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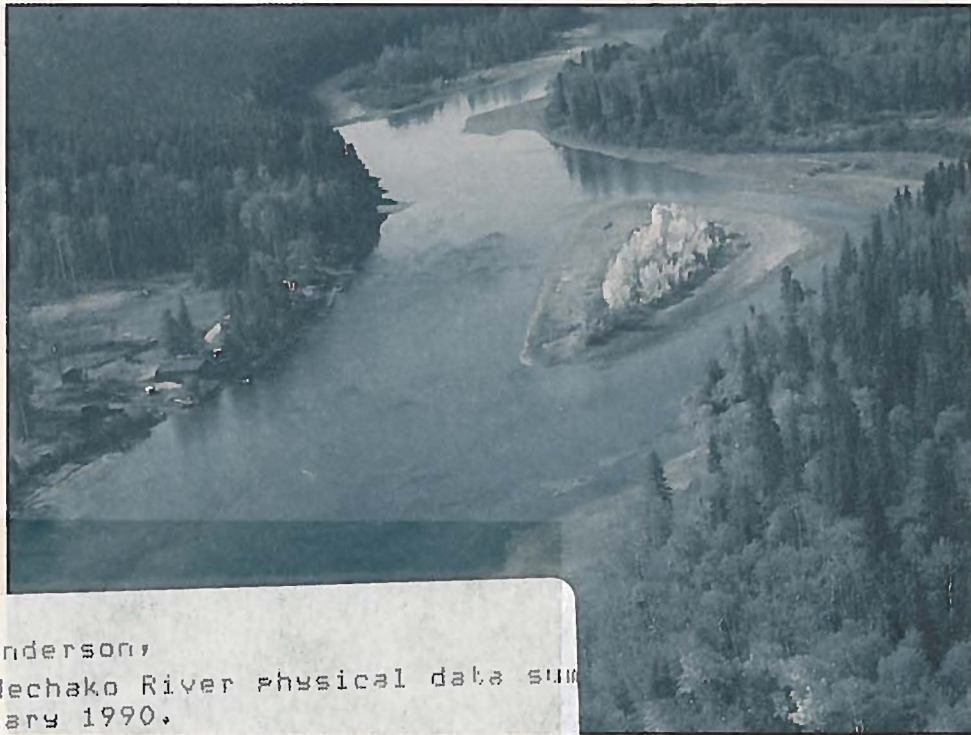
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NECHAKO FISHERIES CONSERVATION PROGRAM

NECHAKO RIVER PHYSICAL DATA SUMMARY 1990

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Data Report No. M90-5



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**NECHAKO RIVER
PHYSICAL DATA SUMMARY 1990**

NECHAKO FISHERIES CONSERVATION PROGRAM

Data Report No. M90-5

Prepared by:
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Department of Fisheries and Oceans
April 1993



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ABSTRACT

All available 1990 meteorological and hydrological data for the Nechako River are presented. These data include observations of air temperature, water temperature and discharge volumes. The data for the period of record have been updated and compared with historical data. The long term air and water temperature records indicate that 1990 was a warmer year than average when compared to historical means.

INTRODUCTION

The objective of this report is to compile all available 1990 meteorological and hydrological data for the Nechako River. This is part of an ongoing commitment to provide a consistent database for analysis and interpretation of Nechako River data. It is the sixth in an ongoing series of reports compiling Nechako River physical data.

These data have been collected by various agencies and companies, including Atmospheric Environment Service (AES), Water Survey of Canada (WSC), Alcan, Triton Environmental Consultants Ltd. (TECL), and the Department of Fisheries and Oceans (DFO). Data sources where available are cited in the report, but in some cases this report is the only published record of these data. For data which are published elsewhere, the primary source is cited, and the numbers have been carefully checked to ensure no discrepancies. All data for the calendar year of 1990 are included, with the exception of accumulated degree day data which are calculated for the winter of 1989/90.

METHODS

Meteorological Data - Department of Fisheries and Oceans

Daily maximum and minimum air temperatures were measured with a mercury filled maximum-minimum thermometer, housed in a standard Stevenson screen. This station was located at Bert Irvine's lodge approximately 19 km downstream of Kenney Dam. The maximum and minimum temperatures are recorded once daily, at 9:00 AM, in °C rounded to the nearest 1°C. These values are recorded for the date of the observation. Although the minimum value is reported from the midnight - 9:00 AM period of that date, the maximum value would typically have occurred in the mid-day to late afternoon period of the previous day. Consequently, the maximum value of the day is recorded under the

previous day's date, as is standard practice with the Atmospheric Environment Service for manual stations visited once daily. This data transformation also makes the Irvine's temperature record more directly comparable with the AES data for Vanderhoof and Fort Fraser. Spot calibration checks were made periodically on this station, using a precision glass calibration thermometer, accurate to 0.1°C.

An air temperature probe was installed at the Data Collection Platform (DCP) station in 1987 to monitor hourly air temperatures and to calculate the maximum, minimum and mean daily air temperatures. These data are the primary data source for air temperatures at Irvine's. The DFO data are used for back-up.

Meteorological Data - Atmospheric Environment Service

Observations of maximum and minimum air temperatures at Fort Fraser 13S (13 miles south of Fort Fraser on the Nechako River at Larson's) and Vanderhoof were made twice daily, and read to the nearest 0.1°C. The "climatological day" for the minimum temperature ends with the evening observation while those for the maximum temperature ended with the morning observation of the following day.

Freezing degree days, or the seasonal total accumulated degree days below 0°C, were calculated by summing the magnitude of departure of mean daily temperature below 0°C to the first day in spring when mean daily temperatures rose and remained above zero. These data give a quantitative index of the overall severity of winter, which has been demonstrated to correlate well with the presence and duration of river ice (Michel and Berenger 1972). Each winter of record has been assigned a plotting position which is defined as the probability of exceeding a certain return period, with the cumulation of 1700 degree days below 0°C having a 1 in 10 return period (Blachut 1988). The graph of the frequency of occurrence of total seasonal cumulative degree days

below 0°C at Vanderhoof is included as Figure 10 in Blachut (1988).

