

INTERNATIONAL BIOLOGICAL PROGRAMME
SECTION CT: CONSERVATION OF TERRESTRIAL BIOLOGICAL COMMUNITIES

Appl. no. 16
(Supplement)

CHECK SHEET (Mark VII) FOR SURVEY OF IBP AREAS*
To be completed with reference to the GUIDE TO THE CHECK SHEET

Serial Number

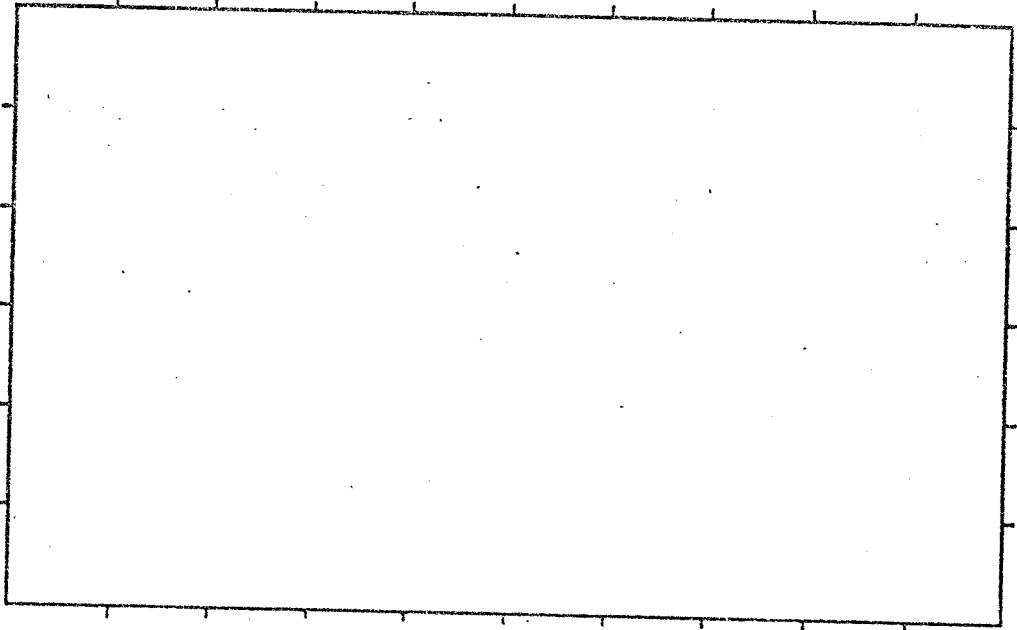
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For Data Centre L only

1. 1. Name of surveyor *E. Anderson, **J.B. Foster, **J. Pojar
 2. Address of surveyor *The Federation of B.C. Naturalists,
 Victoria, B.C.

 **Ecological Reserves Unit, Victoria, B.C. V8V 1X5
 3. Check Sheet completed (a) on site X (b) from records X
 4. Date Check Sheet completed incomplete survey, November 26, 1973
 completed: September 1976

2. 1. Name of IBP Area Burrell Creek, north of Deadeye Creek
 2. Name of IBP Subdivision (or serial letter) IWha
 3. Map of IBP Area* showing boundaries attached? Yes 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.

