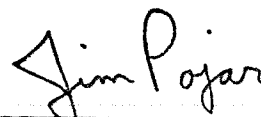


APPLICATION FOR ECOLOGICAL RESERVE

1. Legal description of the area (or general "Metes and bounds" description)
  
2. Geographical location (relate to nearest settlement, mountain, river, etc.)  
Upper north fork of Grassy Creek, south of Grassy Mountain, ca. 12 km E of Castlegar; Bonnington Range, Selkirk Mountains.
  
3. Indicate the biogeoclimatic zone of which the reserve is representative.  
IWHa; ESSFy (dry subzones)
  
4. Approximate total acreage.  
ca. 600 ha (1,480 acres)
  
5. Purpose of the reserve.  
Conservation of old growth forest and non-forested ecosystems representative of the dry subzones of the Interior Western Hemlock Zone and adjacent Engelmann Spruce - Subalpine Fire Zone.
  - (a) Primary (state acreage)  
ca. 600 ha
  - (b) Others if any (state acreage)
 Seral forest stands of *Pinus contorta*, *Pseudotsuga menziesii*, and *Larix occidentalis*.
  - (c) Buffer areas (state acreage)
 -----
  
6. Attach a map and indicate: (a) the perimeters and acreage of the areas detailed in 5 above, and (b) indicate the species and total timber volumes in these areas.  
*Tsuga heterophylla*  
*Thuja plicata*  
*Pseudotsuga menziesii*  
*Pinus monticola*, *P. contorta*  
*Larix occidentalis*  
*Picea engelmannii*  
*Abies lasiocarpa*, *A. grandis*

Signature



I.B.P. Surveyor

G. Utzig, R.K. Jones, J. Pojar

SECTION CT: CONSERVATION OF TERRESTRIAL BIOLOGICAL COMMUNITIES

CHECK SHEET (Mark VII) FOR SURVEY OF IBP AREAS\*

To be completed with reference to the GUIDE TO THE CHECK SHEET

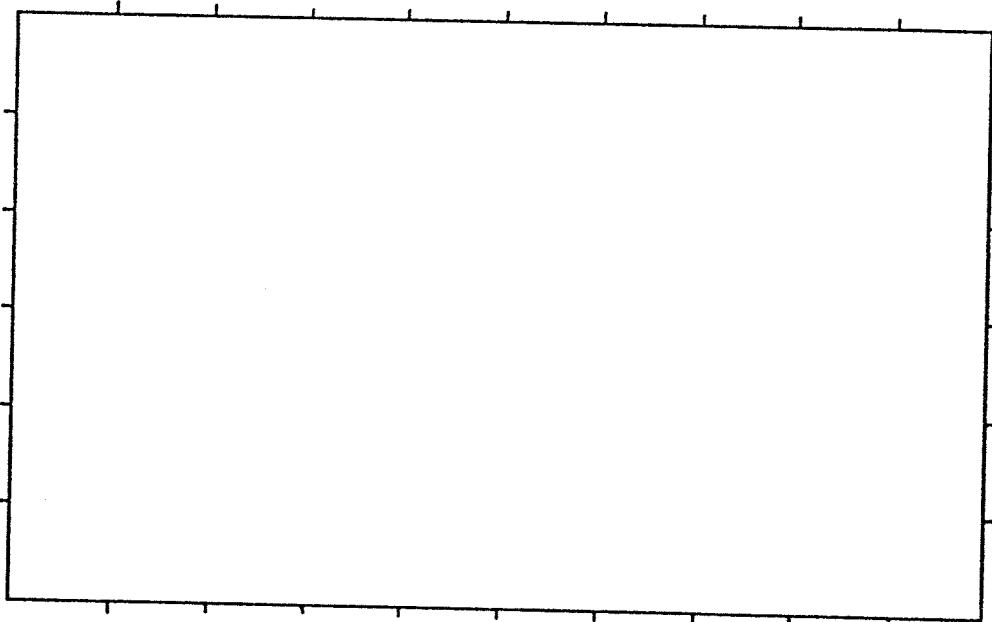
Serial Number

--	--	--	--	--	--	--

For Data Centre Use only

1. 1. Name of surveyor ..... \*G. Utzig, \*\*R.K. Jones, \*\*\*J. Pojar
2. Address of surveyor ..... \*B.C. Forest Service, Nelson, B.C.  
 \*(formerly of) Lands Directorate, Environment Canada,  
 Vancouver, B.C.  
 \*\*\*Ecol. Reserves Unit, Ministry of the Environment,  
 Victoria, B.C. V8V 1X5
3. Check Sheet completed (a) on site ..... X (b) from records ..... X
4. Date Check Sheet completed ..... November, 1977