Water Temperature

Mean daily water temperatures were recorded at Irvine's and Greer Creek stations with Weksler recording thermographs. The instruments were calibrated regularly by spot checks using a hand held precision thermometer and, where required, a correction was applied to the raw data. In general, the thermograph at Irvine's appeared to read 0.5°F lower than spot recordings during cold weather, while no correction factor was required during warmer months. Agreement between thermographs and spot recordings were typically poor as 0°C was approached, so the presence of a solid ice cover on the adjacent WSC record was used as a zero calibration (D. Calkins, US Army Corps of Engineers, pers. comm.). Temperatures were read directly off the chart to the nearest 0.5°F. The mean daily temperature was obtained by averaging the daily maximum and minimum values, and then converting to °C. The values in °C are given to the nearest 0.1°C to prevent a rounding error in conversion.

Two thermistor type temperature probes at the DCP station Nechako below Cheslatta Falls (Irvine's) monitored hourly air and water temperatures. These probes were calibrated with hand held thermometers routinely. Water Survey of Canada maintains both the water and air temperature probes as part of the DCP apparatus, but data reduction is the responsibility of the end user. The Department of Fisheries and Oceans reduced the water and air temperature data from the raw form supplied by AES. The daily maximum, minimum and mean temperatures were calculated from a range of the 24 hourly values.

The DCP data are considered the primary source of water temperature data for the station at Irvine's, due to the superior quality of the probe and the lack of drift in calibration which the Weksler thermograph experiences. Therefore, the DCP data were used in further analysis and the Weksler data were only included as back-up to the primary source. The two data sets have shown minor differences but no attempt has been made to reconcile these discrepancies.

Water temperatures were also monitored on the Nechako, Stuart and Nautley Rivers during July and August by Triton Environmental Consultants Ltd. using 7 day mechanical thermographs. Calibrations were performed

weekly using hand held thermometers. The data sets produced were corrected using the calibration checks.

Three additional water temperature monitoring stations were installed in November, 1989 using Weksler 31 day and 7 day recording thermographs. The stations were subsequently upgraded to dataloggers during 1990. The stations were located at the Ft. Fraser municipal water intake, Nautley River approximately 400 m above the bridge and Vanderhoof upstream of Stoney Creek.

The water temperature data for Irvine's were used to calculate the statistical, accumulated degree days above 0°C. This value is normally calculated by the sum or cumulation of the departure of mean daily temperature above 0°C, commencing with the date of peak chinook spawning (September 14, 1989), which was obtained from Birch et al. (1993). The date of peak spawning was defined as the date of the peak number of fish on redds. The ATU data can be used in the analysis of rates of hatch and emergence for salmonids.

Discharge Data

The Skins Lake Spillway and Kemano Powerhouse data were supplied to DFO and Water Survey of Canada by Alcan, which WSC in turn reports directly. Discharges for Skins Lake Spillway were obtained from a gate opening-discharge rating curve. Discharges at the Kemano Powerhouse were calculated using the amount of power generated and the turbine efficiency.

The checked and revised mean daily discharges for 1990 as approved by WSC for each of the four standard WSC stations, Nechako River below Cheslatta Falls, Nechako at Vanderhoof, Nautley below Fort Fraser and Stuart River near Ft. St. James were obtained from analog stage recorders, which were digitized and integrated. Even when a DCP station was present (i.e. - Nechako below Cheslatta Falls), the DCP data were only used as preliminary information and the final records were prepared from the analog charts. Theoretically, the two modes of data storage should produce identical results, as they are driven by a single sensor in the river.

Long Term Records

To assist in placing the year of 1990 in a longer term context, the data for the period of record have been updated with the inclusion of the 1990 data.

RESULTS

Meteorological Data - Department of Fisheries and Oceans

WSC-DCP data of maximum, minimum and mean daily air temperatures at the DCP station at Irvine's are presented in Tables 1 - 13.

Meteorological Data - Atmospheric Environment Service

Maximum, minimum and mean daily and mean monthly air temperatures for the Ft. Fraser 13S and Vanderhoof climatological stations for the calendar year are reported in Tables 14 - 39.

Accumulated degree days below 0°C at Irvines, Ft. Fraser 13S and Vanderhoof for the winter of 1989-90 are shown in Tables 40 - 42.

Water Temperature Data

Maximum, minimum and mean daily and monthly water temperatures of the Nechako River at Irvine's and at Greer Creek stations are shown in Tables 43 - 55 and 56 - 68 respectively.

Results of maximum, minimum and mean daily water temperatures on the Nechako at Ft. Fraser, Vanderhoof, Nautley River and the confluence with the Stuart River are presented in Tables 69 - 81, 82 - 90, 91 - 100 and 101, respectively.

Accumulated thermal degree units of water temperature for the Nechako River at Irvine's DCP station reached 1000 ATU's on May 2, 1990 (Table 102).

Discharge Data

WSC data of mean daily and monthly discharges at Skins Lake spillway and Kemano powerhouse resulted in annual mean discharges of 67.6 and 120.0 m³/s for 1990. (Tables 103 - 104).

Mean annual discharges calculated from mean daily and mean monthly discharges recorded at the following WSC stations are as follows (Tables 105 - 108): Nechako River below Cheslatta Falls 70.1 m³/s; Nautley River near Ft. Fraser, 25.1 m³/s; Nechako River at Vanderhoof, 103.5 m³/s; and Stuart River near Ft. St. James, 123.3 m³/s.

