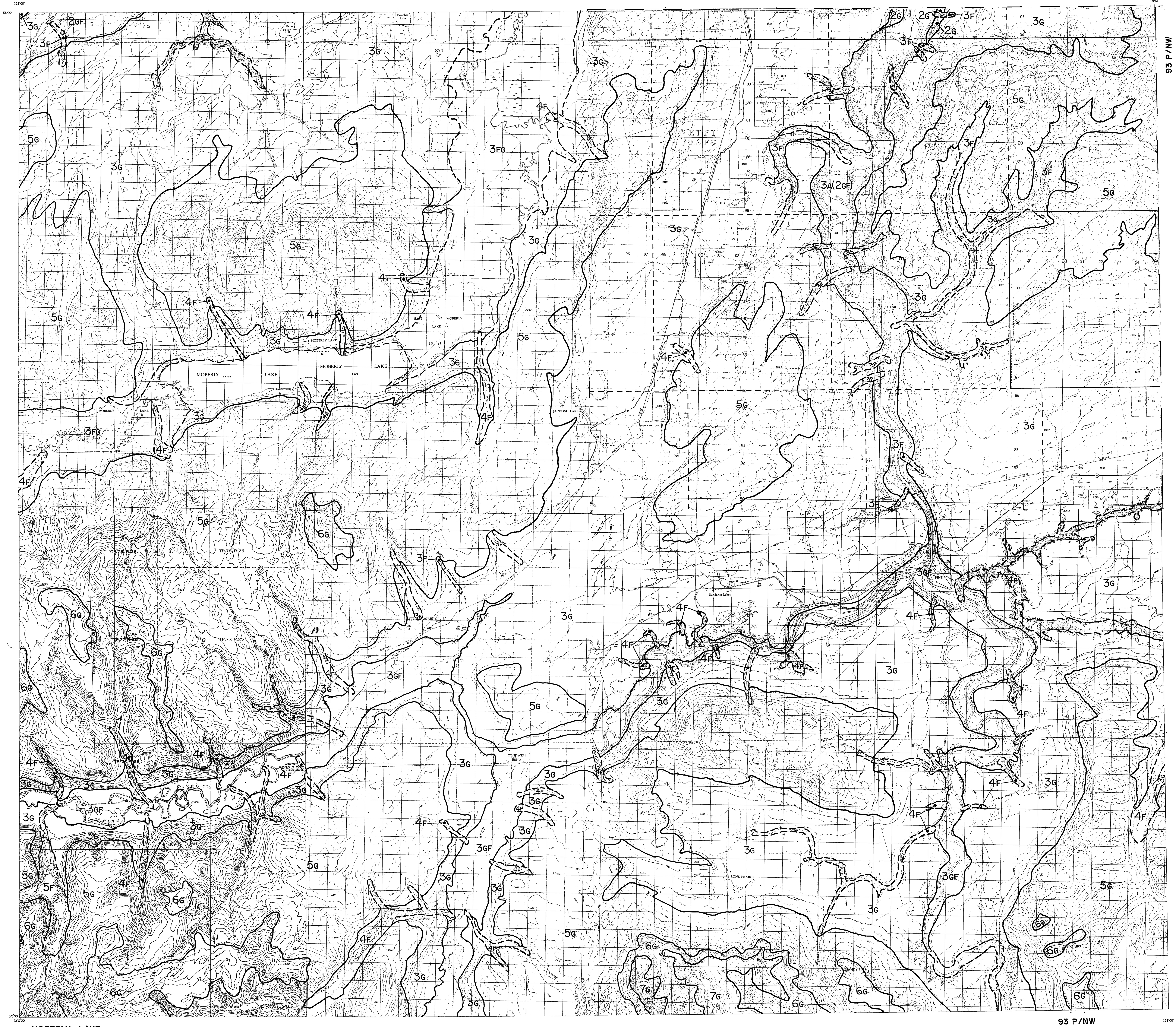

MOBERLY LAKE

93 P/NW

Scale 1:100 000

CLIMATIC CAPABILITY FOR AGRICULTURE

1. Explanatory Notes

A Climatic Capability for Agriculture map shows a system of classification which describes the agricultural capability as influenced by climate. The capability classes are designated by numbers, sometimes followed by letters, with Class 1d having the highest capability and Class 7 having the lowest capability for agriculture. The letters show the climatic limitations which affect the capability of the land to support agriculture. Most maps have two ratings (symbols) per unit; the first indicating the capability class determined by the moisture regime and the second, shown in brackets indicating the capability class as determined by thermal limitations. The improved capability rating (lands being irrigated or drained) is synonymous with the class representing the thermal limitations since it is assumed that the moisture limitations are eliminated. The unimproved ratings (dry-land or undrained) are determined by the most severe limitation imposed by the moisture and/or the thermal criteria.

2. Example

Capability Class (see box 6)
Limiting Subclasses (see box 5)
Percentage of the map unit occupied by each class (i.e. 70%-30%)

$2A(3FG^{7}-4F^{3})$

Unimproved (dry-land) rating
Improved (irrigated) rating

3. Map Boundaries and Symbols

Climatic Capability for Agriculture class boundary.

