer	forecast	529,000	828,000	1,420,000	2,449,000	4,160,000	
	TAM Rule (%)	2%	37%	60%	60%	60%	
	Escapement Target	520,000	520,000	568,000	979,600	1,664,000	
	MA	36,400	36,400	39,800	68,600	116,500	
	Esc. Target + MA	556,400	556,400	607,800	1,048,200	1,780,500	
	ER floor	10%	10%	10%	10%	10%	
	ER at Return	0%	33%	57%	57%	57%	
	Allowable ER	10%	33%	57%	57%	57%	
	TAC	52,900	271,600	812,200	1,400,800	2,379,500	
<u>2012 Performance</u>							
	Projected S (after MA)	445,000	520,000	568,000	980,000	1,664,000	
	BY Spawners	564,000	564,000	564,000	564,000	564,000	
	Proj. S as % BY S	79%	92%	101%	174%	295%	
	cycle avg S	669,000	669,000	669,000	669,000	669,000	
	Proj. S as % cycle S	67%	78%	85%	146%	249%	

Management Unit	Pre-season Forecast Return						
	p10	p25	p50	p75	p90		
Late	no fishing (w misc)	426,000	425,000	423,000	420,000	417,000	
	cut back (w misc)	1,066,000	1,063,000	1,057,000	1,049,000	1,042,000	
	forecast	65,000	119,000	242,000	489,000	990,000	
	TAM Rule (%)	0%	0%	0%	14%	58%	
	Escapement Target	65,000	119,000	242,000	420,000	417,000	
	MA	59,200	108,300	220,200	382,200	379,500	
	Esc. Target + MA	124,200	227,300	462,200	802,200	796,500	
	ER floor	10%	10%	10%	10%	10%	
	ER at Return	0%	0%	0%	0%	20%	
	Allowable ER	10%	10%	10%	10%	20%	
	TAC	6,500	11,900	24,200	48,900	193,500	
<u>2012 Performance</u>							
	Projected S (after MA)	31,000	56,000	114,000	230,000	417,000	
	BY Spawners	32,000	32,000	32,000	32,000	32,000	
	Proj. S as % BY S	97%	175%	356%	719%	1303%	
	cycle avg S	121,000	121,000	121,000	121,000	121,000	
	Proj. S as % cycle S	26%	46%	94%	190%	345%	

Total TAC for International Sharing	74,400	309,500	918,000	1,821,300	3,240,100	
Total projected spawners	574,000	746,000	957,000	1,541,000	2,673,000	

2012 Fraser sockeye escapement plan options- DRAFT for DISCUSSION

Last Updated: 24-Feb-12

Scenario 3: Raft/North Thompson and Harrison in Summer Run

		Harvest Rule Parameters			No fishing reference/Fixed Escapement		
Management Unit	ER Floor	TAM Cap	60%	Target	Cut-back Point	Pre-season pMA	
Early Stuart	10%	60%		108,000	270,000	0.66	
Early Summer (w/o misc)	10%	60%		100,000	250,000	0.38	
Summer	10%	60%		640,000	1,600,000	0.08	
Late (w/o misc)	20%	60%		300,000	750,000	1.38	
Cultus	20%						

Management Unit	Pre-season Forecast Return					
	forecast	p10	p25	p50	p75	p90
Early Stuart		40,000	61,000	99,000	161,000	270,000
TAM Rule (%)		0%	0%	0%	33%	60%
Escapement Target		40,000	61,000	99,000	108,000	108,000
MA		26,400	40,300	65,300	71,300	71,300
Esc. Target + MA		66,400	101,300	164,300	179,300	179,300
ER floor		10%	10%	10%	10%	10%
ER at Return		0%	0%	0%	0%	34%
Allowable ER		10%	10%	10%	10%	34%
TAC		4,000	6,100	9,900	16,100	90,700
<u>2012 Performance</u>						
Projected S (after MA)		22,000	33,000	54,000	87,000	108,000
BY Spawners		30,000	30,000	30,000	30,000	30,000
Proj. S as % BY S		73%	110%	180%	290%	360%
cycle avg S		41,000	41,000	41,000	41,000	41,000
Proj. S as % cycle S		54%	80%	132%	212%	263%