2. 1. Name of IBP Area ..... Grassy Creek
2. Name of IBP Subdivision (or serial letter) ..... IWha; ESSFy
3. Map of IBP Area\* showing boundaries attached? Yes ..... X No .....
4. Sketch map of IBP Area\*. Please mark direction of north, the scale and grid numbers where applicable.



\* For "IBP Area", read IBP Area and/or IBP Subdivision.

# NELSON

KOOTENAY LAND DISTRICT  
BRITISH COLUMBIA

WEST OF FIFTH MERIDIAN - OUEST DU CINQUIÈME MÉRIDIEN

Scale 1:50,000 Échelle

Siwash Mountain

ELI

Abandoned Mine

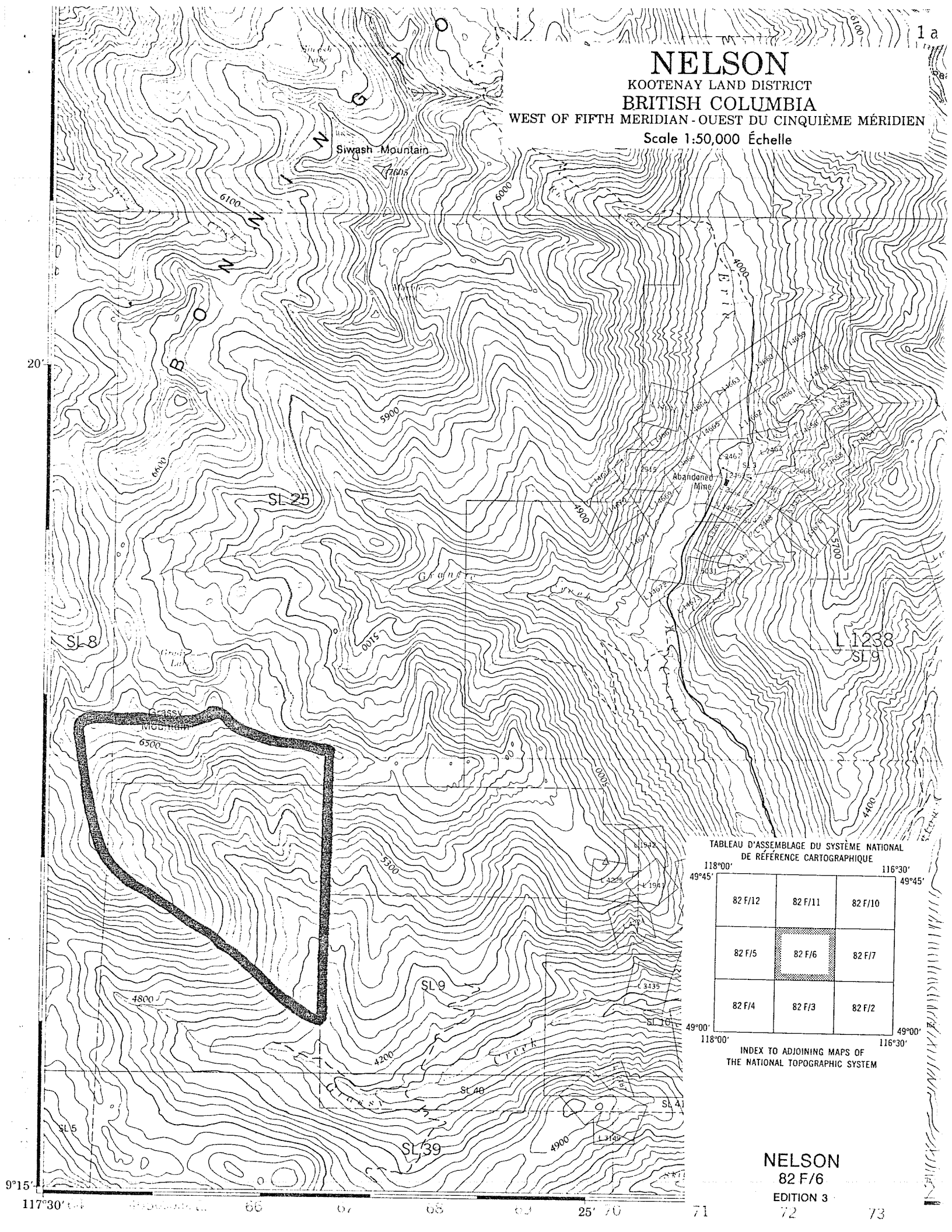
L 1238  
SL 9

TABLEAU D'ASSEMBLAGE DU SYSTÈME NATIONAL DE RÉFÉRENCE CARTOGRAPHIQUE

118°00'	116°30'			
49°45'	82 F/12	82 F/11	82 F/10	49°45'
	82 F/5	82 F/6	82 F/7	
49°00'	82 F/4	82 F/3	82 F/2	49°00'
118°00'			116°30'	