Approximated capability class boundary

Atmospheric Environment Service - Base Station

4. Station Information

Base Station	Symbol	Period of Record Used
FORT ST JOHN A		1951-80
BEAVER LODGE		1951-80

5. Limiting Subclasses

A - Drought or aridity occurring between May 1st and September 30th resulting in moisture deficits which are limiting to plant growth.

F - Minimum temperature near freezing adversely affecting plant growth during the growing season.

G - Insufficient accumulation of heat units above 5°C during the growing season.

E - Extreme minimum temperatures occurring during the winter season injuring or killing dormant or near dormant fruit trees.

Y - Excess precipitation between May 1st and September 30th causing flooding, poor trafficability and generaly poor yield and harvest conditions.

6. Summary of Limitations

CLASS	GDD ABOVE 5°C (°C-DAYS)	EGDD ABOVE 5°C (°C-DAYS)	FFP (DAYS)		CMD (mm) (negative PPT-PE)	CMS/PE ratio
			INTERIOR	COASTAL		
1d	>2225	-	>150	-	-	-
1c	2060-2225	-	>150	-	-	-
1b	1780-2059	-	>150	-	-	-
1a	1505-1779	-	120-150	-	-	-
1	1310-1504	>825	90-119	>150	< 40	<0.34
2	1170-1309	736-825	75- 89	120-150	40 to 115	0.34 to 0.55
3	1030-1169	650-735	60- 74	100-119	116 to 190	0.56 to 0.75
4	1030-1169	491-649	50- 59	80- 99	191 to 265	0.76 to 1.00
5	780-1029	421-490	30- 49	60- 79	266 to 340	>1.00
6	670 - 779	245-420	< 30	40- 59	341 to 415	-
7	< 670	<245	< 30	< 40	>415	-

7. Base Station Statistics - Frequency of Climatic Capability for Agriculture Class (%) by Parameter

CLASS	Name:				Name:				Name:			
	GDD/ EGDD	FFP	CMD	CMS	GDD/ EGDD	FFP	CMD	CMS	GDD/ EGDD	FFP	CMD	CMS
1d												
1c												
1b												
1a												
1												
2												
3												
4												
5												
6												
7												

This table shows complete Climatic Capability for Agriculture evaluations based on yearly values of each parameter (GDD/EGDD, FFP, CMD and CMS) for the period of record. The number of years each parameter fell within a particular class is expressed as a percentage of the period of record at the base station.

8. Base Station Statistics - Frequency of Climatic Capability for Agriculture Class (%) by Thermal and Moisture Limitation

CLASS	Name:		Name:		Name:	
	Thermal Limitation	Moisture Limitation	Thermal Limitation	Moisture Limitation	Thermal Limitation	Moisture Limitation
1d						
1c						
1b						
1a						
1						
2						
3						
4						
5						
6						
7						

This table shows the frequency of occurrence, expressed as a percent, of Climatic Capability for Agriculture classes as determined by the limitation(s) influencing each individual year for the period of record at the base station.

9. Base Station Statistics - Frequency of Climatic Capability for Agriculture Class (%) by Limitation

CLASS	Name:					Name:					Name:				
	Limitation					Limitation					Limitation				
	A	F	G	E	Y	A	F	G	E	Y	A	F	G	E	Y
1d															
1c															
1b															
1a															
1															
2															
3															
4															
5															
6															
7															

This table shows the frequency of occurrence, expressed as a percent, of Climatic Capability for Agriculture classes independently determined by thermal (G and/or F) and moisture (A and/or Y) limitations for the period of record at the base station.

10. Abbreviations Used in Legend

CMD - Climate moisture deficit (PPT-PE is negative)
CMS - Climate moisture surplus (PPT-PE is positive)
EGGD - Effective growing degree days
FFP - Freeze free period
GDD - Growing degree days
PE - Potential evapotranspiration
PPT - Precipitation

11. Legend Statistics

Tabular data will be added to the legends as the appropriate data become available.

12. Comments

1) Dashed lines generally indicate areas of probable cold air flow and pooling which will limit the climatic capability due to lower freeze-free periods.

2) An aridity rating (A) is only indicated if it is the limiting factor, however the aridity class may be the same as the thermal class under 2 150 feet elevation.

3) The longer days in this region may result in an under-estimation of the climatic capability for certain crops that do not have high heat and light intensity requirements.

13. References

R.A.B. Technical Paper #1.
Climatic Capability Classification for Agriculture in British Columbia.
B.C. Ministry of Environment, 1978.

Climatology Unit
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Additional climatological maps and reports available from:
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14. Credits

Mapped by G.E. Cheesman
Date mapped July 29, 1983
Duration of topoclimatic network 1977-80
Normals used 1951-80
Correlated by
Drafted by Cartography Section, Terrestrial Studies Branch, Ministry of Environment
Date drafted August 1983
Revision dates
Base map provided by Surveys and Mapping Branch, Ministry of Environment.