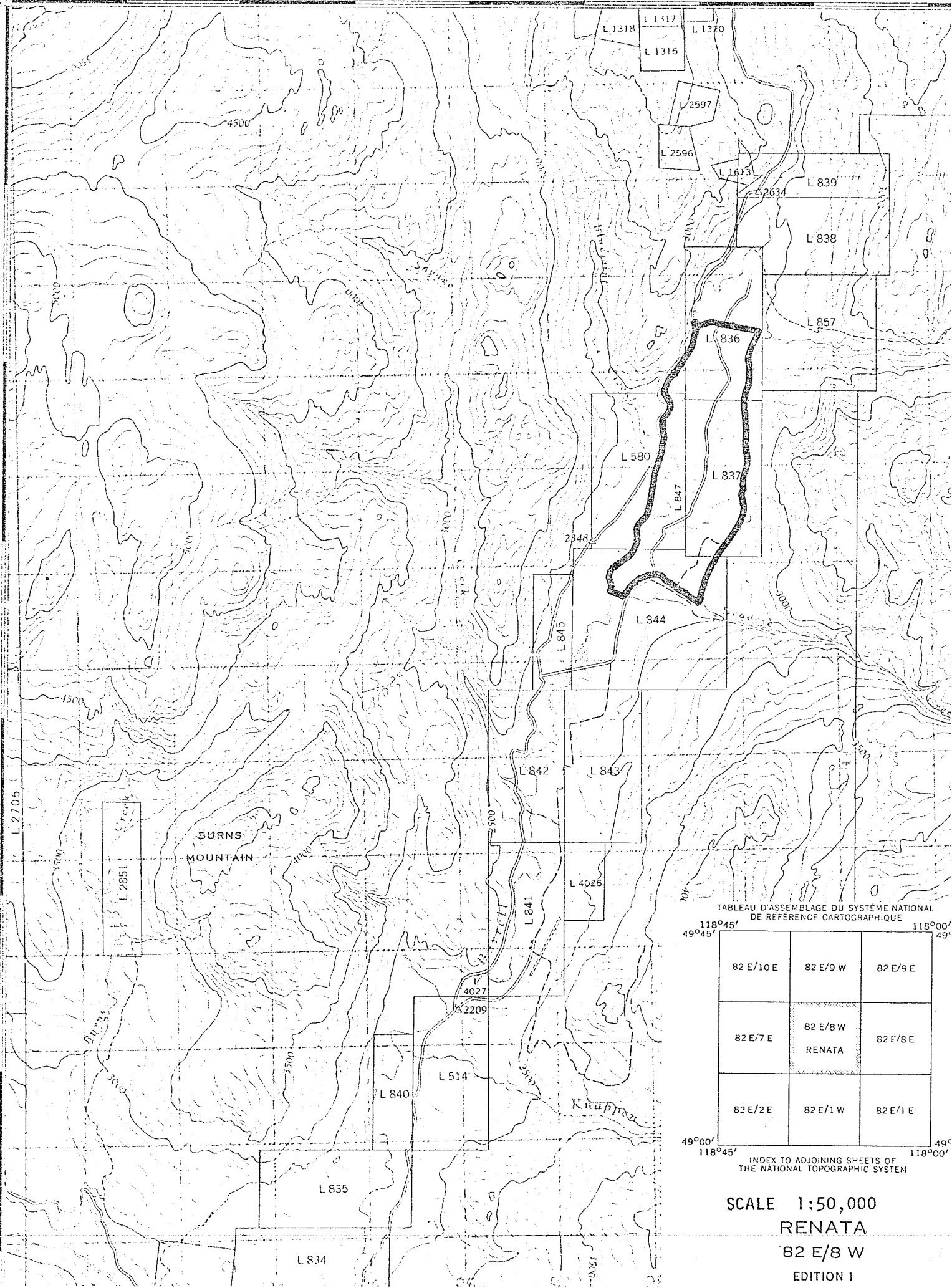


TABLEAU D'ASSEMBLAGE DU SYSTÈME NATIONAL DE RÉFÉRENCE CARTOGRAPHIQUE

118°45'	118°00'	118°00'
49°45'	82 E/10 E	82 E/9 E
	82 E/9 W	82 E/9 E
	82 E/7 E	82 E/8 W
	RENATA	82 E/8 E
	82 E/2 E	82 E/1 W
	82 E/1 W	82 E/1 E
49°00'	118°45'	118°00'

INDEX TO ADJOINING SHEETS OF THE NATIONAL TOPOGRAPHIC SYSTEM

SCALE 1:50,000
 RENATA
 82 E/8 W
 EDITION 1

3. Location of IBP Area*
 1. Latitude..... 49 ° 26.7-28.25' N Longitude..... 118 ° 23.45-24.75' W
 2. Country Canada
 State or Province British Columbia County Grand Forks
 (State or Province County)

4. Administration

National 1. Official category Crown Land
 2. Address of administration Land Management Branch
 B.C. Dept. of Environment
 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) 237 ha (587 acres)
 2. Altitude (state units of measurement) Maximum 750 m (2500')
 Minimum 705 m (2350')

