

APPENDIX B

SNOW SURVEYS

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B.1 INTRODUCTION

The greatest proportion of British Columbia's major river flows originate from the melting of mountain snow. Winter precipitation accumulates as snow on the Province's mountain watersheds, forming nature's near perfect reservoir, from which water is released to swell the streams during the freshet period during April to July inclusive.

Measurement of snow depth and snow water equivalent during the early months of winter indicate the snow build-up and the change taking place with respect to probable potential runoff. However, the measurements made just prior to the spring melt period together with certain other hydrologic parameters are those used in forecasting the volume of the freshet runoff within the major basins of the Province. Such information is particularly useful to those concerned with hydro-electric power production, flood control, irrigation, and domestic and municipal water supplies.

The snow survey data collected in the field on or about the first of each month starting in January and running through to June with an additional sampling on May 15, are sent to the British Columbia Water Resources Service in Victoria, by telegram, tellex and telephone. This information is processed and made available to the public within a week in the Snow Survey Bulletins which, in addition to the basic data, provide comparisons with previous years as well as supplying a summary of water supply conditions generally.

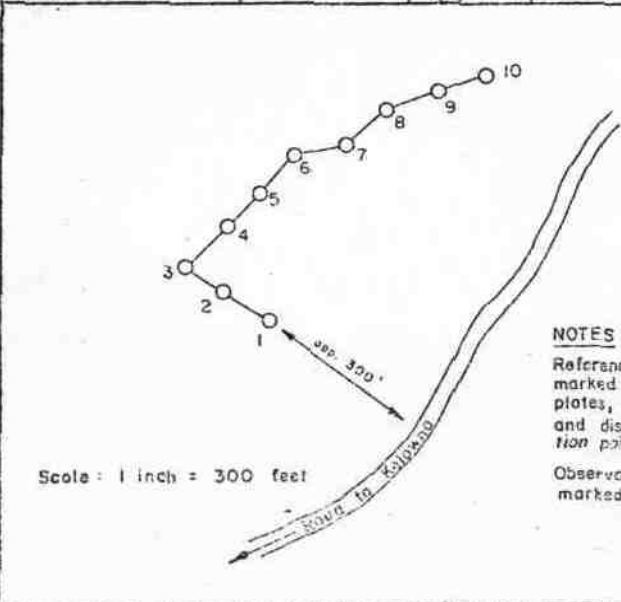
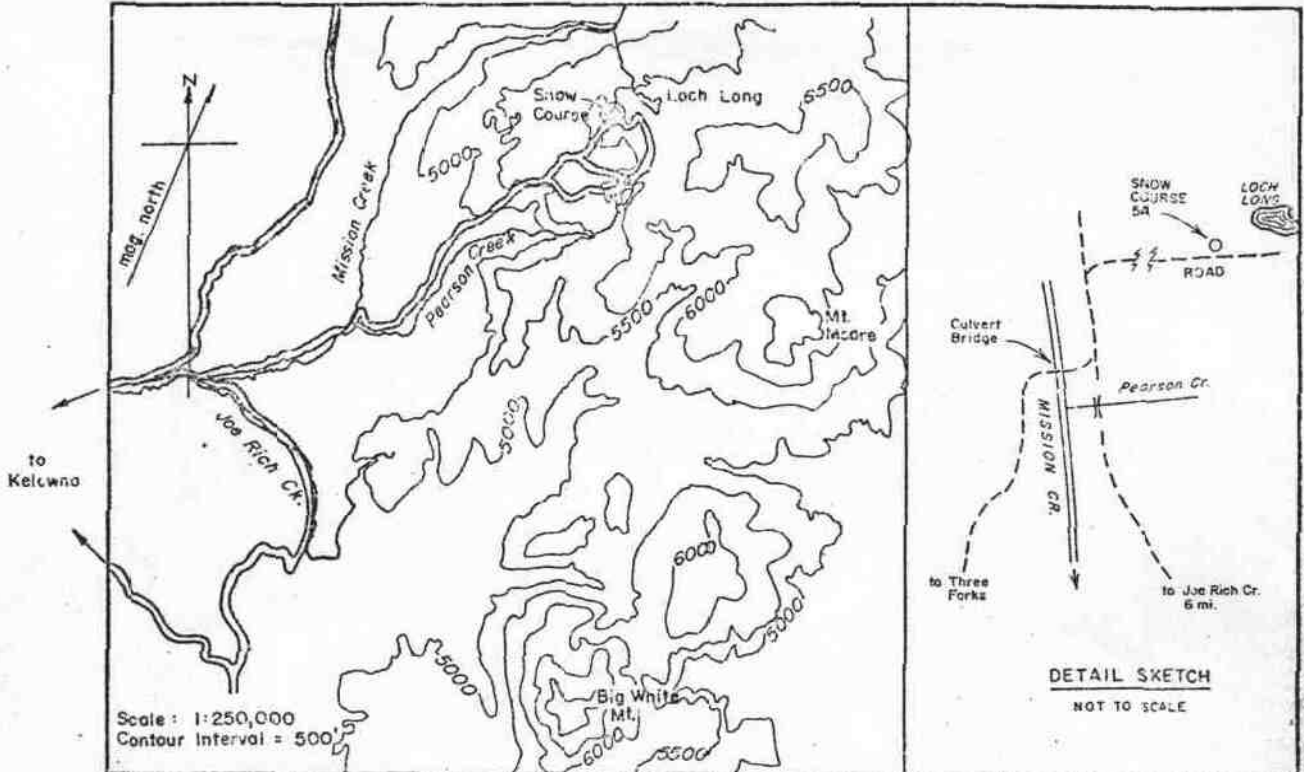
The volume forecasts of stream flow for the ensuing four months are published in the April 1 Snow Survey Bulletin with updates on the next publication on May 1, all based on the assumption that precipitation and temperature patterns will be normal during the forecast period.

B.2 OKANAGAN BASIN SNOW SURVEY NETWORK

In 1935 four snow courses were installed within the Basin and since that time this network has increased to 22. The prime interest at that time as it is today was the need for accurate forecasts of the freshet inflow to Okanagan Lake during the April to July period.

A typical snow course is shown in Figure B.1. It usually consists of five to ten points and is located during the summer months by a survey.

HYDROLOGY DIVISION



NOTES

Reference trees are marked with red metal plates, showing number of and distance to observation points.

Observation points are marked with a picket.

STN	DIST	BRG	REFERENCE POINTS	
1			Spruce	339 14
2	114'	278°	"	200 30
3	86'	279°	"	325 8
4	103'	21°	"	267 21
5	97'	22°	"	172 19
6	102'	18°	"	152 22
7	97'	53°	"	125 17
8	101'	25°	"	77 27
9	109'	48°	"	274 26
10	92'	49°	"	298 48

ELEV. 5850' LAT. 49°57' LONG. 118°55'
 MAP No. 82 E 15W MTH. RGE. Thompson Plateau
 DATE ESTD. July 1936 REVISED 1962, 1969
 WATERSHED Onanagon BASIN Columbia
 REMARKS All bearings are magnetic

WATER INVESTIGATIONS BRANCH
 B.C. WATER RESOURCES SERVICE
 DEPARTMENT OF LANDS FORESTS AND WATER RESOURCES
 COURSE NO. 5A
 MISSION CREEK
 F.L. HUNTER CHIEF, HYDROLOGY DIV.