INDEX TO ADJOINING MAPS OF THE NATIONAL TOPOGRAPHIC SYSTEM

**NELSON**  
82 F/6  
EDITION 3



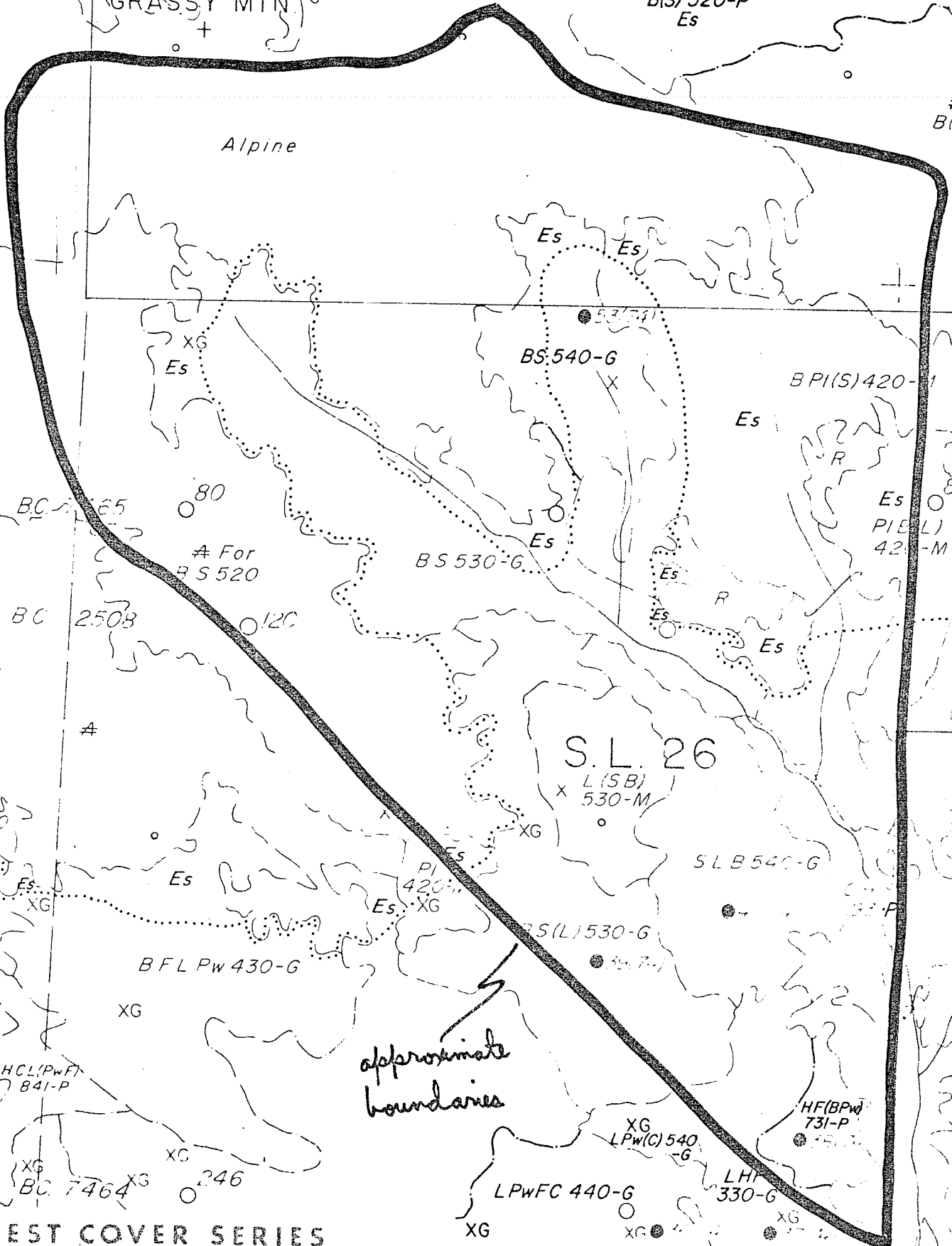
DS 821-P

GRASSY MTN

B(S) 520-P  
Es

F-6-d

For  
B(S) 52



Alpine

BS 540-G

BS 530-G

S.L. 26

BFL PW 430-G

SLB 540-G

LPWFC 440-G

LHI 330-G

FOREST COVER SERIES

Scale 1:15,840

40 chain map

approximate boundaries

SD-  
Vets  
66

NSP-M

3. Location of IBP Area\*

1. Latitude ..... 49 ° 15.8-17.9' ..... N Longitude ..... 117 ° 27.3-29.9' ..... W
2. Country ..... Canada .....
- State or Province ..... British Columbia ..... County ..... West Kootenay .....
- (State or Province ..... County .....)

4. Administration

- National 1. Official category ..... Crown Land; Salmo P.S.Y.U. ....
2. Address of administration ..... Land Management Branch, Ministry of the Environment, Parliament Buildings, Victoria, B.C. V8V 1X5, and Ministry of Forests, Parliament Buildings, Victoria, B.C. V8V 1X5 .....

International Class

3.

Included in U.N. List	Rejected from U.N. List	Area with formal conservation status	No formal cons. status
(A)	(B)	(C)	(D) X

5. Characteristics of IBP Area\*

1. Surface area (state units of measurement) ..... ca. 600 ha (1,480 acres) .....
2. Altitude (state units of measurement) Maximum ..... 2110 m (6,935') ..... Minimum ..... 1295 m (4,250') .....

6. Climate

Nearest climatological station :

1. Name ..... Robson .....
2. Climatological station on IBP Area\*? Yes ..... No X .....
