

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.)
Downie Slide, Ratchford Range, Monashee Mountains; N of Revelstoke along the Columbia River

3. Indicate the biogeoclimatic zone of which the reserve is representative.
IWHb; ESSFx; AT

4. Approximate total acreage.
1252 ha (3,094 acres)

5. Purpose of the reserve.
Conservation of the Downie Slide and its vegetative cover, including three biogeoclimatic zones of the Interior wet belt.
 - (a) Primary (state acreage)
A - 1188 ha
 - (b) Others if any (state acreage)
B - 64 ha - to conserve a mineral spring with calcareous tufa deposits
 - (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
Populus trichocarpa, *P. tremuloides* (occasionally)
Betula papyrifera

Signature Jim Pojar
Jim Pojar, J.B. Foster
I.B.P. Surveyor

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

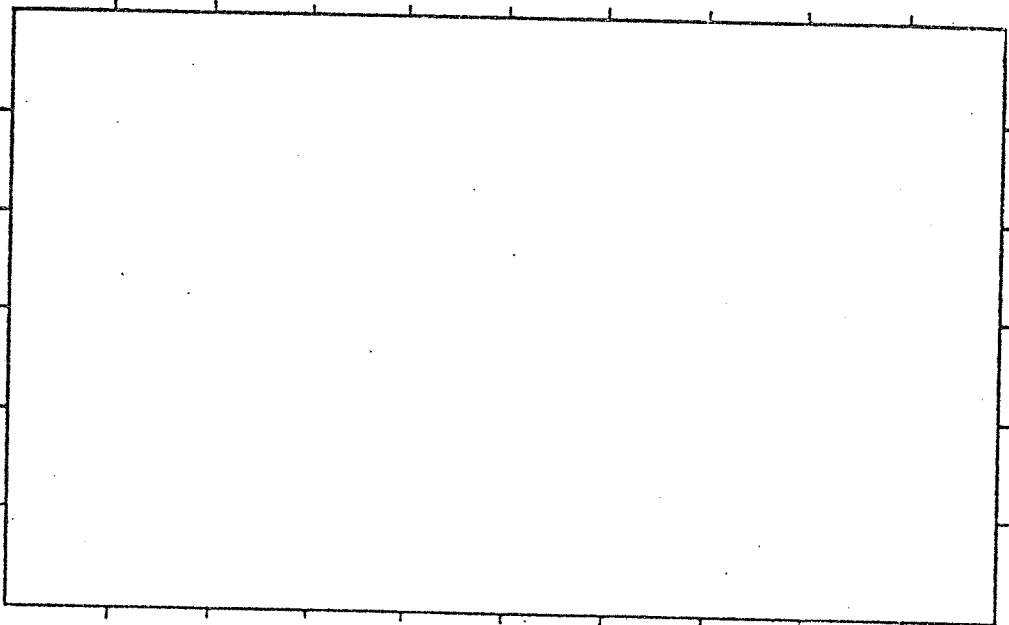
Serial Number

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For Data Centre Use only

1. 1. Name of surveyor J.B. Foster, J. Pojar
2. Address of surveyor 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 September, 1976

2. 1. Name of IBP Area Downie Slide
2. Name of IBP Subdivision (or serial letter) IWHb; ESSFx; AT
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.