Figure B.1

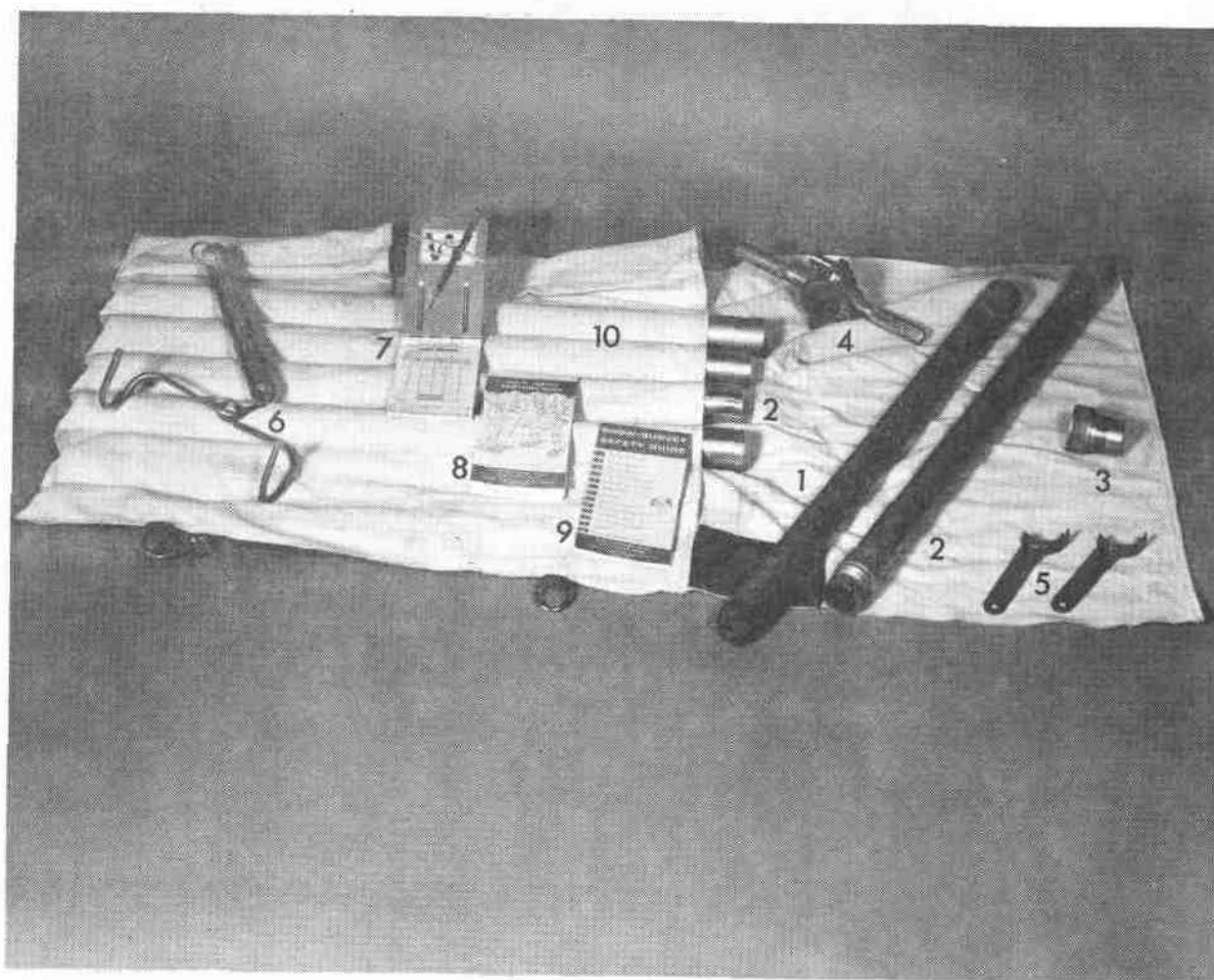
Normally, the starting point is referenced to a high point in a tree where it is readily visible under heavy snow conditions. The course elevation should be high enough to be free from premature melting, not subject to extensive drifting, and shaded to some extent from the direct rays of the sun. The ideal site is a bench on a slight slope with open forest cover interspersed with glades.

Snow sampling equipment consists of 30 inch sections of aluminum alloy tubes slightly less than 1 1/2 inches in diameter which can be coupled together for any desired length according to the depth of snow encountered. They are slotted to render the snow core visible and graduated in inches for depth determinations. The bottom section contains a saw tooth steel cutter for penetrating ice or crusted snow. A tubular spring balance is provided to weigh the tube and snow core. The throat diameter of the cutter is such that one ounce in weight gives an inch of water equivalent. This equipment is shown in Photo B.1.

The procedure in sampling is to force the tube vertically through the snow at each observation point to the ground and is then withdrawn with the snow core. Depth of snow, weight of tube and core and weight of empty tube are recorded. The difference in the two weights in ounces is the water equivalent in inches. This is averaged for each point over the Basin. An overall average is then taken for the course.

Snow survey data provides a sampling of snow conditions within a very limited area at a specific time. In an effort to determine the practicability of continuous measurements over a month at a time, a snow pressure pillow has been installed at the Mission Creek snow course 5A. The pillow measures the pressure exerted by the snow survey pack. It consists of a 12 foot nylon reinforced neoprene container filled with a mixture of 550 gallons of methanol and water attached to a recording device which provides a continuous measure of the snow. Figure B.2 provides a comparison of snow water equivalents obtained through snow surveys with those recorded at the pressure pillow for the average inflow year of 1971, the wet year of 1972 and the dry year of 1973. Graphical correlations of snow pillow results versus snow course measurements for these three years shown in Figure B.2 are promising and these measurements are continuing.

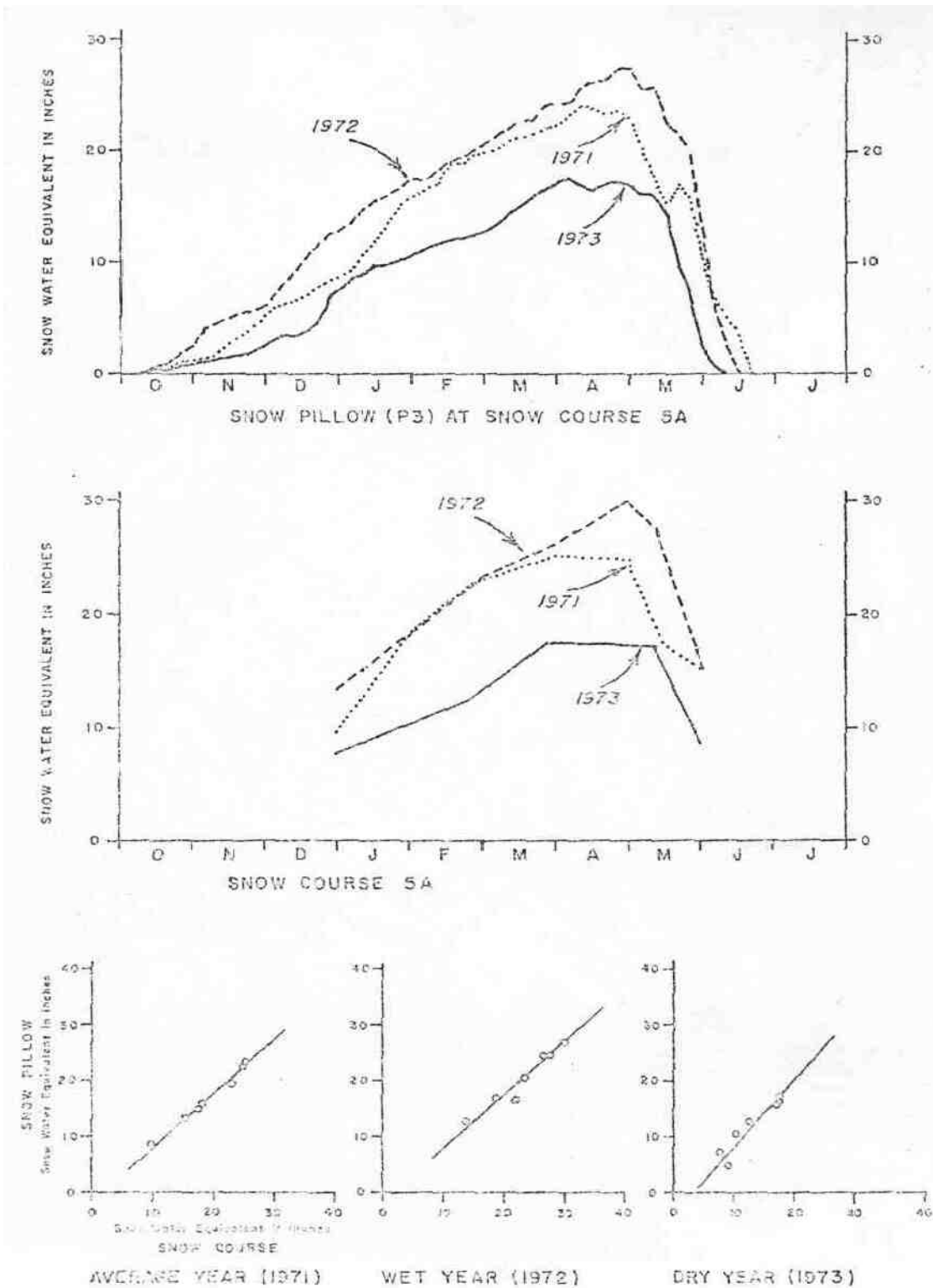
One of the major problems with respect to snow pillows are their vulnerability to damage by wild animals such as bears. Attempts to provide adequate fencing of such areas is difficult and expensive and may affect the snow fall pattern.