6. Climate

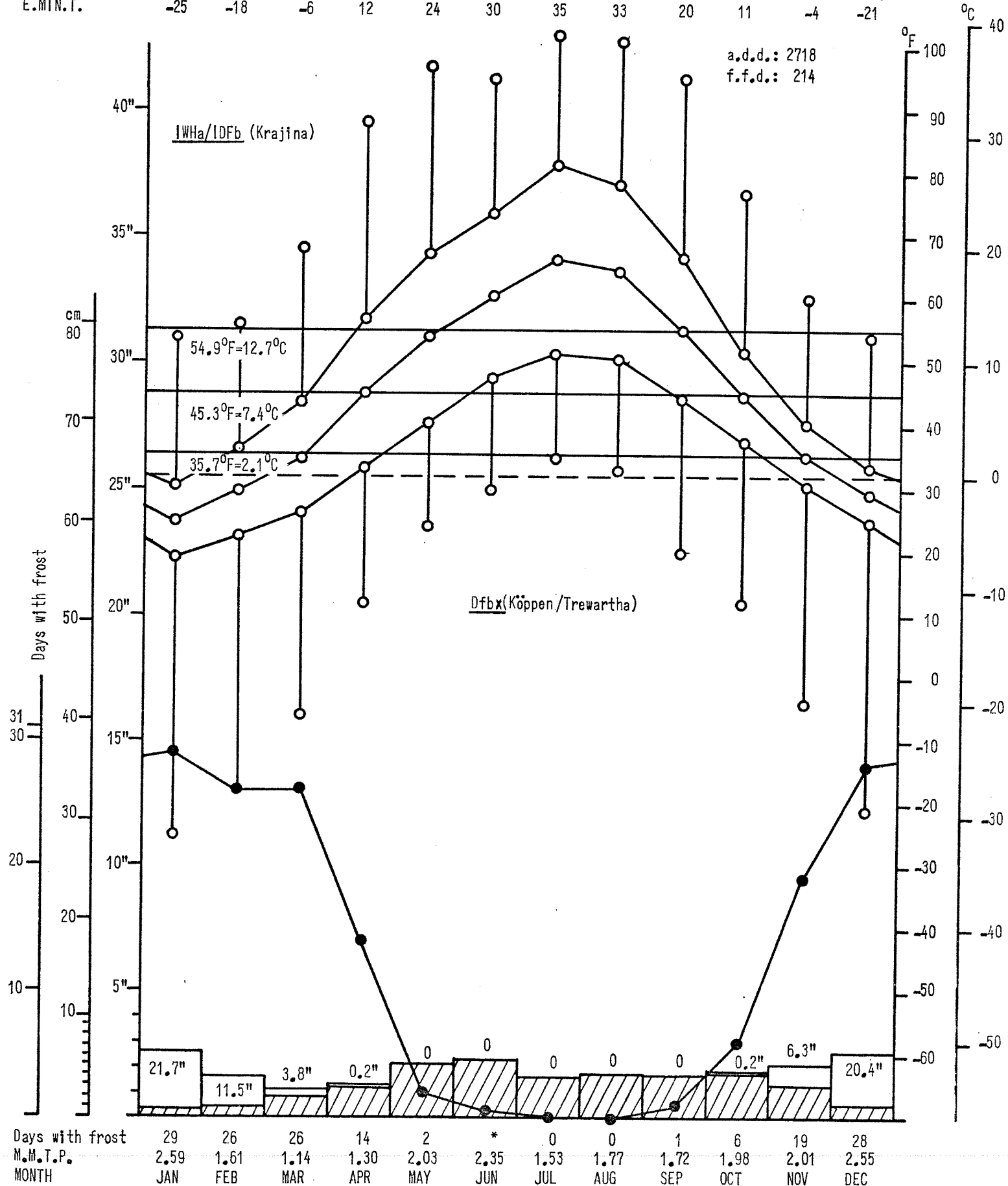
Nearest climatological station :

1. Name Fauquier
 2. Climatological station on IBP Area*? Yes No X
 3. If (2) not, distance from edge of IBP Area* (state units) about 48 km (30 mi.)
 4. Direction from IBP Area* NNE
 5. Additional data sheet attached? Yes X No

FAUQUIER 49°52'N, 118°04'W, 1550' ASL. Record: 30-54 years.