3. If (2) not, distance from edge of IBP Area\* (state units) ..... 20 km .....
4. Direction from IBP Area\* ..... W .....
5. Additional data sheet attached? Yes X No .....

ELEMENT and STATION      JAN    FEB    MAR    APR    MAY    JUN    JUL    AUG    SEPT    OCT    NOV    DEC    YEAR      %  
 of  
 Total

BRITISH COLUMBIA

000 ROBSON

LATITUDE 49 20 N    LONGITUDE 117 42 W    ELEVATION 1450 FT ASL

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEPT	OCT	NOV	DEC	YEAR	% of Total
HAUTEUR DE PLUIE MOYENNE (POUCES)	1.22	1.20	1.79	1.51	1.77	2.44	1.27	1.36	1.45	2.40	2.26	1.80	20.47	3
CHUTE DE NEIGE MOYENNE	27.43	9.46	5.1	0.2	0.0	0.0	0.0	0.0	0.0	0.2	7.7	20.8	70.9	3
PRECIPITATION TOTALE MOYENNE	3.96	2.16	2.30	1.53	1.77	2.44	1.27	1.36	1.45	2.42	3.03	3.88	27.57	3
PLUIE MAXIMUM EN 24 HEURES	1.32	1.18	1.61	1.02	0.97	1.30	1.20	0.82	1.21	1.27	1.75	2.14	2.14	3
NOMBRE D'ANNEES EN RECORD	24	24	24	24	24	24	24	24	24	24	24	24	24	
CHUTE DE NEIGE MAXIMUM EN 24 HEURES	20.0	11.0	13.0	2.8	0.0	0.0	0.0	0.0	0.0	2.0	8.0	16.0	20.0	3
NOMBRE D'ANNEES EN RECORD	23	23	24	24	24	24	24	24	24	24	24	24	24	
PRECIPITATION MAXIMUM EN 24 HEURES	2.00	1.18	1.61	1.02	0.97	1.30	1.20	0.82	1.21	1.27	1.75	2.14	2.14	3
NOMBRE D'ANNEES EN RECORD	23	23	24	24	24	24	24	24	24	24	24	24	24	
NOMBRE DE JOURS AVEC PLUIE MESURABLE	5	6	9	10	10	11	7	7	7	7	11	10	7	100
NOMBRE DE JOURS AVEC NEIGE MESURABLE	10	5	3	*	0	0	0	0	0	*	4	9	31	3
NBRE DE JRS AVEC PRECIPITATION MBL. .	15	11	11	10	10	11	7	7	7	11	13	15	128	3