Long Term Records

A pattern of warmer years is exhibited at the Nechako at Irvine's station. At this location, the mean annual 1990

air temperature was 4.0°C (Table 1) compared to the long term (9 year) mean annual air temperature of 2.5°C (Table 109). These data must be interpreted with caution as the long term record at Irvine's exists for only 6 years.

Mean monthly water temperatures for 1990 at Irvine's were generally higher than the 10 year mean (Table 110) except the months of February, May, June, October, November and December which were slightly lower than the long term average.

At the Ft. Fraser 13S AES station, the mean annual air temperature was 3.3°C in 1990 (Table 14), compared to the long term (16 year) mean annual air temperature of 2.6°C (Table 111). The seasonal accumulated degree days below 0°C for Ft. Fraser was 725.3 (Table 112), making the winter of 1989-90 the second warmest of the 16 years of record (Table 113).

The long term AES air temperature records for Vanderhoof also indicate that 1990 was a warmer year than average. The mean annual 1990 air temperature for this station calculated as the average of the mean monthly air temperatures was 4.0°C (Table 27), compared to the long term (63 year) average of 2.5°C (Table 114). The seasonal accumulated degree days below 0°C (indicating the severity of individual winters) at Vanderhoof was 733.7 (Table 115), making the winter of 1989-90 the seventh warmest of the 52 years of record (Table 116).

Water Survey of Canada historical summary discharge data have been updated to include 1990 records (Table 117 - 123). The flows in the Nautley and Stuart Rivers were compared to the average discharges over the period of record. Since these rivers are unregulated, the discharge records will reflect the changes in the natural hydraulic regime. The 1990 flows in the Nautley River (Table 121) were 80% of the long term (39 year) average. The Stuart River 1990 flows (Table 122) were 96% of the long term (61 year) average.

The 1990 discharge data for all stations monitored were also compared to the average discharges for the 11 year period 1980 - 1990, the years in which complete data sets are available (Table 123). These data indicate that flows were generally higher than the 11 year average.

The length of ice period at Vanderhoof for the winter of 1989-90 (Table 124) was 148 days, which is 13 days longer than the long term mean based on 34 years of record.

REFERENCES

- Birch, G.J., J.S. Mathers and W.O. Rublee. 1993. *Nechako and Stuart Rivers chinook spawner enumeration 1989. Nechako Fisheries Conservation Program, Data Report No. M89-1.*
- Blachut, S.P. 1988. *The winter regime of the Nechako River, British Columbia. Canadian Manuscript of Fisheries and Aquatic Sciences, # 1964, 145pp.*
- Michel, B. and D. Berenger. 1972. *L'hiver glaciologique le long du fleuve St. Laurent, In: The Role of Ice and Snow in Hydrology. Proceedings of the Banff Symposium. International Association of Hydrological Sciences, Publication #107, 2 volumes, p. 1251-1282.*
- Stevens, H.H., J.F. Ficke and G.F. Smoot. 1975. *Water Temperature - Influential factors, field measurement and data presentation. United States Geological Survey, Techniques of Water Resources Investigations, Book 1, Chapter D1, 65pp.*

TABLE 1
1990 Mean Daily Air Temperatures (°C) Nechako River at Irvine's
(Unpublished WSC-DCP and DFO Data)

DATE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	-5.6	-21.6	-3.9	5.2	6.0	12.2	9.2	13.4	9.7	6.5	-2.9	-12.6
2	-6.4	-16.0	-2.4	2.9	0.4	10.5	9.4	11.9	6.9	4.5	-6.3	-11.6
3	-1.9	-8.9	1.5	3.4	10.6	8.6	10.8	13.4	8.4	0.3	1.2	0.3
4	-4.0	-9.9	0.4	0.7	11.0	8.7	13.7	16.5	10.7	2.4	-2.1	-3.4
5	-1.5	-6.1	1.1	2.9	8.4	9.5	14.6	19.0	12.2	1.1	-6.1	-5.0
6	-4.3	-9.1	-0.8	2.3	4.1	11.0	14.7	15.3	12.0	0.3	-6.5	3.5
7	-1.8	-9.3	-0.5	2.4	5.9	10.4	16.3	12.9	12.1	3.9	-0.8	1.5
8	-5.2	-10.1	0.1	-1.6	8.3	10.3	15.5	15.9	13.3	7.3	-1.6	-0.9
9	-2.6	-1.0	2.3	-2.5	7.2	10.4	15.2	19.3	12.2	6.6	-2.2	-10.2
10	-5.7	-2.9	1.6	-1.8	6.7	8.8	18.2	19.0	12.0	1.8	-2.6	-10.9
11	-14.0	-6.3	-0.4	2.8	7.1	9.2	17.1	19.9	12.8	-1.4	-9.5	-6.3
12	-7.6	-16.2	3.1	2.8	5.1	9.1	15.0	19.6	13.0	2.0	-6.7	-10.9
13	-4.1	-21.8	2.2	6.4	6.5	10.3	13.0	19.1	11.4	1.1	-4.4	-11.4
14	-7.1	-11.3	2.7	5.4	7.7	14.7	13.2	17.6	11.6	-1.6	-5.6	-3.9
15	-9.0	-15.2	1.8	4.8	8.3	13.7	14.5	14.6	12.2	-1.9	-4.7	-12.2
16	-12.6	-26.6	1.7	4.6	9.8	12.6	12.6	14.4	12.0	-0.5	-4.0	-8.2
17	-17.4	-27.2	0.8	5.2	7.1	12.2	12.0	14.9	7.9	0.4	-6.1	-4.5
18	-11.5	-17.3	0.7	4.5	9.0	13.0	12.4	15.7	10.3	3.4	0.5	-21.7
19	-11.6	-13.1	2.2	7.2	8.9	11.8	13.0	16.6	7.6	0.9	-2.8	-32.5 *
20	-4.5	-1.8	2.3	6.2	10.3	13.5	14.8	16.6	7.3	-0.8	-11.0	-33.3
21	0.3	3.4	2.6	6.2	8.3	18.1	16.5	17.9	13.4	3.8	-10.1	-22.1
22	-2.0	3.5	2.6	5.4	5.8	19.3	17.5	13.5	13.0	1.1	-4.2	-16.8
23	-5.2	-1.4	0.5	5.9	9.0	13.1	17.7	9.3	13.9	3.3	-10.1	-12.2
24	-3.2	3.0	0.1	4.2	9.6	11.6	16.9	8.0	12.6	7.0	-12.6	-14.0 *
25	-0.7	0.6	3.7	2.5	9.3	11.6	20.0	9.7	8.8	1.3	-13.4	-2.5
26	-9.1	-2.8	2.5	2.3	10.5	12.1	16.8	9.6	5.6	0.9	-12.6	0.4
27	-3.9	-4.7	-0.6	2.2	13.3	10.7	16.0	10.8	4.6	4.5	-7.9	-14.3
28	-7.3	-3.3	-2.0	1.8	12.6	12.4	16.1	15.1	8.9	-0.9	-1.6	-33.4
29	-15.4	1.5	3.8	12.5	13.1	18.1	14.0	5.8	-2.8	-5.6	-25.6	
30	-23.9	4.9	6.3	12.2	11.4	17.9	12.5	6.5	-0.5	-10.9	-27.5 *	
31	-32.8	6.2	11.5			17.4	12.7		-1.3		-16.7	
MEAN	-7.8	-9.0	-1.5	3.9	8.8	11.9	15.0	14.8	9.8	1.7	-5.8	-12.2

MEAN ANNUAL = 2.7

Source: Jan - Oct data from magnetic tape.

Mar, Nov and Dec data from EP Microvax (dayfiles)

* handheld max/min thermometer data

TABLE 2
Maximum/Minimum/Mean Daily Air Temperatures (°C)
Nechako River at Irvine's, January 1990
(Unpublished WSC-DCP and DFO Data)

DATE	MAX	MIN	MEAN
1	-2.9	-9.5	-5.6
2	0.7	-10.4	-6.4
3	0.7	-5.3	-1.9
4	-1.7	-8.0	-4.0
5	2.5	-3.2	-1.5
6	0.4	-7.7	-4.3
7	2.5	-4.7	-1.8
8	3.7	-9.2	-5.2
9	4.3	-8.3	-2.6
10	-0.2	-11.0	-5.7
11	-10.1	-18.8	-14.0
12	-5.3	-10.4	-7.6
13	-0.8	-6.5	-4.1
14	-5.0	-8.9	-7.1
15	-3.0	-15.0	-9.0 *
16	-8.6	-16.4	-12.6
17	-11.3	-21.5	-17.4
18	-3.8	-18.8	-11.5
19	-5.3	-15.5	-11.6
20	4.9	-11.9	-4.5
21	3.4	-2.0	0.3
22	2.8	-4.7	-2.0
23	0.4	-10.7	-5.2
24	2.8	-8.6	-3.2
25	4.6	-7.4	-0.7
26	-1.4	-17.0	-9.1
27	1.0	-6.8	-3.9
28	-3.2	-13.1	-7.3
29	-13.1	-17.6	-15.4
30	-18.2	-32.6	-23.9
31	-25.7	-39.5	-32.8
MEAN			-7.8

* DFO Data

TABLE 3
Maximum/Minimum/Mean Daily Air Temperatures (°C)
Nechako River at Irvine's, February 1990
(Unpublished WSC-DCP Data)

DATE	MAX	MIN	MEAN
1	-15.2	-25.4	-21.6
2	-11.0	-21.8	-16.0
3	0.7	-15.8	-8.9
4	-1.1	-17.6	-9.9
5	2.8	-14.3	-6.1
6	-0.8	-14.3	-9.1
7	-2.0	-14.0	-9.3
8	-2.3	-18.5	-10.1
9	6.1	-5.0	-1.0
10	3.7	-9.2	-2.9
11	-2.3	-13.7	-6.3
12	-11.6	-24.5	-16.2
13	-8.3	-31.4	-21.8
14	-2.6	-19.7	-11.3
15	-10.4	-22.7	-16.2
16	-20.3	-34.1	-26.6
17	-14.6	-36.8	-27.2
18	-8.9	-23.9	-17.3
19	-1.7	-22.4	-13.1
20	3.7	-8.6	-1.8
21	8.2	-1.1	3.4
22	10.9	-2.9	3.5
23	8.5	-7.4	-1.4
24	11.2	-2.9	3.0
25	5.8	-3.8	0.6
26	7.6	-9.5	-2.8
27	6.4	-12.2	-4.7
28	6.4	-8.9	-3.3
MEAN			-9.0

TABLE 4
Maximum/Minimum/Mean Daily Air Temperatures (°C)
Nechako River at Irvine's, March 1990
(Unpublished WSC-DCP Data)

DATE	MAX	MIN	MEAN
1	5.5	-10.7	-3.9
2	10.0	-9.2	-2.4
3	11.2	-2.3	1.5
4	7.9	-3.8	0.4
5	9.4	-4.4	1.1
6	5.2	-5.3	-0.8
7	8.5	-6.5	-0.5
8	11.2	-7.1	0.1
9	11.2	-2.6	2.3
10	13.0	-5.0	1.6
11	4.3	-4.1	-0.4
12	8.8	-0.2	3.1
13	10.9	-2.3	2.2
14	15.1	-4.1	2.7
15	13.0	-5.3	1.8
16	11.2	-5.0	1.7
17	6.4	-2.9	0.8
18	9.1	-6.5	0.7
19	9.4	-3.2	2.2
20	13.9	-5.3	2.3
21	16.0	-5.6	2.6
22	11.8	-5.3	2.6
23	7.3	-4.7	0.5
24	12.7	-8.6	0.1
25	13.9	-6.5	3.7
26	7.9	-1.1	2.5
27	3.4	-5.3	-0.6
28	6.1	-9.5	-2.0
29	8.2	-4.7	1.5
30	13.3	0.4	4.9
31	12.7	1.3	6.2
MEAN			-1.5

