

Photo Fuel Plots: Clearwater

- **Otter Creek FSR**
#98-5-01-001-2
ICH mw3—C3
- **Otter Creek FSR**
#98-5-01-007-2
ICH vk1—C3
- **Angel Heights FSR**
#98-5-01-001-3
ICH mw3—C2
- **Angel Heights**
#98-5-01-008-1
ICH mw3—S2 with canopy
- **Raft River FSR**
#98-5-01-005-1
IDF mw2—S2 with canopy
- **Molliet Creek FSR**
#98-5-01-009-1
IDF mw2—C4
- **Otter Creek FSR**
#98-5-01-007-1
ICH vk1—C3
- **Chuck Creek**
#98-5-01-010-1
ESSF wc2—S2 with canopy

LOCATION: Otter Creek FSR

Photo Fuel Plot # 98-5-01-001-2



Post 1



Post 2



Post 3

ECOLOGY		PLOT SUMMARY	
Aspect	northwest	Location	Otter Creek FSR
Slope (%)	10	GPS Coordinates	N51-40.213' W119-21.490'
Elevation (m)	728	Map sheet	82M.064
Fuel Type	C3	Polygon #	224
Bigeoclimatic Zone	ICHmw3	FOREST COVER SUMMARY	
SOILS		Primary Species	<i>Pseudotsuga menziesii</i> var. <i>glauca</i>
LFH Layer	6	Secondary Species	<i>Thuja plicata</i>
Humus Form	mormoder	% Canopy Closure	20
Soil Order	Podsollic	Treatment Type	Logged/Burned/Planted/Juvenile Spaced
Moisture Regime	mesic	Year of Treatment	1965/1965/1968/1988
Nutrient regime	medium	TREE AND FUEL CALCULATIONS	
Texture	sandy loam	Average Tree Height (m)	11.98
% Mineral Soil Exposure	0	Average Height to Live Crown (m)	2.80
CREW LIST		Coarse Woody Debris Mass (t/ha)	171.8
LK, ES, JC		Fine Fuel Mass (t/ha)	7.53

VEGETATION COVER					
	Brush Species	%	Herbaceous Species	%	
Primary Species	<i>Pachistima myrsinites</i>	30	<i>Cornus canadensis</i>	45	
Secondary Species	<i>Rubus parviflorus</i>	30	<i>Clitonia uniflora</i>	25	
Tertiary Species	<i>Linnaea borealis</i>	30	<i>Aralia nudicaulis</i>	25	

VEGETATION									
Past Unique #:	91-5-01-001-2	New Unique #	98-5-01-001-2						
GPS co ordinates	N51-40.213' W119-21.490'	Surveyors:	NO, SM, LK, ES, JC						
Location:	Otter Creek Fsr								
		Map#:	82M064	Polygon #:	224				
Mosses %	25	Lichens %	<5	Liverworts %	0				
Seedlings species	%	Brush species	%	Herbaceous species	%				
<i>Thuja plicata</i>	10	<i>Cornus stolonifera</i>	10	<i>Cornus canadensis</i>	45				
		<i>Ribes lacustre</i>	10	<i>Clintonia uniflora</i>	25				
		<i>Alnus crispa ssp. sitchensis</i>	<5	<i>Aralia nudicaulis</i>	25				
		<i>Spiraea betulifolia</i>	20	<i>Tiarella unifoliata</i>	15				
		<i>Menziesia ferruginea</i>	20	<i>Smilacina racemosa</i>	10				
		<i>Rubus pedatus</i>	5	<i>Gymnocarpium dryopteris</i>	15				
		<i>Alnus incana ssp. tenifolia</i>	5	<i>Galium triflorum</i>	5				
		<i>Salix ssp.</i>	<5	<i>Streptopus streptopoides</i>	20				
		<i>Pachistima myrsinites</i>	30	<i>Anthyrium filix-femina</i>	5				
		<i>Rubus parviflorus</i>	30	<i>Epilobium angustifolium</i>	5				
		<i>Linnaea borealis</i>	30	<i>Streptopus amplexifolius</i>	5				

TREE TALLY						
Tree Species	Dominant	Codominant	Intermediate	Suppressed	Regen	Snag Count
<i>Thuja plicata</i>	0	0	0	0	140	0
<i>Pseudotsuga menziesii</i>	2	10	1	0	0	0
<i>Tsuga heterophylla</i>	0	0	0	39	0	0

LOCATION: Otter Creek FSR

Photo Fuel Plot # 98-5-01-007-2



Post 1



Post 2



Post 3

ECOLOGY		PLOT SUMMARY	
Aspect	west	Location	Otter Creek FSR
Slope (%)	15	GPS Coordinates	N51-40.964' W119-15.957'
Elevation (m)	900	Map sheet	82M.064
Fuel Type	C3	Polygon #	153
Bigeoclimatic Zone	ICHvk1	FOREST COVER SUMMARY	
SOILS		Primary Species	<i>Tsuga heterophylla</i>
LFH Layer	7	Secondary Species	<i>Thuja plicata</i>
Humus Form	moder	% Canopy Closure	55
Soil Order	Podsolc	Treatment Type	none
Moisture Regime	sunmesic	Year of Treatment	n/a
Nutrient regime	medium	TREE AND FUEL CALCULATIONS	
Texture	sandy loam	Average Tree Height (m)	28.49
% Mineral Soil Exposure	0	Average Height to Live Crown (m)	11.09
CREW LIST		Coarse Woody Debris Mass (t/ha)	172.5
TBA		Fine Fuel Mass (t/ha)	0.79

VEGETATION COVER					
	Brush Species	%	Herbaceous Species	%	
Primary Species	<i>Rubus pedatus</i>	30	<i>Gymnocarpium dryopteris</i>	33	
Secondary Species	<i>Vaccinium membranaceum</i>	5	<i>Cornus canadensis</i>	25	
Tertiary Species	<i>Linnaea borealis</i>	5	<i>Clitonia uniflora</i>	15	

VEGETATION					
Past Unique #:	new plot	New Unique #		98-5-01-007-2	
GPS coordinates	N51-40.964' W119-15.957'		Surveyors:	NO, SM, ES, LK, JC	
Location:	Otter Creek FSR - 18km				
			Map#:	82M064	Polygon #:153
Mosses %	90	Lichens %	<5	Liverworts %	0
Seedling species	%	Brush species	%	Herbaceous species	%
<i>Thuja plicata</i>	<5	<i>Vaccinium membranaceum</i>	5	<i>Clitonia uniflora</i>	15
<i>Tsuga heterophylla</i>	5	<i>Vaccinium ovalifolium</i>	5	<i>Orthilia secunda</i>	5
		<i>Rubus pedatus</i>	30	<i>Streptopus streptopoides</i>	10
		<i>Linnaea borealis</i>	5	<i>Streptopus amplexifolius</i>	10
				<i>Cornus canadensis</i>	25
				<i>Gymnocarpium dryopteris</i>	33
				<i>Tiarella unifoliata</i>	5
				<i>Anthyrium filix-femina</i>	3
				<i>Chimaphila umbellata</i>	5

TREE TALLY						
Tree Species	Dominant	Codominant	Intermediate	Suppressed	Regen	Snag Count
<i>Tsuga heterophylla</i>	7	2	6	9	21	6
<i>Thuja plicata</i>	1	1	2	1	2	0

LOCATION: Angel Heights FSR

Photo Fuel Plot # 98-5-01-001-3



Post 1



Post 2



Post 3

ECOLOGY		PLOT SUMMARY	
Aspect	flat	Location	Angel Heights FSR
Slope (%)	0	GPS Coordinates	N51-40.02' W119-21.350'
Elevation (m)	1100	Map sheet	82M064
Fuel Type	C2	Polygon #	273
Bigeoclimatic Zone	ICHmw3	FOREST COVER SUMMARY	
SOILS		Primary Species	<i>Tsuga heterophylla</i>
LFH Layer	10	Secondary Species	<i>Thuja plicata</i>
Humus Form	mor	% Canopy Closure	60
Soil Order	Podsollic	Treatment Type	none
Moisture Regime	mesic	Year of Treatment	n/a
Nutrient regime	rich	TREE AND FUEL CALCULATIONS	
Texture	loamy sand	Average Tree Height (m)	26.0
% Mineral Soil Exposure	0	Average Height to Live Crown (m)	3.52
CREW LIST		Coarse Woody Debris Mass (t/ha)	334.1
LK, JC		Fine Fuel Mass (t/ha)	3.83

VEGETATION COVER					
	Brush Species	%	Herbaceous Species	%	
Primary Species	<i>Spiraea betulifolia</i>	10	<i>Goodyera oblongifera</i>	5	
Secondary Species	<i>Pachistima myrsinites</i>	5	<i>Cornus canadensis</i>	<5	
Tertiary Species	<i>Linnaea borealis</i>	5	<i>Orthilia secunda</i>	<5	

VEGETATION								
Past Unique #:	91-5-01-001-3	New Unique #:			98-5-01-001-3			
GPS co ordinates			N51-40.02' W119-21.350		Surveyors:	NO, SM, LK, JC		
Location:	Angel Heights FSR							
					Map#:	82M064	Polygon #: 273	
Mosses %		100	Lichens %	10	Liverworts %		0	
Seedling species		%	Brush species	%	Herbaceous species		%	
Tsuga heterophylla		2	Pachistima myrsinites	5	Cornus canadensis		<5	
			Linnaea borealis	5	Orthilia secunda		<5	
			Rubus parviflorus	<5	Chimiphila umbellata		<5	
					Clintonia uniflora	<5		

TREE TALLY						
Tree Species	Dominant	Codominant	Intermediate	Suppressed	Regen	Snag Count
<i>Thuja plicata</i>	1	1	10	5	14	3
<i>Tsuga heterophylla</i>	10	9	11	7	7	16

LOCATION: Angel Heights

Photo Fuel Plot # 98-5-01-008-1



Post 1



Post 2



Post 3

ECOLOGY		PLOT SUMMARY	
Aspect	northwest	Location	Angel Heights FSR
Slope (%)	15	GPS Coordinates	N51-40.342' W119-19.720'
Elevation (m)	1144	Map sheet	82M.064
Fuel Type	S2 with canopy	Polygon #	204
Bigeoclimatic Zone	ICHmw3	FOREST COVER SUMMARY	
SOILS		Primary Species	<i>Pseudotsuga menziesii var glauca</i>
LFH Layer	5	Secondary Species	<i>Thuja plicata</i>
Humus Form	moder	% Canopy Closure	30???
Soil Order	Podsollic	Treatment Type	Spacing and pruning
Moisture Regime	mesic	Year of Treatment	1992
Nutrient regime	medium	TREE AND FUEL CALCULATIONS	
Texture	silty loam	Average Tree Height (m)	11.77
% Mineral Soil Exposure	15	Average Height to Live Crown (m)	2.85
CREW LIST		Coarse Woody Debris Mass (t/ha)	246.9
LK, JC		Fine Fuel Mass (t/ha)	2.45

VEGETATION COVER					
	Brush Species		%	Herbaceous Species	
Primary Species	<i>Pachistima myrsinites</i>		10	<i>Cornus canadensis</i>	
Secondary Species	<i>Vaccinium membranaceum</i>		10	<i>Arnica cordifolia</i>	
Tertiary Species	<i>Rubus parviflorus</i>		5	<i>Epilobium angustifolium</i>	

VEGETATION					
Past Unique #:	92-5-01-008-1	New Unique #	98-5-01-008-1		
GPS coordinates	N51-40.342' W119-19.720'	Surveyors:	NO, SM, LK, JC		
Location:	Angel Heights FSR - 2.9km				
		Map#:	82M064	Polygon #: 204	
Mosses %	5	Lichens %	0	Liverworts %	0
Seedlings species	%	Brush species	%	Herbaceous species	%
<i>Pinus monticola</i>	2	<i>Pachistima myrsinites</i>	10	<i>Cornus canadensis</i>	80
<i>Tsuga heterophylla</i>	2	<i>Rubus parviflorus</i>	5	<i>Clintonia uniflora</i>	5
<i>Thuja plicata</i>	2	<i>Vaccinium membranaceum</i>	10	<i>Epilobium angustifolium</i>	5
<i>Picea glauca</i>	2	<i>Salix spp.</i>	5	<i>Arnica cordifolia</i>	5
		<i>Alnus crispa ssp. sinuata</i>	5	<i>Dryopteris expansa</i>	5

TREE TALLY						
Tree Species	Dominant	Codominant	Intermediate	Suppressed	Regen	Snag Count
<i>Pseudotsuga menziesii var glauca</i>	7	9	1	0	0	2
<i>Pinus monticola</i>	0	1	3	0	0	0
<i>Tsuga heterophylla</i>	0	0	0	0	1	0
<i>Picea glauca x engelmannii</i>	0	0	0	0	1	0

LOCATION: Raft River FSR

Photo Fuel Plot # 98-5-01-005-1



Post 1



Post 2



Post 3

ECOLOGY		PLOT SUMMARY	
Aspect	southeast	Location	Raft River
Slope (%)	5	GPS Coordinates	N51-40.353' W119-52.653'
Elevation (m)	648	Map sheet	82M.061
Fuel Type	S2 with canopy	Polygon #	202
Bigeoclimatic Zone	IDFmw2	FOREST COVER SUMMARY	
SOILS		Primary Species	<i>Pseudotsuga menziesii</i> var <i>glauca</i>
LFH Layer	14	Secondary Species	<i>Thuja plicata</i>
Humus Form	mor	% Canopy Closure	20
Soil Order	Brunisolic	Treatment Type	Juvenile spaced
Moisture Regime	mesic	Year of Treatment	1980
Nutrient regime	poor	TREE AND FUEL CALCULATIONS	
Texture	loamy sand	Average Tree Height (m)	20.27
% Mineral Soil Exposure	0	Average Height to Live Crown (m)	6.27
CREW LIST		Coarse Woody Debris Mass (t/ha)	413.6
ES, LK, JC		Fine Fuel Mass (t/ha)	7.65

VEGETATION COVER				
	Brush Species	%	Herbaceous Species	%
Primary Species	<i>Linnaea borealis</i>	50	<i>Aralia nudicaulis</i>	60
Secondary Species	<i>Pachistima myrsinites</i>	40	<i>Cornus canadensis</i>	50
Tertiary Species	<i>Rubus parviflorus</i>	30	<i>Clitonia uniflora</i>	10

VEGETATION									
Past Unique #:		92-5-01-005-1			New Unique #			98-5-01-005-1	
GPS coordinates				N51-40.353' W119-52.653'			Surveyors:	NO, SM, ES, LK, JC	
Location:	Raft River Road 11.8km								
Mosses %		60	Lichens %		20	Liverworts %		0	
Seedlings species		%	Brush species		%	Herbaceous species		%	
Thuja plicata		12	Rosa gymnocarpa		5	Cornus canadensis		50	
Pseudotsuga menziessi var glauca		1	Salix spp.		5	Chimiphila umbellata		5	
			Ribes triste		5	Aralia nudicaulis		60	
			Betula papyrifera		10	Galium triflorum		5	
			Rubus parviflorus		30	Orhilia secunda		5	
			Pachistima myrsinites		40	Clintonia uniflora		10	
			Linnaea borealis		50	Lathyrus ochroleucus		5	
			Spiraea betulifolia		10	Epilobium angustifolium		5	
			Lonicera utahensis		5	Fragaria vesca		10	
						Lycopodium complanatum		5	
						Goodyera oblongifolia		5	
						Calamagrostis rubescens		5	

TREE TALLY							
	Tree Species	Dominant	Codominant	Intermediate	Suppressed	Regen	Snag Count
<i>Pseudotsuga menziesii var glauca</i>	4	3	1	0	0	0	0
<i>Thuja plicata</i>	0	0	2	7	35	0	0
<i>Picea glauca var engelmannii</i>	1	0	0	0	0	0	0
<i>Pinus monticola</i>	0	0	1	1	0	0	0

LOCATION: Molliet Creek FSR

Photo Fuel Plot # 98-5-01-009-1



Post 1



Post 2



Post 3

ECOLOGY		PLOT SUMMARY	
Aspect	southeast	Location	Molliet Creek
Slope (%)	35	GPS Coordinates	N51-43.202' W119-45.386'
Elevation (m)	1030	Map sheet	82M.072
Fuel Type	C4	Polygon #	524
Bigeoclimatic Zone	IDFmw2	FOREST COVER SUMMARY	
SOILS		Primary Species	<i>Pinus contorta var latifolia</i>
LFH Layer	4	Secondary Species	n/a
Humus Form	mor	% Canopy Closure	25
Soil Order	Brunisolic	Treatment Type	none
Moisture Regime	subxeric	Year of Treatment	n/a
Nutrient regime	poor	TREE AND FUEL CALCULATIONS	
Texture	sandy loam	Average Tree Height (m)	10.65
% Mineral Soil Exposure	0	Average Height to Live Crown (m)	4.39
CREW LIST		Coarse Woody Debris Mass (t/ha)	196.8
LK, ES, JC		Fine Fuel Mass (t/ha)	4.85

VEGETATION COVER				
	Brush Species	%	Herbaceous Species	%
Primary Species	<i>Betula papyrifera</i>	20	<i>Cornus canadensis</i>	25
Secondary Species	<i>Pahistima myrsinites</i>	15	<i>Epilobium angustifolium</i>	10
Tertiary Species	<i>Rubus parviflorus</i>	15	<i>Clitonia uniflora</i>	<5

VEGETATION					
Past Unique #:		92-5-01-009-1		New Unique #	
GPS coordinates		N51-43.202' W119-45.386'		Survey-ors:	
Location:		3.5 km on Road 171			
				Map#:	82M072
				Polygon #:524	
Mosses %	n/a	Lichens %	n/a	Liverworts %	n/a
Seedlings species	%	Brush species	%	Herbaceous species	%
<i>Tsuga heterophylla</i>	1	<i>Amelanchier alnifolia</i>	10	<i>Cornus canadensis</i>	25
<i>Pseudotsuga menziesii var glauca</i>	1	<i>Betula papyrifera</i>	20	<i>Clintonia uniflora</i>	5
<i>Pinus contorta var latifolia</i>	1	<i>Pachistima myrsinites</i>	15	<i>Lupinus arcticus</i>	5
<i>Pinus monticola</i>	1	<i>Populus spp.</i>	10	<i>Epilobium angustifolium</i>	10
		<i>Rosa gymnocarpa</i>	5	<i>Lilium columbianum</i>	5
		<i>Rubus idaeus</i>	5		
		<i>Rubus parviflorus</i>	15		
		<i>Spiraea betulifolia</i>	10		

TREE TALLY						
Tree Species	Dominant	Codominant	Intermediate	Suppressed	Regen	Snag Count
<i>Pinus contorta var latifolia</i>	0	0	0	0	69	1
<i>Tsuga heterophylla</i>	0	0	0	0	1	0

LOCATION: Otter Creek

Photo Fuel Plot # 98-5-01-007-1



Post 1



Post 2



Post 3

ECOLOGY		PLOT SUMMARY	
Aspect	flat	Location	Otter Creek FSR
Slope (%)	0	GPS Coordinates	N51-40.964' W119-15.957'
Elevation (m)	900	Map sheet	82M.064
Fuel Type	C3	Polygon #	153
Bigeoclimatic Zone	ICHvk1	FOREST COVER SUMMARY	
SOILS		Primary Species	<i>Tsuga heterophylla</i>
LFH Layer	7	Secondary Species	<i>Thuja plicata</i>
Humus Form	moder	% Canopy Closure	64
Soil Order	Podsollic	Treatment Type	none
Moisture Regime	mesic	Year of Treatment	n/a
Nutrient regime	rich	TREE AND FUEL CALCULATIONS	
Texture	silty loam	Average Tree Height (m)	28.40
% Mineral Soil Exposure	0	Average Height to Live Crown (m)	15.10
CREW LIST		Coarse Woody Debris Mass (t/ha)	157.2
ES, LK, JC		Fine Fuel Mass (t/ha)	2.89

VEGETATION COVER				
	Brush Species	%	Herbaceous Species	%
Primary Species	<i>Rubus pedatus</i>	40	<i>Cornus canadensis</i>	40
Secondary Species	<i>Vaccinium membranaceum</i>	10	<i>Clitonia uniflora</i>	20
Tertiary Species	<i>Linnaea borealis</i>	5	<i>Streptopus streptoides & Chimaphila umbellata</i>	10

VEGETATION												
Past Unique #:			92-5-01-007-1		New Unique #			98-5-01-007-1				
GPS co ordinates			N51-40.964' W119-15.957'			Surveyors:		NO, SM, ES, LK, JC				
Location:		Otter Creek FSR - approx. 18 km										
						Map#:	82M064	Polygon#: 153				
Mosses %			90		Lichens %		5		Liverworts %	0		
Seedlings Species			%	Brush Species			%	Herb species			%	
Tsuga heterophylla			5		Vaccinium membranaceum			10		Cornus canadensis		40
Thuja plicata			<5		Rubus pedatus			40		Streptopus streptopoides		10
				Linnaea borealis			5		Clintonia uniflora		20	
								Pteridium aquilinum		5		
								Gymnocarpium dryopteris		10		
								Chimiphila umbellata		5		
								Tiarella unifoliata		5		
								Streptopus amplexifolius		5		
								Orthilia secunda		5		

TREE TALLY							
Tree Species	Veteran	Dominant	Codominant	Intermediate	Suppressed	Regen	Snag Count
<i>Tsuga heterophylla</i>	1	2	4	4	4	32	5
<i>Thuja plicata</i>	0	2	0	5	2	9	0
<i>Taxus brevifolia</i>	0	0	0	0	0	3	0

LOCATION: Chuck Creek

Photo Fuel Plot # 98-5-01-010-1



Post 1



Post 2



Post 3

ECOLOGY		PLOT SUMMARY	
Aspect	west	Location	Chuck Creek
Slope (%)	<5	GPS Coordinates	N51-30.763' W119-38.403'
Elevation (m)	1675	Map sheet	82M.052
Fuel Type	S2 with canopy	Polygon #	657
Bigeoclimatic Zone	ESSFwc2	FOREST COVER SUMMARY	
SOILS		Primary Species	<i>Abies lasiocarpa</i>
LFH Layer	7	Secondary Species	<i>Picea engelmannii</i>
Humus Form	mor	% Canopy Closure	60
Soil Order	Podsolc	Treatment Type	Mechanical site preparation
Moisture Regime	submesic-mesic	Year of Treatment	1991
Nutrient regime	medium	TREE AND FUEL CALCULATIONS	
Texture	loam	Average Tree Height (m)	14.04
% Mineral Soil Exposure	20	Average Height to Live Crown (m)	1.80
CREW LIST		Coarse Woody Debris Mass (t/ha)	624.0
LK, JC		Fine Fuels Mass (t/ha)	6.03

VEGETATION COVER				
	Brush Species	%	Herbaceous Species	%
Primary Species	<i>Menziesia ferruginea</i>	15	<i>Valerian sitchensis</i>	80
Secondary Species	<i>Ribes glandulosum</i>	5	<i>Epilobium angustifolium</i>	10
Tertiary Species	n/a		<i>Tiarella unifoliata</i>	5

VEGETATION					
Old Unique #		98-5-01-010-1		New Unique #	98-5-01-010-1
GPS co ordinates		N51-30.763' W119-38.403'		Surveyors:	NO, SM, LK, JC
Location:	Chuck Creek - 15.5 km up Road 3				
			Map #	82M.052	Polygon #
					657
Mosses %	10	Lichens %	5	Liverworts %	0
Seedlings species	%	Brush species	%	Herbaceous species	%
<i>Abies lasiocarpa</i>	5	<i>Ribes glandulosum</i>	5	<i>Valerian sitchensis</i>	80
<i>Pinus contorta var latifolia</i>	5	<i>Menziesia ferruginea</i>	15	<i>Epilobium angustifolium</i>	10
				<i>Tiarella unifoliata</i>	5
				<i>Streptopus streptopoides</i>	5
				<i>Dryopteris expansa</i>	5

TREE TALLY						
Tree Species	Dominant	Codominant	Intermediate	Suppressed	Regen	Snag Count
<i>Picea engelmannii</i>	0	0	1	0	3	0
<i>Abies lasiocarpa</i>	2	0	27	4	10	0
<i>Pinus contorta var latifolia</i>	0	0	0	0	1	0