7. Vegetation and Soil

1

Vegetation

Community Reference Number	Vegetation Code					Plant communities (give usual name using full Latin names of a species where applicable)	Area (state units)
	Primary Structural Group	Class	Group	Formation	Sub-Formation		
IWHa: 1	1	A	1	7	a	<i>Thuja plicata</i> - <i>Tsuga heterophylla</i> - ( <i>Picea engelmannii</i> ) - <i>Lonicera utahensis</i> - <i>Aralia nudicaulis</i> - <i>Gymnocarpium dryopteris</i> - <i>Clintonia uniflora</i> - <i>Tiarella unifoliata</i> - <i>Mnium</i> Spp.	
2	1	A	1	7	a	<i>Tsuga heterophylla</i> - <i>Pseudotsuga menziesii</i> - ( <i>Pinus monticola</i> ) - <i>Taxus brevifolia</i> - <i>Pachystima myrsinites</i> - <i>Linnaea borealis</i> - <i>Cornus canadensis</i> - <i>Rubus pedatus</i> - <i>Clintonia</i> - <i>Tiarella</i> - <i>Ptilium crista-castrensis</i> - <i>Pleurozium schreberi</i>	
3	1	A	2	6		<i>Larix occidentalis</i> - <i>Tsuga</i> - <i>Thuja</i> - <i>Pseudotsuga</i> - <i>Pachystima</i> - <i>Chimaphila umbellata</i> - <i>Rhytidiopsis robusta</i> - <i>Pleurozium</i>	
4	1	A	1	7	a	<i>Abies grandis</i> - <i>Pinus monticola</i> - ( <i>Pseudotsuga</i> , <i>Thuja</i> , <i>Tsuga</i> ) - <i>Pachystima</i> - <i>Vaccinium membranaceum</i> - <i>Xerophyllum tenax</i> - <i>Clintonia</i> - <i>Rhytidiopsis robusta</i>	
ESSFy: 5	1	A	1	7	a	<i>Pinus contorta</i> - ( <i>Abies lasiocarpa</i> ) - <i>Vaccinium membranaceum</i> - <i>Xerophyllum tenax</i>	
6	1	A	1	7	a	<i>Abies lasiocarpa</i> - <i>Pinus contorta</i> - <i>Vaccinium membranaceum</i> - <i>Pachystima</i> - <i>Xerophyllum</i> - <i>Rhytidiopsis</i>	
7	1	D	1	4	a	<i>Abies lasiocarpa</i> - <i>Alnus sinuata</i> - <i>Senecio triangularis</i> - <i>Veratrum viride</i>	
8	1	A	1	7	a	<i>Abies lasiocarpa</i> - <i>Picea engelmannii</i> - <i>Rhododendron albiflorum</i> - <i>Vaccinium membranaceum</i> - <i>Arnica cordifolia</i> - ( <i>Gymnocarpium</i> ) - <i>Clintonia</i>	
9	1	A	1	7	a	<i>Abies lasiocarpa</i> - <i>Rhododendron</i> - <i>Vaccinium membranaceum</i> - <i>Xerophyllum</i> - <i>Luzula hitchcockii</i>	
10	1	D	1	4	a	<i>Abies lasiocarpa</i> - <i>Xerophyllum</i> - <i>Lupinus</i> Spp. - <i>Luzula hitchcockii</i>	
11	1	M	2	1		<i>Festuca</i> (? <i>scabrella</i> ) - <i>Lupinus</i> ( <i>latifolius</i> , <i>lepidus</i> ) - <i>Arenaria capillaris</i> - <i>Madia</i> Sp.	

Please give information about further communities on a separate sheet

7.  
(cont.)