Months above 50°F: 5, below 32°F: 3, A.M.T.P. 22.58", A.M.S.F. 64.1", snow % A.M.T.P.: 28.39, days with frost, yearly: 151.

E.MAX.T.	54	56	68	88	97	95	102	101	95	77	60	54
M.D.MAX.T.	30.4	36.1	43.8	56.8	67.0	73.1	81.2	78.1	66.4	51.8	40.3	33.9
M.D.T.	24.9	29.5	35.0	45.1	54.0	60.3	66.2	64.1	55.3	44.7	35.3	29.5
M.D.MIN.T.	19.3	22.9	26.2	33.4	40.9	47.5	51.1	50.1	44.2	37.6	30.2	25.0
E.MIN.T.	-25	-18	-6	12	24	30	35	33	20	11	-4	-21



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		
1	1	A	$\frac{1}{2}$	$\frac{7}{1}$	a	<i>Populus trichocarpa</i> - <i>Pseudotsuga menziesii</i> - <i>Picea engelmannii</i> - <i>Thuja plicata</i> - <i>Cornus stolonifera</i> - <i>Pyrola asarifolia</i> - <i>Smilacina stellata</i>	
2	1	A	1	7	a	<i>Pseudotsuga</i> - <i>Thuja</i> - <i>Tsuga heterophylla</i> - <i>Taxus brevifolia</i> - <i>Pachystima myrsinites</i> - <i>Pleurozium schreberi</i>	
3	1	A	1	7	a	<i>Larix occidentalis</i> - <i>Pinus monticola</i> - <i>Thuja plicata</i> - <i>Symphoricarpos albus</i> - <i>Aralia nudicaulis</i> - <i>Cornus canadensis</i> - <i>Rhytidiadelphus triquetrus</i> - <i>Pleurozium schreberi</i>	
4	1	A	1	7	a	<i>Pinus (contorta, monticola)</i> - <i>Larix occidentalis</i> - (<i>Pseudotsuga</i>) - <i>Vaccinium (membranaceum, myrtillus)</i> - <i>Arctostaphylos uva-ursi</i> - <i>Festuca occidentalis</i>	
5							
6							
7							
8							
9							
10							

Please give information about further communities on a separate sheet.

SOME COMMON SPECIES OF PLANT COMMUNITIES OF E.R.P. # 162, BURRELL CREEK:

1. *Populus - Pseudotsuga - Picea - Thuja - Cornus - Pyrola - Smilacina:*

trees:	<i>Populus trichocarpa</i>	<i>Thuja plicata</i>
	<i>Pseudotsuga menziesii</i>	(<i>Larix occidentalis</i>)
	<i>Picea engelmannii</i>	
shrubs:	<i>Cornus stolonifera</i>	<i>Acer glabrum</i>
	<i>Alnus tenuifolia</i>	<i>Rosa nutkana</i>
	<i>Salix exigua</i>	<i>Lonicera involucrata</i>
	<i>Rubus parviflorus</i>	
herb	<i>Pyrola asarifolia</i>	<i>Galium triflorum</i>
layer:	<i>Smilacina stellata</i>	<i>Elymus glaucus</i>
	<i>Streptopus amplexifolius</i>	

2. *Pseudotsuga - Thuja - Tsuga - Taxus - Pachystima - Pleurozium:*

trees:	<i>Pseudotsuga menziesii</i>	<i>Larix occidentalis</i>
	<i>Thuja plicata</i>	<i>Picea engelmannii</i>
	<i>Tsuga heterophylla</i>	<i>Pinus monticola</i>
shrubs:	<i>Taxus brevifolia</i>	<i>Vaccinium ovalifolium</i>
	<i>Acer glabrum</i>	<i>Pachystima myrsinites</i>
herb	<i>Aralia nudicaulis</i>	<i>Smilacina racemosa</i>
layer:	<i>Gymnocarpium dryopteris</i>	<i>Clematis columbiana</i>
	<i>Linnaea borealis</i>	<i>Aster conspicuus</i>