Snow Survey Equipment

1. Cutter Section
2. Snow Sampling Tube Section
3. Thread Saver
4. Driving Wrench
5. Coupling Wrenches
6. Weighing Scale and Cradle
7. Note Book
8. Snow Survey Sampling Guide
9. Snow Survey Safety Guide
10. Sampling Equipment Carry Case

Photo B1



COMPARISON OF SNOW PILLOW (P3)
 DATA WITH SNOW COURSE (5A) DATA
 AT SAME LOCATION - MISSION CR.

Figure B.2

B.3 FORECAST INFLOW TO OKANAGAN LAKE

An inflow volume forecast to Okanagan Lake, based primarily on snow survey data, is made April 1 for the period April-July and updated May 1 with a May-July period forecast. These forecasts are made using regression equations developed from statistical analyses of historical data covering the year 1950 to 1973. These analyses involve statistical testing of all the available numerical information which could have a physical influence on Okanagan runoff. The final forecast procedure uses only those predictor variables which were found significant. The computer is being used, not only in the selection of variables, but also in the development of forecast equations. Current procedures are again under review in an attempt to improve the forecast relationships.

The most significant predictor variable is the snow water equivalent on or about April 1 when the snow has reached or is approaching its ripened stage. Additional hydrological parameters used in forecasting the freshet inflow to Okanagan Lake include:

- a) Previous fall and winter precipitation recorded at stations representative of valley points.
- b) Previous year's lake inflows.
- c) The mean and extreme minimum and maximum precipitation that may be expected during the freshet period.
- d) The mean and extreme minimum and maximum lake evaporation that may be expected during the freshet period.

Using the above variables, equations have been derived which forecast the freshet inflow to Okanagan Lake. An example of such an equation is as follows:

$$Y_1 = 0.032 X_1 + 0.514 X_2 + 0.163 X_3 - 1.872$$

where

Y_1 = April to July inclusive inflow to Okanagan Lake in kilo acre-feet.

X_1 = April 1 snow water equivalent plus previous November to March precipitation using selected snow courses and precipitation stations.

X_2 = Previous August to March inclusive inflow in kilo acre-feet.

X_3 = Previous April to July inclusive inflow in kilo acre-feet.

The standard error of forecast for the inflow to Okanagan Lake range from 95,000 acre-feet for March to July inclusive to 82,000 acre-feet for the May to July inclusive period.

All such forecasts are based on normal weather occurring during the freshet period and about one half the error can be explained by variation in the precipitation and temperature pattern. This still leaves some 40,000 to

50,000 acre-feet unexplained which presumably is due to lack of understanding of the hydrology of the area.

B.4 DISCUSSION

Snow surveys are a key part of the water resource management in the Okanagan Basin. Their principal use lies in providing an integrated measurement of winter precipitation generally at the higher elevation where there is little population and few meteorological stations. It has to be emphasized that the snow survey measurements give only an index of the snow cover in the valley rather than an exact measure of the total volume of snow.

The principal use made of the snow survey data collected: the Okanagan has traditionally been as the most significant variable put into the regression equations used to forecast seasonal volume inflow. It is anticipated that this use will continue for many years to come. However, a more recently developed use of the data is as input and update data in short-term forecasting models which attempt to keep a continuous hydrologic budget in the valley. These models which are still at the research and development stage, work on a daily basis in order to simulate the runoff process from snowmelt to lake discharge. The monthly snow course data are essential for initializing and checking the accuracy of such models.

A further limitation in the long-term volume forecasting model as well as the short-term water budget model is the lack of detailed weather forecasting which would provide both expected daily temperature and precipitation several weeks in advance over the basin. Such detailed long range forecasting does not appear to be forthcoming within the present foreseeable future.

B.5 SELECTED SNOW COURSE DATA

Tables B.1 to B.7 are copies of computer print out data for selected snow courses. An explanation of the abbreviations used in these tables is as follows:

MO/DAY = month and day

SNOW = refers to snow depth in inches

W.E. = water equivalent

DENS. = density of snow

TABLE B.1
BOULEAU CREEK - SNOW COURSE DATA

31 BOULEAU CREEK					ELEVATION - 5000 FEET					BOULEAU CREEK					31				
BASIN - COLUMBIA					LATITUDE - 50 DEG 16 MIN														
WATER SHED - OKANAGAN					LONGITUDE - 119 DEG 35 MIN														
JANUARY 1ST (00)					FEBRUARY 1ST (01)					MARCH 1ST (02)					APRIL 1ST (03)				
YEAR	MO/DAY	SNOW	W.E.	DENS	MO/DAY	SNOW	W.E.	DENS	MO/DAY	SNOW	W.E.	DENS	MO/DAY	SNOW	W.E.	DENS	YR		
1947													03/30	22	7.9	.36	47		
1948													03/30	38	9.7	.26	48		
1949													03/29	47	13.8	.29	49		
1950													03/29	47	13.4	.29	50		
1951													03/28	60	17.9	.30	51		
1952													03/30	50	14.1	.22	52		
1953													03/31	33	10.6	.32	53		
1954													03/25	38	9.9	.26	54		
1955													03/31	31	8.7	.28	55		
1956													04/01	57	17.6	.31	56		
1957													04/02	43	13.6	.32	57		
1958													NM				58		
1959									02/27	31	7.1	.23	03/29	47	13.9	.30	59		
1960									02/25	35	12.0	.34	03/26	24	6.8	.28	60		
1961									02/24	34	11.7	.34	03/27	37	11.2	.30	61		
1962					01/28	22	6.1	.28					03/31	38	13.6	.36	62		
1963									02/23	18	4.1	.23	03/26	20	5.0	.28	63		
1964									02/28	36	11.5	.32	03/27	48	13.7	.29	64		
1965									02/27	43	11.6	.27	04/03	36	12.8	.36	65		
1966													04/02	27	9.5	.33	66		
1967									02/28	34	11.5	.34	04/01	38	12.1	.32	67		
1968									02/25	40	11.8	.29	03/31	39	11.7	.30	68		
1969													03/29	39	12.7	.33	69		
1970									02/28	29	8.9	.31	04/01	32	10.2	.32	70		
1971									02/25	41	13.0	.32	03/31	53	15.8	.30	71		
1972									02/26	45	14.3	.32	03/28	44	15.8	.36	72		
1973									03/03	30	8.3	.28	04/01	32	9.9	.31	73		
.....																			
5 YEAR MEAN 11.3 10 YEAR MEAN 10.7 15 YEAR MEAN 12.9																			
1 YEAR MEAN 22 6.1 .28 12 YEAR MEAN 35 10.5 .30 20 YEAR MEAN 39 12.0 .31																			
.....																			
SND YR W.E. YR DEN YR SND YR W.E. YR DEN YR SND YR W.E. YR DEN YR SND YR W.E. YR DEN YR																			
MAX 22 61 6.1 61 .28 61 MAX 45 72 14.3 72 .34 62 MAX 60 51 17.9 51 .36 72																			
MIN 22 61 6.1 61 .28 61 MIN 18 63 4.1 63 .23 63 MIN 20 63 8.6 63 .26 48																			
.....																			
31 BOULEAU CREEK					ELEVATION - 5000 FEET					BOULEAU CREEK					31				
BASIN - COLUMBIA					LATITUDE - 50 DEG 16 MIN														
WATER SHED - OKANAGAN					LONGITUDE - 119 DEG 35 MIN														
MAY 1ST (04)					MAY 15TH (05)					JUNE 1ST (06)					JUNE 15TH (07)				
YEAR	MO/DAY	SNOW	W.E.	DENS	MO/DAY	SNOW	W.E.	DENS	MO/DAY	SNOW	W.E.	DENS	MO/DAY	SNOW	W.E.	DENS	YR		
1947																		47	
1948																		48	
1949																		49	
1950																		50	
1951																		51	
1952																		52	
1953																		53	
1954																		54	
1955																		55	
1956																		56	
1957																		57	
1958																		58	
1959																		59	
1960																		60	
1961	04/24	13	4.0	.31														61	
1962	04/30	22	8.6	.39	05/13	9	3.2	.36										62	
1963	04/23	22	7.4	.34														63	
1964	04/27	13	4.0	.31														64	
1965	04/02	31	10.6	.34	05/17	15	5.6	.37										65	
1966	04/25	25	8.6	.34														66	
1967	04/30	18	6.9	.38														67	
1968	04/30	34	11.6	.34	05/14	21	7.6	.36	05/28	3	1.2	.40					68		
1969		NM																69	
1970	04/29	24	9.1	.36														70	
1971	04/30	28	9.0	.35														71	
1972	04/28	32	11.4	.36														72	
1973	04/29	40	14.7	.37	05/13	27	11.4	.42										73	
1974	04/20	18	6.3	.35														74	
.....																			
5 YEAR MEAN 10.3 10 YEAR MEAN 9.3																			
.....																			
13 YEAR MEAN 25 8.7 .35 4 YEAR MEAN 18 6.5 .39 1 YEAR MEAN 3 1.2 .40																			
.....																			
SND YR W.E. YR DEN YR SND YR W.E. YR DEN YR SND YR W.E. YR DEN YR SND YR W.E. YR DEN YR																			
MAX 40 72 14.7 72 .39 61 MAX 27 72 11.4 72 .42 72 MAX 3 67 1.2 67 .40 67 MAX																			
MIN 13 63M 4.0 63M .31 63 MIN 9 61 3.2 61 .36 61 MIN 3 67 1.2 67 .40 67 MIN																			