2

Soil

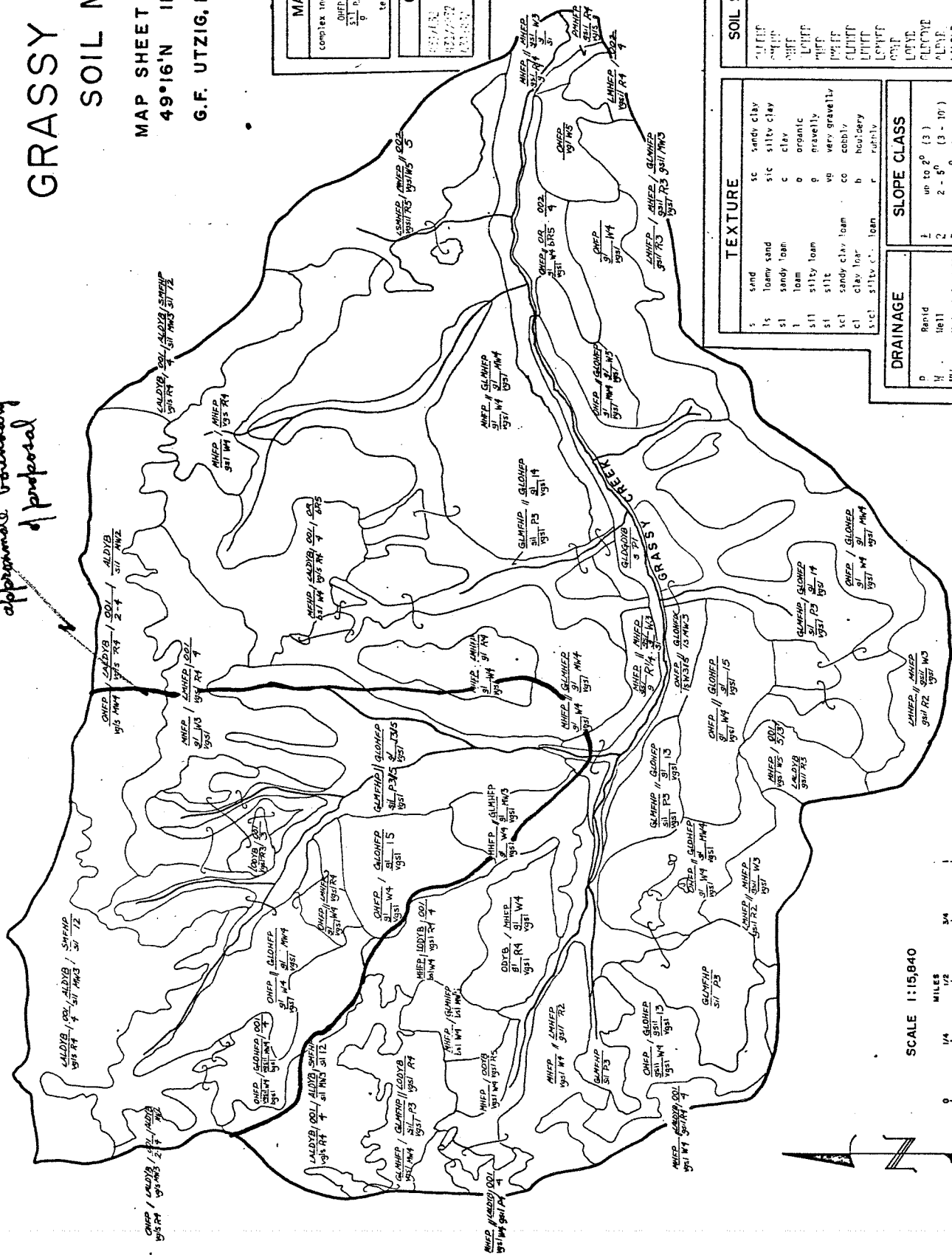
Community Reference Number	Soil type	Other notes
1	F <sub>4-5</sub> /P <sub>2</sub>	gleyed mini ferro-humic podzol/gleyed orthic humo-ferric podzol
2	F <sub>4-5</sub> /(P <sub>2</sub> )	(gleyed) mini ferro-humic podzol/(gleyed) orthic humo-ferric podzol
3	F <sub>4</sub> /(P <sub>2</sub> )	(gleyed, mini) humo-ferric podzol
4	F <sub>4</sub> /(P <sub>2</sub> )	(gleyed) mini humo-ferric podzol
5	F <sub>3/5</sub>	(lithic) alpine dystric brunisol
6	F <sub>4</sub>	mini humo-ferric podzol
7	F <sub>5</sub> /P <sub>2</sub>	gleyed orthic humo-ferric podzol
8	F <sub>4-5</sub> /P <sub>2</sub>	gleyed mini ferro-humic podzol/gleyed orthic humo-ferric podzol
9	F <sub>5/3</sub>	orthic humo-ferric podzol/lithic alpine dystric brunisol
10	F <sub>4/5</sub>	sombritic mini humo-ferric podzol/orthic humo-ferric podzol
11	F <sub>3/5</sub>	(lithic) alpine dystric brunisol
12		
13		
14		
15		
16		
17		
18		
19		
20		