3. *Larix - Pinus - Thuja - Symphoricarpos - Aralia - Cornus - Rhytidiadelphus - Pleurozium:*

trees:	<i>Larix occidentalis</i>	<i>Picea engelmannii</i>
	<i>Pinus monticola</i>	<i>Tsuga heterophylla</i>
	<i>Thuja plicata</i>	(<i>Abies lasiocarpa</i>)
shrubs:	<i>Symphoricarpos albus</i>	<i>Rubus parviflorus</i>
	<i>Lonicera utahensis</i>	<i>Spiraea betulifolia</i>
	<i>Rosa gymnocarpa</i>	<i>Vaccinium membranaceum</i>
herb	<i>Aralia nudicaulis</i>	<i>Disporum hookeri</i>
layer:	<i>Cornus canadensis</i>	<i>Pyrola secunda</i>
	<i>Linnaea borealis</i>	<i>Galium triflorum</i>
	<i>Tiarella unifoliata</i>	<i>Fragaria virginiana</i>
	<i>Chimaphila umbellata</i>	<i>Trillium ovatum</i>
	<i>Clintonia uniflora</i>	<i>Oryzopsis asperifolia</i>
	<i>Goodyera oblongifolia</i>	
moss	<i>Rhytidiadelphus triquetrus</i>	<i>Brachythecium</i> spp.
layer:	<i>Pleurozium schreberi</i>	

(E.R.P. # 162):

4. *Pinus - Larix - (Pseudotsuga) - Vaccinium - Arctostaphylos - Festuca:*

trees:	<i>Pinus contorta, P. monticola</i>	<i>(Pseudotsuga menziesii)</i>
	<i>Larix occidentalis</i>	
shrubs:	<i>Vaccinium membranaceum, V. myrtillus</i>	<i>Spiraea betulifolia</i>
	<i>Rubus alnifolia</i>	<i>Berberis aquifolium</i>
	<i>Shepherdia canadensis</i>	
herb	<i>Arctostaphylos uva-ursi</i>	<i>Achillea millefolium</i>
layer:	<i>Festuca occidentalis</i>	<i>Lilium columbianum</i>
	<i>Lupinus sp.</i>	<i>Antennaria racemosa</i>
	<i>Hieracium albiflorum</i>	<i>Geocaulon lividum</i>
	<i>Arnica cordifolia</i>	<i>Pyrola chlorantha</i>
	<i>Melampyrum lineare</i>	<i>(Calamagrostis rubescens)</i>
moss	<i>Pleurozium schreberi</i>	<i>Cladonia spp.</i>
layer:	<i>Polytrichum juniperinum</i>	<i>Peltigera canina, P. aphthosa</i>
	<i>Dicranum scoparium</i>	

- there are *Ribes* spp. (especially *R. viscosissimum*) on the surrounding hills

7.
(cont.)

2

Soil

Community Reference Number	Soil type	Other notes
1	I ₂	alluvial floodplain regosol
2	F ₅	humo-ferric podzol
3	F ₄	dystric brunisol
4	F ₄	orthic dystric brunisol
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		

9. Landscape

1. General Landscape (give brief description)
 active floodplain and older alluvial terraces of
 Burrell Creek

2. Relief Type

	Flat	Undulating (0)-200 m.	Hilly 200-1000 m.	Mountainous > 1000 m.	%
Sharply dissected					
Gently dissected			100		100
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		
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	X	

4. Special freshwater features

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12. Salt and Brackish Water within IBP Area*

	NONE	
Salt Lakes	<input type="checkbox"/>	Lagoon
Estuaries	<input type="checkbox"/>	Salt pools

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

1. Fresh Lake River Stream

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		X										
Aves		X										
Reptilia												
Amphibia		X										
Pisces		?										
Insecta		X										

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

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4. Flora

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

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

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15.

Exceptional Interest of IBP Area* The future of western white pine as a commercial species in British Columbia is in jeopardy because of blister rust (Cronartium ribicola). If there truly is a resistant strain present in this area, or if the proposal is suitable for genetic research aimed at developing a resistant strain, it would indeed be worthy of ecological reserve status. The mixed valley bottom alluvial forest contains several types in various stages of post-selective logging development, and is interesting and valuable in its own right.