TABLE B.2

McCULLOCH - SNOW COURSE DATA

4 MC CULLOCH				ELEVATION - 4200 FEET				MC CULLOCH				4											
BASIN - COLUMBIA				LATITUDE - 49 DEG 47 MIN																			
WATERSHED - OKANAGAN				LONGITUDE - 119 DEG 12 MIN																			
JANUARY 1ST (00)				FEBRUARY 1ST (01)				MARCH 1ST (02)				APRIL 1ST (03)											
YEAR	MO/DAY	SNOW	W.E.	DENS	MO/DAY	SNOW	W.E.	DENS	MO/DAY	SNOW	W.E.	DENS	MO/DAY	SNOW	W.E.	DENS	YR						
1935																	35						
1936																	36						
1937					01/25	25	4.0	.16	03/13	26	6.5	.22 B	04/05	31	7.4	.24	37						
1938					01/28	26	7.0	.27	03/14	28	8.6	.24 B		NH			38						
1939					02/08	29	6.2	.21 B	03/15	31	8.9	.29 B		NH			39						
1940					01/29	13	2.5	.19	02/27	22	4.4	.20	03/27	23	7.0	.30	40						
1941					01/29	19	4.6	.24	02/27	21	4.6	.22	03/28	15	4.4	.29	41						
1942					01/30	16	3.2	.20	03/27	21	4.2	.20	03/30	10	3.7	.17	42						
1943					01/31	29	5.9	.20	02/27	28	6.8	.24	03/31	29	6.1	.21	43						
1944					01/31	15	3.2	.21	02/29	24	5.4	.22	03/28	26	6.4	.25	44						
1945					01/30	22	4.2	.19	02/28	31	6.5	.21	03/28	28	7.9	.28	45						
1946					01/30	34	7.7	.23	02/27	35	9.8	.28	03/24	30	9.4	.31	46						
1947					01/30	25	5.4	.22	02/27	23	6.4	.28	03/28	18	5.6	.31	47						
1948					01/30	18	4.0	.22	02/28	29	6.0	.21	03/27	27	6.6	.24	48						
1949					01/30	27	5.9	.22	02/26	32	6.6	.21	03/28	30	7.1	.24	49						
1950					01/31	25	5.4	.22	02/28	32	7.0	.22	03/30	35	9.5	.27	50						
1951					01/30	21	4.8	.23	02/27	27	7.1	.26	03/30	30	8.3	.28	51						
1952					01/29	31	7.1	.23	02/28	32	8.1	.25	03/30	30	8.0	.27	52						
1953					01/30	18	3.1	.17	02/26	22	4.5	.20	03/29	18	4.5	.25	53						
1954					01/30	26	5.6	.22	02/26	23	5.7	.25	03/30	26	6.2	.24	54						
1955					01/30	14	2.6	.17	02/27	23	4.7	.20	03/30	30	7.1	.24	55						
1956					01/29	30	7.0	.23	02/29	35	9.0	.26	03/30	34	9.6	.28	56						
1957					01/29	25	4.2	.17	02/27	27	5.3	.20	03/30	26	6.1	.23	57						
1958					01/29	22	4.3	.20	02/27	20	5.0	.25	03/31	18	5.2	.29	58						
1959					01/31	29	6.2	.21	02/27	33	7.3	.22	03/30	32	9.0	.23	59						
1960					01/31	18	4.0	.17	02/28	27	5.2	.19	03/28	13	3.1	.34	60						
1961					01/31	18	3.7	.21	02/27	26	5.7	.22	03/30	20	4.4	.22	61						
1962					01/30	32	7.6	.24	02/27	30	8.3	.28	03/29	32	9.3	.29	62						
1963					01/30	14	2.5	.18	02/27	11	2.8	.25	03/31	13	3.4	.26	63						
1964	01/10	20	4.1	.26 B	02/01	26	5.8	.22	03/01	26	7.7	.30	04/01	27	6.9	.33	64						
1965	12/29	17	3.3	.19	01/27	26	5.2	.20	02/25	30	8.2	.27	03/29	28	7.4	.26	65						
1966	12/30	17	2.5	.18	01/29	21	4.0	.22	02/28	22	6.0	.27	03/30	17	5.0	.29	66						
1967	12/30	15	3.4	.23	01/30	23	5.8	.25	02/27	25	6.7	.27	03/30	26	8.2	.32	67						
1968	12/29	17	3.2	.19	01/29	21	4.8	.23	02/28	20	5.1	.24	03/29	18	5.0	.33	68						
1969	12/30	24	3.9	.16	01/28	30	5.0	.17	02/26	34	7.8	.23	03/27	29	6.2	.28	69						
1970	12/30	12	1.8	.15	01/28	23	4.3	.19	02/26	20	5.0	.25	03/29	22	5.8	.26	70						
1971	12/29	19	3.6	.19	01/28	29	4.9	.17	02/25	29	7.1	.24	03/29	35	8.0	.23	71						
1972	12/27	25	5.0	.20	01/29	32	7.4	.23	02/26	33	9.0	.27	03/28	26	6.5	.33	72						
1973	12/28	14	2.2	.16	01/28	16	3.0	.19	02/25	21	4.3	.20	03/28	21	5.7	.27	73						

5 YEAR MEAN				3.3	5 YEAR MEAN				4.9	5 YEAR MEAN				6.6	5 YEAR MEAN				7.2				
9 YEAR MEAN				18	3.2	.18	10 YEAR MEAN				5.1	10 YEAR MEAN				6.7	10 YEAR MEAN				7.1		
36 YEAR MEAN				23	4.9	.21	34 YEAR MEAN				26	6.3	.24	36 YEAR MEAN				25	6.7	.27			
SNO YR				W.E. YR	DEN YR	SNO YR				W.E. YR	DEN YR	SNO YR				W.E. YR	DEN YR	SNO YR				W.E. YR	DEN YR
MAX 25 72				5.0 72	23.67	MAX 34 46				7.7 46	27.38	MAX 35 56				9.8 56	30.64	MAX 35 71				9.6 56	37.41
MIN 12 70				1.8 70	.15 66	MIN 13 40				2.6 63	.16 37	MIN 11 63				2.8 63	.19 60	MIN 10 41				3.1 60	.21 43

4 MC CULLOCH				ELEVATION - 4200 FEET				MC CULLOCH				4											
BASIN - COLUMBIA				LATITUDE - 49 DEG 47 MIN																			
WATERSHED - OKANAGAN				LONGITUDE - 119 DEG 12 MIN																			
MAY 1ST (04)				MAY 15TH (05)				JUNE 1ST (06)				JUNE 15TH (07)											
YEAR	MO/DAY	SNOW	W.E.	DENS	MO/DAY	SNOW	W.E.	DENS	MO/DAY	SNOW	W.E.	DENS	MO/DAY	SNOW	W.E.	DENS	YR						
1935																	35						
1936																	36						
1937																	37						
1938																	38						
1939																	39						
1940																	40						
1941																	41						
1942																	42						
1943																	43						
1944																	44						
1945																	45						
1946	04/30	13	4.1	.32													46						
1947	04/30	1	0.2	.29													47						
1948	04/29	10	4.5	.28													48						
1949	04/29	2	1.1	.55	05/15	0	0.0										49						
1950	04/27	24	7.4	.31	05/15	10	4.0	.40									50						
1951	04/29	7	2.7	.39	05/15	0	0.0										51						
1952	04/30	3	0.9	.30													52						
1953	04/29	4	0.9	.22													53						
1954	04/29	13	3.9	.30	05/19	0	0.0										54						
1955	04/29	22	7.0	.32	05/15	8	2.3	.29									55						
1956	04/30	5	1.5	.30	05/15	1	0.2	.20									56						
1957	04/28	9	2.6	.29	05/15	0	0.0										57						
1958	04/29	6	2.0	.33	05/15	1	0.1	.10									58						
1959	04/29	12	4.5	.37	05/15	4	1.3	.32									59						
1960	04/29	2	0.5	.25	05/15	0	0.0										60						
1961	04/28	5	1.6	.32	05/15	2	0.5	.28									61						
1962	04/29	8	2.8	.35	05/15	3	0.8	.27									62						
1963	04/29	3	0.8	.27	05/15	2	0.4	.20									63						
1964	04/30	13	4.7	.36	05/14	4	1.8	.43									64						
1965	04/28	7	2.8	.40	05/14	2	0.5	.25									65						
1966	04/29	3	0.9	.30	05/15	0	0.0										66						
1967	04/27	14	5.3	.38	05/15	2	0.8	.40									67						
1968	04/30	4	1.5	.37	05/15	1	0.2	.20									68						
1969	04/28	3	1.1	.37	05/14	0	0.0										69						
1970	04/28	14	4.6	.33	05/14	0	0.0										70						
1971	04/29	8	2.7	.34	05/14	0	0.0										71						
1972	04/24	16	6.1	.38	05/10	4	1.3	.32	05/25	0	0.0						72						
1973	04/28	4	1.0	.25	05/13	0	0.0										73						

5 YEAR MEAN				3.1	5 YEAR MEAN				0.3	1 YEAR MEAN				0	0.0								
10 YEAR MEAN				3.1	10 YEAR MEAN				0.5														
15 YEAR MEAN				2.7	15 YEAR MEAN				0.5														
36 YEAR MEAN				9	2.5	.33	23 YEAR MEAN				2	0.5	.32	1 YEAR MEAN				0	0.0				
SNO YR				W.E. YR	DEN YR	SNO YR				W.E. YR	DEN YR	SNO YR				W.E. YR	DEN YR	SNO YR				W.E. YR	DEN YR
MAX 24 50				7.4 50	.55 49	MAX 10 50				4.0 50	.45 64	MAX 0 72				0.0 72	MAX						
MIN 1 47				0.2 47	.20 47	MIN 0 734				0.0 734	.10 58	MIN 0 72				0.0 72	MIN						

TABLE B.3

MISSION CREEK - SNOW COURSE DATA

MISSION CREEK				ELEVATION - 5850 FEET				MISSION CREEK				5A							
BASIN - COLUMBIA				LATITUDE - 49 DEG 57 MIN															
WATERSHED - OKANAGAN				LONGITUDE - 118 DEG 55 MIN															
JANUARY 1ST (00)				FEBRUARY 1ST (01)				MARCH 1ST (02)				APRIL 1ST (03)							
YEAR	NO/DAY	SNOW	W.E.	DENS	NO/DAY	SNOW	W.E.	DENS	NO/DAY	SNOW	W.E.	DENS	NO/DAY	SNOW	W.E.	DENS	YR		
1937									03/19	64	16.8	.35	8	37					
1938									03/18	57	19.6	.34	8	38					
1939									03/24	60	22.3	.37	8	39					
1940									03/27	57	17.9	.31		40					
1941									03/26	46	13.2	.29		41					
1942									03/27	43	11.9	.29		42					
1943									03/29	62	20.4	.33		43					
1944									03/30	57	16.7	.29		44					
1945									03/30	61	19.2	.31		45					
1946									03/29	69	25.6	.37		46					
1947									03/29	51	17.9	.35		47					
1948									03/29	65	21.9	.34		48					
1949									03/30	70	23.0	.33		49					
1950									03/29	72	22.5	.31		50					
1951									03/29	70	23.1	.33		51					
1952									03/30	63	21.1	.33		52					
1953									03/29	54	17.3	.32		53					
1954									03/29	66	21.7	.33		54					
1955									03/30	65	19.6	.30		55					
1956									03/30	74	22.2	.30		56					
1957									03/30	64	20.4	.32		57					
1958									03/29	55	18.6	.34		58					
1959									03/31	74	25.3	.34		59					
1960					01/30	46	11.0	.24	02/26	54	14.1	.26	03/30	40	15.7	.32	60		
1961					01/29	30	8.2	.27	02/27	54	14.2	.26	03/30	58	18.7	.32	61		
1962					01/28	53	15.9	.30	02/26	54	16.8	.31	03/29	61	20.9	.34	62		
1963					01/28	41	9.6	.23	02/27	47	12.0	.26	03/29	52	14.7	.28	63		
1964					03/30	53	14.2	.27	02/27	54	18.5	.34	03/27	74	22.7	.31	64		
1965					01/30	55	14.3	.26	02/26	68	20.5	.30	03/29	68	22.7	.33	65		
1966					01/29	43	10.5	.24	02/25	52	14.7	.28	03/27	52	17.5	.34	66		
1967					01/26	55	17.7	.32	02/27	60	21.0	.35	03/28	68	24.2	.36	67		
1968					01/22	49	15.0	.31	02/27	60	19.4	.32	03/29	62	20.3	.31	68		
1969					01/26	57	16.7	.29	02/26	64	21.1	.33	03/29	61	22.5	.37	69		
1970	01/03	21	5.0	.24	01/31	38	9.6	.25	02/28	38	11.1	.29	03/26	50	14.0	.28	70		
1971	12/29	38	9.6	.25	01/28	67	18.5	.28	02/26	71	22.9	.32	03/29	77	25.1	.33	71		
1972	12/28	50	13.4	.27	01/28	61	18.3	.30	02/28	66	23.3	.35	03/28	75	26.2	.35	72		
1973	12/29	39	7.8	.21	01/29	38	10.3	.27	02/24	43	12.4	.29	03/27	58	17.5	.30	73		
5 YEAR MEAN				14.7	5 YEAR MEAN				18.2	5 YEAR MEAN				21.1					
10 YEAR MEAN				14.5	10 YEAR MEAN				18.5	10 YEAR MEAN				21.3					
15 YEAR MEAN				14.5	15 YEAR MEAN				18.5	15 YEAR MEAN				20.5					
4 YEAR MEAN				37	14 YEAR MEAN				49	14 YEAR MEAN				56	34 YEAR MEAN				62
SNOW YR				8.9	SNOW YR				13.6	SNOW YR				17.3	SNOW YR				20.1
W.E. YR				.24	W.E. YR				.28	W.E. YR				.31	W.E. YR				.32
DEN YR					DEN YR					DEN YR					DEN YR				
MAX				72	MAX				71	MAX				71	MAX				72
MIN				21	MIN				30	MIN				38	MIN				43

MISSION CREEK				ELEVATION - 5850 FEET				MISSION CREEK				5A							
BASIN - COLUMBIA				LATITUDE - 49 DEG 57 MIN															
WATERSHED - OKANAGAN				LONGITUDE - 118 DEG 55 MIN															
MAY 1ST (04)				MAY 15TH (05)				JUNE 1ST (06)				JUNE 15TH (07)							
YEAR	NO/DAY	SNOW	W.E.	DENS	NO/DAY	SNOW	W.E.	DENS	NO/DAY	SNOW	W.E.	DENS	NO/DAY	SNOW	W.E.	DENS	YR		
1937																	37		
1938																	38		
1939																	39		
1940																	40		
1941																	41		
1942																	42		
1943																	43		
1944																	44		
1945																	45		
1946																	46		
1947																	47		
1948																	48		
1949																	49		
1950					05/15	59	24.0	.41	06/01	47	20.1	.43	06/01	18	7.7	.43	50		
1951	04/29	55	21.0	.38	05/15	39	17.8	.46	06/01	18	7.7	.43	06/01	11	5.0	.45	51		
1952	04/30	52	20.0	.38	05/15	35	17.0	.45	06/01	11	5.0	.45	06/01	22	9.6	.44	52		
1953	05/01	56	19.9	.36	05/16	38	16.4	.43	06/01	22	9.6	.44	06/01	32	14.7	.46	53		
1954	05/01	64	24.5	.38	05/15	51	21.6	.42	06/01	32	14.7	.46	06/01	59	21.5	.36	54		
1955	04/30	71	24.4	.34	05/15	62	23.8	.35	06/01	59	21.5	.36	06/01	5	2.0	.40	55		
1956	04/29	46	19.4	.42	05/15	45	18.4	.41	06/01	5	2.0	.40	06/01	2	0.6	.30	56		
1957	04/28	66	22.4	.34	05/15	31	11.3	.36	06/01	0	0.0		06/01	0	0.0		57		
1958	04/29	61	21.8	.35	05/14	35	14.9	.43	06/01	0	0.0		06/01	48	21.6	.45	58		
1959	04/29	60	24.9	.41	05/15	52	23.2	.45	06/01	48	21.6	.45	06/01	33	14.9	.45	59		
1960	04/28	47	17.3	.37	05/14	41	14.5	.35	06/01	33	14.9	.45	06/01	26	11.1	.43	60		
1961	04/29	61	22.3	.37	05/15	59	23.9	.41	06/01	26	11.1	.43	06/01	26	12.1	.47	61		
1962	04/28	47	17.8	.38	05/13	48	18.8	.39	06/01	12	4.6	.38	06/01	45	20.5	.46	62		
1963	04/29	52	14.4	.35	05/14	52	20.2	.39	06/01	12	4.6	.38	06/01	45	20.5	.46	63		
1964	04/28	62	23.9	.39	05/14	58	23.2	.40	06/01	45	20.5	.46	06/01	29	12.6	.43	64		
1965	04/30	40	21.1	.44	06/14	40	18.8	.47	06/01	29	12.6	.43	06/01	22	9.1	.41	65		
1966	04/30	51	18.9	.37	05/14	34	13.7	.40	06/01	22	9.1	.41	06/14	8	4.2	.52	66		
1967	04/28	70	26.1	.37	05/13	59	25.3	.43	06/01	37	18.2	.49	06/13	17	5.4	.32	67		
1968	04/29	65	23.9	.36	05/14	58	22.1	.38	06/01	41	17.0	.41	06/13	0	0.0		68		
1969	04/29	57	21.1	.37	05/14	39	18.2	.47	06/01	13	5.4	.42	06/13	0	0.0		69		
1970	04/27	56	18.3	.31	05/13	46	16.2	.35	06/01	25	10.5	.42	06/13	0	0.0		70		
1971	04/28	64	24.9	.39	05/14	42	17.5	.42	06/01	33	15.3	.46	06/13	0	0.0		71		
1972	04/27	76	30.0	.39	05/12	65	27.4	.42	06/01	44	21.7	.49	06/13	17	5.4	.32	72		
1973	04/27	47	17.4	.37	05/12	44	17.2	.39	06/01	22	8.8	.40	06/15	0	0.0		73		
5 YEAR MEAN				22.3	5 YEAR MEAN				19.3	5 YEAR MEAN				12.3					
10 YEAR MEAN				22.5	10 YEAR MEAN				20.0	10 YEAR MEAN				13.9					
15 YEAR MEAN				21.7	15 YEAR MEAN				20.0	15 YEAR MEAN				13.0					
23 YEAR MEAN				50	23 YEAR MEAN				46	23 YEAR MEAN				26	3 YEAR MEAN				8
SNOW YR				21.7	SNOW YR				19.1	SNOW YR				11.4	SNOW YR				3.2
W.E. YR				.37	W.E. YR				.41	W.E. YR				.44	W.E. YR				.38
DEN YR					DEN YR					DEN YR					DEN YR				
MAX				72	MAX				72	MAX				72	MAX				72
MIN				46	MIN				27	MIN				0	MIN				0

TABLE B.4
POSTILL LAKE - SNOW COURSE DATA

55 POSTILL LAKE				ELEVATION - 4500 FEET				POSTILL LAKE				55												
BASIN - COLUMBIA				LATITUDE - 50 DEG 0 MIN																				
WATERSHED - OKANAGAN				LONGITUDE - 119 DEG 14 MIN																				
JANUARY 1ST (00)				FEBRUARY 1ST (01)				MARCH 1ST (02)				APRIL 1ST (03)												
YEAR	MO/DAY	SNOW	W.E.	DENS	MO/DAY	SNOW	W.E.	DENS	MO/DAY	SNOW	W.E.	DENS	MO/DAY	SNOW	W.E.	DENS	YR							
1950	02/01	27	7.0	.26	02/28	37	7.7	.21	03/31	41	12.1	.30					50							
1951	01/31	27	6.5	.24	02/28	34	8.7	.26	03/31	43	11.2	.26					51							
1952	01/30	33	7.4	.22	02/28	34	9.1	.27	03/31	38	10.0	.29					52							
1953	01/31	19	3.8	.20	02/28	26	5.3	.20	03/30	28	7.3	.26					53							
1954	01/30	30	7.1	.22	03/01	28	7.5	.27	03/31	32	8.1	.25					54							
1955	02/01	17	3.6	.21	02/28	26	5.4	.21	03/31	31	7.9	.25					55							
1956	01/31	31	8.2	.26	03/01	38	9.5	.25	03/29	42	11.1	.26					56							
1957	01/30	27	5.1	.20	02/28	29	5.9	.20	NM								57							
1958	01/31	26	4.1	.16	02/28	27	7.4	.27	03/28	23	7.6	.33					58							
1959	01/30	34	6.4	.19	02/27	38	8.8	.23	03/30	39	11.5	.29					59							
1960	01/27	22	4.4	.20	02/29	27	6.0	.22	04/01	19	4.9	.26					60							
1961	01/30	20	4.3	.21	02/27	29	6.6	.23	03/20	29	7.7	.27					61							
1962	01/30	30	8.0	.27	02/28	30	8.4	.28	03/30	34	10.2	.30					62							
1963	01/29	18	3.3	.18	02/28	20	4.1	.20	03/28	21	4.3	.20					63							
1964	NM				02/28	27	7.0	.26	03/30	31	9.2	.30					64							
1965	01/29	29	5.7	.20	02/28	32	8.8	.27	03/31	31	9.6	.31					65							
1966	01/28	25	3.8	.23	02/28	29	7.8	.27	03/31	24	7.2	.30					66							
1967	01/30	26	7.0	.27	02/27	28	8.0	.29	03/30	29	9.2	.32					67							
1968	01/30	26	6.6	.25	02/28	26	7.6	.29	03/29	27	8.4	.31					68							
1969	01/31	32	5.7	.18	03/03	33	8.0	.29	03/31	30	8.6	.29					69							
1970	01/30	24	5.0	.21	02/27	24	6.6	.27	03/31	28	7.7	.27					70							
1971	01/29	30	7.3	.24	02/26	34	8.2	.24	03/31	42	11.6	.28					71							
1972	01/31	33	8.5	.26	02/29	33	9.9	.30	03/29	31	11.2	.36					72							
1973	01/30	20	4.1	.20	02/27	24	5.0	.21	03/30	30	8.6	.29					73							

				5 YEAR MEAN	6.1		5 YEAR MEAN	7.5		5 YEAR MEAN	9.5													
				10 YEAR MEAN	5.9		10 YEAR MEAN	7.7		10 YEAR MEAN	9.1													
				15 YEAR MEAN	5.8		15 YEAR MEAN	7.4		15 YEAR MEAN	8.7													
				23 YEAR MEAN	26	5.9	.22	24 YEAR MEAN	30	7.4	.25	23 YEAR MEAN	31	8.9	.28									

SND YR				W.E. YR	DEN YR	SND YR	W.E. YR	DEN YR	SND YR	W.E. YR	DEN YR	SND YR	W.E. YR	DEN YR										
MAX				34	59	8.5	72	.27	67	MAX	38	59M	9.9	72	.30	72	MAX	43	51	12.1	50	.36	72	
MIN				17	55	3.3	63	.16	58	MIN	20	63	4.1	63	.20	57	MIN	19	60	4.3	63	.20	63	

SND YR				W.E. YR	DEN YR																			

SND YR				W.E. YR	DEN YR	SND YR	W.E. YR	DEN YR	SND YR	W.E. YR	DEN YR	SND YR	W.E. YR	DEN YR										
MAX				32	50	11.1	50	.39	59	MAX	17	72	7.1	72	.47	59	MAX	0	72	0.0	72	MAX		
MIN				11	65	3.4	63	.28	63	MIN	7	59	2.8	64	.35	64	MIN	0	72	0.0	72	MIN		

POSTILL LAKE
JUNE 15TH (04)
MO/DAY SNOW W.E.

SND YR W.E. YR

TABLE B.5

SILVERSTAR MOUNTAIN - SNOW COURSE DATA

99 SILVER STAR MOUNTAIN				ELEVATION - 6050 FEET				SILVER STAR MOUNTAIN				99																							
BASIN - COLUMBIA				LATITUDE - 50 DEG 22 MIN																															
WATERSHED - OKANAGAN				LONGITUDE - 119 DEG 3 MIN																															
JANUARY 1ST (00)				FEBRUARY 1ST (01)				MARCH 1ST (02)				APRIL 1ST (03)																							
YEAR	MO/DAY	SNOW	W.E.	DENS	MO/DAY	SNOW	W.E.	DENS	MO/DAY	SNOW	W.E.	DENS	MO/DAY	SNOW	W.E.	DENS	YR																		
1959					02/01	64	18.7	.29	02/28	75	23.6	.31	04/01	86	30.2	.35	59																		
1960					01/31	55	15.8	.29	03/01	68	19.1	.28	03/31	60	16.3	.27	60																		
1961					01/31	42	11.7	.28	02/27	64	16.4	.26	04/01	69	17.8	.26	61																		
1962					01/29	56	16.0	.29	03/01	55	16.3	.33	03/31	66	18.4	.28	62																		
1963					01/27	42	11.1	.26	02/28	49	14.2	.39	03/28	57	17.5	.31	63																		
1964	01/03	41	9.9	.24	02/01	66	20.1	.30	02/29	75	25.8	.34	03/27	88	31.6	.36	64																		
1965	12/30	49	11.0	.22	02/01	61	17.7	.29	02/26	73	25.0	.34	03/31	72	28.0	.39	65																		
1966	12/31	45	8.9	.20	01/31	60	16.6	.28	02/28	66	23.5	.36	03/31	61	26.0	.43	66																		
1967	01/03	57	18.7	.33	01/30	76	25.7	.34	02/27	77	29.5	.38	03/31	90	36.9	.41	67																		
1968					01/31	70	24.3	.35	03/02	74	28.8	.39	03/28	86	32.8	.38	68																		
1969	01/03	70	20.9	.30	02/04	78	28.4	.36	02/26	87	32.8	.38	03/28	85	35.5	.42	69																		
1970	12/30	33	9.1	.28	01/30	54	15.2	.28	02/27	52	16.1	.35	04/01	66	22.6	.34	70																		
1971	01/03	56	16.0	.29	01/30	72	22.6	.31	03/02	82	29.2	.36	03/27	93	34.8	.37	71																		
1972	12/31	66	19.8	.30	01/29	81	27.5	.34	02/28	88	32.6	.37	03/26	102	41.0	.40	72																		
1973	01/02	50	13.5	.27	01/28	51	15.3	.30	02/25	58	19.2	.33	04/01	74	26.9	.36	73																		

5 YEAR MEAN				15.9	5 YEAR MEAN				21.8	5 YEAR MEAN				26.4	5 YEAR MEAN				32.2																
10 YEAR MEAN					10 YEAR MEAN				21.3	10 YEAR MEAN				26.4	10 YEAR MEAN				31.6																
15 YEAR MEAN					15 YEAR MEAN				19.1	15 YEAR MEAN				23.7	15 YEAR MEAN				27.8																
9 YEAR MEAN				52	14.2	.27	62				19.1	.31	70				23.7	.34	77				27.8	.36											
SNO YR				W.E. YR	DEN YR	SNO YR				W.E. YR	DEN YR	SNO YR				W.E. YR	DEN YR	SNO YR				W.E. YR	DEN YR												
MAX				70.69	20.9	.69	33.67	MAX				81.72	28.4	.69	36.69	MAX				88.72	32.8	.69	39.68	MAX				102.72	41.0	.72	43.66				
MIN				33.70	8.9	.65	.20	66	MIN				42.63M	11.1	.63	.26	63	MIN				49.63	14.2	.63	.26	61	MIN				57.63	16.3	.60	.26	61

SILVER STAR MOUNTAIN			
JUNE 15TH (07)			
MO/DAY	SNOW	W.E.	
06/16	4	1.8	
06/13	10	6.1	
06/10	14	5.9	
06/11	7	4.0	
06/17	0	0.0	