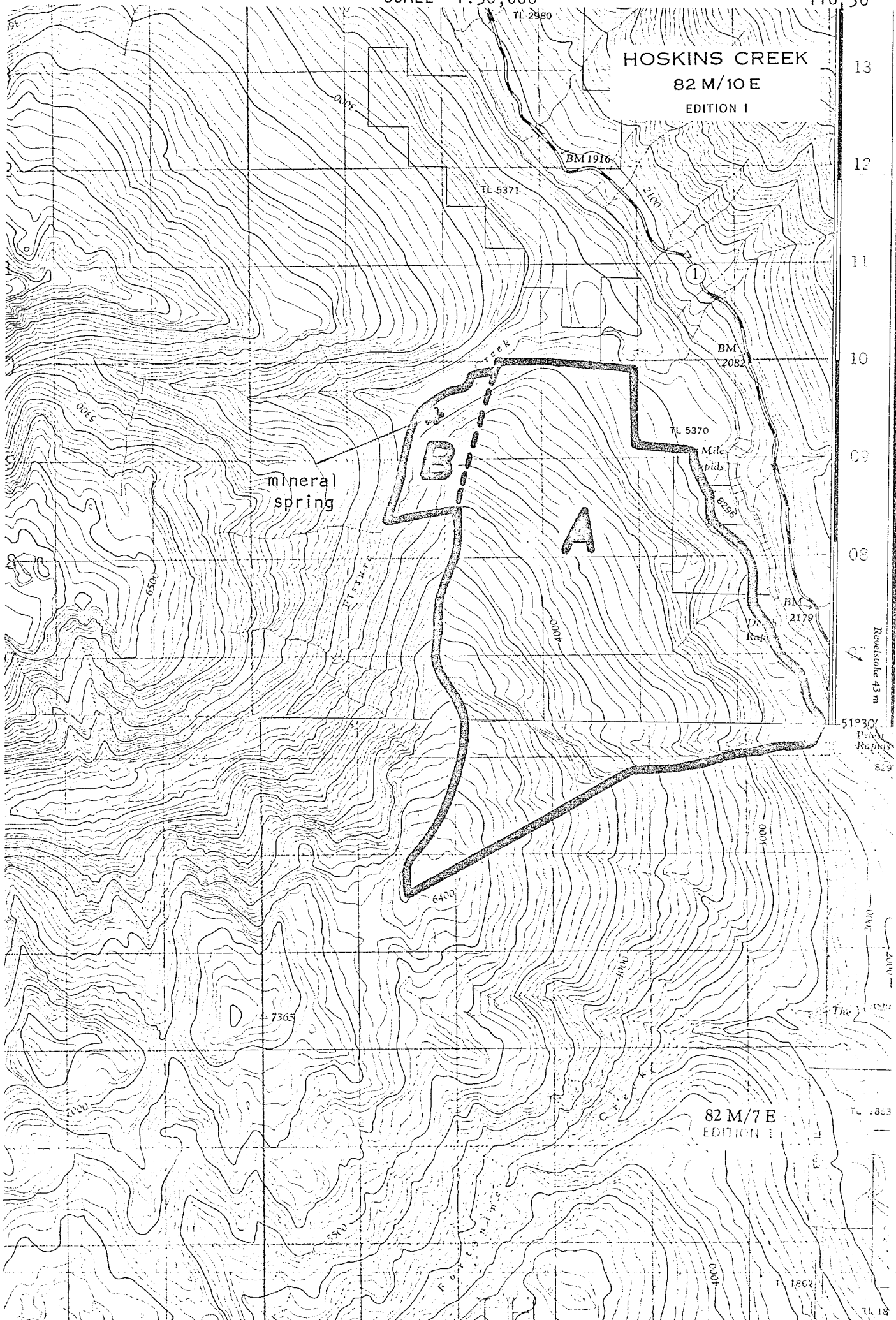
* For "IBP Area", read IBP Area and/or IBP Subdivision.

SCALE 1:50,000

118°30'

1 a

HOSKINS CREEK
82 M/10 E
EDITION 1



mineral spring

B

A

1

Revised 43 m
51°30'
Pac
Rup
829

82 M/7 E
EDITION 1

TL 1862

TL 18

3. Location of IBP Area*

1. Latitude 51° 29.05-32' N Longitude 118° 30.05-33.9' W

2. Country Canada

State or Province British Columbia County Revelstoke

(State or Province County)

4. Administration

National 1. Official category Crown Land; within T.F.L. #23, Block 1

2. Address of administration Land Management Branch

..... B.C. Department of Environment

..... Parliament Buildings, Victoria, B.C. V8V 1X5

.....

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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) 1252 ha

2. Altitude (state units of measurement) Maximum 1980 m

Minimum 625 m

6. Climate

Nearest climatological station :