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	X	X		X		
Grazing	X	X			?	
Selective flora disturbance						
Logging	X			X		
Plantation						
Hunting	X	X				
Removal of predators	X	X				
Pesticides						
Introductions — plants	X	X		X		
Introductions — animals						
Fire	X					
Permanent habitation						
Recreation and tourism		X				
Research						

- roads through the proposal

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	
Fauna			X	X					X	X	X	
Non-living			X	X					X	X	X	

18. References

1. List major biological/geographical references for the IBP Area.

Sheet attached? Yes No

2. List main maps available for the IBP Area.

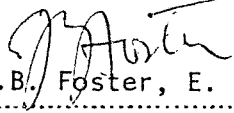
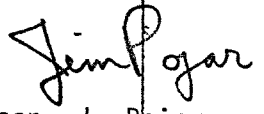
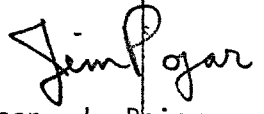
List attached? Yes No 82 E/8W (Renata) (1:50,000)

3. Aerial photographs for the IBP Area available? B.C. 5350:079-080

For whole area For part of area None

19. Other Relevant Information

There is necessary a ground examination of the area by an ecologist to complete a biological checklist. Attached to the application is the report of E. Anderson. The white pine stands here seem to be suitable for genetic research.

Signed   
 J.B. Foster, E. Anderson, J. Pojar
 (Surveyor)



The Federation of British Columbia Naturalists

Please reply to:

Sept. 19/73

AREAS SUGGESTED FOR POSSIBLE CONSIDERATION AS ECOLOGICAL RESERVES

Sites A & B - Burrell Creek north of Grand Forks (See Grand Forks 2miles/1 inch sheet)

Site A is about 32 miles north of Grand Forks on Burrell Creek, a main tributary of the Granby River. It consists of about 1/2 mile ~~between~~ just north of Deadeye Cr. along the Burrell Cr. road on map lots 844, 580 and 837. Area has been lightly logged in the past and is now covered with a mixed stand in which white pine predominates. This pine is tall and of good quality, generally 10" to 18" d.b.h., and appears to be free of white pine blister rust infection thus raising the possibility that the strain here has some inherent resistance. (Some possibly resistant stands are known further east but these are at higher elevations: the elev. here is only 2300+.)

Width of the stand is not known but it is probably less than one-half mile. It is on a wide flat of stony glacial till. Spruce and western larch are co-dominant with red cedar, Lodgepole pine, cottonwood, Doug fir, hemlock and willow as minor stand members. (Since fir has been removed many of the latter, particularly hemlock, are juvenile.) Vaccinium spp., Linnaea, lupin and grasses complete the cover.

This is the most extensive and best looking w. pine stand the writer has seen in the interior.

~~xxxxx~~ Site B is is the adjoining area along the road for approximately a mile to the north. This has been more heavily logged for fir, that is, the area more nearly approached being a clear-cut when it was done perhaps 20 or more years ago. Part of it is now almost pure juvenile western larch while the northernmost part is juvenile lodgepole pine. It is felt this part of the general area might be worth inclusion if area A is considered since the whole area includes a rather wide range of tree species in a mixed to semi-pure assemblage.



THE GOVERNMENT OF
THE PROVINCE OF BRITISH COLUMBIA

DEPARTMENT OF LANDS, FORESTS, AND WATER RESOURCES

OFFICE OF
THE DEPUTY MINISTER OF LANDS
VICTORIA, B.C.

September 25, 1973

File: 0324504

Dr. V.J. Krajina,
Department of Botany,
University of British Columbia,
Vancouver 8, B.C.

Dear Dr. Krajina:

Enclosed is a copy of a letter and map from Mr. Elton Anderson proposing two sites on Burrell Creek north of Grand Forks for consideration as an ecological reserve.

Apparently Site "A" contains some excellent examples of western white pine and Site "B" has juvenile larch and lodgepole pine. The Site "C" proposal referred to by Mr. Anderson is, of course, already in hand and being processed. Data on Site "C" (Cardiff Mountain) was forwarded to you on July 27th.

The Burrell Creek proposal appears to warrant further study and I therefore recommend that it be included with the areas to be examined during the 1974 field season.

A copy of N.T. sheet 82E/8W is also enclosed for large scale reference purposes.

Yours truly,

A handwritten signature in cursive script, appearing to read 'D. Borthwick'.

D. Borthwick,
Associate Deputy Minister.

encl: