

APPENDICES

APPENDIX 1. Landscape Unit Delineation

QUESNEL FOREST DISTRICT

UNIT	TERRAIN	SIZE (ha)	BOUNDARY DETERMINATION AND COMMENTS
Abau	P	91,814	Height of land delineating the Ahbau Creek drainage, minor tributaries to the Fraser and to the Cottonwood River, west of its confluence with the Lightning-Swift River.
Antler	M	47,034	Height of land delineating the Antler Creek drainage as far as the confluence with Bowron River.
Baezaeko	P	84,621	Height of land delineating the Baezaeko River drainage to the Blackwater River. The lower part of the Coglistiko River is included to avoid an extreme narrowing of the unit at the confluence of the two drainages.
Baker	P	90,260	Height of land delineating the lower Baker Creek drainage downstream of inflow from Puntateankut Lake. Includes the Townsend and Merston Creek drainages.
Betty Wendle	M	53,831	The only portion of this unit within the Cariboo occurs in Bowron Park. Height of land delineating drainage into Isaac Lake.
Big Valley	M	19,996	Height of land delineating drainage of Big Valley Creek as far as the confluence with the Willow River.
Bowron	M	44,723	This unit is mostly in Bowron Park. Height of land delineating drainage into Bowron and Spectacle Lakes.
Boyce	M	35,993	Height of land delineating drainage into Stony Lake.
Chine	P	55,039	Height of land delineating drainage from the south of short tributaries to the Blackwater River from the east side of the Baezaeko River to the point where Kluskus Lakes drain into the Blackwater River.
Clisbako	P	77,376	Height of land delineating the Clisbako River drainage to its confluence with the Nazko River.
Coglistiko	P	57,230	Height of land delineating the majority of the Coglistiko River drainage. The lower part of the Coglistiko River is included with the Baezaeko River unit to avoid an extreme narrowing of that unit at the confluence of the two rivers.
Cunningham	M	44,051	Height of land delineating drainage into the Cariboo River from the north end of Cariboo Lake to the confluence with the Mathew River. Little River drainage is a separate unit.
Dragon	P	92,794	Height of land delineating drainage into the east side of the Fraser River and south side of Quesnel River downstream of the confluence with Beaver Creek. The south boundary of the unit is a height of land separating tributary drainages to the Fraser River north of McLeese Lake.
Eliguk	P	61,313	Height of land delineating headwaters drainage of the Blackwater, west of Carnlick Creek, including small tributaries to the north side of the Blackwater River as far east as Tsacha Lake.

UNIT	TERRAIN	SIZE (ha)	BOUNDARY DETERMINATION AND COMMENTS
Euchiniko	P	79,676	Height of Land delineating upper Euchiniko River drainage as far downstream as the north end of Titetown Lake.
Gerimi	P	63,546	Height of land delineating tributaries to the north side of the Quesnel River from its confluence with the Cariboo River as far as the Fraser River.
Indianpoint	M	39,907	Height of land delineating Indianpoint Creek drainage as far as the confluence with the Bowron River. This unit is partly in Bowron Park.
Jack of Clubs	M	26,401	Height of land delineating the upper Willow River drainage. The Willow River drainage is split into two units to approximate the size constraints of a mountain unit.
Kluskoil	P	67,572	Height of land delineating drainage of many small tributaries from the north into the Blackwater River from the west end of Tsacha Lake to a point just east of Kluskoil Lake.
Kluskus	P	76,489	Height of land delineating tributaries draining from the south into the Blackwater River from the Kluskus confluence to the west end of Tsacha Lake.
Lightning	M	36,347	Height of land delineating the Lightning Creek drainage into the Swift River.
Mathew	M	39,331	Height of land delineating drainage into Ghost Lake and the Mathew River to its confluence with the Cariboo River.
Marmot	P	55,418	Height of land delineating drainage into the Nazko River from its confluence with the Clisbako River, downstream to the Blackwater River.
Pan	P	72,748	Height of land delineating the drainage of Carnlick Creek and Tsetzi Creek systems into the Blackwater River.
Pantage	P	74,116	Height of land delineating Pantage Creek and adjacent drainages to the south side of the Blackwater River between Pantage Creek and the Snaking River.
Pelican	P	81,492	Height of land delineating the Euchiniko River drainage into the Blackwater River and adjacent tributaries to the west.
Ramsey	P	81,039	Height of land delineating the Ramsey Creek drainage and upper Narcosli Creek drainage as far downstream as the junction with Twan Creek.
Sandy	M	35,961	This unit is almost entirely within Bowron Park. Height of land delineating drainage into Cariboo River of Sandy Lake, Lanezi Lake and Babcock Lake.
Snaking	P	68,281	Height of land delineating the Snaking River drainage to its confluence with the Nazko River.
Swift	M	36,466	Height of land delineating Little Swift River, Fontaine Creek and Upper Swift River drainages to their confluence.
Tako	P	58,126	Height of land delineating numerous small tributaries to the west side of the Fraser River north of the Blackwater River, and to the north side of the Blackwater River from the Fraser River west to Snaking River.

UNIT	TERRAIN	SIZE (ha)	BOUNDARY DETERMINATION AND COMMENTS
Tibbles	P	68,477	Height of land delineating Tibbles Creek drainage and Puntateankut drainage to Baker Creek.
Toil	P	50,827	Height of land delineating the drainage of the Upper Baezaeko River
Twan	P	52,883	Height of land delineating drainage of Twan Creek into Narcosli Creek. Tringley Creek drainage to the Fraser is also included as it is not large enough to remain as a discrete drainage on its own.
Umiti	P	58,243	Height of land delineating drainage into the lower Swift River and south side of the Cottonwood River. The Cottonwood and Fraser Rivers form the north and west boundaries respectively.
Victoria	P	65,213	Height of land delineating drainage into the Swift River between Fontaine Creek and Lightning Creek. This unit is large considering a substantive part of it is NDT 1.
Wendle	M	41,588	Height of land delineating the Bowron River drainage between Bowron Lake and Wendle Creek. Most of this unit is outside the region.
Willow	M	42,044	Height of land delineating the Willow River drainage from the Jack of Clubs Unit downstream to the confluence with a stream draining Stony Lake.
Whittier	P	67,270	Height of land delineating short tributaries to the west side of the Fraser River and the south side of the Blackwater River from a height of land north of Baker Creek to a height of land east of Pantage Creek.

WILLIAMS LAKE FOREST DISTRICT

UNIT	TERRAIN	SIZE (ha)	BOUNDARY DETERMINATION AND COMMENTS
Alkali	P	70,989	Height of land delineating Alkali Creek drainage and small adjacent tributaries draining into the east side of the Fraser from a point across from the mouth of Riske Creek south to Meason Creek. West boundary of unit is the Fraser River.
Bambrick	P	72,164	Height of land delineating Bambrick, Groundhog and other small tributaries to the west side of Big Creek, north of the confluence of Big Creek and Nadilla Creek. To preserve the intact drainages of Bambrick and Groundhog, Big Creek is used as the east boundary.
Beaver Valley	P	76,712	See Beaver Valley under Horsefly District.
Big Creek	P	77,275	Height of land delineating Big Creek and tributaries from the confluence with the Chilcotin River, upstream to a height of land just north of Hungry Valley Creek. This south boundary is required to meet the size requirements of the NDT within the topographical constraints. Big Creek forms part of the western boundary where Groundhog and Bambrick Creeks enter because they form a discrete LU of their own.
Chimney	P	62,278	Height of land delineating entire Chimney Creek drainage and small tributaries to the Fraser south of Chimney Creek as far as the Alkali unit.
Churn	P	38,172	Height of land delineating Churn Creek drainage as far upstream as the confluence with East Churn Creek. The smaller size of this unit reflects the presence of NDT 2 and the topographical constraints of adjacent units.
Dash	M	31,285	Height of land delineating Dash and West Churn Creeks drainage into Churn Creek. Churn Creek comprises a small part of the western boundary.
Farwell	P	41,686	Height of land delineating several tributaries to the lower Chilcotin River and Fraser River from the mouth of Big Creek to the mouth of Gaspard Creek. The Chilcotin and Fraser Rivers form the north and east boundaries. The smaller size of this plateau unit reflects the topographical constraints of adjacent units.
Gaspard	P	92,477	Height of land delineating Gaspard Creek drainage to the Fraser River.
Hawks Creek	P	87,027	Height of land delineating Hawks and Sheridan Creek drainages into the Fraser River. The Fraser River is the western boundary.
Koster-Lone Cabin	P	48,881	Height of land delineating Koster-Grinder and Lone Cabin Creeks drainages to the Fraser River. The Fraser River is eastern boundary. The smaller size of this unit reflects the amount of included NDT 2 and topographical constraints of adjacent units.
Mackin	P	80,662	Height of land delineating Mackin Creek drainage into the Fraser River. The Fraser River is east boundary.

WILLIAMS LAKE FOREST DISTRICT (continued)

UNIT	TERRAIN	SIZE (ha)	BOUNDARY DETERMINATION AND COMMENTS
Meldrum	P	57,903	Height of land delineating the Meldrum Creek drainage to the Fraser River. The Fraser River comprises the east boundary.
Nadila	M	48,571	Height of land delineating Nadila drainage to its confluence with Big Creek.
Riske	P	98,751	Height of land delineating Riske Creek and associated tributaries to the Chilcotin and Fraser River south and east of Hanceville and north along the Fraser to about the latitude where Chimney Creek enters. The western boundary at the Chilcotin River passes between adjacent tributaries in relatively flat terrain. The Fraser and Chilcotin Rivers are the east and south boundaries respectively.
Upper Big Creek	M	42,111	Height of land delineating the headwaters drainage of Big Creek. The northern boundary crosses Big Creek. This point was chosen because it fits the size criteria for a mountain unit and represents the approximate change from mountains to plateau using a height of land north of Hungry Valley Creek.
Upper Churn	M	25,905	Height of land delineating Lone Valley, Upper Churn and East Churn Creek drainages. The northern boundary is downstream of the confluence of East Churn and Churn Creeks.
Williams Lake	P	92,326	Height of land delineating drainage into lower San Jose River and Williams Lake River to the Fraser River. Western boundary is the Fraser River. Eastern boundary crosses the San Jose River just south of Knife Creek.

HORSEFLY FOREST DISTRICT

UNIT	TERRAIN	SIZE (ha)	BOUNDARY DETERMINATION AND COMMENTS
Beaver Valley			See Williams Lake.
Big Lake	P	80,790	Height of land delineating the entire upper drainage of the Beaver Creek system south and east of the confluence of the Big Lake system.
Black Creek	P	52,727	Height of land delineating the Horsefly River and tributaries from the confluence with the McKusky drainage downstream to the confluence of Moffat Creek with the Horsefly River.
Cariboo Lake	M	34,696	Height of land delineating all drainage directly into the west and east sides of Cariboo Lake.
East Arm	M	38,276	Height of land delineating tributary drainages into East Arm of Quesnel Lake including Bouldery Creek, Bill Minor Creek, Killdog Creek, Stranger Lake and Blue Lead Creek.
Eastside	M	35,682	Height of land delineating tributary drainages into the east side of the North Arm of Quesnel Lake. Quesnel Lake is the western boundary.
Horsefly	P	72,312	Height of land delineating drainage into the south side of Quesnel Lake including Horsefly Lake, Lower Horsefly River and small tributaries flowing into Quesnel Lake, north of Horsefly Lake. This unit is large considering the NDT 1
Likely	M	26,617	Height of land delineating tributary drainages into the north side of Quesnel Lake, west of the North Arm. The west boundary follows the height of land between the Quesnel River and the lower Cariboo River west of Likely.
Little River	M	39,146	Height of land delineating the Little River drainage as far as Cariboo Lake.
Lower Cariboo	M	38,581	Height of land delineating the Cariboo River and tributaries downstream of Cariboo Lake.
Mackay	M	35,529	Height of land delineating the Upper Horsefly and McKay River drainages and small tributaries to Horsefly River downstream to the confluence with McKusky Creek.
McKinley	M	43,058	Height of land delineating the McKinley Lake drainage to its confluence with the Horsefly River. The Horsefly River comprises a short section of the northern boundary.
McKusky	M	32,404	Height of land delineating the McKusky Creek drainage to the Horsefly River.
Mitchell	M	37,174	Height of land delineating drainage into Mitchell Lake and Mitchell River as far as the North Arm of Quesnel Lake.

HORSEFLY FOREST DISTRICT (continued)

UNIT	TERRAIN	SIZE (ha)	BOUNDARY DETERMINATION AND COMMENTS
Moffat	P	53,785	Height of land delineating the Moffat drainage as far as the confluence with the Horsefly River.
Niagara	M	44,468	Height of land delineating the Niagara drainage to Quesnel Lake.
Penfold	M	20,012	Height of land delineating the Penfold drainage into the North Arm of Quesnel Lake.
Polly	P	44,193	Height of land delineating tributaries to the south side of Quesnel Lake and Quesnel River from the confluence of Beaver Creek and Quesnel River to the height of land separating the Lower Horsefly River and the drainage from Polly Lake into Quesnel Lake. The smaller size of this plateau unit reflects the inclusion of NDT 1 and topographical constraints of adjacent units.
Wasko/Lynx	M	26,672	Height of land delineating tributaries to Quesnel Lake west of the Niagara watershed to the North Arm.
Westside	M	28,082	Height of land delineating tributary drainages to the west side of the North Arm of Quesnel Lake.

100 MILE HOUSE FOREST DISTRICT

UNIT	TERRAIN	SIZE (ha)	BOUNDARY DETERMINATION AND COMMENTS
108 Mile Lake	P	72,818	Height of land delineating drainage into the eastern half of Lac La Hache.
Big Bar	P	79,092	Although this unit includes a portion of the Marble Range, the majority is plateau in NDT 4. Height of land delineating several tributaries to the east side of the Fraser River, Big Bar Creek is the largest tributary and is central.
Bonaparte	P	49,657	Height of land delineating the lower Bonaparte River to its confluence with the Thompson River. Almost all of this unit lies in Kamloops Region.
Bonaparte Lake	P	97,936	Height of land delineating upper Bonaparte River drainage. A significant portion of this unit lies in the Kamloops Region.
Bradley Creek	P	54,122	Height of land delineating Lower Eagle Creek drainage from Lang Lake to Canim Lake, including the Bradley Creek system.
Bridge Creek	P	62,227	Height of land delineating middle portion of Bridge Creek drainage including Little Bridge Creek and major tributaries to Horse Lake.
Bridge Lake	P	49,403	Height of land delineating headwaters drainage to Bridge Creek. Western boundary is where Bridge Creek meets Horse Lake. The smaller size of this unit reflects topographic constraints of adjacent units.
Canim Lake	P	50,330	Height of land delineating Jim Creek drainage into south side of Canim Lake. Drainage includes Bowers, Needa and English Lakes and some minor tributaries to the south side of Canim Lake.
Canim Red	M	33,603	Height of land delineating drainage into east side of Canim Lake. As well as Canimred Creek the section of Canim River between Mahood and Canim Lakes is included. About half of this unit lies in the Kamloops Forest Region.
Chasm	P	80,041	Height of land delineating upper middle portion of Bonaparte River drainage downstream of confluence with Rayfield River to a point between Fifty One and Fifty Nine Creeks.
Clinton	M	45,807	Height of land delineating Clinton Creek and Maiden Creek drainages to the upper Bonaparte River. The Bonaparte River is used to separate the Clinton and Loon units as it approximates the change from mountains to plateau.
Cunningham Lake	P	82,822	Height of land delineating headwaters lakes contributing to Green Lake.
Deadman	P	94,499	Height of land delineating upper Deadman River drainage (within 100 Mile House District). Much of this L.U. is in Kamloops Region.
Deception Mountain	M	24,285	Height of land delineating upper Deception Creek drainage, north of confluence with Spanish Creek.

100 MILE HOUSE FOREST DISTRICT (continued)

UNIT	TERRAIN	SIZE (ha)	BOUNDARY DETERMINATION AND COMMENTS
Dog Creek	P	100,971	Height of land delineating drainage into the east side of the Fraser of several small tributaries from Dog Creek in the south to Meason Creek in the north.
Forest Grove	P	50,724	Height of land delineating Lower Bridge Creek drainage into Canim Lake, downstream of 100 Mile House.
Green Lake	P	71,769	Height of land delineating Rayfield River and contributing headwaters drainage, including Green Lake.
Helena Lake	P	65,067	Height of land delineating drainage into western half of Lac La Hache and San Jose River drainage to a point upstream of confluence with Knife Creek.
Hendrix Lake	M	35,315	Height of land delineating drainage into north side of Canim Lake, east of Eagle Creek. Hendrix Creek drainage is the major tributary.
Kelly Lake	M	24,461	Height of land delineating several small tributaries to the east side of the Fraser River. The Kelly Lake drainage is the largest of these contributing systems.
Loon	P	52,598	Height of land delineating the Loon Creek drainage to the Bonaparte River. The Bonaparte River is used to separate the Loon and Clinton units because it approximates the change from plateau to mountains.
Mahood Lake	M	17,891	Only the extreme west corner of this unit lies in 100 Mile House District. The remainder lies in Kamloops Forest Region. Height of land delineating several small tributaries to the south side of Mahood Lake.
Meadow Lake	P	58,627	Height of land delineating drainage of Canoe Creek and associated lakes into the Fraser.
Murphy Lake	P	55,765	Height of land delineating Upper Eagle Creek drainage as far downstream as the west end of Lang Lake.
Nehalliston	M	61,235	Most of this unit lies within the Kamloops Forest Region with the exception of Lac de Roche. Height of land delineating drainage of the Nehalliston, Lemieux and Eakin Creeks into the North Thompson River.
Spanish	M	35,050	Height of land delineating lower Deception Creek from Spanish Creek to Canim Lake. Spanish Creek drainage is included. The northeast part of this unit lies in Wells Gray Park.

CHILCOTIN FOREST DISTRICT

UNIT	TERRAIN	SIZE (ha)	BOUNDARY DETERMINATION AND COMMENTS
Alexis	P	60,533	Height of land delineating the Alexis Creek drainage south of Summit Lake to the confluence with the Chilcotin River. The south boundary is the Chilcotin River.
Aplands	M	47,979	Height of land delineating drainage of tributaries into the south side of Charlotte Lake. The lake serves as a partial boundary for the unit.
Anaham	P	89,282	Height of land delineating the Anahim Creek drainage and small adjacent tributaries to the north side of the Chilcotin River from Alexis Creek to Hanceville.
Atnarko	M	38,189	Height of land delineating the upper Atnarko River drainage to the confluence with the south Atnarko River. Charlotte Lake and drainages on the north side of the lake are included.
Beece Creek	M	35,139	Height of land delineating Beece and Chita Creek drainages into the east side of Lower Taseko Lake. The lake is the western boundary.
Beeftail	M	34,165	Height of land delineating Beeftail Creek and adjacent tributaries to upper Dean River from the west. The Dean River is used as the east boundary of this unit because the Beeftail drainage comprises a discrete mountain unit separate from the Ilgachuz.
Bidwell/Lava	P	76,045	Height of land delineating Lingfield, Choelquoit, and Bidwell Creek drainages to the Chilko River. The river is the eastern boundary.
Big Stick	M	51,372	Height of land delineating the lower Klinaklini River and tributaries between Big Stick Lake and Colwell Creek. The large size of this unit reflects the substantive component of NDT 3 and topographic constraints of adjacent units.
Brittany	P	43,309	Height of land and Chilko River (west boundary) defining the drainage of Brittany Creek to the confluence of west Taseko and Chilko Rivers. This unit is small for a plateau unit. This reflects the topographic constraints of adjacent units.
Cheshi Strikelan	M	29,798	Height of land defining Stikelan, Cheski and other tributary drainages flowing into the east side of Tatlayoko Lake.
Chilanko	P	57,273	Height of land delineating Chilanko River drainage as far as the confluence with Tatla Lake Creek.
Chilko	M	31,064	Height of land delineating tributaries to the west side of Chilko Lake, north of Franklyn Arm.
Clearwater	P	48,350	Height of land delineating the lower McClinchy and upper middle portion of the Klinaklini River. This unit is constrained by adjacent units.

CHILCOTIN FOREST DISTRICT (continued)

UNIT	TERRAIN	SIZE (ha)	BOUNDARY DETERMINATION AND COMMENTS
Christenson Creek	M	46,155	Height of land delineating Christenson, Lesard, Far and Hump Creeks and other small tributaries from the east that drain into the upper Dean River below Anahim Lake. The Dean River is used as the western boundary of landscape unit as the west slope of the Ilgachuz comprises a discrete mountain unit separate from drainages in the Rainbow Ranges.
Clusko	P	104,061	Height of land delineating the Clusko River drainage and all other drainage into the Chilcotin River between Chilcotin Lake and Arc Mountain.
Colwell	M	29,514	Height of land delineating the Colwell Creek drainage into the Klinaklini River.
Corkscrew	P	77,040	Height of land delineating the Corkscrew, Lehman, Bryann and Holt Creek drainages to Anahim Lake.
Crazy Creek	M	46,703	Height of land delineating lower middle section of Mosley Creek drainage. The southern boundary is described under the Hickson Unit. North boundary is height of land between side drainages to Mosley, immediately south of Middle Lake.
Doran	M	39,695	Height of land delineating the Doran Ck drainage into the Homathko River.
Downton	M	51,005	Height of land delineating the Downton Ck drainage and upper Chilcotin River drainage as far south as the junction with Downton Ck.
Edmond	M	30,110	Height of land delineating the Edmond River drainage into the south end of Chilko Lake.
Franklyn	M	35,486	Height of land defining tributaries to west side of Chilko Lake, from the height of land north of Franklyn Arm south to the end of the lake.
Gunn Valley	M	36,638	Height of land delineating drainages into the west side of lower Taseko Lake. The lake comprises the eastern boundary of unit.
Haines	P	91,161	Height of land delineating Haines Ck (including McDermott) drainage into the Chilcotin River. The Chilcotin River is the northern boundary.
Hickson	M	33,391	Height of land delineating lower Mosely Creek drainage upstream of Tiedman unit as far north as confluence of Mosely and Scimitas Creeks.
Holtry	P	60,987	Height of land delineating Hole and Holtry Creeks and small tributaries to the south side of Anahim Lake.
Hotnarko	M	25,431	Height of land delineating the Hotnarko River, Sugar Camp Ck and small tributaries to the Atnarko River. Hotnarko River is the south boundary. Atnarko River is the west boundary.

CHILCOTIN FOREST DISTRICT (continued)

UNIT	TERRAIN	SIZE (ha)	BOUNDARY DETERMINATION AND COMMENTS
Klinklini	M	33,511	Height of land delineating upper Klinaklini drainage. The northern boundary reflects the approximate change from a mountain to plateau unit.
Lord	M	35,838	Height of land defining the Lord River drainage downstream to the confluence with Fall River.
McClinchy	M	40,145	Height of land delineating the Upper McClinchy Ck drainage. The boundary crosses McClinchy Creek, partitioning the drainage into units fitting mountain size range.
Middle Lake	M	39,704	Height of land delineating the upper middle section of Mosely Ck drainage. Height of land between tributaries to Mosely Ck was used to define this section (see Crazy Lake and Westbranch units) according to size range criteria for mountain units. Since the side drainages are not sufficiently large to form discrete units on their own.
Minton	P	66,657	Height of land defining the Minton Ck system and other small tributaries to the Chilcotin River between Lees Corner and the mouth of Big Creek.
Narcosli	P	78,491	Height of land delineating the lower Narcosli drainage to the Fraser River downstream of the confluence with Twan Creek. A small tributary to the Fraser River north of Narcosli Lake is also included.
Nazko	P	86,439	Height of land delineating the upper Nazko River drainage including Aneko Creek. The northern boundary follows the Nazko River for a short length between Baum Creek and Tautri Creek.
Nemiah	M	51,623	Height of land defining tributaries to the east side of Chilko Lake from Nemiah Valley to the northern tip of Chilko Lake, including Tsuniah Lake drainage. This unit is large for a mountain unit reflecting topographical constraints of adjacent units and transition from mountain to plateau.
Nimpo	P	60,096	Height of land delineating all tributaries to Nimpo Lake. Local knowledge used to locate height of land between Holtry drainage and Nimpo drainage.
Nostetuko	M	36,251	Height of land delineating the Nostetuko River and Stonsayoko drainages into the Homathko River.
Nude Creek	M	35,473	Height of land delineating the Nude Ck drainage into the Homathko River.
Nuntzi Elkin	P	69,308	Height of land delineating the Elkin and Nuntzi Ck drainages into the Taseko River. From Elkin Ck north, the eastern boundary is the Taseko River to its confluence with the Chilko River.
Ottorasko	M	46,284	Height of land delineating Ottarasko Ck, Jamison Ck and other minor creeks draining into the west side of Tatlayoko Lake and small tributaries to the Homathko River south of Tatlayoko Lake.

CHILCOTIN FOREST DISTRICT (continued)

UNIT	TERRAIN	SIZE (ha)	BOUNDARY DETERMINATION AND COMMENTS
Palmer/Jorgenson	P	99,916	Height of land delineating the Palmer and Jorgenson drainages to the west side of Chilcotin Lake.
Punky Moore	P	77,611	Height of land delineating the Moore Ck and upper Punky Ck drainages as far south and east as Arc Mountain.
Puntzi	P	78,535	Height of land delineating the entire Puntzi Ck drainage to its confluence with the Chilcotin River.
Pyper	P	77,442	Height of land delineating the Pyper Lake system and the Chilanko River from the west side of Chilanko Forks to the confluence with the Chilcotin River. The eastern boundary follows Chilko River and includes minor tributaries north of Bidwell Creek.
Rainbow	M	38,094	Height of land delineating Rainbow Creek drainage and adjacent drainages south of Nemiah Valley into the east side of Chilko Lake.
Sisters	P	58,607	Height of land delineating the Sisters Hills drainage and tributaries to the Chilcotin River from Chilcotin Lake to Redstone. The south boundary follows the Chilcotin River from Redstone to height of land with Alexis Unit.
Siwash	P	51,784	Height of land delineating small tributaries (including lower Haines Creek) to the lower Taseko, Chilko and Chilcotin Rivers as far east as Anahim Ck. The north and west boundaries are defined by the lower Taseko, lower Chilko and Chilcotin Rivers.
Taseko	M	31,661	Height of land delineating the Taseko River and small adjacent tributaries into the east side of Upper Taseko Lake.
Tchaikazan	M	39,706	Height of land defining the Tchaikazan and Falls River drainage to Upper Taseko Lake.
Tatla	P	73,795	Height of land delineating the Tatla Lake system (including Eagle Lake) as far east as confluence with Pyper Lake.
Tautri	P	69,592	Height of land delineating Tautri Creek drainage to the confluence with the Nazko River.
Tete Angela	P	52,503	Height of land delineating the Tete Anglea drainage and the Taseko River drainage between the Lower Taseko Lake and a point just north of the confluence with Elkin Ck. From Elkin Ck north, the western boundary is the Taseko River.
Telegraph	M	46,372	Height of land delineating Telegraph and Kappan Ck drainages into the Hotnarko River. The Hotnarko and Atnarko Rivers are the north and west boundaries of the unit. The large size of this unit reflects the substantive component of NDT 3

CHILCOTIN FOREST DISTRICT (continued)

UNIT	TERRAIN	SIZE (ha)	BOUNDARY DETERMINATION AND COMMENTS
Tiedemann	M	27,876	Height of land delineating lower Mosely Ck drainage and tributaries into Homathko River. To meet size criteria the lower drainage is defined along height of land from Claw Peaks east to Mt. Lova.
Tsulko	M	39,055	Tsulko River and adjacent side drainages from the west to the upper Dean River downstream of Anahim Lake. The Dean River is used as the eastern boundary because the Tusulko River drainage comprises a discrete mountain unit separate from the Ilgachuz.
Upper Dean	P	91,063	Height of land delineating tributary drainages into the Upper Dean River between Anahim Peak and a point east of the confluence with the Iltasyuko River. Much of this unit is in Tweedsmuir Park.
Upper Tatlayoko	M	50,583	Height of land delineating Homathko River drainage north of Tatlayoko Lake. The large size of this unit reflects the substantive component of NDT 3 & 4.
Wentworth	P	64,176	Height of land delineating drainage into the Nazko River from Baum Creek as far as confluence of the Nazko with the Clisbasko River.
West Branch	M	39,085	Height of land delineating the headwaters drainage of Mosely Ck (Sapeye, Horn, Bluff Lakes). The south boundary is a height of land between tributaries to Mosely Ck. Height of land between tributaries to Mosely Ck was used to define this section according to the size criteria for mountain units since the side drainages are not sufficiently large to form discrete units on their own.

APPENDIX 2. Biogeoclimatic Unit Representation In Protected Areas Within The CCLUP Area.

Biogeoclimatic Unit	Total Area in CCLUP Area (ha)	% of Total Area within Protected Areas in CCLUP Area
AT	668,700	31
BGxh3	26,887	27
BGxw2	62,662	18
CWHds1	25,762	57
ESSFdc2	19,575	0
ESSFmc	8,818	100
ESSFmv1	2,353	0
ESSFmw	4,962	100
ESSFwc2	9,501	100
ESSFwc3	254,012	34
ESSFwk1	366,879	14
ESSFxc	11,531	60
ESSF xv	410,122	40
ICHdk	43,051	1
ICHmk3	112,275	4
ICHmw3	34,252	91
ICHvk1	3,423	100
ICHwk1	22,674	100
ICHwk2	172,611	11
ICHwk4	60,694	53
IDFdk1	2,025	3
IDFdk3	895,331	2
IDFdk4	399,431	2
IDFmw2	17,845	17
IDFu	100,912	44
IDFww	10,927	100
IDFxm	237,319	7
IDF xw	36,225	16
MHmm2	10,913	10
MSu	79,762	24
MSxk	60,525	22
MS xv	883,902	7
SBPSdc	426,645	5
SBPSmc	133,215	7
SBPSmk	565,762	0
SBPSxc	1,089,787	3
SBSdw1	344,679	0
SBSdw2	273,516	0
SBSmc1	41,906	0
SBSmc2	140,668	3
SBSmc3	15,300	0
SBSmh	78,949	0
SBSmm	8,663	0
SBSmw	137,488	0
SBSwk1	147,319	18

APPENDIX 3. Derivation of Landscape Unit Conservation Priority

Quesnel Forest District

Landscape Unit	% NDT in L.U.	Need for Representation (% of area of L.U.)		Biogeoclimatic and Habitat Diversity ¹	Ecosystem ² Representation	Red/Blue Species	Sensitivity to Disturbance	Conservation ³ Priority
		Low, Med	High					
Abhau	(3)95,(1)5	5M,5L	90	6BGC+H=H	H	N	L	6
Antler	(3)30, (1)60, (5)10	100L	0	4BGC+L=H	L	Y	H	5
Baezaeko	(3)100	40M	60	5BGC+H=H	H	N	L	6
Baker	(3)100	25M	75	7BGC+H=H	H	N	L	6
Betty Wendle	(3)10, (5)20, (1)70	80L,20M	0	5BGC+H=H	L	Y	H	5
Big Valley	(1)60, (3)37, (5)3	100L	0	3BGC+L=M	L	Y	H- ^a	5
Bowron	(3)50,(1)30,(2)13,(5)7	85M	<15	5BGC+L=H	L	Y	L+ ^b	3
Boyce	(1)35, (3)65	35L,65M	0	2BGC+L=L	M	N	L	4
Chine	(3)100	15M	85	3BGC+H=H	H	N	L	6
Clisbako	(3)100	55M	45	3BGC+H=H	H	N	L	6
Coglistiko	(3)100	60M	40	3BGC+M=M	H	N	L	6
Cunningham	(1)85, (5)15	100L	0	4BGC+H=H	L	Y	H	5
Dragon	(3)95, (4)5	15m	85	5BGC+H=H	H	N	L	6
Eliguk	(3)70, (2)10, (5)20	15L,40M	45	6BGC+H=H	H	N	L	6
Euchiniko	(3)65, (2)35	35M, 30L	35	3BGC+H=H	H	N	L	6
Gerimi	(3)100	5L	95	4BGC+H=H	H	N	L	6
Indianpoint	(1)35, (2)65	100L	0	4BGC+M=H	L	Y	H	5
Jack Of Clubs	(1)85, (3)15	15M, 85L	0	3BGC+L=M	L	Y	H	5
Kluskoil	(3)80, (2)20	40M,15L	45	4BGC+H=H	H	N	L	6
Kluskus	(3)100	55M	45	3BGC+H=H	H	N	L	6
Lightning	(1)60, (3)40	95L	5	4BGC+L=H	L	N	H- ^c	4
Mathew	(1)60, (5)40	100L	0	4BGC+H=H	L	Y	H	5
Marmot	(3)100	15M	85	5BGC+H=H	H	N	L	6
Mitchell	(1)60, (5)40	100L	0	4BGC+H=H	L	Y	H	5
Narcosli	(3)95, (4)5	15	85	5BGC+H=H	H	N	L	6
Pan	(3)60, (2)20, (5)20	50M,15L	35	4BGC+H=H	H	Y	L	8
Pantage	(3)95, (2)5	5L,15M	80	5BGC+H=H	H	N	L	6
Pelican	(3)90, (2)10	5L,5M	90	3BGC+H=H	H	N	L	6
Ramsey	(3)98, (4)2	30M	70	5BGC+H=H	H	N	L	6
Sandy	(2)10,(1)65,(5)25	90L	10	5BGC+H=H	L	Y	L	2

Quesnel Forest District (continued)

Landscape Unit	% NDT in L.U.	Need for Representation (% area of L.U.)		Biogeoclimatic and Habitat Diversity ¹	Ecosystem ² Representation	Red/Blue Species	Sensitivity to Disturbance	Conservation ³ Priority
		Low, Med	High					
Snaking	(3)95, (2)5	30M	70	4BGC+H=H	H	N	L	6
Swift	(5)5,(3)30,(1)65	100L	0	4BGC+L=H	L	Y	H	5
Tako	(3)95	0	100	3BGC+M=M	H	N	L	6
Tautri	(3)100	10M	90	4BGC+M=H	H	N	L	6
Tibbles	(3)100	45M	55	5BGC+H=H	H	N	L	6
Toil	(3)100	95M	5	1BGC+L=L	M	N	L	4
Twan	(3)50, (4)50	0	100	5BGC+H=H	H	N	M- ^d	8
Umiti	(3)90, (1)10	36L	63	5BGC+H=H	H	N	L	6
Victoria	(3)80,(1)18,(5)2	45L	55	3BGC+M=M	H	N	L	6
Wendle	(1)25, (2)75	100L	0	3BGC+L=M	L	N+	H	4
Wentworth	(3)100	35M	65	4BGC+H=H	H	N	L	6
Willow	(1)40, (3)60	100L	0	3BGC+L=M	L	N	M- ^e	2
Whittier	(3)100	3M	97	4BGC+H=H	H	N	L	6

- a. Sensitivity downgraded as 37% area is NDT 3
- b. Sensitivity upgraded as 43% area is NDT 1 and 2
- c. Sensitivity downgraded as 40% area is NDT 3.
- d. Sensitivity downgraded as 50% of area is NDT 3.
- e. Sensitivity is a blend of high and low with slightly more Low.

1. Diversity rating is derived from using Table 3
2. To derive rating for Ecosystem Representation, the previous two columns (Need for Representation, Biogeoclimatic and Habitat Diversity) must be assessed using Table 4.
3. To derive the Conservation Priority, the previous three columns (Ecosystem Representation, Red/Blue Species, Sensitivity to Disturbance) must be assessed using the decision tree in Figure 2

Williams Lake Forest District

Landscape Unit	%NDT in L.U.	Need for Representation (% area of L.U.)		Biogeoclimatic and Habitat Diversity ¹	Ecosystem ² Representation	Red/Blue Species	Sensitivity to Disturbance	Conservation ³ Priority
		Low, Med	High					
Alkali	(4)100	15L	85	4BGC+H=H	H	Y	M	10
Bambrick	(2)5, (3)90	45M,5L	50	3BGC+H=H	H	N	L	6
Big Creek	(4)45, (3)50, (2)5	5M,5L	90	5BGC+M=H	H	N	M ^a	7
Chimney	(4)100	5L	95	3BGC+H=H	H	Y	M	10
Churn	(4)50,(3)40, (2)10	10L,15M	75	6BGC+H=H	H	Y	M	10
Dash	(2)60,(3)30,(5)10	60L,35M	5	4BGC+H=H	M	N	H	6
Farwell	(4)95,(3)5	20L	80	4BGC+H=H	H	Y	M	10
Gaspard	(4)40,(3)55,(2)5	25M,10L	65	5BGC+H=H	H	Y	L ^b	9
Hawks Creek	(4)60,(3)40	0	100	4BGC+H=H	H	Y	M	10
Koster-Lone Cabin	(4)60,(3)25,(2)15	30L,20M	50	5BGC+H=H	H	Y	M	10
Mackin	(4)70,(3)30	0	100	5BGC+M=H	H	N	M	8
Meldrum	(4)100	0	100	2BGC+M=L	H	N	M	8
Nadila	(3)40,(2)45,(5)15	60L,30M	10	4BGC+H=H	M	N	M	5
Riske	(4)100	15L	85	5BGC+H=H	H	Y	M	10
Upper Big Creek	(3)20,(2)50,(5)30	80L,20L	0	3BGC+H=H	L	Y	H	5
Upper Churn	(3)40,(2)55,(5)5	60L,40M	1	4BGC+H=H	M	N	H	6
Williams Lake	(4)60,(3)40		100	4BGC+H=H	H	Y	M	10

a. Sensitivity downgraded due to 50% NDT 3.

b. Sensitivity upgraded due to 40% NDT 4 and 5% NDT 2.