5 YEAR MEAN			
	7	3.6	

SNO YR			
W.E. YR	YR	DEN	
MAX	14.71	6.1	67
MIN	0.73	0.0	73

99 SILVER STAR MOUNTAIN				ELEVATION - 6050 FEET				SILVER STAR MOUNTAIN				99																					
BASIN - COLUMBIA				LATITUDE - 50 DEG 22 MIN																													
WATERSHED - OKANAGAN				LONGITUDE - 119 DEG 3 MIN																													
MAY 1ST (04)				MAY 15TH (05)				JUNE 1ST (06)				JUNE 15TH (07)																					
YEAR	MO/DAY	SNOW	W.E.	DENS	MO/DAY	SNOW	W.E.	DENS	MO/DAY	SNOW	W.E.	DENS	MO/DAY	SNOW	W.E.	DENS	YR																
1959	04/30	67	29.3	.42	05/14	61	28.3	.46	06/01	28	20.6	.54					59																
1960	04/30	53	22.0	.38	05/16	44	17.7	.40	05/31	45	21.6	.48					60																
1961	04/29	72	25.0	.36	05/15	62	26.0	.42	06/01	12	5.4	.45					61																
1962	04/30	56	15.0	.28	05/15	50	19.9	.40	06/01	20	9.2	.46					62																
1963	04/30	58	19.6	.34	05/15	56	23.3	.42	05/31	12	5.6	.47					63																
1964	04/30	80	32.4	.40	05/15	70	33.0	.47	05/31	44	25.0	.57	06/16	4	1.8	.45	64																
1965	05/03	59	22.0	.44	05/14	40	19.4	.48	06/01	21	11.0	.52					65																
1966	04/28	52	25.4	.43	05/13	43	20.4	.47	05/31	20	10.2	.51					66																
1967	04/27	85	38.9	.44	05/12	79	38.9	.49	05/30	49	27.0	.55	06/13	10	6.1	.61	67																
1968	04/30	43	35.1	.42	05/15	68	30.2	.44	05/29	41	21.0	.51					68																
1969	04/25	74	33.9	.46	05/15	49	27.3	.56	05/30	15	7.6	.51					69																
1970	04/29	63	24.5	.39	05/14	46	19.9	.43	05/28	21	9.3	.44					70																
1971	05/02	73	33.5	.46	05/16	54	22.5	.42	05/31	29	13.9	.48	06/10	14	5.9	.42	71																
1972	04/22	103	44.2	.43	05/13	82	40.0	.49	05/27	60	32.6	.54	06/11	7	4.0	.57	72																
1973	04/29	63	25.6	.41	05/13	52	23.4	.45	05/27	28	12.5	.45	06/17	0	0.0		73																

5 YEAR MEAN				30.5	5 YEAR MEAN				26.6	5 YEAR MEAN				15.2	5 YEAR MEAN				3.6														
10 YEAR MEAN				29.2	10 YEAR MEAN				27.5	10 YEAR MEAN				17.0	10 YEAR MEAN				15.5														
15 YEAR MEAN					15 YEAR MEAN				26.0	15 YEAR MEAN				15.5	15 YEAR MEAN				15.5														
14 YEAR MEAN				68	27.4	.40	57				26.0	.46	30				15.5	.51	5 YEAR MEAN				7	3.6	.51								
SNO YR				W.E. YR	DEN YR	SNO YR				W.E. YR	DEN YR	SNO YR				W.E. YR	DEN YR	SNO YR				W.E. YR	DEN YR										
MAX				103.72	44.2	.72	44.71	MAX				82.72	40.0	.72	56.69	MAX				60.72	32.6	.72	57.64	MAX				14.71	6.1	67			
MIN				50.65	15.8	.62	.28	62	MIN				40.65	17.7	.60	.40	62	MIN				12.63M	5.4	.61	.44	70	MIN				0.73	0.0	73

TABLE B.7

WHITEROCKS MOUNTAIN - SNOW COURSE DATA

70		WHITE ROCKS MOUNTAIN				ELEVATION - 6000 FEET				WHITE ROCKS MOUNTAIN				70					
		BASIN - COLUMBIA				LATITUDE - 50 DEG 1 MIN													
		WATERSHED - OKANAGAN				LONGITUDE - 119 DEG 45 MIN													
JANUARY 1ST (00)				FEBRUARY 1ST (01)				MARCH 1ST (02)				APRIL 1ST (03)							
YEAR	MO/DAY	SNOW	W.E.	DENS	MO/DAY	SNOW	W.E.	DENS	MO/DAY	SNOW	W.E.	DENS	MO/DAY	SNOW	W.E.	DENS	YR		
1953													03/31	68	22.6	.33	A 53		
1954									02/28	58	15.2	.26	03/31	NM			54		
1955									02/28	54	15.6	.29	03/31	62	19.8	.32	55		
1956									02/27	NM			03/29	74	25.4	.34	A 56		
1957									02/28	54	15.6	.29	04/01	NM			57		
1958									03/02	67	21.1	.31	03/30	78	24.1	.31	58		
1959									02/29	45	12.9	.29	04/01	42	13.7	.33	A 59		
1960									02/28	57	14.5	.25	03/30	63	20.2	.32	60		
1961									03/01	55	17.8	.32	03/31	58	19.7	.34	61		
1962									03/01	42	11.4	.27	04/01	50	13.2	.26	62		
1963									03/02	62	20.0	.32	04/01	68	23.4	.34	63		
1964									02/25	62	19.9	.32	03/31	62	24.6	.40	64		
1965									02/28	52	18.1	.35	03/26	60	22.0	.37	65		
1966									02/27	65	24.8	.38	03/29	75	30.0	.40	66		
1967									02/29	63	22.8	.36	03/27	67	24.4	.36	67		
1968									02/26	63	20.5	.33	03/31	58	21.3	.37	68		
1969									02/26	46	15.3	.33	03/30	54	18.5	.34	69		
1970									02/25	77	24.7	.32	03/29	86	34.1	.39	70		
1971					01/28	66	21.8	.33	02/28	77	27.3	.36	03/29	81	33.6	.41	71		
1972					01/30	43	12.2	.28	02/27	54	16.6	.31	03/30	64	23.6	.37	72		
1973																			
										5 YEAR MEAN		20.9		5 YEAR MEAN		26.2			
										10 YEAR MEAN		21.0		10 YEAR MEAN		25.5			
										15 YEAR MEAN		19.2		15 YEAR MEAN		23.1			
										18 YEAR MEAN		59		19 YEAR MEAN		65			
										19 YEAR MEAN		18.9		19 YEAR MEAN		22.9			
										19 YEAR MEAN		.32		19 YEAR MEAN		.35			
3 YEAR MEAN				60				18.5				.31							
SNO YR		W.E. YR		DEN YR		SNO YR		W.E. YR		DEN YR		SNO YR		W.E. YR		DEN YR			
MAX		70 71		21.8 72		.33 72		MAX 77 72M		27.5 72		.38 67		MAX 88 71		34.1 71			
MIN		43 73		12.2 73		.28 73		MIN 42 63		11.4 63		.25 61		MIN 42 60		13.2 63			

70		WHITE ROCKS MOUNTAIN				ELEVATION - 6000 FEET				WHITE ROCKS MOUNTAIN				70											
		BASIN - COLUMBIA				LATITUDE - 50 DEG 1 MIN																			
		WATERSHED - OKANAGAN				LONGITUDE - 119 DEG 45 MIN																			
MAY 1ST (04)				MAY 15TH (05)				JUNE 1ST (06)				JUNE 15TH (07)													
YEAR	MO/DAY	SNOW	W.E.	DENS	MO/DAY	SNOW	W.E.	DENS	MO/DAY	SNOW	W.E.	DENS	MO/DAY	SNOW	W.E.	DENS	YR								
1953																	53								
1954																	54								
1955																	55								
1956																	56								
1957																	57								
1958																	58								
1959																	59								
1960																	60								
1961																	61								
1962																	62								
1963																	63								
1964																	64								
1965																	65								
1966																	66								
1967																	67								
1968																	68								
1969																	69								
1970																	70								
1971	04/28	67	30.6	.46													71								
1972	04/27	76	35.9	.47	05/12	68	32.5	.48	05/26	44	22.1	.50	06/13	1	0.3	.30	72								
1973	04/27	47	18.4	.39	05/11	39	15.9	.41	05/30	6	2.8	.47	06/15	0	0.0		73								
										3 YEAR MEAN		63		28.3		.45		3 YEAR MEAN		45		20.8		.46	
										2 YEAR MEAN		25		12.4		.50		2 YEAR MEAN		1		0.1		.30	
SNO YR				W.E. YR				DEN YR				SNO YR				W.E. YR				DEN YR					
MAX		76 72		35.9 72		.47 72		MAX 68 72		32.5 72		.48 58		MAX 44 72		22.1 72		.50 72		MAX 1 72		0.3 72		.30 72	
MIN		47 73		18.4 73		.39 73		MIN 29 58		13.9 58		.41 73		MIN 6 73		2.8 73		.47 73		MIN 0 73		0.0 73		.30 72	