TABLE 5
Maximum/Minimum/Mean Daily Air Temperatures (°C)
Nechako River at Irvine's, April 1990
(Unpublished WSC-DCP Data)

DATE	MAX	MIN	MEAN
1	11.5	-1.1	5.2
2	8.5	-4.4	2.9
3	10.9	-4.4	3.4
4	12.7	-7.1	0.7
5	13.3	-5.9	2.9
6	12.4	-6.8	2.3
7	12.1	-6.5	2.4
8	1.6	-5.6	-1.6
9	2.2	-6.5	-2.5
10	8.8	-9.5	-1.8
11	8.8	-2.0	2.8
12	12.7	-5.9	2.8
13	13.0	1.0	6.4
14	15.7	-2.3	5.4
15	14.2	-4.4	4.8
16	17.2	-5.6	4.6
17	12.4	-2.0	5.2
18	11.8	-2.6	4.5
19	13.9	-2.6	7.2
20	14.2	-2.0	6.2
21	11.5	3.4	6.2
22	10.9	2.2	5.4
23	10.9	1.6	5.9
24	8.8	-2.3	4.2
25	10.6	-4.1	2.5
26	6.7	-1.1	2.3
27	5.8	-1.7	2.2
28	9.1	-4.4	1.8
29	15.1	-7.1	3.8
30	16.0	-3.5	6.3
MEAN			3.9

TABLE 6
Maximum/Minimum/Mean Daily Air Temperatures (°C)
Nechako River at Irvine's, May 1990
(Unpublished WSC-DCP Data)

DATE	MAX	MIN	MEAN
1	10.6	2.2	6.0
2	16.9	3.4	9.4
3	17.8	3.7	10.6
4	22.3	1.0	11.0
5	25.0	-1.1	8.4
6	7.0	1.9	4.1
7	11.2	0.7	5.9
8	12.7	2.5	8.3
9	9.7	4.6	7.2
10	13.3	0.1	6.7
11	11.8	2.5	7.1
12	13.6	-3.5	5.1
13	14.8	-4.1	6.5
14	14.2	-0.5	7.7
15	17.2	-2.6	8.3
16	15.1	3.7	9.8
17	13.3	1.6	7.1
18	16.3	1.0	9.0
19	17.2	-2.0	8.9
20	18.4	0.7	10.3
21	12.7	4.9	8.3
22	14.8	0.1	5.8
23	15.7	1.0	9.0
24	17.5	0.1	9.6
25	13.6	4.9	9.3
26	15.7	8.2	10.5
27	19.3	7.3	13.3
28	17.5	8.2	12.6
29	17.5	8.8	12.5
30	16.9	9.1	12.2
31	17.2	8.2	11.5
MEAN			8.8

TABLE 7
Maximum/Minimum/Mean Daily Air Temperatures (°C)
Nechako River at Irvine's, June 1990
(Unpublished WSC-DCP Data)

DATE	MAX	MIN	MEAN
1	19.6	2.8	12.2
2	17.5	5.8	10.5
3	13.3	5.5	8.6
4	15.1	0.7	8.7
5	16.3	1.3	9.5
6	20.2	-0.5	11.0
7	13.3	8.8	10.4
8	16.6	1.3	10.3
9	16.9	3.1	10.4
10	11.5	5.2	8.8
11	10.3	7.6	9.2
12	12.4	6.4	9.1
13	20.5	3.1	10.3
14	24.4	1.9	14.7
15	20.5	3.7	13.7
16	16.6	8.2	12.6
17	19.3	2.5	12.2
18	19.3	6.4	13.0
19	17.5	5.2	11.8
20	20.2	5.2	13.5
21	28.6	7.0	18.1
22	26.8	10.9	19.3
23	16.9	4.9	13.1
24	19.3	1.9	11.6
25	20.8	3.7	11.6
26	16.6	8.8	12.1
27	19.0	1.9	10.7
28	18.4	8.5	12.4
29	17.2	5.8	13.1
30	15.7	8.2	11.4
MEAN			11.9

TABLE 8
Maximum/Minimum/Mean Daily Air Temperatures (°C)
Nechako River at Irvine's, July 1990
(Unpublished WSC-DCP Data)

DATE	MAX	MIN	MEAN
1	15.7	2.2	9.2
2	19.3	1.6	9.4
3	13.0	9.4	10.8
4	19.6	9.7	13.7
5	21.7	10.6	14.6
6	19.6	11.8	14.7
7	24.4	8.5	16.3
8	21.4	11.5	15.5
9	23.8	5.8	15.2
10	28.0	6.4	18.2
11	28.6	7.9	17.1
12	23.2	10.0	15.0
13	21.4	3.1	13.0
14	22.3	1.3	13.2
15	21.4	7.6	14.5
16	16.9	8.2	12.6
17	19.3	4.0	12.0
18	18.1	8.8	12.4
19	22.3	4.9	13.0
20	25.3	3.4	14.8
21	28.3	4.0	16.5
22	29.8	5.2	17.5
23	26.2	9.4	17.7
24	25.6	8.5	16.9
25	28.6	10.0	20.0
26	23.2	7.9	16.8
27	24.1	6.7	16.0
28	27.4	4.9	16.1
29	29.5	6.1	18.1
30	27.4	9.7	17.9
31	24.7	8.5	17.4
MEAN			15.0

TABLE 9
Maximum/Minimum/Mean Daily Air Temperatures (°C)
Nechako River at Irvine's, August 1990
(Unpublished WSC-DCP Data)

DATE	MAX	MIN	MEAN
1	18.7	5.5	13.4
2	19.3	4.6	11.9
3	19.9	5.8	13.4
4	28.0	6.4	16.5
5	30.7	7.3	19.0
6	19.6	9.1	15.3
7	20.5	6.1	12.9
8	26.2	6.1	15.9
9	28.6	9.7	19.3
10	30.7	7.9	19.0
11	32.2	7.9	19.9
12	32.2	8.2	19.6
13	30.7	7.9	19.1
14	24.1	11.5	17.6
15	19.9	11.8	14.6
16	21.7	8.8	14.4
17	20.5	10.6	14.9
18	25.0	8.5	15.7
19	27.7	6.7	16.6
20	28.3	6.1	16.6
21	26.5	9.1	17.9
22	19.3	10.6	13.5
23	11.8	7.3	9.3
24	14.8	1.6	8.0
25	17.2	1.9	9.7
26	20.5	-0.5	9.6
27	19.6	1.0	10.8
28	22.9	8.2	15.1
29	21.4	5.8	14.0
30	16.6	9.4	12.5
31	19.0	8.8	12.7
MEAN			14.8

TABLE 10
Maximum/Minimum/Mean Daily Air Temperatures (°C)
Nechako River at Irvine's, September 1990
(Unpublished WSC-DCP Data)

DATE	MAX	MIN	MEAN
1	16.6	4.9	9.7
2	14.8	-1.1	6.9
3	20.5	-1.4	8.4
4	22.6	-0.8	10.7
5	21.7	4.3	12.2
6	25.9	0.4	12.0
7	22.0	2.5	12.1
8	22.6	4.9	13.3
9	25.0	1.6	12.2
10	25.0	1.9	12.0
11	22.9	5.2	12.8
12	20.8	4.9	13.0
13	24.4	1.6	11.4
14	24.1	0.7	11.6
15	23.5	1.6	12.2
16	20.5	5.5	12.0
17	19.9	-1.7	7.9
18	19.3	5.2	10.3
19	17.2	-1.1	7.6
20	18.7	-1.1	7.3
21	25.0	4.0	13.4
22	27.1	3.1	13.0
23	25.0	4.9	13.9
24	23.2	4.3	12.6
25	17.2	1.0	8.8
26	18.4	-1.7	5.6
27	15.1	-3.5	4.6
28	19.6	2.5	8.9
29	13.6	-3.8	5.8
30	14.8	1.0	6.5
MEAN			9.8

TABLE 11
Maximum/Minimum/Mean Daily Air Temperatures (°C)
Nechako River at Irvine's, October 1990
(Unpublished WSC-DCP Data)

DATE	MAX	MIN	MEAN
1	9.4	4.3	6.5
2	11.5	-1.4	4.5
3	3.4	-3.2	0.3
4	4.3	0.7	2.4
5	4.3	-1.7	1.1
6	7.6	-5.0	0.3
7	7.3	-0.5	3.9
8	12.7	3.1	7.3
9	10.0	1.9	6.6
10	8.8	-3.2	1.8
11	3.1	-5.0	-1.4
12	9.4	-3.8	2.0
13	6.1	-2.9	1.1
14	7.0	-6.8	-1.6
15	5.8	-8.3	-1.9
16	5.5	-6.2	-0.5
17	4.0	-2.3	0.4
18	8.5	-3.2	3.4
19	6.1	-3.2	0.9
20	6.1	-6.5	-0.8
21	7.0	0.4	3.8
22	7.0	-4.1	1.1
23	10.0	-2.9	3.3
24	10.3	2.8	7.0
25	2.2	0.1	1.3
26	5.2	-2.9	0.9
27	7.9	1.0	4.5
28	1.3	-4.7	-0.9
29	0.7	-6.5	-2.8
30	6.4	-3.8	-0.5
31	3.7	-5.3	-1.3
MEAN			1.7

TABLE 12
Maximum/Minimum/Mean Daily Air Temperatures (°C)
Nechako River at Irvine's, November 1990
(Unpublished WSC-DCP Data)

DATE	MAX	MIN	MEAN
1	4.0	-7.7	-2.9
2	0.4	-8.9	-6.3
3	7.9	-3.8	1.2
4	2.2	-5.3	-2.1
5	-0.8	-11.3	-6.1
6	-3.5	-11.9	-6.5
7	7.0	-8.6	-0.8
8	1.0	-5.3	-1.6
9	2.5	-6.8	-2.2
10	-0.2	-6.9	-2.6
11	-6.5	-10.7	-9.5
12	-1.7	-9.2	-6.7
13	1.9	-8.3	-4.4
14	-0.5	-10.4	-5.6
15	0.4	-9.5	-4.7
16	0.1	-8.3	-4.0
17	2.8	-12.8	-6.1
18	2.5	-2.9	0.5
19	1.6	-8.6	-2.8
20	-8.9	-14.3	-11.0
21	-5.0	-14.3	-10.1
22	0.4	-8.6	-4.2
23	-8.6	-14.0	-10.1
24	-11.0	-17.3	-12.6
25	-11.3	-19.4	-13.4
26	-8.6	-19.1	-12.6
27	-0.5	-13.4	-7.9
28	3.1	-8.6	-1.6
29	0.1	-9.5	-5.6
30	-5.3	-15.5	-10.9
MEAN			-5.8

TABLE 13
Maximum/Minimum/Mean Daily Air Temperatures (°C)
Nechako River at Irvine's, December 1990
(Unpublished WSC-DCP and DFO Data)

DATE	MAX	MIN	MEAN
1	-6.5	-16.4	-12.6
2	-6.8	-16.4	-11.6
3	7.3	-6.3	0.3
4	1.9	-7.4	-3.4
5	3.7	-12.2	-6.0
6	7.9	-2.6	3.5
7	7.3	-1.1	1.5
8	4.0	-8.0	-0.9
9	-5.6	-13.7	-10.2
10	-7.7	-15.8	-10.9
11	-6.6	-7.4	-6.3
12	-7.1	-16.7	-10.9
13	-7.1	-18.2	-11.4
14	-1.7	-7.4	-3.9
15	-6.9	-16.4	-12.2
16	1.3	-13.4	-8.2
17	1.3	-17.9	-4.5
18	-18.5	-29.0	-21.7
19	-40.0	-25.0	-32.5*
20	-28.1	-37.7	-33.3
21	-18.2	-29.6	-22.1
22	-13.4	-19.7	-16.8
23	-8.9	-19.1	-12.2
24	-20.0	-8.0	-14.0*
25	2.2	-6.8	-2.5
26	3.1	-4.4	0.4
27	0.7	-20.9	-14.3
28	-28.1	-38.0	-33.4
29	-24.5	-28.1	-25.6
30	-30.0	-25.0	-27.5*
31	-16.1	-17.0	-16.7
MEAN			-12.2

* DFO Data

TABLE 14
1990 Mean Daily Air Temperatures (°C)
Fort Fraser 13S (AES Data)

DATE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	-3.0	-21.8	3.0	5.5	7.0	12.0	10.0	13.0	10.5	7.5	-1.5	-11.8
2	-5.3	-16.3	-1.3	3.5	10.3	10.5	11.0	13.8	8.0	5.8	-3.8	-12.5
3	0.8	-7.8	-4.0	4.5	12.0	10.3	11.5	12.3	9.8	0.5	3.3	-3.5
4	-1.3	-8.5	-1.0	2.8	12.8	9.3	14.5	17.0	11.8	2.0	-0.3	-2.8
5	-0.5	-5.0	1.8	4.8	12.5	11.5	16.0	21.0	12.0	1.8	-4.8	-2.0
6	-2.3	-6.5	0.5	4.0	5.3	10.0	17.0	16.0	13.8	1.3	-6.5	4.0
7	-0.5	-8.0	-4.0	3.0	7.0	11.8	17.5	15.0	13.8	3.5	-0.5	1.0
8	-1.3	-10.0	-1.5	-1.5	8.3	11.3	16.0	16.5	13.0	9.0	-2.3	1.5
9	-1.0	0.8	-9.3	-2.3	9.3	11.3	15.5	19.0	14.0	8.3	-1.5	-5.5
10	-4.5	-3.3	1.0	-0.8	8.0	7.5	17.5	20.0	14.5	3.3	-3.3	-11.0
11	-12.5	-3.5	-1.5	3.3	8.3	10.3	18.3	20.5	14.5	-1.5	-10.3	-5.8
12	-8.3	-14.5	-1.0	4.8	4.5	8.5	18.5	20.8	12.5	3.5	-4.5	-9.0
13	-3.0	-22.5	2.0	7.3	5.8	11.5	13.0	19.0	14.3	3.5	-2.0	-9.5
14	-5.0	-15.8	0.8	6.5	7.8	15.0	13.0	17.5	13.5	1.8	-5.5	-2.3
15	-7.0	-16.5	-0.5	7.3	8.3	14.3	14.0	16.8	14.0	-0.3	-4.5	-12.0
16	-13.0	-29.0	2.0	6.0	8.0	11.3	13.3	17.0	12.5	1.8	-3.5	-8.0
17	-16.0	-26.5	2.3	6.0	8.5	12.3	11.0	17.3	8.8	0.0	-4.0	-4.8
18	-13.0	-18.5	3.3	6.3	9.5	12.0	13.5	16.5	12.5	4.3	1.0	-21.3
19	-10.0	-13.3	4.0	7.5	9.8	12.0	13.5	18.5	8.5	0.5	-3.0	-28.5
20	-4.3	-3.5	-1.8	7.0	10.3	12.5	15.5	18.3	8.8	0.5	-12.3	-28.8
21	1.3	2.3	-4.0	8.0	9.8	17.0	16.5	19.5	14.5	4.8	-7.5	-26.0
22	-0.3	6.3	-11.0	7.8	7.3	19.3	17.8	15.3	14.8	3.5	-5.3	-19.5
23	-5.5	0.5	-10.0	6.5	10.5	11.5	19.5	9.8	15.8	5.0	-10.3	-13.3
24	-2.8	4.3	-7.0	6.8	9.0	11.3	18.5	8.3	15.3	6.8	-14.5	-6.8
25	-0.8	1.8	-3.5	3.3	10.5	12.8	20.8	10.0	10.3	1.5	-15.8	-3.8
26	-7.0	1.5	3.0	5.0	11.5	13.3	17.5	10.5	8.0	2.3	-15.0	-1.5
27	-4.0	-2.5	3.5	4.0	15.0	11.8	18.0	11.0	5.8	6.0	-6.0	-20.3
28	-5.8	-0.5	5.5	3.0	14.8	14.0	18.3	16.0	11.5	0.0	-2.0	-31.3
29	-16.0		5.8	4.3	14.0	13.3	18.3	14.0	6.5	-2.0	-6.0	-29.8
30	-24.5		6.5	4.5	13.8	13.5	18.5	13.5	9.5	-0.5	-11.8	-21.8
31	-32.3		2.5		13.5		18.3	14.0		0.0		-17.5
MEAN	-6.7	-8.4	-0.4	4.6	9.8	12.1	15.9	15.7	11.8	2.7	-5.5	-11.7

MEAN ANNUAL = 3.4

TABLE 15
Maximum/Minimum/Mean Daily Air Temperatures (°C)
Fort Fraser 13S, January 1990 (AES Data)