1. Diversity rating is derived from using Table 3.
2. To derive rating for Ecosystem Representation, the previous two columns (Need for Representation, Biogeoclimatic and Habitat Diversity) must be assessed using Table 4.
3. To derive the Conservation Priority, the previous three columns (Ecosystem Representation, Red/Blue Species, Sensitivity to Disturbance) must be assessed using the decision tree in Figure 2

Horsefly Forest District

Landscape Unit	%NDT in L.U.	Need for Representation (% area of L.U.)		Biogeoclimatic and Habitat Diversity ¹	Ecosystem ² Representation	Red/Blue Species	Sensitivity to Disturbance	Conservation ³ Priority
		Low, Med	High					
Beaver Valley	(3)90,(2)10	0	100	3BGC+H=H	H	N	L	6
Big Lake	(3)90,(2)10	0	100	3BGC+H=H	H	N	L	6
Black Creek	(1)20,(2)5,(3)75	20L	80	4BGC+H=H	H	N	L	6
Cariboo Lake	(1)90,(3)10	10M,90L	0	3BGC+M=M	L	Y	H	5
East Arm	(1)90,(5)10	100L	0	4BGC+H=H	L	Y	H	5
Eastside	(1)80,(5)20	100L	0	4BGC+H=H	L	Y	H	5
Horsefly	(1)60,(2)30,(3)10	60L	40	3BGC+H=H	H	Y	H	10
Likely	(1)95,(2)5	95L	5	3BGC+L=M	L	Y	H	5
Little River	(1)95,(5)5	100L	0	4BGC+H=H	L	Y	H	5
Lower Cariboo	(1)80,(2)5,(3)15	85L,10M	5	5BGC+H=H	L	Y	H	5
Mackay	(1)80,(5)20	100L	0	4BGC+H=H	L	Y	H	5
McKinley	(1)40,(2)55,(3)5	40L	60	4BGC+H=H	H	Y	H	10
McKusky	(1)90,(5)10	100L	0	4BGC+H=H	L	Y	H	5
Moffat	(1)25,(3)75	25L,15M	60	4BGC+H=H	H	N	L	6
Niagra	(1)60,(5)30	100L	0	4BGC+H=H	L	Y	H	5
Penfold	(1)70,(5)30	100L	0	4BGC+H=H	L	Y	H	5
Polly	(3)35,(2)60,(1)5	5L	95	3BGC+M=M	H	N	H	8
Wasko/Lynx	(1)90,(5)10	100L	0	4BGC+M=H	L	Y	H	5
Westside	(1)90,(5)10	100L	0	4BGC+H=H	L	Y	H	5

1. Diversity rating is derived from using Table 3.
2. To derive rating for Ecosystem Representation, the previous two columns (Need for Representation, Biogeoclimatic and Habitat Diversity) must be assessed using Table 4
3. To derive the Conservation Priority, the previous three columns (Ecosystem Representation, Red/Blue Species, Sensitivity to Disturbance) must be assessed using the decision tree in Figure 2.

100 Mile House Forest District

Landscape Unit	%NDT in L.U.	Need for Representation (% area of L.U.)		Biogeoclimatic and Habitat Diversity ¹	Ecosystem ² Representation	Red/Blue Species	Sensitivity to Disturbance	Conservation ³ Priority
		Low, Med	High					
108 Mile Lake	(3)50,(4)50	5L	95	4BGC+H=H	H	N	L ^a	7
Big Bar	(3)10,(4)90	15L,5M	80	6BGC+H=H	H	Y	M	10
Bonaparte	(3)30,(4)70	100M	0	6BGC+H=H	H	Y	M	10
Bonaparte Lake	(3)90,(4)10	40M	60	8BGC+H=H	H	N	L	6
Bradley Creek	(3)85,(1)15	15L	85	4BGC+H=H	H	N	L	6
Bridge Creek	(4)90,(3)10	0	100	2BGC=H=M	H	N	L	6
Bridge Lake	(3)100	10L	90	3BGC+H=H	H	N	L	6
Canim Lake	(3)80	20M,20L	60	6BGC+M=H	H	N	L	6
Canim Red	(3)85,(4)10,(2)5	40L	60	7BGC+M=H	H	N	L	6
Chasm	(4)90,(3)10	10L	90	5BGC+H=H	H	Y ^{-b}	M	*9
Clinton	(4)80,(3)20	10M,10L	80	5BGC+H=H	H	Y ^{-b}	M	*9
Cunningham Lk	(4)100	0	100	1BGC+M=L	H	N	M	8
Deadman	(3)60,(4)40	25M	75	6BGC+H=H	H	Y	L	8
Deception Mtn	(1&2)95,(3)5	90L	10	5BGC+H=H	L	Y	H	5
Dog Creek	(4)90	10L	90	4BGC+H=H	H	Y	M	10
Forest Grove	(3)80,(4)20	5L	95	3BGC+H=H	H	N	L	6
Green Lake	(3)80,(4)20	0	100	2BGC+H=M	H	N	L	6
Helena Lake	(4)85,(3)15	0	100	3BGC+H=H	H	N	M	8
Hendrix Lake	(3)60,(1)40	40L	60	6BGC+M=H	H	N	L ^{+c}	7
Kelly Lake	(3)60,(4)40	45M,15L	40	5BGC+H=H	H	Y	L ^{+c}	9
Loon	(4)70,(3)30	30M	70	3BGC+M=M	H	Y	M	10
Mahood Lake	(4)40,(3)40,(1)20	40M,60L	0	6BGC+M=H	H	N	L	6
Meadow Lake	(4)100	5L	95	4BGC+H=H	H	Y	M	10
Murphy Lake	(3)80,(1)20	30L,10M	60	5BGC+H=H	H	N	L	6
Nehalliston	(3)80,(4)15,(1)5	20L	80	5BGC+H=H	H	Y	L	8
Spanish	(3)60,(1)40	40L	60	6BGC+H=H	H	Y	L ^{+c}	9

- a. Sensitivity upgraded due to 50:50 split of NDT's 3 and 4.
 - b. Red/Blue downgraded. Dry belt bats, flammulated owls and lewis' woodpeckers expected but presence uncertain.
 - c. Sensitivity upgraded because 40% of the unit is NDT 1.
-
1. Diversity rating is derived from using Table 3.
 2. To derive rating for Ecosystem Representation, the previous two columns (Need for Representation, Biogeoclimatic and Habitat Diversity) must be assessed using Table 4.
 3. To derive the Conservation Priority, the previous three columns (Ecosystem Representation, Red/Blue Species, Sensitivity to Disturbance) must be assessed using the decision tree in Figure 2.

Chilcotin Forest District

Landscape Unit	%NDT in L.U.	Need for Representation (% area of L.U.)		Biogeoclimatic and Habitat Diversity ¹	Ecosystem ² Representation	Red/Blue Species	Sensitivity to Disturbance	Conservation ³ Priority
		Low, Med	High					
Alexis	(4)55%,(3)45		100	3BGC+L=M	H	N	M	8
Alplands	(3)35,(2)55,(5)10	25M;65L	10	4BGC+M=H	M	Y	H	7
Anaham	(4)30,(3)70		100	4BGC+M=H	H	Y	L	8
Atnarko	(3)65,(2)10,(4)5,(5)20	15M,40	45	7BGC+H=H	H	Y	L	8
Beece Ck	(2)15,(3)30,(5)55	70L,10M	20	4BGC+H=H	M	N	L	4
Beeftrail	(3)35,(2)35,(5)30	45L,30M	25H	4BGC+M=H	H	Y	M	10
Bidwell/Lava	(3)75,(5)5,(4)10,(2)10	15L,10M	75	5BGC+M=H	H	N	L	6
Big Stick	(4)15,(3)20,(2)20,(5)45	75L,5M	20	6BGC+H=H	M	Y	M	6
Brittany	(3)90,(4)5,(2)5	5M	95	4BGC+L=H	H	N	L	6
Cheshi Strikelan	(4)30,(2)10,(3)20,(5)40	100L	0	4BGC+H=H	L	Y	M	4
Chilanko	(3)95,(4)5	5M	95	3BGC+L=M	H	N	L	6
Chilko	(5)40,(4)15,(3)10,(2)35	100L	0	3BGC+H=H	L	Y	H	5
Clearwater	(3)85,(4)5,(2)5,(5)5	10M,10L	80	4BGC+M=H	H	N	L	6
Christenson Ck	(3)75,(2)10,(5)15	25L,20M	55	5BGC+H=H	H	Y	L	8
Clusko	(3)100	40M	60	3BGC+M=M	H	N	L	6
Colwell	(5)70,(2)20,(3)10	95L,5M	0	3BGC+M=M	L	Y	H	5
Corkscrew	(3)85,(2)10,(5)5	60M,20L	20	4BGC+H=H	H	Y	L	8
Crazy Ck	(2)20,(4)10,(3)5,(5)65	100L	0	4BGC+M=H	L	Y	H	5
Doran	(2)15,(1)15,(5)70	50L,50M	0	3BGC+M=M	M	Y	H	7
Downton	(3)70,(2)20,(5)10	85M,15L	0	3BGC+L=M	H	Y	L	8
Edmond	(2)25,(5)75	100L	0	2BGC+M=L	L	Y	H	5
Franklyn	(2)10,(4)5,(5)83,(1)2	100L	0	3BGC+H=H	L	Y	H	5
Gunn Valley	(2)15,(3)60,(5)25	100L	0	3BGC+H=H	L	N ⁺ ^a	L	2
Haines	(3)65,(4)35	15M,5L	80	5BGC+M=H	H	N	L	6
Hickson	(2)15,(1)5,(5)80	100L	0	4BGC+M=H	L	Y	H	5
Holtry	(3)100	35M	65	2BGC+M=L	H	N	L	6
Hotnarko	(3)60,(2)20,(4)15,(5)5	15M,60L	25	6BGC+M=H	H	Y	L	8
Kliniklini	(3)40,(2)30,(5)30	45M,45L	10	4BGC+M=H	H	N+	L	7
Lord	(3)10,(2)20,(5)70	100L	0	3BGC+H=H	L	Y	H	5
McLinchy	(3)50,(2)20,(5)30	30M,35L	35	4BGC+H=H	H	Y	L	8
Middle Lake	(4)20,(3)15,(2)15,(5)50	100L	0	4BGC+H=H	L	Y	M	4
Minton	(4)80,(3)20	0	100	3BGC+H=H	H	Y	M	10

Chilcotin Forest District (continued)

Nazko	(4)5,(3)95	15M	85	4BGC+M=H	H	N	L	6
Nemiah	(4)45,(3)25,(2)10,(5)20	60L,10M	30	7BGC+H=H	H	Y	M	10
Nimpo	(3)100	15M	85	2BGC+H=M	H	N	L	6
Nostetuko	(4)10,(2)20,(5)70	100L	0	3BGC+H=H	L	Y	H	5
Nude Creek	(4)10,(2)10,(5)80	100L	0	4BGC+M=H	L	Y	M	4
Nuntzi Elkin	(4)10,(2)5,(3)80,(5)5	10M,5L	85	5BGC+M=H	H	N	L	6
Ottorasko	(4)20,(3)10,(2)15,(5)55	100L	0	4BGC+H=H	L	Y	M	4
Palmer/Jorgenson	(3)100	45M	55	2BGC+M=L	H	N	L	6
Punky Moore	(3)95,(2)5	80M,10L	10	3BGC+L=M	H	N	L	6
Puntzi	(3)75,(4)25	15M	85	3BGC+M=M	H	N	L	6
Pyper	(3)55,(4)45	0	100	3BGC+L=M	H	N	L	6
Rainbow	(4)5,(3)20,(2)20,(5)55	100L	0	4BGC+H=H	L	Y	M	4
Sisters	(3)40,(4)60	0	100	3BGC+L=M	H	N	M	8
Siwash	(3)30,(4)70	0	100	3BGC+L=M	H	N	M	8
Taseko	(2)35,(3)10,(5)55	100L	0	3BGC+H=H	L	Y	H	5
Tchaikazan	(2)15,(5)75,(3)10	100L	0	3BGC+H=H	L	Y	H	5
Tatla	(4)5,(3)95	5M	95	4BGC+L=H	H	N	L	6
Tete Angela	(4)10,(2)5,(3)85	20M	80	3BGC+M=M	H	N	L	6
Telegraph	(4)5,(2)10,(5)5,(3)80	60M,10L	30	6BGC+H=H	H	Y	L	8
Tiedemann	(5)55,(2)35,(1)10	80L,20M	0	3BGC+M=M	L	Y	H	5
Tsulko	(3)55,(2)35,(5)10	30M,40	30	5BGC+H=H	H	Y	L	8
Upper Dean	(3)70,(2)20,(5)10	25M,15L	60	6BGC+H=H	H	Y	L	8
Upper Tatlayoko	(4)40,(3)35,(2)10,(5)15	25M,25L	50	5BGC+H=H	H	N	M	8
Westbranch	(4)20,(3)25,(2)15,(5)40	10M,50L	40	5BGC+H=H	H	Y	M	10

a. Red/Blue species preserve upgraded due to occurrence of some grizzly habitat.

1. Diversity rating is derived from using Table 3.
2. To derive rating for Ecosystem Representation, the previous two columns (Need for Representation, Biogeoclimatic and Habitat Diversity) must be assessed using Table 4.
3. To derive the Conservation Priority, the previous three columns (Ecosystem Representation, Red/Blue Species, Sensitivity to Disturbance) must be assessed using the decision tree in Figure 2.

APPENDIX 4. Landscape Unit Biodiversity Emphasis

Procedure for Assigning Biodiversity Emphasis:

- Landscape units were first ranked according to their conservation priority which was based on primary selection criteria.
- Secondary criteria and a more detailed review of primary criteria were then used to sort units of similar value (within 1 point of conservation priority) into emphasis categories;
- In the following tables, where landscape units have similar conservation priority, only those assigned to a higher category are given a rationale, as the default for a given rating is considered to be the lesser emphasis category;
- In the following tables, landscape units with shading indicate a change was made between interim and recommended emphasis. Such changes were made in consideration of current forest condition within the landscape units.

RECOMMENDED BIODIVERSITY EMPHASIS

Quesnel Forest District

Landscape Unit	Conservation Rating	Emphasis Interim	Rationale	Emphasis Recommended*
Sandy	2	lower	Emphasis assigned according to conservation rating.	lower
Willow	2	lower	Emphasis assigned according to conservation rating.	lower
Bowron	3	lower	Emphasis assigned according to conservation rating.	lower
Boyce	4	lower	Emphasis assigned according to conservation rating.	lower
Toil	4	lower	Emphasis assigned according to conservation rating.	lower
Wendle	4	lower	Emphasis assigned according to conservation rating.	lower
Betty Wendle	5	lower	Emphasis assigned according to conservation rating.	lower
Swift	5	lower	Emphasis assigned according to conservation rating.	lower
Big Valley	5	lower	Emphasis assigned according to conservation rating.	lower
Jack of Clubs	5	lower	Emphasis assigned according to conservation rating.	lower
Cunningham	5	lower	Emphasis assigned according to conservation rating.	lower
Indianpoint	5	lower	Emphasis assigned according to conservation rating.	lower
Lightning	6	lower	Emphasis assigned according to conservation rating.	lower
Abhau	6	lower	Emphasis assigned according to conservation rating.	lower
Whittier	6	lower	Emphasis assigned according to conservation rating.	lower
Narcosli	6	lower	Emphasis assigned according to conservation rating.	lower
Ramsey	6	lower	Emphasis assigned according to conservation rating.	lower
Tibbles	6	lower	Emphasis assigned according to conservation rating.	lower
Tako	6	lower	Emphasis assigned according to conservation rating.	lower
Wentworth	6	lower	Emphasis assigned according to conservation rating.	lower
Marmot	6	lower	Emphasis assigned according to conservation rating.	lower
Baezeko	6	lower	Emphasis assigned according to conservation rating.	lower
Euchiniko	6	lower	Emphasis assigned according to conservation rating.	lower
Kluskoil	6	lower	Emphasis assigned according to conservation rating.	lower
Mathew	5	intermediate	SRDZ, caribou, buffers, protected area.	intermediate
Antler	5	intermediate	Provides break in large area of low emphasis. Among those units Antler is mostly SRDZ.	intermediate
Umiti	6	intermediate	Representation of transitional SBS (dw/mc)	lower
Snaking	6	intermediate	Good elevational habitat diversity.	lower
Pelican	6	intermediate	SRDZ. Wetland complexes.	lower
Eliguik	6	intermediate	SRDZ. Riparian values.	intermediate
Kluskus	6	intermediate	SRDZ. Wetland complexes.	intermediate

Quesnel District (con't)

Landscape Unit	Conservation Rating	Emphasis Interim	Rationale	Emphasis Recommended *
Chine	6	intermediate	SRDZ. Wetland complexes.	intermediate
Coglistiko	6	intermediate	SRDZ. Wetland complexes. Good habitat diversity.	intermediate
Clisbako	6	intermediate	Representation of two SBPS subzones (dc,mk)	intermediate
Pantage	6	intermediate	SRDZ. Wetland complexes.	intermediate
Dragon	6	intermediate	Good range of elevational habitats.	intermediate
Gerimi	6	intermediate	Good riparian values along Quesnel River.	intermediate
Victoria	6	intermediate	Good range of elevational ecosystem diversity. Representation of NDT 3 - SBS. Provides higher emphasis in Quesnel District, east of the Fraser R.	higher ²
Baker	6	higher	Baker contains a good range of BEC units spanning elevations from the Fraser River to ESSF.	higher
Pan	8	higher	Emphasis assigned according to conservation rating.	intermediate ¹
Twan	8	higher	Emphasis assigned according to conservation rating.	higher

*** Recommended emphasis recognizes current forest condition; interim emphasis recognizes natural values independent of current forest condition.**

RATIONALE FOR EMPHASIS CHANGES	
1. Pan	This unit does not meet higher targets for old or mature + old forest in the SBPS. Furthermore, the ecological values in this unit are well represented in the nearby Corkscrew unit.
2. Victoria	Good representation of NDT 3 - SBS with high need.

RECOMMENDED BIODIVERSITY EMPHASIS

Williams Lake Forest District

Landscape Unit	Conservation Rating	Emphasis Recommended	Rationale	Emphasis Recommended *
Nadilla	5	lower	Emphasis assigned according to conservation rating.	lower
Upper Big Creek	5	lower	Emphasis assigned according to conservation rating.	lower
Dash	6	lower	Emphasis assigned according to conservation rating.	lower
Upper Churn	6	lower	Emphasis assigned according to conservation rating.	lower
Big Creek	7	lower	Emphasis assigned according to conservation rating.	lower
Bambrick	7	lower	Emphasis assigned according to conservation rating.	lower
Beaver Valley	8	lower	Emphasis assigned according to conservation rating.	lower
Mackin	8	lower	Emphasis assigned according to conservation rating.	lower
Meldrum	8	intermediate	Good ecosystem diversity . Lower elevation IDF with associated red/blue listed species.	intermediate
Gaspard	9	intermediate	Emphasis assigned according to conservation rating.	intermediate
Churn	10	intermediate	Emphasis assigned according to conservation rating.	intermediate
Hawks Creek	10	intermediate	Emphasis assigned according to conservation rating.	intermediate
Williams Lake	10	intermediate	Emphasis assigned according to conservation rating.	intermediate
Riske Creek	10	intermediate	Emphasis assigned according to conservation rating.	intermediate
Alkali	10	intermediate	Emphasis assigned according to conservation rating.	intermediate
Farwell	10	intermediate	Emphasis assigned according to conservation rating.	intermediate
Chimney	10	higher	Good IDF representation; especially the lower IDF along the Fraser which harbours red and blue listed species. Extent of private land in this lower IDF is small.	higher
Koster Grinder	10	higher	SRDZ. buffers park - meets target for area of higher emphasis in. combination with Chimney unit.	higher

* **Recommended emphasis recognizes current forest condition; interim recognizes natural values independent of current forest condition.**

RECOMMENDED BIODIVERSITY EMPHASIS

Horsefly Forest District

Landscape Unit	Conservation Rating	Emphasis Interim	Rationale	Emphasis Recommended *
McKay	5	lower	Emphasis assigned according to conservation rating.	lower
Lower Cariboo	5	lower	Emphasis assigned according to conservation rating.	lower
Cariboo Lake	5	lower	Emphasis assigned according to conservation rating.	lower
Wasko/Lynx	5	lower	Emphasis assigned according to conservation rating.	lower
Likely	5	lower	Emphasis assigned according to conservation rating.	lower
Little River	5	low	Emphasis assigned according to conservation rating.	intermediate ¹
Moffat	6	lower	Emphasis assigned according to conservation rating.	lower
Big Lake	6	lower	Emphasis assigned according to conservation rating.	low
Westside	5	intermediate	Emphasis assigned according to conservation rating.	intermediate
Eastside	5	intermediate	Emphasis assigned according to conservation rating.	intermediate
McKusky	5	intermediate	Emphasis assigned according to conservation rating.	lower ²
Penfold	5	intermediate	Emphasis assigned according to conservation rating.	intermediate
East Arm	5	intermediate	Emphasis assigned according to conservation rating.	intermediate
Mitchell Lake	5	intermediate	This unit buffers a park and is in the SRDZ (caribou habitat).	intermediate
Niagra	5	intermediate	Park	intermediate
Black Creek	6	intermediate	Horsefly River contributes high fisheries and riparian values to this unit.	intermediate
Polly	8	intermediate	Emphasis assigned according to conservation rating.	higher ³
McKinley	10	intermediate	Emphasis assigned according to conservation rating.	higher ⁴
Horsefly	10	higher	Emphasis assigned according to conservation rating.	intermediate ⁵

* **Recommended emphasis recognizes current forest condition; interim emphasis recognizes natural values independent of current forest condition.**

RATIONALE FOR EMPHASIS CHANGES	
1. Little River	Overall the seral condition is better than that of McKusky and the two have similar Biogeoclimatic representation. Caribou use also.
2. McKusky	Biogeoclimatic representation is similar to Little River but seral condition is poorer. This unit fails to meet early targets overall.
3. Polly	Despite problems in ICH, Polly passes as a unit overall and is closer than Horsefly to achieving mature + old targets for ICH - NDT 2. ICH - NDT 1 is well below targets but comprises a relatively small part of the unit.
4. McKinley	Despite problems in ICH - NDT 1 and SBS - NDT 3, the majority of the unit is ESSF - NDT 1 and ICH - NDT 2. For these types the unit meets or exceeds targets in mature + old and old forest.
5. Horsefly	Current condition for mature + old forest in ICH is well below target. Comparable ecological values can be formed in Polly and McKinley. Together, these two units are similar in size to Horsefly.

RECOMMENDED BIODIVERSITY EMPHASIS

100 Mile House Forest District

Landscape Unit	Conservation Rating	Emphasis Interim	Rationale	Emphasis Recommended *
Deception	5	lower	Emphasis assigned according to conservation rating.	lower
Canim Lake	6	lower	Emphasis assigned according to conservation rating.	lower
Forest Grove	6	lower	Emphasis assigned according to conservation rating.	lower
Bradley Creek	6	lower	Emphasis assigned according to conservation rating.	lower
Murphy Lake	6	lower	Emphasis assigned according to conservation rating.	lower
Bridge Creek	6	lower	Emphasis assigned according to conservation rating.	lower
Green Lake	6	lower	Emphasis assigned according to conservation rating.	lower
Bonaparte Lake	6	lower	Emphasis assigned according to conservation rating.	lower
Mahood		lower	Emphasis assigned according to conservation rating.	lower
Helena Lake	8	intermediate	Emphasis assigned according to conservation rating.	lower ¹
Bridge Lake	6	intermediate	SRDZ. Extensive riparian systems prevents large contiguous area of low emphasis. Other units besides Bridge Lake are in SRDZ.	intermediate
108 Mile Lake	7	intermediate	Emphasis assigned according to conservation rating.	intermediate
Hendrix Lake	7	intermediate	Emphasis assigned according to conservation rating.	intermediate
Nehalliston	8	intermediate	Emphasis assigned according to conservation rating.	intermediate
Deadman	8	intermediate	Emphasis assigned according to conservation rating.	intermediate
Cunningham Lake	8	intermediate	Emphasis assigned according to conservation rating.	intermediate
Chasm	9	intermediate	Emphasis assigned according to conservation rating.	intermediate
Clinton	9	intermediate	Emphasis assigned according to conservation rating.	intermediate
Kelly Lake	9	intermediate	Emphasis assigned according to conservation rating.	intermediate
Meadow Lake	10	intermediate	Emphasis assigned according to conservation rating.	intermediate
Loon	10	intermediate	Emphasis assigned according to conservation rating.	intermediate
Big Bar	10	intermediate	Emphasis assigned according to conservation rating.	higher ²
Bonaparte	10	intermediate	Emphasis assigned according to conservation rating.	intermediate
Spanish	9	higher	Caribou - appropriate size in combination with Dog Creek to meet targets for high emphasis. In combination with Big Bar wider range of ecosystems.	higher
Dog Creek	10	higher	Representative IDF ecosystems. Meets size criteria for high emphasis within District when combined with Spanish unit.	intermediate ³

* Recommended emphasis recognizes current forest condition; interim emphasis recognizes natural values independent of current forest condition.

100 Mile House District (con't)

RATIONALE FOR EMPHASIS CHANGES	
1. Helena Lake	Intermediate cannot be achieved for any seral class in IDF.
2. Big Bar	Provides many of the same ecosystem benefits as Dog Creek.
3. Dog Creek	Seral condition does not meet higher emphasis.

RECOMMENDED BIODIVERSITY EMPHASIS

Chilcotin Forest District

Landscape Unit	Conservation Rating	Emphasis Interim	Rationale	Emphasis Recommended *
Gunn	2	lower	Emphasis assigned according to conservation rating.	lower
Beece Creek	4	lower	Emphasis assigned according to conservation rating.	lower
Middle Lake	4	lower	Emphasis assigned according to conservation rating.	lower
Ottarasko	4	lower	Emphasis assigned according to conservation rating.	lower
Nude Creek	4	lower	Emphasis assigned according to conservation rating.	lower
Rainbow	4	lower	Emphasis assigned according to conservation rating.	intermediate
Chilko	5	lower	Emphasis assigned according to conservation rating.	intermediate
Cheshi Stikelni	4	lower	Emphasis assigned according to conservation rating.	lower
Edmond	5	lower	Emphasis assigned according to conservation rating.	lower
Franklyn	5	lower	Emphasis assigned according to conservation rating.	lower
Taseko	5	lower	Emphasis assigned according to conservation rating.	lower
Lord	5	lower	Emphasis assigned according to conservation rating.	lower
Colwell	5	lower	Emphasis assigned according to conservation rating.	lower
Tchakazan	5	lower	Emphasis assigned according to conservation rating.	lower
Nostetuko	5	lower	Emphasis assigned according to conservation rating.	lower
Tiedman	5	lower	Emphasis assigned according to conservation rating.	lower
Hickson	5	lower	Emphasis assigned according to conservation rating.	lower
Crazy Creek	5	lower	Emphasis assigned according to conservation rating.	lower
Haines	6	lower	Emphasis assigned according to conservation rating.	lower
Tete Angela	6	lower	Emphasis assigned according to conservation rating.	lower
Nunzi Elkin	6	lower	Emphasis assigned according to conservation rating.	lower
Brittany	6	lower	Emphasis assigned according to conservation rating.	lower
Tautri	6	lower	Emphasis assigned according to conservation rating.	lower
Nazko	6	lower	Emphasis assigned according to conservation rating.	lower
Pyper	6	lower	Emphasis assigned according to conservation rating.	lower
Puntzi	6	lower	Emphasis assigned according to conservation rating.	lower
Chilanko	6	lower	Emphasis assigned according to conservation rating.	lower
Tatla Lake Eagle	6	lower	Emphasis assigned according to conservation rating.	lower
Nimpo	6	lower	Emphasis assigned according to conservation rating.	lower
Clearwater	6	lower	Emphasis assigned according to conservation rating.	lower
Big Stick	6	lower	Emphasis assigned according to conservation rating.	lower

Chilcotin Forest District (con't)

Landscape Unit	Conservation Rating	Emphasis Interim	Rationale	Emphasis Recommended *
Bidwell Lava	6	intermediate	SRDZ. Diversity of habitats from alpine to plateau.	intermediate
Holtry	6	intermediate	Wetland complexes along slopes.	intermediate
Punky	6	intermediate	SRDZ, caribou present, buffers park.	intermediate
Palmer Jorgenson	6	intermediate	Wetland complexes. Come caribou habitat.	intermediate
Clusko	6	intermediate	Broken terrain with wetland complexes. Some caribou habitat. Some SRDZ.	intermediate
Alplands	7	intermediate	Emphasis assigned according to conservation rating.	intermediate
Kliniklini	7	intermediate	Emphasis assigned according to conservation rating.	intermediate
Doran	7	intermediate	Emphasis assigned according to conservation rating.	intermediate
U. Tatlayoko	8	intermediate	Emphasis assigned according to conservation rating.	intermediate
McClinchy	8	intermediate	Emphasis assigned according to conservation rating.	intermediate
Atnarko	8	intermediate	Emphasis assigned according to conservation rating.	intermediate
Hotnarko	8	intermediate	Emphasis assigned according to conservation rating.	intermediate
Upper Dean	8	intermediate	Emphasis assigned according to conservation rating.	intermediate
Tusulko	8	intermediate	Emphasis assigned according to conservation rating.	intermediate
Christenson Cr	8	intermediate	Emphasis assigned according to conservation rating.	intermediate
Sisters	8	intermediate	Emphasis assigned according to conservation rating.	intermediate
Alexis	8	intermediate	Emphasis assigned according to conservation rating.	intermediate
Siwash	8	intermediate	Emphasis assigned according to conservation rating.	intermediate
Anaham	8	intermediate	Emphasis assigned according to conservation rating.	intermediate
Downton	8	intermediate	Emphasis assigned according to conservation rating.	intermediate
Telegraph	8	higher	This unit contains a wide range of ecosystems.	higher
Corkscrew	8	higher	This unit contains large wetland complexes & riparian ecosystems. Caribou habitat.	higher
Nemiah	10	higher	Emphasis assigned according to conservation rating.	higher
Westbranch	10	higher	Emphasis assigned according to conservation rating.	higher
Minton	10	higher	Emphasis assigned according to conservation rating.	higher
Beeftrail	10	higher	Emphasis assigned according to conservation rating.	higher

*** Recommended emphasis recognizes current forest condition; interim emphasis recognizes natural values independent of current forest condition.**

APPENDIX 5. Seral Condition Analyses Methodology

Inventory Data Adjustments

Figures A5-1 and A5-2 show unadjusted and adjusted proportions of early, mature, and old seral stages from example biogeoclimatic areas with little or no logging history. The unadjusted data demonstrate the abrupt decline from mature to old forests that is often evident in the inventory data base especially when old is defined as greater than 250 years. This decline is most evident in inventory data from the ESSF. Procedures for adjusting the inventory data are described below.

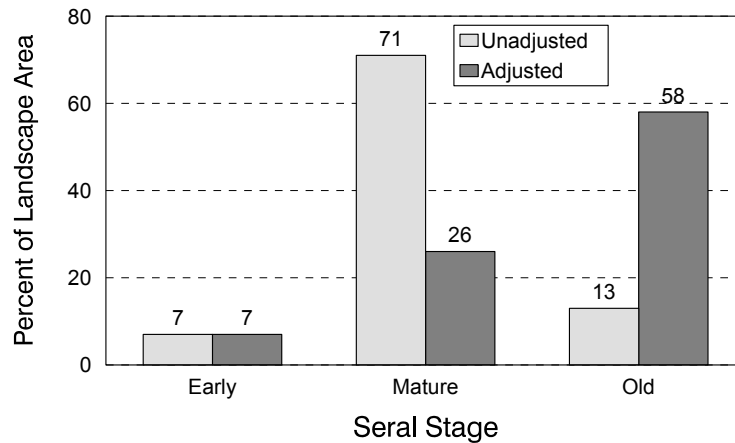


Figure A5-1. Percent early and unadjusted and adjusted mature and old forests on Mitchell Lake ESSFwk landscape.

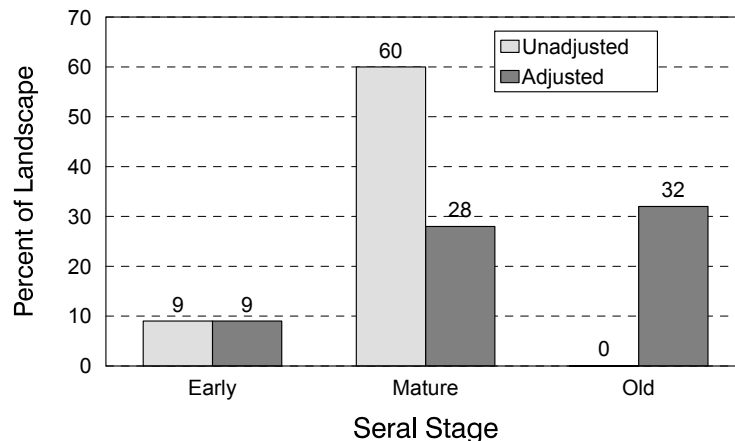


Figure A5-2. Percent early and unadjusted and adjusted mature and old forests on Big Creek ESSFvx landscape.

Inventory data adjustments in biogeoclimatic zones other than the IDF Zone

In order to calculate an adjustment for old forests, several landscape units with little or no logging history in one or more of their biogeoclimatic zones were selected for analysis. Only biogeoclimatic areas larger than 5,000 ha within these landscape units were assessed. In those biogeoclimatic zones where a small area of logging was present, the total area logged was subtracted from the early (<40 years) seral stage and added to the combined mature plus old seral stages.

Next, the mean estimated length of the disturbance cycle (fire return interval) for a biogeoclimatic zone within the NDT was calculated using the negative exponential model and the data on the combined area of mature plus old forests. The equation used is:

$$b = t / \ln(1/A)$$

where b = length of disturbance cycle

t = lower age limit of mature forests

A = combined area of mature plus old forests as
a proportion of total forest area

Next the proportion of early and mature plus old seral stages was modified to account for fire suppression activities and increased fire incidence within the past 40 years. The approach for accounting for fire suppression is crude but probably in the correct "ball park". The calculated fire return interval was first used to estimate the mean area (ha) of stand destroying fires that would have occurred in a typical 40 year period prior to European settlement. This estimate is the inverse of the mean disturbance cycle (fire return interval) times 40. Next, the proportion of this area of stand destroying fires that would typically still have occurred in the last 40 years was estimated based on the distribution of stand ages and observations of the extent of stand destroying fires in the past 40 years. Estimates ranged from 10% (Douglas fir stands in the IDF) to 60% (ESSFxv and higher elevations of SBPS). Since the suppression factor considers only the last 40 years, the results are not highly sensitive to these estimates. The estimated difference in area of stand destroying fires as a result of fire suppression activities was added to the inventory data on proportion of early seral forests and subtracted from the inventory data on the proportion of mature plus old forests.

The revised proportion of mature plus old forests was then used to estimate the mean disturbance cycle (fire return interval) on the pre-fire suppression landscape. This value was compared to the length of the disturbance cycle (fire return interval) estimated by the Biodiversity Guidebook. Differences were relatively small for most biogeoclimatic zones. As a result, the Guidebook estimates of fire return interval were used.

The length of the disturbance cycle in the Guidebook was used to apportion the total area of mature and older forests into mature forests and old forests. In practice this simply involved dividing the estimated percent old forest in Appendix 4 of the Guidebook by the estimated percent mature and older forests to derive a mean conversion factor. This mean conversion factor was then used in each individual landscape unit (except in IDFdk, IDFxM, and IDFxw biogeoclimatic units) to apportion the percent of mature and older forests into mature forests and old forests. The conversion factors are presented in Table 5.

This inventory adjustment for proportion of old forests is based on the assumption that the forest inventory more accurately distinguishes immature from mature seral stages than it does mature from old seral stages. That is, it is assumed that the inventory procedure more accurately distinguishes stands greater than 100 or 120 years from those that are younger than it does stands greater than 250 years from those that are younger. It is generally accepted that this assumption is valid.

In addition, this adjustment assumes that the probability of stand destroying disturbances is independent of stand age. Although this assumption may be reasonably valid for many forests of the Cariboo-Chilcotin, it is not valid for Douglas-fir forests of the IDF biogeoclimatic zone.

Inventory data adjustments in the IDF Zone

Inventory data adjustments for the IDF Zone differed from that in other zones in three aspects.

1. The adjustment was applied separately to the Fd forest group and the PI forest group;
2. The adjustment for the Fd forest group was based on estimates of natural landscape seral stage proportions derived from a reconstructed landscape rather than directly from the inventory data base; and
3. The adjustment for the Fd forest group used a landscape model (Weibull function) which allows the probability of stand destroying fires to decrease with age of stand.

A reconstructed "natural" (pre-industrial) landscape was developed as part of a research project by the Cariboo Forest Region Research Section. This reconstruction used all available information, including old inventory data and knowledge of changes in logging practices over time, to complete the reconstruction. A revised "reconstructed landscape" data file created by this project included the area of Douglas-fir forests in each of four age classes. This age class data for Douglas-fir stands was extracted from the file and used as an estimate of their proportions on the "natural" landscape. Age classes in the data file were grouped differently than those used by the Guidebook to define seral stages. Table A5-1 shows the proportion of the Douglas-fir area in each of four age classes on the reconstructed landscape.

Table A5-1. Proportion of age classes on reconstructed landscape and as predicted by landscape model used to adjust percent old forest. (Values are for landscape without fire suppression).

Age Class (years)	Proportion (%)	
	Reconstructed Landscape	Predicted by Model
0 - 20	0.5	0.4
21 - 80	4	5
81 - 140	12	10
>140	83	84

A Weibull function was then roughly fitted, by a trial process, to these data. The model form is:

$$A = \exp - (t/b)^c$$

where A = proportion of area in age class greater than age t;
t = lower age limit of age class
b = disturbance cycle (fire return interval); and
c = shape parameter modifying the probability of disturbance with age

When c is greater than 1, the probability of disturbance decreases with age and when c equals 1, the probability of disturbance is independent of age, which reduces to the negative exponential model used by the Biodiversity Guidebook and for all other biogeoclimatic zones. In the fit of the model to the reconstructed landscape data, b = 350 years and c = 1.9. The fire return interval is 100 years longer than that estimated by the Biodiversity Guidebook but is reasonable based on these and other data. For comparison, the fire return interval for lodgepole pine stands in the IDF is estimated for purposes of this analysis to be 125 years, 125 years less than that estimated by the Guidebook. The "fit" of the model to the reconstructed landscape data is indicated in Table X above.

The model was then used to predict the proportions of early, mature, and old seral stages as defined by the Biodiversity Guidebook. These proportions were then modified by fire suppression considerations similar to those described above. A difference was that not all of the estimated old forest burned area was added to the early seral stage but rather was apportioned among the mature, immature, and early seral stages in recognition of the fact that fires in old Douglas-fir stands often do not entirely destroy stands. The resulting estimated areas of early, immature, mature, and old Douglas-fir forests in the "natural" IDF landscape is 6, 8, 32, and 54% respectively.

The percent of forests older than 140 years that are forests older than 250 years was calculated and used as the inventory data base conversion factor for the proportion of old Douglas-fir forests.

Calculation of Regional Seral Stage Guidelines

The estimated proportions of early, mature, and old forests on the natural landscape which were calculated for purposes of deriving the inventory adjustment factor, were used to derive regionally based seral stage guidelines. The approach for deriving these guidelines was the same as that used by the Biodiversity Guidebook, as shown below, except that regional estimates of the natural landscape were used in place of estimates of the natural landscape in the Guidebook. The formulae for deriving seral stage guidelines are:

early seral guideline = (% early seral on natural landscape) X (emphasis factor);
where emphasis factor is 2.0 for intermediate and 1.5 for high emphasis;

mature plus old guideline = (% mature and older forests on natural landscape) X (emphasis factor);
where emphasis factor = 0.25 for low, 0.5 for intermediate, and 0.75 for high emphasis

old guideline = (% old forest on natural landscape - % of biogeoclimatic unit in protected area) X (emphasis factor); where emphasis factor is same as for mature plus old guideline.

Table A5-2 compares seral stage distribution guidelines in the Biodiversity Guidebook with those calculated from Regional data.

Criteria for IDF Seral Stage Roll-up

The criteria for roll-up of seral stage guidelines by forest group to guidelines for the entire biogeoclimatic unit are based on a model of natural succession and disturbance in the IDF landscape. Lodgepole pine forest are typically replaced through natural succession by Douglas-fir forests. However, some lodgepole pine forests in the IDF appear to be long-persisting seral stages or possible climax. These forests occur on sites where the establishment and growth of Douglas-fir is limited by soil or climatic conditions. Large areas of the IDFdk4, for example, are dominated by lodgepole pine stands with little or no Douglas-fir. These occur on frost-prone sites in an area transitional to the SBPS Zone. Lodgepole pine stands are also extensive (dominant landscape component) at higher elevations of the IDFdk3 and on frost-prone sites at lower elevations. Therefore successional trends within the IDF are complex and vary according to site and climatic conditions.

For purposes of this analysis, successional patterns within the Douglas-fir and lodgepole pine forests of the IDF may be described as seven seres (successional pathways). These are indicated in Table A5-3. In sere 1, Douglas-fir dominates early seral stands and develops to an old Douglas-fir climax stand. In seres 2 - 5, a lodgepole pine dominated early seral forest is replaced through succession by a Douglas-fir climax forest. In seres 6 and 7, lodgepole dominates the early seral forest and is maintained as a long-persisting or climax species. A minor component of Douglas-fir may be present.

In the inventory data base, all areas dominated by Douglas-fir or by lodgepole pine with a major component of Douglas-fir make up the total areas of the Douglas-fir group. All areas dominated by lodgepole pine (or other species except Douglas-fir) with no or only a minor Douglas-fir component make up the total area of the lodgepole pine group.

All early, immature, and mature forests dominated by Douglas-fir are considered as stages leading to an old Douglas-fir forest and should be included in the setting of guidelines for old Douglas-fir forests. Of the total area of pine stands in early, immature, and mature seral stages, some proportion will remain as a long-persisting or climax pine stand while another proportion will be replaced by Douglas-fir. Therefore, old forest guidelines for the pine group area should include both old pine stands and old Douglas-fir stands that are in excess of the amount required to meet the old Douglas-fir guidelines.

Guidelines for early seral forests should be independent of leading species.

Table A5-3. Range of successional sequences (seres) for Douglas-fir and lodgepole pine stands in the IDF.*

Sere	Age of Stand					"climax" species
	<40	41-100	101-140	141-250	>250	
1	Fd leading	Fd leading	Fd leading	Fd leading	Fd leading	Fd
2	Pl(Fd)	PlFd	FdPl	Fd(Pl)	Fd	Fd
3	Pl	Pl(Fd)	PlFd	FdPl	Fd(Pl)	Fd
4	Pl	Pl	Pl(Fd)	PlFd	FdPl	Fd
5	Pl	Pl	Pl	Pl(Fd)	PlFd	Fd
6	Pl	Pl	Pl	Pl	Pl(Fd)	Pl
7	Pl	Pl	Pl	Pl	Pl	Pl

*Stands above the diagonal line represent the total area of the Douglas-fir group at any point in time in the inventory data while stands below the line represent the total area of the lodgepole pine group at any point in time in the inventory data. Early, immature, mature, and old seral stages are differently toned.

Table A5-2. Comparison of seral stage guidelines in the Biodiversity Guidebook and those calculated from Regional Data.

Lower Biodiversity Emphasis							
NDT	BGC Zone	% Early Targets		% Mature + Old Targets		% Old Targets	
		Guidebook	Regional	Guidebook	Regional	Guidebook	Regional
1	ESSF	n/a	n/a	19	19	19	22
1	ICH	n/a	n/a	17	21	13	26
2	ESSF	n/a	n/a	14	15	9	12
2	ICH	n/a	n/a	15	n.d.	9	n.d.
2	SBS	n/a	n/a	15	n.d.	9	n.d.
3	ESSF	n/a	n/a	11	11	14	14
3	MS	n/a	n/a	13	16	14	21
3	SBPS	n/a	n/a	9	13	7	14
3	SBS	n/a	n/a	11	11	11	9
3	ICH	n/a	n/a	13	n.d.	14	n.d.
4	IDF - Fd	n/a	n/a	17	22	13	21
4	IDF - Pl	n/a	n/a	17	11	13	9
4	IDFmw/u	n/a	n/a	17	16	13	12

Intermediate Biodiversity Emphasis							
NDT	BGC Zone	% Early Targets		% Mature + Old Targets		% Old Targets	
		Guidebook	Regional	Guidebook	Regional	Guidebook	Regional
1	ESSF	22	18	36	38	19	22
1	ICH	30	14	34	42	13	26
2	ESSF	36	30	28	31	9	12
2	ICH	36	n.d.	31	n.d.	9	n.d.
2	SBS	36	n.d.	31	n.d.	9	n.d.
3	ESSF	46	48	23	23	14	9
3	MS	46	34	26	32	14	23
3	SBPS	66	38	17	26	7	18
3	SBS	54	58	23	21	11	11
3	ICH	46	n.d.	23	n.d.	14	n.d.
4	IDF - Fd	30	12	34	43	13	21
4	IDF - Pl	30	58	34	21	13	9
4	IDFmw/u	30	30	34	31	13	12

Higher Biodiversity Emphasis							
NDT	BGC Zone	% Early Targets		% Mature + Old Targets		% Old Targets	
		Guidebook	C-C Data	Guidebook	C-C Data	Guidebook	C-C Data
1	ESSF	17	14	54	56	28	32
1	ICH	23	11	51	62	19	38
2	ESSF	27	23	42	46	13	18
2	ICH	27	n.d.	46	n.d.	13	n.d.
2	SBS	27	n.d.	46	n.d.	13	n.d.
3	ESSF	35	36	34	34	21	20
3	MS	35	26	39	48	21	31
3	SBPS	50	36	25	38	10	20
3	SBS	40	44	34	32	16	14
3	ICH	35	n.d.	34	n.d.	21	n.d.
4	IDF - Fd	23	9	51	65	19	32
4	IDF - Pl	23	44	51	32	19	14
4	IDFmw/u	23	23	51	47	19	18

APPENDIX 6. Area (ha) Above or Below Seral Stage Guidelines by Forest District in 1996.

Table A6-1. Area of early seral forests (1996) below recommended maximum and area of mature plus old and old seral forests above recommended minimum guidelines in the **Quesnel Forest District**. Note that these values are total area and include no consideration of distribution issues.

Landscape Unit	NDT-BEC Unit	Total Forest Area (ha)	Area (ha) below maximum/above minimum recommended limits		
			Less than Maximum Early	Greater than Minimum Mature +Old	Greater than Minimum Old
Baker	3-MS	2463	25	-222	44
	3-SBPS	44606	16005	16435	14298
	3-SBS	31266	7118	9685	9827
	TOTAL	78335	23148	25897	24170
Victoria	1-ESSF	9112	1101	1939	2181
	2-SBS	17630	1799	4842	3925
	3-SBS	32561	6487	14066	13140
	TOTAL	59303	9388	20847	19247
Twan	3-SBPS	10897	2882	1589	1843
	3-SBS	8184	2373	-320	489
	4-IDF (Fd)	7588	-877	-2265	-1326
	4-IDF (Pl)	15614	3468	2324	3074
	TOTAL	42283	7845	1328	4079
Chine	3-MS	1093	503	646	554
	3-SBPS	42200	27003	13212	10908
	3-SBS	3477	1870	938	886
	TOTAL	46770	29375	14796	12349
Coglistiko	3-MS	27202	11069	11489	10299
	3-SBPS	20017	11921	7493	6008
	3-SBS	4415	1849	1285	1193
	TOTAL	51634	24839	20267	17500
Eliguk	2-ESSF	1057	381	761	465
	3-MS	6969	1847	2360	2195
	3-SBPS	20355	9141	1971	2268
	3-SBS	660	356	-69	-12
	TOTAL	29982	12233	5748	5283
Gerimi	2-SBS	2262	246	730	483
	3-SBS	47885	17566	9132	9439
	TOTAL	50147	17812	9862	9923
Kluskus	3-MS	31907	14677	9016	8690
	3-SBPS	31119	20364	12061	9624
	TOTAL	63293	35143	21204	18379
Pantage	2-ESSF	726	261	-178	-52
	3-SBPS	38985	19879	9872	8490
	3-SBS	27420	9786	8773	7992
	TOTAL	67134	29928	18469	16432
Pelican	2-ESSF	180	65	129	79
	3-SBPS	57855	31960	10710	9921
	3-SBS	9284	4357	2257	2185
	TOTAL	68564	36827	13826	12556
Snaking	2-ESSF	249	90	-40	-7
	3-SBPS	36604	17416	8469	7428
	3-SBS	17199	5897	2306	2679
	TOTAL	54052	23403	10736	10101

Table A6-1. **Quesnel Forest District** (Continued)

Landscape Unit	NDT-BEC Unit	Total Forest Area (ha)	Area (ha) less than maximum/greater than minimum recommended limits		
			Less than Maximum Early	Greater than Minimum Mature +Old	Greater than Minimum Old
Pan	2-ESSF	8148	2897	4625	2927
	3-MS	25879	9057	6486	6420
	3-SBPS	13158	8055	-603	190
	TOTAL	47290	20067	10586	9577
Antler	1-ESSF	25986	2006	3435	3888
	2-SBS	14229	685	850	1245
	TOTAL	40215	2691	4285	5132
Dragon	3-SBS	58499	21822	3921	6250
	4-IDF (FG)	454	41	-2	-65
	4-IDF (PG)	98	5	-23	-11
	TOTAL	59051	21869	3896	6174
Umiti	1-ESSF	5427	144	2069	1745
	2-SBS	11293	-2154	31	679
	3-SBS	29021	3585	625	2137
	TOTAL	45862	1611	2778	4587
Clisbako	3-MS	39355	14176	-27	2246
	3-SBPS	29508	14991	3378	3642
	TOTAL	68863	29168	3350	5888
Mathew	1-ESSF	10935	922	5131	4179
	1-ICH	9119	-2039	707	908
	TOTAL	20054	-1118	5838	5088
Abhau	1-ESSF	336	n/a	169	97
	2-SBS	660	n/a	22	-1
	3-SBS	23295	n/a	5793	3538
	TOTAL	34107	n/a	13133	6666
Cunningham	1-ESSF	23628	n/a	11940	6847
	1-ICH	11896	n/a	6350	3058
	TOTAL	35524	n/a	18289	9905
Euchiniko	3-SBPS	23770	n/a	10835	6997
	3-SBS	14609	n/a	3561	2166
	TOTAL	40761	n/a	16178	9923
Marmot	2-ESSF	3	n/a	0	0
	3-MS	8583	n/a	3724	2542
	3-SBPS	25113	n/a	10669	6863
	3-SBS	13763	n/a	4684	3011
	TOTAL	47462	n/a	19077	12416
Tako	3-SBS	9517	n/a	2945	1867
	TOTAL	9592	n/a	3012	1897
Toil	3-MS	44662	n/a	22635	15702
	3-SBPS	1167	n/a	520	335
	TOTAL	45829	n/a	23155	16037
Whittier	3-SBPS	10776	n/a	4473	2873
	3-SBS	41534	n/a	11449	7124
	TOTAL	52312	n/a	15924	9999

Table A6-1. Quesnel Forest District (Continued)

Landscape Unit	NDT-BEC Unit	Total	Area (ha) less than maximum/greater than		
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		Forest Area (ha)	minimum recommended limits		
			Less than Maximum Early	Greater than Minimum Mature +Old	Greater than Minimum Old
Baezaeko	3-MS	28146	n/a	5777	3444
	3-SBPS	41349	n/a	15177	9675
	3-SBS	9967	n/a	5149	3462
	TOTAL	79462	n/a	26102	16582
Lightning	1-ESSF	19514	n/a	11856	7032
	2-SBS	12464	n/a	5746	2534
	3-SBS	1897	n/a	950	637
	TOTAL	33875	n/a	18553	10203
Narcosli	3-SBPS	2273	n/a	588	364
	3-SBS	54143	n/a	16995	10799
	4-IDF (FG)	166	n/a	25	1
	4-IDF (PG)	34	n/a	-4	-4
	TOTAL	56616	n/a	17605	11161
Ramsey	3-MS	14682	n/a	5346	3569
	3-SBPS	53775	n/a	15699	9836
	3-SBS	5427	n/a	903	498
	4-IDF (FG)	169	n/a	-21	-24
	4-IDF (PG)	229	n/a	-19	-21
	TOTAL	74282	n/a	21907	13859
Swift	1-ESSF	26497	n/a	18657	11312
	2-SBS	6513	n/a	2405	1037
	TOTAL	33010	n/a	21062	12350
Tibbles	3-MS	10110	n/a	3016	1952
	3-SBPS	31091	n/a	10614	6732
	3-SBS	19422	n/a	3750	2160
	TOTAL	60623	n/a	17379	10845
Jack of Clubs	1-ESSF	19072	n/a	9752	5606
	2-SBS	1931	n/a	494	203
	TOTAL	21003	n/a	10247	5808
Wentworth	3-MS	16020	n/a	5595	3714
	3-SBPS	39453	n/a	13193	8356
	3-SBS	1839	n/a	378	221
	TOTAL	57312	n/a	19166	12291
Big Valley	1-ESSF	11970	n/a	5365	2997
	2-SBS	6358	n/a	3304	1472
	TOTAL	18328	n/a	8669	4468
Willow	1-ESSF	18615	n/a	12113	7262
	2-SBS	17046	n/a	7835	3454
	TOTAL	37008	n/a	20247	10791
Kluskoil	3-SBPS	8431	n/a	1409	826
	3-SBS	2344	n/a	220	91
	TOTAL	10834	n/a	1681	940
Boyce	1-ESSF	1193	n/a	516	286
	2-SBS	1333	n/a	687	306
	TOTAL	2633	n/a	1224	596

Table A6-1. **Quesnel Forest District** (Continued)

Landscape Unit	NDT-BEC Unit	Total Forest Area (ha)	Area (ha) less than maximum/greater than minimum recommended limits		
			Less than Maximum Early	Greater than Minimum Mature +Old	Greater than Minimum Old
Indianpoint	1-ESSF	713	n/a	482	290
	2-SBS	4783	n/a	1614	688
	TOTAL	5579	n/a	2155	1004
Sandy	1-ESSF	1138	n/a	316	151
	1-ICH	610	n/a	63	13
	2-ICH	918	n/a	487	217
	TOTAL	2666	n/a	866	381
Wendle	1-ESSF	2525	n/a	1191	673
	2-SBS	4262	n/a	1139	470
	TOTAL	6787	n/a	2330	1143
Bowron	1-ESSF	2588	n/a	47	-120
	1-ICH	1140	n/a	380	162
	2-SBS	2400	n/a	132	20
	TOTAL	6128	n/a	559	62

Table A6-2. Area of early seral forests (1996) below recommended maximum and area of mature plus old and old seral forests above recommended minimum guidelines in the **Williams Lake Forest District**. Note that these values are total area and include no consideration of distribution issues.