# GRASSY CREEK SOIL MAP

MAP SHEET 82F/6W  
49°16'N 117°30'W  
G.F. UTZIG, 1974-1975

*approximate boundary  
of proposal*



MAP UNIT SYMBOLS	
complex indicator	soil: subsoil
OHDP / OHDP / OHDP	soil: subsoil
511 R2 / 511 R2 / 511 R2	soil: subsoil
9	slope class
texture	Location

COMPLEXES	
1974/75	first unit 51 - 60' of area
1974/75	first unit 61 - 80' of area
1974/75	first unit 81 - 95' of area

SOIL SUBGROUPS (CSCS 1974)	
OHDP	cleaved (thin) ferro-lithic Podzol
OHDP	Sombric ferro-lithic Podzol
OHDP	Orthic ferro-ferric Podzol
OHDP	Cleaved Orthic ferro-ferric Podzol
OHDP	Thin ferro-ferric Podzol
OHDP	Placid thin ferro-ferric Podzol
OHDP	Cleaved thin ferro-ferric Podzol
OHDP	Lithic (thin) ferro-ferric Podzol
OHDP	Lithic Sombric ferro-ferric Podzol
OHDP	Orthic Dystric Brunisol
OHDP	Lithic Dystric Brunisol
OHDP	Cleaved Dystric Brunisol
OHDP	Alpine Dystric Brunisol
OHDP	Lithic Alpine Dystric Brunisol
OHDP	Orthic Brunisol
OHDP	Acid Intrusive Bedrock
OHDP	Basic Intrusive Bedrock

TEXTURE	
s	sand
ls	loamy sand
sl	sandy loam
l	loam
sl	silty loam
sl	silt
sl	sandy clay loam
cl	clay loam
cl	clay
sc	sandy clay
slc	silty clay
c	clay
o	organic
g	gravelly
vg	very gravelly
co	cobbly
b	boundary
r	roughly

DRAINAGE	
D	Rapid
M	Uplift
M	Moderately Well
I	Imperfect
P	Poor
VT	Very Poor

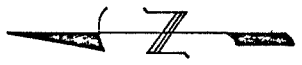
SLOPE CLASS	
1	up to 2° (3)
2	2 - 5° (3 - 10)
3	6 - 15° (10 - 30)
4	16 - 25° (30 - 50)
5	26 - 35° (50 - 70)
6	greater than 35° (70)

STRATIGRAPHIC RELATIONS	
OHDP	horizontal line - indicates texture components (OHDP, R1 - R4, etc.)

SCALE 1:15,840

MILES 1/4 1/2 3/4

KILOMETRES 1/2 1/2





9. Landscape

1. General Landscape (give brief description) .....  
 A small subalpine watershed in steep but relatively  
 subdued mountainous terrain.  
 .....  
 .....

2. Relief Type

	Flat	Undulating (0)-200 m.	Hilly 200-1000 m.	Mountainous > 1000 m.	%
Sharply dissected				80	80
Gently dissected				20	20
Incised					
Skeletonised					
%				100	100%

3. Special landscape features (list) .....  
 .....  
 .....

10. Coastline of IBP Area\* NONE

1. Protected bays and/or inlets Many  Few  None

2. Substratum. % of coast

Rock	Boulder Beach	Shingle Beach	Sand Beach	Shell Beach	Mud	Coral	Ice
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

3. Physiography. % of coast

Cliffed	Sloping	Flat
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

4. Special Coastal Features (list) .....  
 .....  
 .....

5. Tide. Maximum range (state units of measurement) .....

6. Total length of coastline :

Less than 1 km.  1-10 km.  Above 10 km.

11. Freshwater within IBP Area\*

1.