1. Name Mica Dam

2. Climatological station on IBP Area*? Yes ? - probably set up recently by B.C. Hydro No

3. If (2) not, distance from edge of IBP Area* (state units) 64 km

4. Direction from IBP Area* N

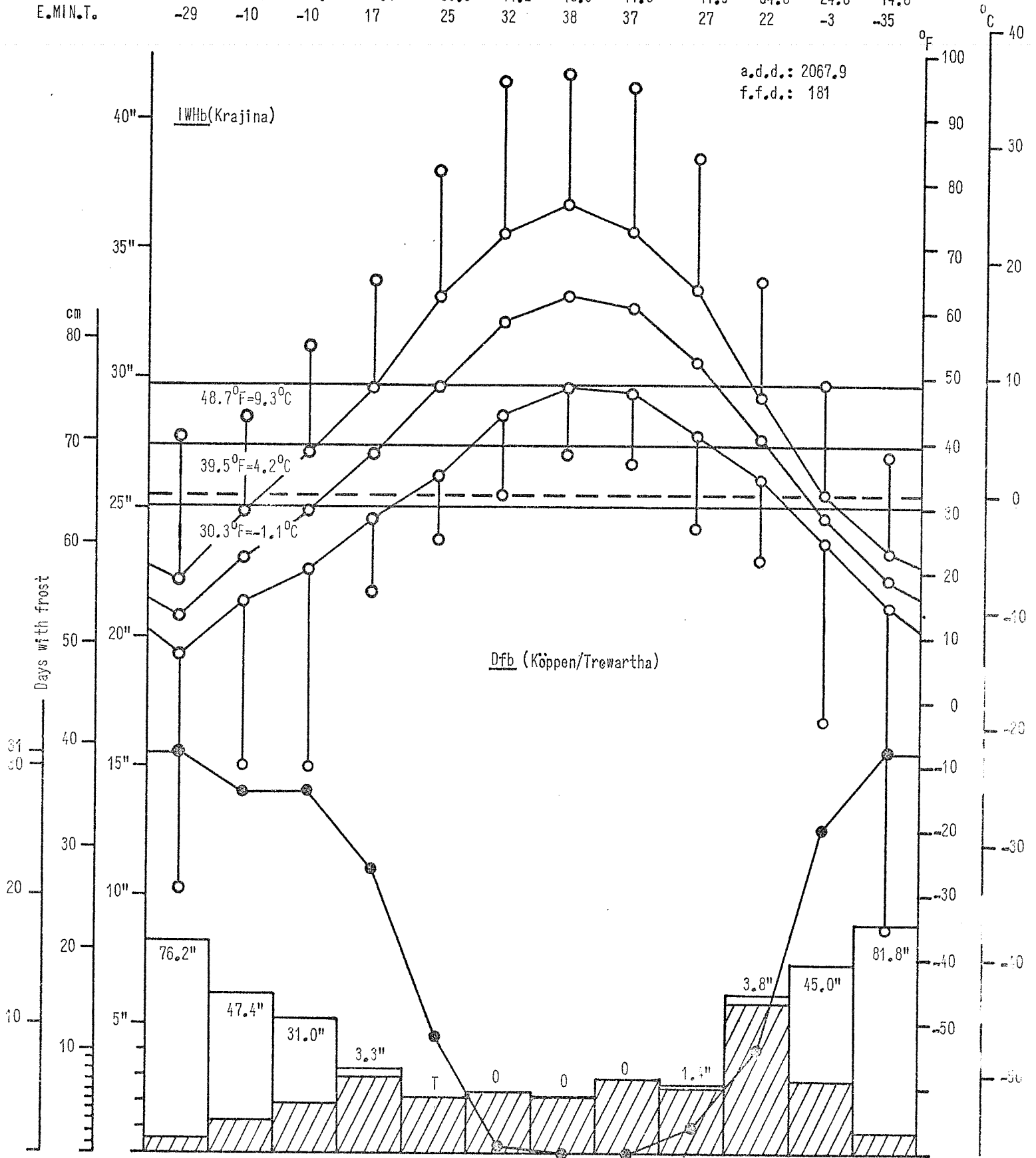
..... X

5. Additional data sheet attached? Yes No

MICA DAM 52°03'N, 118°35'W, 1900' ASL. Record: 8-11 years, adjusted.

Months above 50°F: 4, below 32°F: 5, A.M.T.P. 57.20", A.M.S.F. 289.9", snow % A.M.T.P.: 50.68, days with frost, yearly: 184.

E.MAX.T.	41	44	55	65	82	96	97	95	84	65	49	38
M.D.MAX.T.	19.0	29.4	38.3	48.1	62.3	72.0	77.0	72.9	63.5	47.0	32.0	23.3
M.D.T.	13.2	22.5	29.6	38.3	48.8	58.1	62.7	60.4	52.5	40.8	28.3	19.0
M.D.MIN.T.	7.3	15.6	20.8	28.4	35.3	44.2	48.3	47.8	41.5	34.6	24.6	14.6
E.MIN.T.	-29	-10	-10	17	25	32	38	37	27	22	-3	-35



Days with frost	31	28	28	22	9	*	0	0	2	8	25	31
M.M.T.P.	8.14	6.01	5.06	3.29	2.16	2.43	2.23	2.93	2.69	6.06	7.25	8.95
MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC

SOME COMMON SPECIES OF SEVERAL PLANT COMMUNITIES OF E.R.P. # 262, DOWNIE SLIDE:

1. *Thuja* - *Tsuga* - *Oplopanax* - *Gymnocarpium* - *Circaea* - *Mnium*:
- tress: *Thuja plicata* (*Picea engelmannii*)
Tsuga heterophylla
- shrubs: *Oplopanax horridus* *Lonicera utahensis*
Taxus brevifolia *Pachystima myrsinites*
Acer glabrum *Menziesia ferruginea*
Vaccinium ovalifolium
- herb layer: *Gymnocarpium dryopteris* *Aruncus sylvester*
Athyrium filix-femina *Listera cordata*
Dryopteris austriaca *Circaea alpina*
Tiarella unifoliata *Cornus canadensis*
Streptopus roseus *Goodyera oblongifolia*
Asarum caudatum *Aralia nudicaulis*
Clintonia uniflora *Smilacina racemosa*
Viola glabella *Disporum hookeri*
Galium triflorum *Lycopodium obscurum*
Actaea rubra (*Lysichitum americanum*)
- moss layer: *Mnium* spp. *Rhytidiopsis robusta*
Plagiothecium cavifolium
- epiphytes: *Lobaria oregana* *Hypogymnia enteromorpha*
Platismatia glauca *Alectoria sarmentosa*
2. *Tsuga* - *Thuja* - (*Taxus*) - *Clintonia* - *Cornus* - *Hylocomium* -
Pleurozium - *Ptilium*:
- trees: *Tsuga heterophylla* *Thuja plicata*
- shrubs: *Taxus brevifolia* *Vaccinium ovalifolium*
- herb layer: *Clintonia uniflora* *Rubus pedatus*
Cornus canadensis *Streptopus roseus, S. streptopoides*
Gymnocarpium dryopteris *Dryopteris austriaca*
Tiarella unifoliata
- moss layer (very well developed):
Rhytidiopsis robusta *Ptilium crista-castrensis*
Hylocomium splendens *Pleurozium schreberi*
3. *Tsuga* - (*Pseudotsuga*) - *Taxus* - *Pachystima* - *Rhytidiopsis* - *Pleurozium*:
- trees: *Tsuga heterophylla* (*Pinus monticola*)
Pseudotsuga menziesii
- shrubs: *Taxus brevifolia* *Lonicera utahensis*
Acer glabrum *Pachystima myrsinites*
Corylus cornuta *Vaccinium membranaceum, V. ovalifolium*
- herb layer: *Cornus canadensis* *Clintonia uniflora*
Linnaea borealis *Tiarella unifoliata*
Gymnocarpium dryopteris *Chimaphila umbellata*
- moss layer: *Rhytidiopsis robusta* *Dicranum scoparium, D. fuscescens*
Pleurozium schreberi

7.
(cont.)

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Soil

Community Reference Number	Soil type	Other notes
1	F ₅ /(P ₂)	gleyed humo-ferric podzol
2	F ₅	humo-ferric podzol
3	F ₅	humo-ferric or ferro-humic podzol
4	F ₅	humo-ferric or ferro-humic podzol
5	F ₅	gleyed humo-ferric podzol
6	F ₅	gleyed humo-ferric podzol
7	F ₄	eutric brunisol, pararendzina
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		

9. Landscape

1. General Landscape (give brief description)
steep, mountainous side of major river valley
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2. Relief Type

	Flat	Undulating (0)-200 m.	Hilly 200-1000 m.	Mountainous > 1000 m.	%
Sharply dissected			40	50	90
Gently dissected			10		10
Incised					
Skeletonised					
%			50	50	100%

3. Special landscape features (list)
(? fault) scarp and massive, slowly moving earth slide;
mineral spring with calcareous tufa deposits
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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)
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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	X	X
Running	X	X

2. Standing Water

	Permanent	Intermittent	Unproductive	Productive
Swamps	X	X	X	
Ponds				
Lakes				

3. Running Water

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

4. Special freshwater features
 mineral spring with calcareous tufa deposits

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 River Stream
 Columbia R. Fissure Creek

2. Salt and Brackish NONE

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		X						X		X		
Reptilia												
Amphibia		X						X				
Pisces												
Insecta		X						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											
shrubs		X									
herbs		X									
grass		X									
Gymnospermae		X									
Pteridophyta		X									
Bryophyta		X									
Lichens and Algae		X									

5. Names of main threatened, endemic, relict and rare species
 - needs further investigation

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15. Exceptional Interest of IBP Area*

Massive earth slide; one of largest of moving slides in the world.
 Three biogeoclimatic zones of the Interior wet belt in the main
 Columbia River valley, in a transect from near valley bottom to
 alpine. Mineral spring with calcareous tufa deposits.

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

- logging roads, drill sites, etc.

- up to the projected floodline

- instrumentation by B.C. Hydro since 1965

3. Additional details on each type of impact attached?

X
 Yes No

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 Environmental Research Consultants. 1976. Revelstoke project: environmental group II studies. A report for B.C. Hydro.

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 M/7E (1:50,000) (Ratchford Creek)
82 M/10E (1:50,000) (Hoskins Creek)

3. Aerial photographs for the IBP Area available? B.C. 5392:029-030 (80 chn.)

For whole area For part of area None

19. Other Relevant Information

It is our opinion that the Downie Slide should never be logged, so as to minimize variation in internal water levels. Experiments to stabilize the slide could be carried out.

Jim Pojar
Jim Pojar, J.B. Foster

Signed
(Surveyor)