Landscape Unit	NDT-BEC Unit	Total Forest Area (ha)	Area (ha) less than maximum/greater than minimum recommended limits		
			Less than Maximum Early	Greater than Minimum Mature +Old	Greater than Minimum Old
Koster- Lone Cabin	2-ESSF	4235	1130	1314	1089
	3-MS	9227	3137	1634	2039
	4-IDF (FG)	10796	528	2396	1134
	4-IDF (PG)	3743	1391	784	903
	TOTAL	28001	6187	6129	5165
Chimney	4-IDF (FG)	38238	855	980	1482
	4-IDF (PG)	6335	-1515	-291	346
	TOTAL	44573	-660	689	1828
Churn	2-ESSF	2646	953	1451	924
	3-MS	5918	2496	2815	2481
	3-SBPS	7827	4272	3585	2795
	4-IDF (FG)	8459	856	3029	1738
	4-IDF (PG)	1177	544	213	224
	TOTAL	26072	9120	11094	8161
Gaspard	2-ESSF	3680	613	1053	773
	3-MS	21079	5997	4601	4711
	3-SBPS	20397	9604	6561	5391
	4-IDF (FG)	15923	-1125	1730	3039
	4-IDF (PG)	13319	3111	1968	2208
	TOTAL	74398	18200	15912	16122
Hawks Creek	3-SBPS	2292	1407	1120	866
	3-SBS	26245	7318	5097	5240
	4-IDF (FG)	25227	-1016	4897	325
	4-IDF (PG)	6099	526	1224	1247
	TOTAL	59863	8236	12339	7678
Williams Lake	2-SBPS	27648	14445	10868	8651
	3-SBS	261	141	187	152
	4-IDF (FG)	26314	1496	5789	-14
	4-IDF (PG)	5637	1090	1030	1079
	TOTAL	59860	17171	17874	9867
Alkali	4-IDF (FG)	31164	-1628	6446	2896
	4-IDF (PG)	14894	3771	3715	3575
	TOTAL	46058	2142	10162	6471
Farwell	3-SBPS	952	278	168	158
	4-IDF (FG)	15315	-2006	1494	217
	4-IDF (PG)	10170	2021	463	927
	TOTAL	26437	293	2125	1302
Meldrum	4-IDF (FG)	19741	-779	63	770
	4-IDF (PG)	7963	1183	508	832
	TOTAL	27704	404	571	1602
Riske	4-IDF (FG)	21671	924	5145	1999
	4-IDF (PG)	13704	2199	649	1267
	TOTAL	35375	3123	5795	3266

Table A6-2. Williams Lake Forest Distric (Continued)

Landscape Unit	NDT-BEC Unit	Total Forest Area (ha)	Area (ha) less than maximum/greater than minimum recommended limits		
			Less than Maximum Early	Greater than Minimum Mature +Old	Greater than Minimum Old
Bambrick	2-ESSF	3960	n/a	2221	1114
	3-MS	24393	n/a	16782	11935
	3-SBPS	32585	n/a	17877	11648
	4-IDF (FG)	67	n/a	52	36
	4-IDF (PG)	553	n/a	274	184
	TOTAL	61558	n/a	37206	24916
Beaver Valley	2-ICH	4439	n/a	1041	420
	3-SBS	59673	n/a	27118	18024
	TOTAL	64112	n/a	28159	18444
Dash	2-ESSF	12958	n/a	6823	3411
	3-MS	7541	n/a	3168	2155
	3-SBPS	1927	n/a	950	616
	TOTAL	22426	n/a	10941	6182
Nadila	2-ESSF	13902	n/a	6087	3006
	3-MS	11899	n/a	6849	4806
	3-SBPS	5138	n/a	3322	2179
	TOTAL	30939	n/a	16258	9991
Upper Big Crk	2-ESSF	10532	n/a	5789	2902
	3-MS	7437	n/a	4000	2790
	3-SBPS	136	n/a	65	42
	TOTAL	18105	n/a	9853	5734
Upper Churn	2-ESSF	10182	n/a	4951	2463
	3-MS	8054	n/a	4731	3325
	3-SBPS	1167	n/a	533	344
	TOTAL	19403	n/a	10215	6132
Big Creek	2-ESSF	3633	n/a	1679	833
	3-MS	8329	n/a	4170	2889
	3-SBPS	26689	n/a	13240	8587
	4-IDF (FG)	10153	n/a	4138	2284
	4-IDF (PG)	20486	n/a	7913	5168
	TOTAL	69290	n/a	31140	19761
Mackin	3-SBPS	24474	n/a	7120	4460
	4-IDF (FG)	9630	n/a	2864	1551
	4-IDF (PG)	31429	n/a	13821	9156
	TOTAL	65533	n/a	23805	15167

Table A6-3. Area of early seral forests (1996) below recommended maximum and area of mature plus old and old seral forests above recommended minimum guidelines in the **Horsefly Forest District**. Note that these values are total area and include no consideration of distribution issues.

Landscape Unit	NDT-BEC Unit	Total Forest Area (ha)	Area (ha) less than maximum/greater than minimum recommended limits		
			Less than Maximum Early	Greater than Minimum Mature +Old	Greater than Minimum Old
Polly	1-ICH	2740	-809	-602	-83
	2-ICH	23169	-1710	-603	1814
	3-SBS	13896	4110	3514	3791
	TOTAL	39805	1591	2309	5522
McKinley	1-ESSF	14371	-165	1267	2205
	1-ICH	4091	-394	-810	-75
	2-ICH	17440	-560	19	1592
	3-SBS	1607	499	-276	-60
	TOTAL	37509	-620	198	3662
East Arm	1-ESSF	16162	2074	8422	6755
	1-ICH	11507	913	3732	2708
	TOTAL	27669	2987	12153	9463
Eastside	1-ESSF	12707	1572	5698	4674
	1-ICH	7899	1059	2869	2028
	TOTAL	20606	2630	8568	6702
Mitchell Lake	1-ESSF	8702	1264	4207	3411
	1-ICH	7828	1495	4060	2679
	TOTAL	16530	2760	8268	6091
Niagara	1-ESSF	9255	1492	5311	4205
	1-ICH	5651	1356	3323	2150
	TOTAL	14906	2848	8634	6355
Penfold	1-ESSF	5352	855	2969	2361
	1-ICH	5215	1419	3099	2002
	TOTAL	10567	2274	6068	4363
Westside	1-ESSF	13610	2158	7448	5934
	1-ICH	5699	1410	2978	1963
	TOTAL	19309	3568	10427	7897
Black Creek	1-ESSF	14053	-2275	36	845
	1-ICH	3308	-1267	-360	-9
	2-ICH	3319	-158	-346	29
	3-SBPS	5018	3046	1777	1437
	3-SBS	21259	9167	283	1438
	TOTAL	46957	8513	1391	3740
Horsefly	1-ESSF	9121	-224	2436	2214
	1-ICH	27456	939	-510	1284
	2-ICH	20911	5486	2097	2236
	3-SBS	2261	701	537	523
	TOTAL	59749	6901	4560	6257
Little River	1-ESSF	20266	3277	1811	2433
	1-ICH	6200	-159	1593	1230
	TOTAL	26466	3118	3404	3663
Big Lake	1-ICH	11	n/a	8	4
	2-ICH	6844	n/a	569	150
	3-SBPS	2951	n/a	1088	694
	3-SBS	52680	n/a	18218	11735
	TOTAL	62496	n/a	19881	12581

Table A6-3 **Horsefly Forest District** (Continued)

Landscape Unit	NDT-BEC Unit	Total Forest Area (ha)	Area (ha) less than maximum/greater than minimum recommended limits		
			Less than Maximum Early	Greater than Minimum Mature +Old	Greater than Minimum Old
Moffat	1-ESSF	13210	n/a	3955	1951
	3-SBPS	22276	n/a	11015	7143
	3-SBS	9162	n/a	6139	4209
	TOTAL	44648	n/a	21109	13303
Cariboo Lake	1-ESSF	21890	n/a	9133	5012
	1-ICH	3442	n/a	898	368
	2-SBS	2982	n/a	774	318
	TOTAL	28314	n/a	10804	5698
Likely	1-ESSF	5620	n/a	1930	1001
	1-ICH	18167	n/a	5954	2611
	2-ICH	1094	n/a	211	82
	TOTAL	24881	n/a	8095	3694
Lower Cariboo	1-ESSF	15951	n/a	7389	4159
	1-ICH	8483	n/a	1290	400
	2-ICH	1661	n/a	16	-22
	2-SBS	5915	n/a	1585	654
	3-SBS	2681	n/a	1341	899
	TOTAL	34691	n/a	11621	6090
McKuskey	1-ESSF	12014	n/a	5567	3134
	1-ICH	9197	n/a	2320	940
	TOTAL	21211	n/a	7887	4074
Wasko/Lynx	1-ESSF	8019	n/a	2974	1580
	1-ICH	10584	n/a	1720	560
	TOTAL	18603	n/a	4694	2140
McKay	1-ESSF	17554	n/a	8731	4990
	1-ICH	1549	n/a	94	-5
	TOTAL	19103	n/a	8824	4985

Table A6-4. Area of early seral forests (1996) below recommended maximum and area of mature plus old and old seral forests above recommended minimum guidelines in the **100 Mile House Forest District**. Note that these values are total area and include no consideration of distribution issues.

Landscape Unit	NDT-BEC Unit	Total Forest Area (ha)	Area (ha) less than maximum/greater than minimum recommended limits		
			Less than Maximum Early	Greater than Minimum Mature +Old	Greater than Minimum Old
Big Bar	3-ESSF	1410	457	100	208
	3-MS	5722	1753	1113	1341
	4-IDF (FG)	23808	-766	643	1745
	4-IDF (PG)	18520	38	54	1673
	TOTAL	42328	1481	1910	4966
Spanish	1-ESSF	10054	8	-328	705
	3-ICH	11306	2710	705	1083
	TOTAL	21360	2718	377	1788
Bonaparte	3-MS	4965	1860	2627	2283
	TOTAL	4965	1860	2627	2283
Bridge Lake	3-ESSF	867	233	-168	-94
	3-SBPS	15870	7430	3969	3423
	3-SBS	15427	5192	3313	3312
	TOTAL	32164	12855	7113	6640
Clinton	3-ESSF	1839	846	1069	1041
	3-MS	5668	2587	3518	3000
	4-IDF (FG)	15362	212	4565	4584
	4-IDF (PG)	5966	2610	2795	2386
	TOTAL	21328	6255	11948	11011
Deadman	3-MS	9142	3090	2480	2411
	3-SBPS	11411	5308	4251	3411
	4-IDF (FG)	6136	386	1497	1011
	4-IDF (PG)	8881	3643	1644	1715
	TOTAL	35570	12428	9872	8548
Kelly Lake	3-ESSF	1636	751	619	637
	3-MS	6590	2928	3457	3007
	4-IDF (FG)	7677	688	3636	2738
	4-IDF (PG)	1513	628	633	550
	TOTAL	17416	4995	8344	6931
Nehallistan	3-ESSF	1237	353	-153	-58
	3-SBPS	13	1	-2	-1
	3-SBS	4841	2299	1182	1143
	TOTAL	6091	2653	1027	1084
108 Mile Lake	1-ESSF	388	-94	-125	-63
	3-SBPS	21487	9366	6361	5305
	3-SBS	6661	1684	1683	1614
	4-IDF (FG)	14650	-761	850	49
	4-IDF (PG)	3180	1261	368	452
	TOTAL	46366	11457	9137	7358
Cunningham Lk	4-IDF (FG)	13064	-520	2430	1923
	4-IDF (PG)	52928	14835	15014	14024
	TOTAL	65992	14315	17444	15947

Table A6-4 **100 Mile House Forest District** (Continued)

Landscape Unit	NDT-BEC Unit	Total Forest Area (ha)	Area (ha) less than maximum/greater than minimum recommended limits		
			Less than Maximum Early	Greater than Minimum Mature +Old	Greater than Minimum Old
Hendrix Lake	1-ESSF	15855	635	2631	2741
	2-ICH	5300	-341	-507	68
	3-ICH	9020	2266	3251	2785
	4-IDF (FG)	658	67	16	-89
	4-IDF (PG)	242	104	9	21
	TOTAL	31075	2731	5401	5527
Chasm	3-ESSF	1204	537	648	636
	3-MS	3347	1479	559	617
	4-IDF (FG)	24584	-449	1323	2983
	4-IDF (PG)	34649	10033	6165	6506
	TOTAL	63784	11600	8694	10743
Dog Creek	3-SBPS	902	553	500	381
	4-IDF (FG)	34993	-4637	4302	3945
	4-IDF (PG)	41752	7941	7978	8241
	TOTAL	77647	3858	12780	12567
Loon	3-MS	9627	2506	2900	2759
	4-IDF (FG)	22791	-802	571	1360
	4-IDF (PG)	11088	4218	2614	2550
	TOTAL	43506	5922	6085	6669
Meadow Lake	3-SBPS	575	216	115	105
	4-IDF (FG)	22400	-2419	-984	176
	4-IDF (PG)	19562	2628	1952	2557
	TOTAL	42537	425	1083	2838
Mahood	3-ESSF	509	n/a	238	198
	3-SBS	93	n/a	34	22
	4-IDF (FG)	341	n/a	90	-69
	4-IDF (PG)	260	n/a	-4	-10
	TOTAL	1203	n/a	358	140
Canimred Creek	2-ICH	1330	n/a	205	176
	3-ESSF	2586	n/a	181	313
	3-ICH	2534	n/a	666	594
	3-SBS	5057	n/a	683	791
	4-IDF (FG)	536	n/a	-3	44
	4-IDF (PG)	174	n/a	-29	-11
	TOTAL	12217	n/a	1702	1908
Forest Grove	2-ICH	65	n/a	18	8
	3-ESSF	930	n/a	-70	-78
	3-SBPS	9879	n/a	2463	1521
	3-SBS	15433	n/a	4679	2958
	4-IDF (FG)	3637	n/a	1387	169
	4-IDF (PG)	1269	n/a	478	312
	TOTAL	31213	n/a	8955	4888

Table A6-4 100 Mile House Forest District (Continued)

Landscape Unit	NDT-BEC Unit	Total Forest Area (ha)	Area (ha) less than maximum/greater than minimum recommended limits		
			Less than Maximum Early	Greater than Minimum Mature +Old	Greater than Minimum Old
Bonapart Lake	3-ESSF	64	n/a	-9	-9
	3-MS	5480	n/a	3285	2312
	3-SBPS	38788	n/a	16090	10336
	3-SBS	2477	n/a	964	630
	4-IDF (FG)	4483	n/a	1709	553
	4-IDF (PG)	2723	n/a	849	539
	TOTAL	54015	n/a	22888	14361
Bridge Creek	3-SBPS	4241	n/a	1164	725
	4-IDF (FG)	16654	n/a	5485	2192
	4-IDF (PG)	23042	n/a	6876	4335
	TOTAL	43937	n/a	13525	7252
Green Lake	3-SBPS	37935	n/a	13775	8775
	4-IDF (FG)	5395	n/a	1581	721
	4-IDF (PG)	9374	n/a	2515	1557
	TOTAL	52704	n/a	17871	11054
Murphy Lake	1-ESSF	8845	n/a	194	-387
	3-ICH	475	n/a	50	22
	3-SBPS	11049	n/a	4850	3126
	3-SBS	28858	n/a	10425	6753
	TOTAL	49227	n/a	15519	9513
Bradley Creek	1-ESSF	5245	n/a	1066	427
	2-ICH	5	n/a	-1	0
	3-ICH	14362	n/a	-523	-880
	3-SBPS	4274	n/a	2017	1305
	3-SBS	21180	n/a	4589	2721
	4-IDF (FG)	989	n/a	75	-87
	4-IDF (PG)	362	n/a	20	4
	TOTAL	46417	n/a	7245	3490
Canim Lake	2-ICH	2843	n/a	684	277
	3-ESSF	11875	n/a	-644	-776
	3-SBS	24651	n/a	8646	5580
	4-IDF (FG)	939	n/a	378	117
	4-IDF (PG)	276	n/a	73	45
	TOTAL	40584	n/a	9138	5243
Deception Mt.	1-ESSF	10762	n/a	3379	1698
	2-ICH	2459	n/a	-236	-157
	3-ICH	2287	n/a	308	157
	TOTAL	15508	n/a	3451	1697
Helena Lake	3-SBPS	10017	n/a	2684	1669
	4-IDF (FG)	30794	n/a	5445	-94
	4-IDF (PG)	10577	n/a	2147	1253
	TOTAL	51388	n/a	10275	2828

Table A6-5. Area of early seral forests (1996) below recommended maximum and area of mature plus old and old seral forests above recommended minimum guidelines in the **Chilcotin Forest District**. Note that these values are total area and include no consideration of distribution issues.

Landscape Unit	NDT-BEC Unit	Total Forest Area (ha)	Area (ha) below maximum/above minimum recommended limits		
			Less than Maximum Early	Greater than Minimum Mature +Old	Greater than Minimum Old
Beeftrail	2-ESSF	1095	296	158	185
	3-MS	4173	1457	1619	1591
	3-SBPS	5205	2499	2784	2257
	TOTAL	10473	4251	4560	4033
Corkscrew	2-ESSF	8240	2223	1793	1713
	3-MS	34640	10807	5552	7213
	3-SBPS	11293	5344	3947	3474
	TOTAL	54173	18373	11292	12400
Telegraph	2-ESSF	1374	371	561	425
	3-MS	12703	2945	2894	3297
	3-SBPS	11186	4054	1253	1635
	4-IDF (FG)	39	4	14	7
	4-IDF (PG)	1711	63	-424	-158
	TOTAL	27013	7437	4297	5204
Westbranch	2-ESSF	5119	1177	1436	1235
	3-MS	6545	1171	2189	2229
	3-SBPS	607	256	34	66
	4-IDF (FG)	3899	113	788	1469
	4-IDF (PG)	5907	1572	-71	469
	TOTAL	22077	4288	4376	5468
Minton	3-SBPS	14811	4853	3867	3667
	4-IDF (FG)	13040	609	-525	514
	4-IDF (PG)	22238	2092	3459	4487
	TOTAL	50089	7553	6801	8667
Nemiah	2-ESSF	1936	373	355	367
	3-MS	7911	1428	171	813
	3-SBPS	6177	2602	-16	421
	4-IDF (FG)	2445	206	485	1414
	4-IDF (PG)	10263	3570	-1347	-78
	TOTAL	28732	8178	-353	2937
Alexis	3-SBPS	28501	11502	9937	8057
	4-IDF (FG)	5308	106	2027	3205
	4-IDF (PG)	19182	4931	2743	3113
	TOTAL	52991	16539	14707	14375
Alplands	2-ESSF	7416	2084	4202	2660
	3-MS	10985	5022	3537	3321
	3-SBPS	3656	2403	1515	1197
	TOTAL	22057	9509	9254	7178
Atnarko	2-ESSF	1277	458	750	472
	3-MS	8578	2640	1259	1451
	3-SBPS	8604	5315	3780	2963
	4-IDF (PG)	647	338	484	391
	TOTAL	19106	8751	6274	5277
Christonson	2-ESSF	4570	1609	1087	843
	3-MS	7833	3544	1993	1966
	3-SBPS	17292	11076	5801	4733
	TOTAL	29695	16229	8882	7543

Table A6-5. **Chilcotin Forest District** (Continued)

Landscape Unit	NDT-BEC Unit	Total Forest Area (ha)	Area (ha) less than maximum/greater than minimum recommended limits		
			Less than Maximum Early	Greater than Minimum Mature +Old	Greater than Minimum Old
Doran Creek	1-MH	1960	431	1254	980
	2-CWH	2544	916	1678	865
	TOTAL	4504	1347	2932	1845
Downton	2-ESSF	5824	2097	3671	2286
	3-MS	31511	13537	14849	13100
	TOTAL	37335	15634	18520	15386
Holtry	3-MS	23300	5731	5035	5169
	3-SBPS	21289	11497	5267	4552
	TOTAL	44589	17228	10302	9721
Hotnarko	2-ESSF	1285	463	866	534
	3-MS	4366	2008	1525	1410
	3-SBPS	5821	3661	1287	1141
	4-IDF (FG)	317	38	163	155
	4-IDF (PG)	859	295	178	180
	TOTAL	12648	6465	4020	3420
Kliniklini	2-ESSF	7315	2498	3205	2126
	3-MS	8203	3028	2756	2567
	3-SBPS	2668	1313	984	791
	TOTAL	18187	6840	6946	5485
McLinchy	2-ESSF	1742	627	956	609
	3-MS	6053	2588	2279	2081
	3-SBPS	13816	7467	4328	3573
	TOTAL	21611	10682	7564	6263
Punky Moore	2-ESSF	2596	896	450	390
	3-MS	62166	23653	16564	16169
	3-SBPS	4545	2557	728	703
	TOTAL	69307	27106	17742	17262
Rainbow	2-CWH	83	2	27	16
	2-ESSF	3470	1198	1001	733
	3-MS	5885	2695	1207	1256
	4-IDF (FG)	701	84	400	387
	4-IDF (PG)	2585	1396	-357	-111
	TOTAL	12724	5375	2278	2282
Sisters	3-SBPS	26189	9346	7432	6248
	4-IDF (FG)	3500	-69	1343	2183
	4-IDF (PG)	12395	4169	2782	2749
	TOTAL	42084	13446	11557	11179
Siwash	3-SBPS	11349	3554	3474	2880
	4-IDF (FG)	12004	486	4172	5462
	4-IDF (PG)	23014	3709	3841	4136
	TOTAL	46367	7749	11487	12477
Tusulko	2-ESSF	5669	1733	3129	1989
	3-MS	8963	3784	5105	4396
	3-SBPS	8814	4999	5358	4045
	TOTAL	23446	10516	13591	10430
Upper Dean	2-ESSF	1846	664	898	584
	3-MS	7196	3295	3202	2848
	3-SBPS	22079	14329	10383	8067
	TOTAL	31121	18288	14483	11499

Table A6-5 **Chilcotin Forest District** (Continued)

Landscape Unit	NDT-BEC Unit	Total Forest Area (ha)	Area (ha) less than maximum/greater than minimum recommended limits		
			Less than Maximum Early	Greater than Minimum Mature +Old	Greater than Minimum Old
Anaham	3-SBPS	51005	21214	6424	6694
	4-IDF (FG)	10529	82	2412	2956
	4-IDF (PG)	11816	2287	705	1199
	TOTAL	73350	23583	9541	10850
Bidwell/Lava	2-ESSF	4513	1289	1088	840
	3-MS	11018	1796	19	649
	3-SBPS	43227	19847	6669	6506
	4-IDF (FG)	1130	136	572	549
	4-IDF (PG)	4850	1217	-603	-159
	TOTAL	64738	24284	7747	8386
Clusko	3-MS	41181	12172	179	2508
	3-SBPS	52653	27514	13323	11461
	TOTAL	93834	39686	13502	13969
Palmer/Jorgenson	2-ESSF	588	212	67	70
	3-MS	41100	15796	3496	5024
	3-SBPS	44250	23648	8371	7710
	4-IDF (FG)	227	-122	-33	16
	4-IDF (PG)	470	254	195	169
	TOTAL	86635	39788	12096	12990
Upper Tatlayoko	2-ESSF	4563	1297	2159	1411
	3-MS	13309	2820	2985	3035
	3-SBPS	5013	2131	800	772
	4-IDF (FG)	4783	-223	1153	2055
	4-IDF (PG)	10704	5195	-176	491
	TOTAL	38372	11220	6921	7765
Chilko	2-ESSF	4338	1378	995	781
	3-MS	1980	280	-43	82
	4-IDF (FG)	755	91	271	393
	4-IDF (PG)	5084	1997	-589	-136
	TOTAL	12157	3745	635	1120
Brittany	2-ESSF	984	n/a	75	24
	3-MS	2040	n/a	455	278
	3-SBPS	33744	n/a	9806	6142
	4-IDF (FG)	800	n/a	499	244
	4-IDF (PG)	1810	n/a	836	556
	TOTAL	39378	n/a	11672	7245
Chilanko	3-MS	1200	n/a	163	84
	3-SBPS	49531	n/a	18521	11821
	4-IDF (FG)	844	n/a	497	424
	4-IDF (PG)	1690	n/a	312	178
	TOTAL	53265	n/a	19493	12507
Clearwater	2-ESSF	2074	n/a	1536	781
	3-MS	4685	n/a	2198	1513
	3-SBPS	29694	n/a	8452	5284
	4-IDF (FG)	605	n/a	390	352
	4-IDF (PG)	2417	n/a	341	177
	TOTAL	39475	n/a	12917	8108

Table A6-5. **Chilcotin Forest District** (Continued)

Landscape Unit	NDT-BEC Unit	Total Forest Area (ha)	Area (ha) less than maximum/greater than minimum recommended limits		
			Less than Maximum Early	Greater than Minimum Mature +Old	Greater than Minimum Old
Colwell	2-ESSF	1735	n/a	825	410
	3-MS	2967	n/a	1141	767
	4-IDF (FG)	242	n/a	79	-14
	4-IDF (PG)	143	n/a	18	9
	TOTAL	5087	n/a	2063	1172
Gunn Valley	2-ESSF	4793	n/a	2124	1050
	3-MS	10698	n/a	2846	1804
	TOTAL	15491	n/a	4970	2854
Haines	2-ESSF	1770	n/a	1363	695
	3-MS	12232	n/a	7255	5102
	3-SBPS	37144	n/a	14559	9321
	4-IDF (FG)	10012	n/a	5197	2700
	4-IDF (PG)	17910	n/a	5934	3800
	TOTAL	79068	n/a	34308	21618
Hickson	1-MH	95	n/a	69	42
	2-CWH	2860	n/a	2074	843
	2-ESSF	261	n/a	58	27
	TOTAL	3216	n/a	2201	912
Lord River	2-ESSF	2643	n/a	1614	814
	3-MS	2206	n/a	1026	706
	TOTAL	4849	n/a	2640	1519
Middle Lake	2-ESSF	3715	n/a	1497	735
	3-MS	3855	n/a	1904	1318
	4-IDF (FG)	2972	n/a	1652	1170
	4-IDF (PG)	1973	n/a	474	287
	TOTAL	12515	n/a	5527	3510
Nude Creek	1-MH	109	n/a	44	24
	2-CWH	579	n/a	481	197
	2-ESSF	2077	n/a	898	443
	4-IDF (FG)	1515	n/a	1089	723
	4-IDF (PG)	1525	n/a	805	543
	TOTAL	5805	n/a	3317	1930
Nuntzi Elkin	2-ESSF	2453	n/a	1316	659
	3-MS	9080	n/a	2566	1645
	3-SBPS	36375	n/a	10833	6799
	4-IDF (FG)	3337	n/a	2277	1769
	4-IDF (PG)	6203	n/a	1551	948
	TOTAL	57448	n/a	18542	11819
Puntzi	3-MS	9649	n/a	3383	2247
	3-SBPS	41301	n/a	11358	7079
	4-IDF (FG)	3394	n/a	1684	827
	4-IDF (PG)	9413	n/a	3364	2176
	TOTAL	63757	n/a	19789	12329
Pyper	3-MS	713	n/a	431	304
	3-SBPS	18370	n/a	3824	2314
	4-IDF (FG)	3260	n/a	1792	1203
	4-IDF (PG)	8631	n/a	2545	1601
	TOTAL	30974	n/a	8592	5422

Table A6-5. **Chilcotin Forest District** (Continued)

Landscape Unit	NDT-BEC Unit	Total Forest Area (ha)	Area (ha) less than maximum/greater than minimum recommended limits		
			Less than Maximum Early	Greater than Minimum Mature +Old	Greater than Minimum Old
Tatla/Little Eagle	2-ESSF	39	n/a	11	5
	3-MS	3673	n/a	1107	718
	3-SBPS	56673	n/a	16317	10212
	4-IDF (FG)	521	n/a	324	195
	4-IDF (PG)	3753	n/a	1736	1156
	TOTAL	64659	n/a	19495	12286
Tautri	3-MS	4531	n/a	939	561
	3-SBPS	56802	n/a	19011	12041
	TOTAL	61333	n/a	19950	12602
Tchaikazan	2-ESSF	5133	n/a	2219	1095
	3-MS	3263	n/a	1249	840
	TOTAL	8396	n/a	3469	1935
Tete Angela	2-ESSF	269	n/a	204	104
	3-MS	8791	n/a	3886	2658
	3-SBPS	30931	n/a	7979	4943
	4-IDF (FG)	722	n/a	502	290
	4-IDF (PG)	3815	n/a	992	611
	TOTAL	44528	n/a	13564	8606
Tiedemann	1-MH	1138	n/a	911	561
	2-CWH	7358	n/a	6104	2500
	TOTAL	8496	n/a	7015	3062
Crazy Creek	2-CWH	1288	n/a	534	208
	2-ESSF	3121	n/a	1084	525
	3-MS	567	n/a	179	117
	4-IDF (FG)	418	n/a	134	114
	4-IDF (PG)	1921	n/a	965	647
	TOTAL	7315	n/a	2895	1610
Nazko	3-MS	13707	n/a	1771	885
	3-SBPS	58401	n/a	22893	14656
	4-IDF (FG)	128	n/a	100	54
	4-IDF (PG)	1721	n/a	928	626
	TOTAL	73957	n/a	25691	16221
Nostetuko	2-ESSF	4010	n/a	2403	1210
	4-IDF (FG)	2841	n/a	1680	838
	4-IDF (PG)	1172	n/a	-93	-103
	TOTAL	8023	n/a	3990	1945
Ottorasko	2-ESSF	4673	n/a	2999	1516
	3-MS	3566	n/a	1192	786
	4-IDF (FG)	3790	n/a	2163	2142
	4-IDF (PG)	2604	n/a	-31	-100
	TOTAL	14633	n/a	6322	4343
Taseko	2-ESSF	5552	n/a	2634	1308
	3-MS	2323	n/a	383	213
	TOTAL	7875	n/a	3017	1521
Nimpo	3-MS	12436	n/a	847	226
	3-SBPS	37352	n/a	12232	7735
	TOTAL	49788	n/a	13079	7961

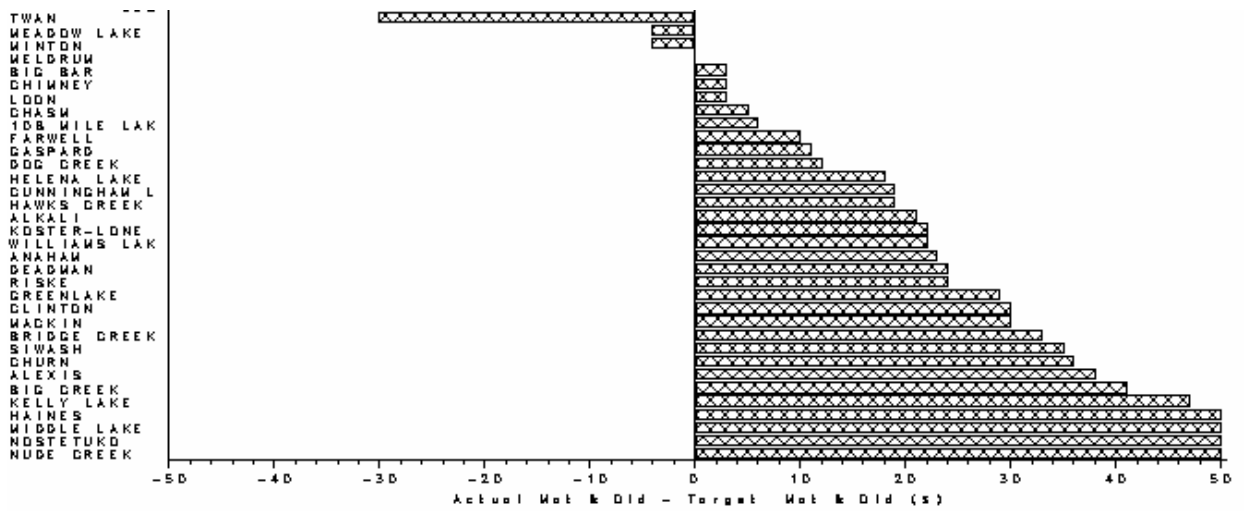
Table A6-5. **Chilcotin Forest District** (Continued)

Landscape Unit	NDT-BEC Unit	Total Forest Area (ha)	Area (ha) less than maximum/greater than minimum recommended limits		
			Less than Maximum Early	Greater than Minimum Mature +Old	Greater than Minimum Old
Beece Creek	2-ESSF	6091	n/a	1950	937
	3-MS	6623	n/a	826	405
	3-SBPS	2800	n/a	61	-2
	TOTAL	15514	n/a	2837	1340
Big Stick	2-ESSF	5354	n/a	2124	1041
	3-MS	4582	n/a	1188	749
	3-SBPS	6077	n/a	905	520
	4-IDF (FG)	2223	n/a	1036	245
	4-IDF (PG)	5706	n/a	480	181
	TOTAL	23912	n/a	5732	2737
Chesi Stikelan	2-ESSF	3828	n/a	1799	893
	3-MS	4865	n/a	1236	776
	4-IDF (FG)	3644	n/a	1658	1214
	4-IDF (PG)	2843	n/a	-185	-219
	TOTAL	15180	n/a	4509	2663

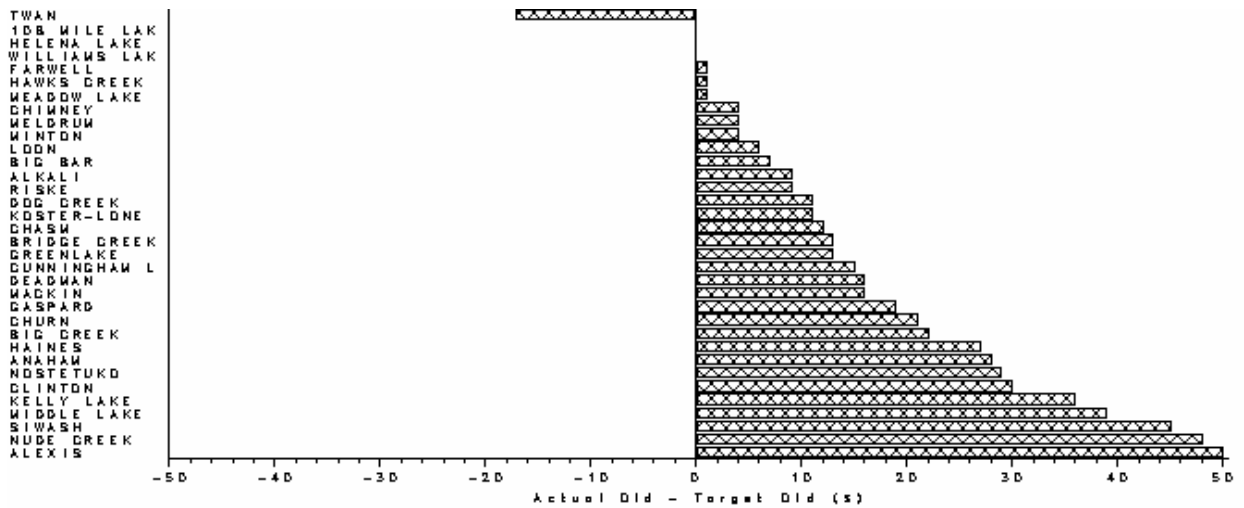
APPENDIX 7. Achievement of Seral Stage Targets by Landscape Unit for Selected Biogeoclimatic Units

- The following graphs compare current seral conditions to biodiversity seral stage guidelines using the biodiversity emphasis options provided by the Biodiversity Strategy Committee. The zero point on the horizontal axis represents the recommended maximum guideline for the early seral stage and the recommended minimum guideline for old and mature plus old seral stages.
- Biodiversity units assigned a lower biodiversity emphasis were not included in the "EARLY" graph since the biodiversity guidelines place no limit on early seral area for low biodiversity landscape units.
- The IDF old and mature plus old graphs show data for the Fir group only since these minimums must be met in order to meet the overall minimums for IDF as documented in the methods section.

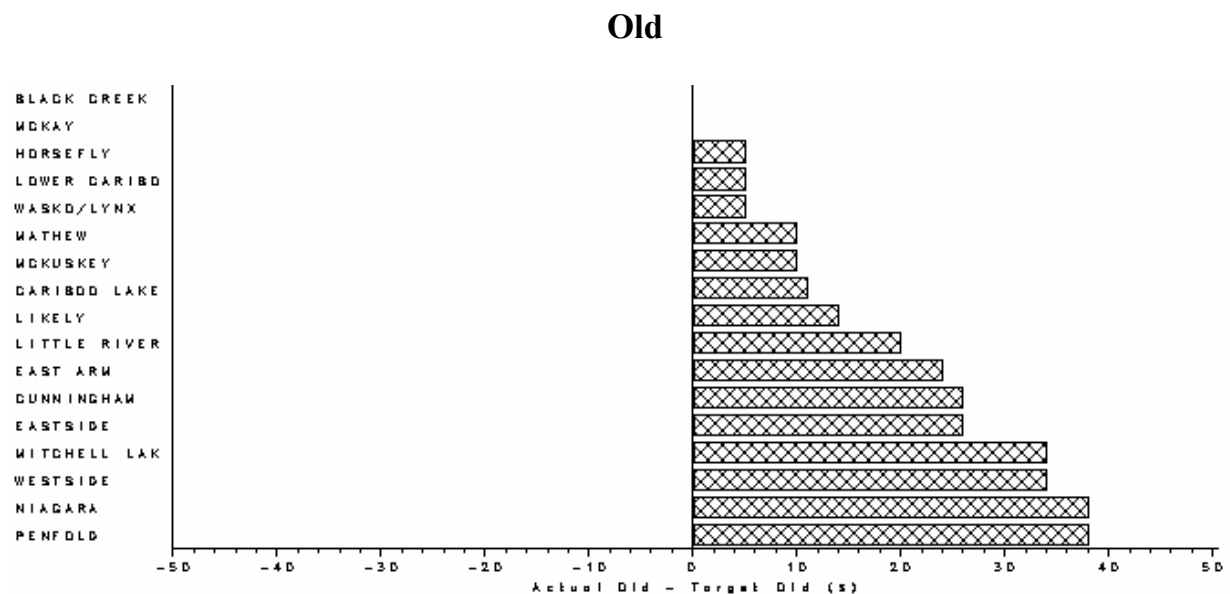
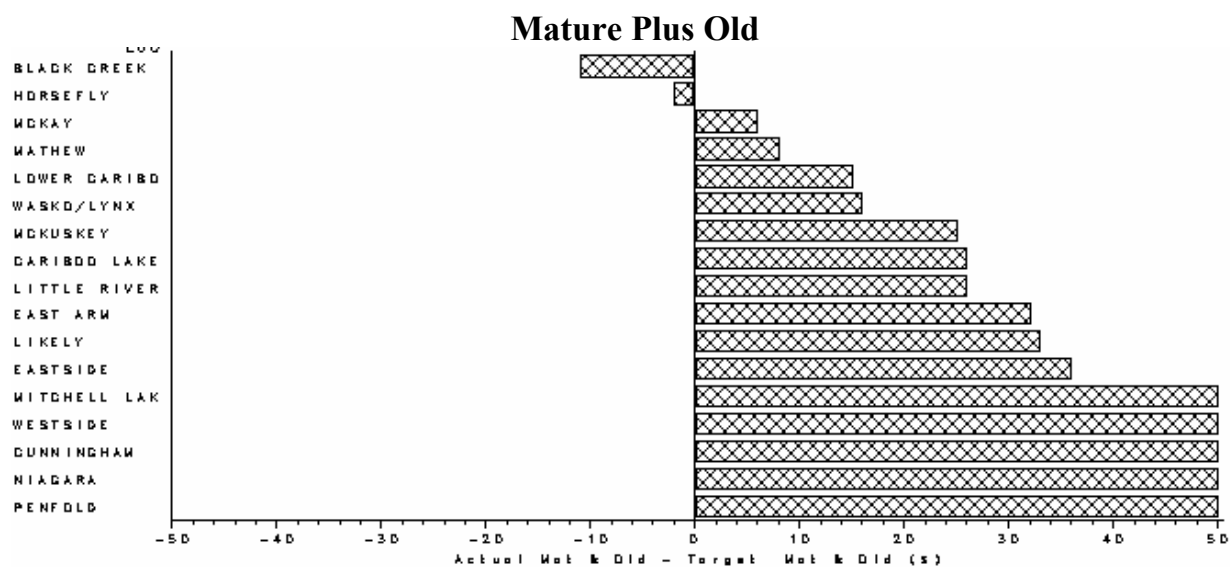
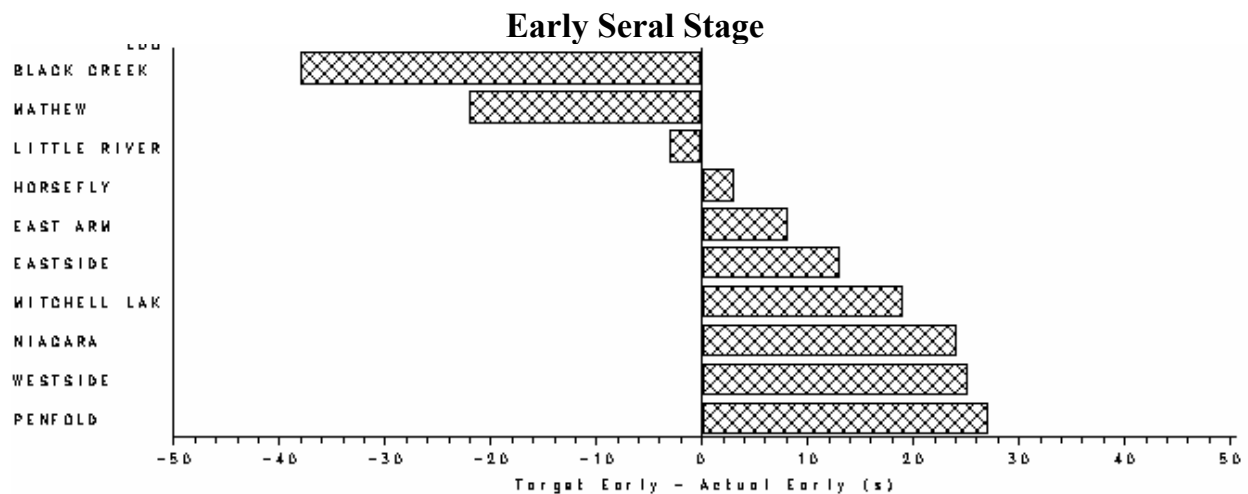
Mature Plus Old - Fir Group



Old - Fir Group

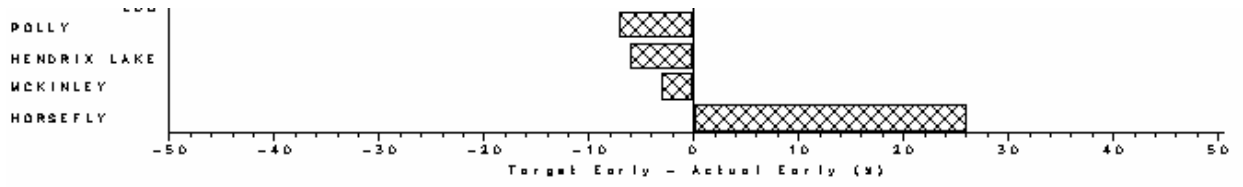


Achievement of Biodiversity Seral Stage Targets for Interior Douglas-fir in 1996

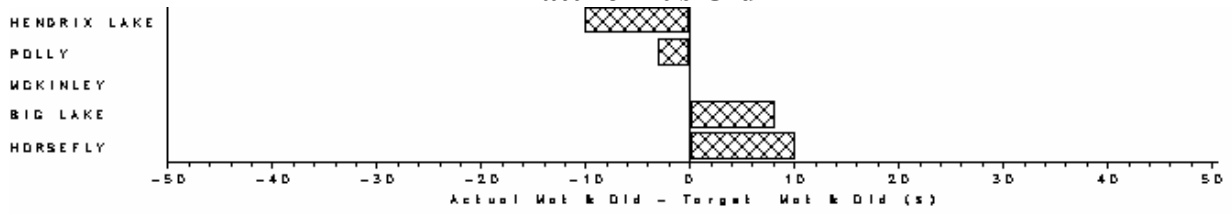


Achievement of Biodiversity Seral Stage Targets for Interior Cedar Hemlock (NDT 1) in 1996

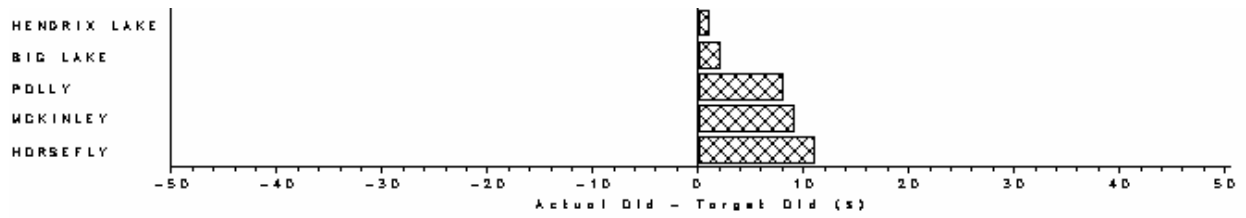
Early Seral Stage



Mature Plus Old

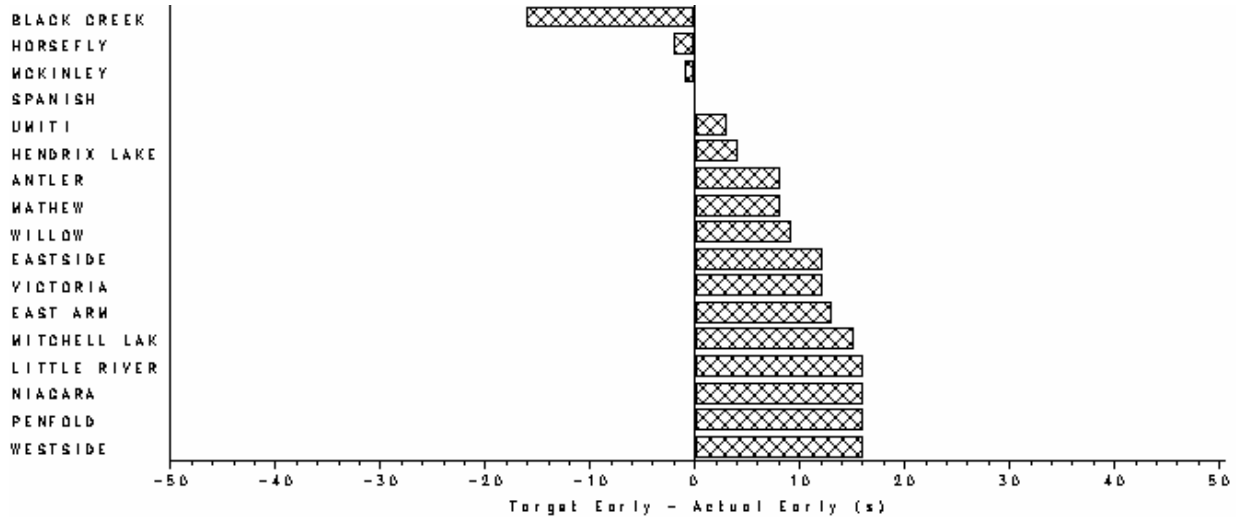


Old

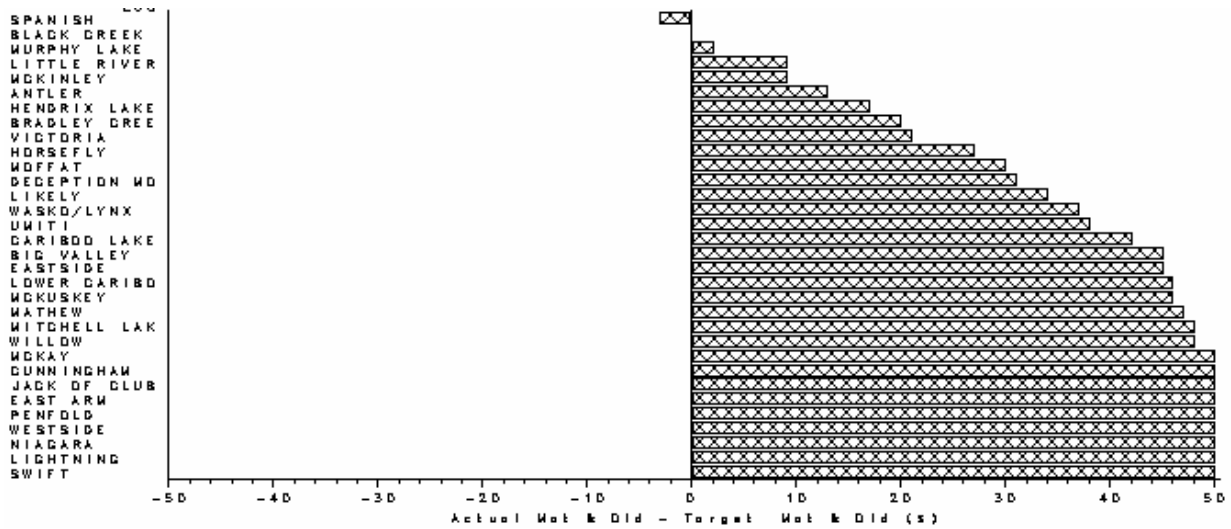


Achievement of Biodiversity Seral Stage Targets for Interior Cedar Hemlock (NDT 2) in 1996

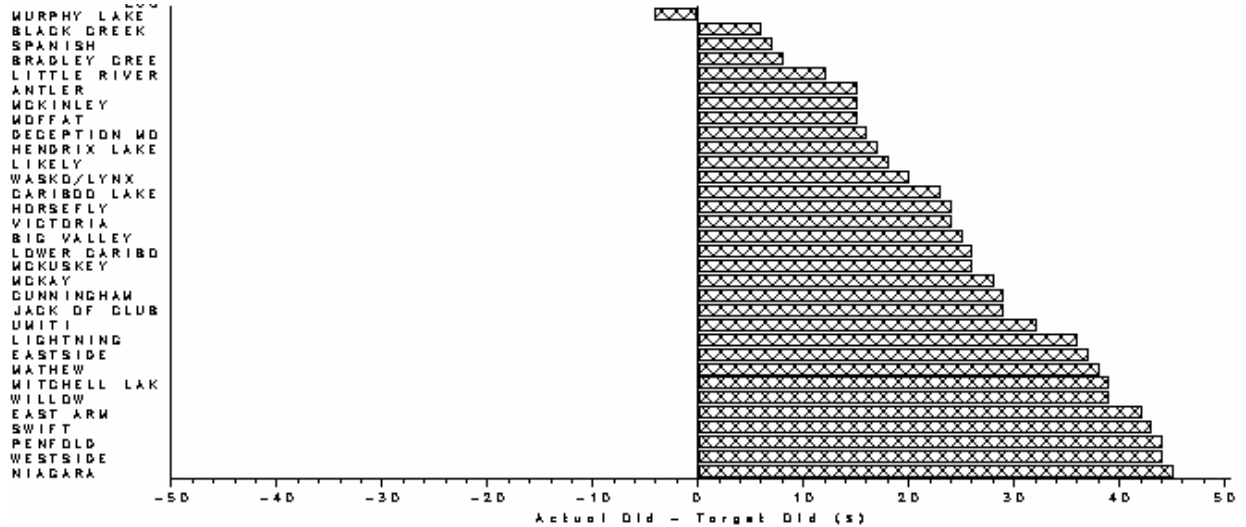
Early Seral Stage



Mature Plus Old

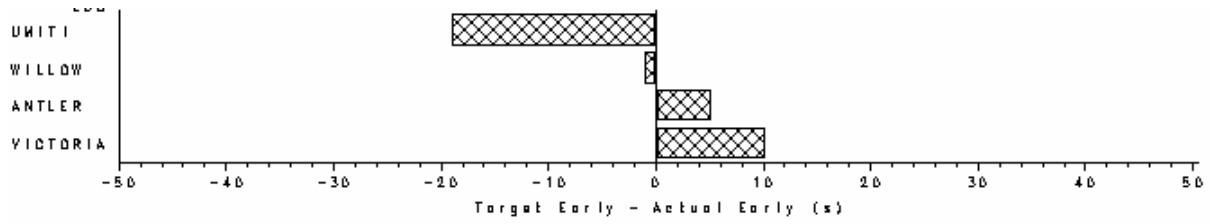


OLD

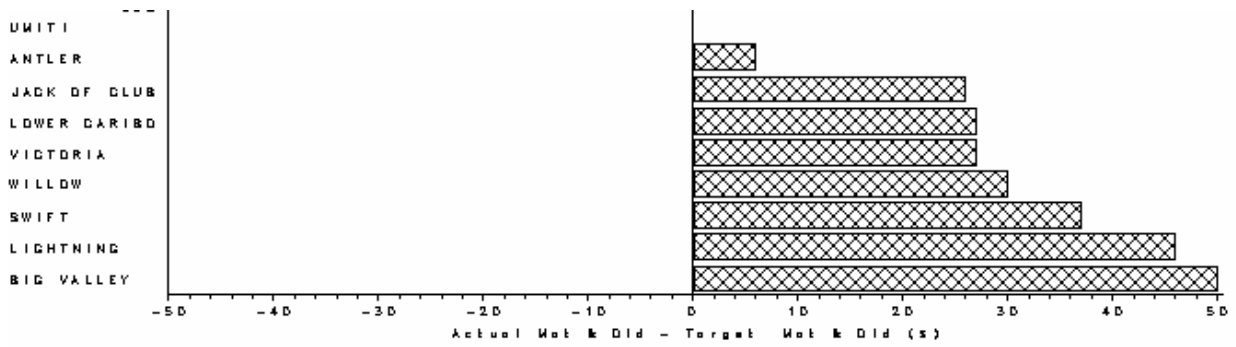


Achievement of Biodiversity Seral Stage Targets for ESSF (NDT 1) in 1996

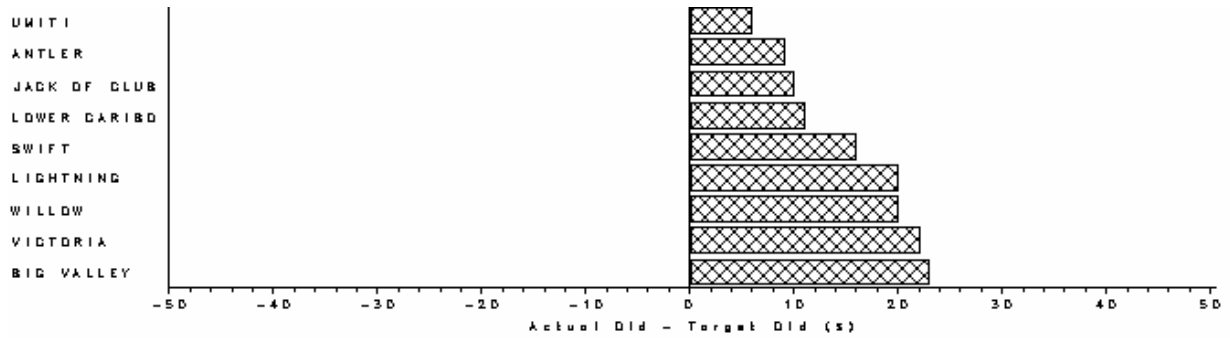
Early Seral Stage



Mature Plus Old



Old



Achievement of Biodiversity Seral Stage Targets for Sub-boreal Spruce (NDT 2) in 1996