Management Unit	Pre-season Forecast Return							
	no fishing (w misc)	cut back (w misc)	forecast (incl. misc)	p10	p25	p50	p75	p90
Early Summer (w/o RNT)				146,000	167,000	167,000	170,000	183,000
				366,000	419,000	418,000	425,000	458,000
				79,000	149,000	279,000	524,000	964,000
TAM Rule (%)				0%	0%	40%	60%	60%
Escapement Target				79,000	149,000	167,000	209,600	385,600
MA				30,000	56,600	63,500	79,600	146,500
Esc. Target + MA				109,000	205,600	230,500	289,200	532,100
ER floor				10%	10%	10%	10%	10%
ER at Return				0%	0%	17%	45%	45%
Allowable ER				10%	10%	17%	45%	45%
TAC				7,900	14,900	48,500	234,800	431,900
<u>2012 Performance</u>								
Projected S (after MA)				52,000	97,000	167,000	210,000	386,000
BY Spawners				174,000	174,000	174,000	174,000	174,000
Proj. S as % BY S				30%	56%	96%	121%	222%
cycle avg S				132,000	132,000	132,000	132,000	132,000
Proj. S as % cycle S				39%	73%	127%	159%	292%

Management Unit	Pre-season Forecast Return							
	no fishing (w misc)	cut back (w misc)	forecast	p10	p25	p50	p75	p90
Summer (w. RNT & Har)				650,000	651,000	651,000	653,000	655,000
				1,625,000	1,628,000	1,628,000	1,632,000	1,638,000
				580,000	917,000	1,585,000	2,776,000	4,808,000
TAM Rule (%)				0%	30%	60%	60%	60%
Escapement Target				580,000	640,000	640,000	1,110,400	1,923,200
MA				44,000	48,500	48,500	84,200	145,800
Esc. Target + MA				624,000	688,500	688,500	1,194,600	2,069,000
ER floor				10%	10%	10%	10%	10%
ER at Return				0%	25%	57%	57%	57%
Allowable ER				10%	25%	57%	57%	57%
TAC				58,000	228,500	896,500	1,581,400	2,739,000
<u>2012 Performance</u>								
Projected S (after MA)				485,000	640,000	640,000	1,110,000	1,923,000
BY Spawners				586,000	586,000	586,000	586,000	586,000
Proj. S as % BY S				83%	109%	109%	189%	328%
cycle avg S				694,000	694,000	694,000	694,000	694,000
Proj. S as % cycle S				70%	92%	92%	160%	277%

Management Unit	Pre-season Forecast Return							
	no fishing (w misc)	cut back (w misc)	forecast	p10	p25	p50	p75	p90
Late (w/o Har)				329,000	329,000	327,000	324,000	322,000
				823,000	822,000	817,000	811,000	805,000
				45,000	80,000	159,000	305,000	589,000
TAM Rule (%)				0%	0%	0%	0%	45%
Escapement Target				45,000	80,000	159,000	305,000	322,000
MA				62,100	110,400	219,400	420,900	444,400
Esc. Target + MA				107,100	190,400	378,400	725,900	766,400
ER floor				20%	20%	20%	20%	20%
ER at Return				0%	0%	0%	0%	0%
Allowable ER				20%	20%	20%	20%	20%
TAC				9,000	16,000	31,800	61,000	117,800
<u>2012 Performance</u>								
Projected S (after MA)				15,000	27,000	53,000	103,000	198,000
BY Spawners				26,000	26,000	26,000	26,000	26,000
Proj. S as % BY S				58%	104%	204%	396%	762%
cycle avg S				114,000	114,000	114,000	114,000	114,000
Proj. S as % cycle S				13%	24%	46%	90%	174%

Total TAC for International Sharing	78,900	265,500	986,700	1,893,300	3,379,400
Total projected spawners	574,000	797,000	914,000	1,510,000	2,615,000

2012 Fraser sockeye escapement plan options- DRAFT for DISCUSSION

Last Updated: 24-Feb-12

Scenario 4: Raft/North Thompson and Harrison in Summer Run

		Harvest Rule Parameters			No fishing reference/Fixed Escapement		
Management Unit	ER Floor	TAM Cap	Target	Cut-back Point	Pre-season pMA		
Early Stuart	10%	60%	52,000	130,000	0.66		
Early Summer (w/o misc)	10%	60%	100,000	250,000	0.38		
Summer	10%	60%	640,000	1,600,000	0.08		
Late (w/o misc)	10%	60%	300,000	750,000	1.38		
Cultus	10%						