	Permanent	Intermittent
General	X	X
Standing		
Running	X	X

2. Standing Water

	Permanent	Intermittent	Unproductive	Productive
Swamps				
Ponds				
Lakes				

3. Running Water

	Permanent	Intermittent
Springs, cold		
Springs, hot		
Streams	X	X
Rivers		

4. Special freshwater features .....

.....

12. Salt and Brackish Water within IBP Area\*

NONE

Salt Lakes	<input type="checkbox"/>	Lagoon	<input type="checkbox"/>	.....	<input type="checkbox"/>
Estuaries	<input type="checkbox"/>	Salt pools	<input type="checkbox"/>	.....	<input type="checkbox"/>

13. Adjacent Water Bodies (not within IBP Area\*)

1. Fresh  Lake  Grady Lake River  Stream  Granite Creek

2. Salt and Brackish

Estuary	Salt lake	Salt pool	Lagoon	Ocean		

14. Outstanding Floral and Faunal Features

1. None .....

2. Fauna

	Species diversity	Abundance of individuals	Superabundance of individuals	Rare species	Threatened/Relict species	Spp. of biogeographical interest	Exceptional Associations	Breeding or Nesting Populations	Migrating Populations	Wintering Populations		
Mammalia												
Aves												
Reptilia												
Amphibia												
Pisces												
Insecta												

3. Names of main threatened, endemic, relict and rare species

- needs further investigation

.....

.....

.....

.....

.....

.....

.....

.....

4. Flora

	Species diversity	Abundance of particular species	Rare species	Threatened/relict species	Spp. of biogeographical interest	Exceptional associations	Outstanding specimens				
Angiospermae :											
trees											
shrubs		X									
herbs		X			X						
grass		X			X						
Gymnospermae		X									
Pteridophyta											
Bryophyta		X									
Lichens and Algae		X									

5. Names of main threatened, endemic, relict and rare species

.....  
 - needs further investigation  
 .....  
 .....

15. Exceptional Interest of IBP Area\*

A variety of mature, productive, climax forest stands representative of the IWha and ESSFy in this region.  
 .....  
 .....  
 .....

16. Significant Human Impact

1. General : None in entire IBP Area\* .....  
 None in part of IBP Area\* ..... X  
 Impact on entire IBP Area\* .....

2. Particular

	Past impact	Present impact	Trend			
			Increasing	Decreasing	No change	No information
Cultivation						
Drainage						
Other soil disturbance						
Grazing						
Selective flora disturbance						
Logging						
Plantation						
Hunting	X	X			?	
Removal of predators	X	X				
Pesticides						
Introductions — plants						
Introductions — animals						
Fire	X	X		X		
Permanent habitation						
Recreation and tourism	X	X	?			
Research	X	X	X			

3. Additional details on each type of impact attached?

Yes ..... No ..... X

17. Conservation Status (required):

	Protection			Utilisation			Conservation Management			Permitted Research		
	none	partial	total	none	controlled	uncontrolled	none	to alter status	to maintain status	experimental	observational	prohibited
Flora			X	X			X	X	X	X	X	
Fauna			X	X			X			X	X	
Non-living			X	X			X			X	X	

18. References M.F. theses by G. Utzig and R.K. Jones, Dept. of Forestry, The University of British Columbia, Vancouver, B.C.

- List major biological/geographical references for the IBP Area.  
 Sheet attached? Yes ..... No <sup>X</sup> .....
- List main maps available for the IBP Area. 82 F/SW (Trail)(1:125,000)  
 82 F/6 (Nelson)(1:50,000)  
 List attached? Yes ..... No <sup>X</sup> ..... 82-F-6-d Forest Cover Map (40 chain)
- Aerial photographs for the IBP Area available? B.C. 7464:244-5; 7465:80-82  
 For whole area ..... <sup>X</sup> ..... For part of area ..... None .....

19. Other Relevant Information

This proposal constitutes a small watershed with uniform acid intrusive bedrock (granite - granodiorite), within the IWHa and ESSFy. Forest stands include both productive old-growth and seral stands of lodgepole pine, Douglas-fir, and western larch. The proposal is representative of a large portion of the Selkirk Mountains, and offers an excellent opportunity for comparative silvicultural and forest management studies.

G. Utzig

Signed Jim Pojar  
 (Surveyor)

G. Utzig, R.K. Jones, J. Pojar