Management Unit	Pre-season Forecast Return					
	forecast	p10	p25	p50	p75	p90
Early Stuart		40,000	61,000	99,000	161,000	270,000
TAM Rule (%)		0%	15%	47%	60%	60%
Escapement Target		40,000	52,000	52,000	64,400	108,000
MA		26,400	34,300	34,300	42,500	71,300
Esc. Target + MA		66,400	86,300	86,300	106,900	179,300
ER floor		10%	10%	10%	10%	10%
ER at Return		0%	0%	13%	34%	34%
Allowable ER		10%	10%	13%	34%	34%
TAC		4,000	6,100	12,700	54,100	90,700
<u>2012 Performance</u>						
Projected S (after MA)		22,000	33,000	52,000	64,000	108,000
BY Spawners		30,000	30,000	30,000	30,000	30,000
Proj. S as % BY S		73%	110%	173%	213%	360%
cycle avg S		41,000	41,000	41,000	41,000	41,000
Proj. S as % cycle S		54%	80%	127%	156%	263%

Management Unit	Pre-season Forecast Return					
	no fishing (w misc)	p10	p25	p50	p75	p90
Early Summer (w/o RNT)		146,000	167,000	167,000	170,000	183,000
cut back (w misc)		366,000	419,000	418,000	425,000	458,000
forecast (incl. misc)		79,000	149,000	279,000	524,000	964,000
TAM Rule (%)		0%	0%	40%	60%	60%
Escapement Target		79,000	149,000	167,000	209,600	385,600
MA		30,000	56,600	63,500	79,600	146,500
Esc. Target + MA		109,000	205,600	230,500	289,200	532,100
ER floor		10%	10%	10%	10%	10%
ER at Return		0%	0%	17%	45%	45%
Allowable ER		10%	10%	17%	45%	45%
TAC		7,900	14,900	48,500	234,800	431,900
<u>2012 Performance</u>						
Projected S (after MA)		52,000	97,000	167,000	210,000	386,000
BY Spawners		174,000	174,000	174,000	174,000	174,000
Proj. S as % BY S		30%	56%	96%	121%	222%
cycle avg S		132,000	132,000	132,000	132,000	132,000
Proj. S as % cycle S		39%	73%	127%	159%	292%

Management Unit	Pre-season Forecast Return					
	no fishing (w misc)	p10	p25	p50	p75	p90
Summer (w. RNT & Har)		650,000	651,000	651,000	653,000	655,000
cut back (w misc)		1,625,000	1,628,000	1,628,000	1,632,000	1,638,000
forecast		580,000	917,000	1,585,000	2,776,000	4,808,000
TAM Rule (%)		0%	30%	60%	60%	60%
Escapement Target		580,000	640,000	640,000	1,110,400	1,923,200
MA		44,000	48,500	48,500	84,200	145,800
Esc. Target + MA		624,000	688,500	688,500	1,194,600	2,069,000
ER floor		10%	10%	10%	10%	10%
ER at Return		0%	25%	57%	57%	57%
Allowable ER		10%	25%	57%	57%	57%
TAC		58,000	228,500	896,500	1,581,400	2,739,000
<u>2012 Performance</u>						
Projected S (after MA)		485,000	640,000	640,000	1,110,000	1,923,000
BY Spawners		586,000	586,000	586,000	586,000	586,000
Proj. S as % BY S		83%	109%	109%	189%	328%
cycle avg S		694,000	694,000	694,000	694,000	694,000
Proj. S as % cycle S		70%	92%	92%	160%	277%

Management Unit	Pre-season Forecast Return					
	no fishing (w misc)	p10	p25	p50	p75	p90
Late (w/o Har)		329,000	329,000	327,000	324,000	322,000
cut back (w misc)		823,000	822,000	817,000	811,000	805,000
forecast		45,000	80,000	159,000	305,000	589,000
TAM Rule (%)		0%	0%	0%	0%	45%
Escapement Target		45,000	80,000	159,000	305,000	322,000
MA		62,100	110,400	219,400	420,900	444,400
Esc. Target + MA		107,100	190,400	378,400	725,900	766,400
ER floor		10%	10%	10%	10%	10%
ER at Return		0%	0%	0%	0%	0%
Allowable ER		10%	10%	10%	10%	10%
TAC		4,500	8,000	15,900	30,500	58,900
<u>2012 Performance</u>						
Projected S (after MA)		17,000	30,000	60,000	115,000	223,000
BY Spawners		26,000	26,000	26,000	26,000	26,000
Proj. S as % BY S		65%	115%	231%	442%	858%
cycle avg S		114,000	114,000	114,000	114,000	114,000
Proj. S as % cycle S		15%	26%	53%	101%	196%

Total TAC for International Sharing	74,400	257,500	973,600	1,900,800	3,320,500
Total projected spawners	576,000	800,000	919,000	1,499,000	2,640,000