DATE	MAX	MIN	MEAN
1	-1.0	-5.0	-3.0
2	1.5	-12.0	-5.3
3	2.5	-1.0	0.8
4	2.0	-4.5	-1.3
5	3.0	-4.0	-0.5
6	2.0	-6.5	-2.3
7	5.5	-6.5	-0.5
8	4.5	-7.0	-1.3
9	5.0	-7.0	-1.0
10	0.0	-9.0	-4.5
11	-7.0	-18.0	-12.5
12	-4.5	-12.0	-8.3
13	-1.0	-5.0	-3.0
14	0.0	-10.0	-5.0
15	-1.5	-12.5	-7.0
16	-8.0	-18.0	-13.0
17	-10.0	-22.0	-16.0
18	-7.0	-19.0	-13.0
19	-4.0	-16.0	-10.0
20	4.5	-13.0	-4.3
21	3.5	-1.0	1.3
22	3.5	-4.0	-0.3
23	2.0	-13.0	-5.5
24	2.5	-8.0	-2.8
25	1.5	-3.0	-0.8
26	-1.0	-13.0	-7.0
27	0.0	-8.0	-4.0
28	-2.5	-9.0	-5.8
29	-14.0	-18.0	-16.0
30	-19.5	-29.5	-24.5
31	-22.5	-42.0	-32.3
MEAN			-6.7

TABLE 16
Maximum/Minimum/Mean Daily Air Temperatures (°C)
Fort Fraser 13S, February 1990 (AES Data)

DATE	MAX	MIN	MEAN
1	-17.0	-26.5	-21.8
2	-11.0	-21.5	-16.3
3	-2.0	-13.5	-7.8
4	1.0	-18.0	-8.5
5	4.0	-14.0	-5.0
6	0.0	-13.0	-6.5
7	-1.0	-15.0	-8.0
8	-2.5	-17.5	-10.0
9	6.5	-5.0	0.8
10	4.0	-10.5	-3.3
11	1.0	-8.0	-3.5
12	-9.0	-20.0	-14.5
13	-13.0	-32.0	-22.5
14	-7.5	-24.0	-15.8
15	-13.0	-20.0	-16.5
16	-20.5	-37.5	-29.0
17	-17.5	-35.5	-26.5
18	-12.0	-25.0	-18.5
19	-2.5	-24.0	-13.3
20	1.0	-8.0	-3.5
21	7.5	-3.0	2.3
22	11.5	1.0	6.3
23	7.0	-6.0	0.5
24	12.0	-3.5	4.3
25	6.5	-3.0	1.8
26	9.5	-6.5	1.5
27	7.0	-12.0	-2.5
28	7.0	-8.0	-0.5
MEAN			-8.4

TABLE 17
Maximum/Minimum/Mean Daily Air Temperatures (°C)
Fort Fraser 13S, March 1990 (AES Data)

DATE	MAX	MIN	MEAN
1	9.0	-3.0	3.0
2	7.0	-9.5	-1.3
3	5.5	-13.5	-4.0
4	6.0	-8.0	-1.0
5	7.5	-4.0	1.8
6	6.0	-5.0	0.5
7	0.5	-8.5	-4.0
8	5.0	-8.0	-1.5
9	-1.0	-17.5	-9.3
10	5.0	-3.0	1.0
11	5.0	-8.0	-1.5
12	7.0	-9.0	-1.0
13	5.0	-1.0	2.0
14	6.5	-5.0	0.8
15	3.0	-4.0	-0.5
16	5.0	-1.0	2.0
17	10.5	-6.0	2.3
18	11.0	-4.5	3.3
19	12.0	-4.0	4.0
20	2.0	-5.5	-1.8
21	-2.0	-6.0	-4.0
22	-3.0	-19.0	-11.0
23	1.0	-21.0	-10.0
24	4.0	-18.0	-7.0
25	7.0	-14.0	-3.5
26	11.0	-5.0	3.0
27	12.0	-5.0	3.5
28	14.0	-3.0	5.5
29	13.5	-2.0	5.8
30	12.0	1.0	6.5
31	10.0	-5.0	2.5
MEAN			-0.4

TABLE 18
Maximum/Minimum/Mean Daily Air Temperatures (°C)
Fort Fraser 13S, April 1990 (AES Data)

DATE	MAX	MIN	MEAN
1	11.0	0.0	5.5
2	11.0	-4.0	3.5
3	11.0	-2.0	4.5
4	12.5	-7.0	2.8
5	14.0	-4.5	4.8
6	13.0	-5.0	4.0
7	13.0	-7.0	3.0
8	3.0	-6.0	-1.5
9	2.5	-7.0	-2.3
10	8.5	-10.0	-0.8
11	8.5	-2.0	3.3
12	14.5	-5.0	4.8
13	13.5	1.0	7.3
14	14.0	-1.0	6.5
15	15.5	-1.0	7.3
16	18.0	-6.0	6.0
17	14.0	-2.0	6.0
18	13.5	-1.0	6.3
19	15.0	0.0	7.5
20	16.0	-2.0	7.0
21	12.0	4.0	8.0
22	12.5	3.0	7.8
23	11.0	2.0	6.5
24	12.0	1.5	6.8
25	11.0	-4.5	3.3
26	10.0	0.0	5.0
27	10.0	-2.0	4.0
28	10.0	-4.0	3.0
29	15.5	-7.0	4.3
30	12.0	-3.0	4.5
MEAN			4.6

TABLE 19
Maximum/Minimum/Mean Daily Air Temperatures (°C)
Fort Fraser 13S, May 1990 (AES Data)

DATE	MAX	MIN	MEAN
1	11.0	3.0	7.0
2	17.5	3.0	10.3
3	20.0	4.0	12.0
4	24.0	1.5	12.8
5	25.0	0.0	12.5
6	7.5	3.0	5.3
7	12.5	1.5	7.0
8	13.5	3.0	8.3
9	13.5	5.0	9.3
10	16.0	0.0	8.0
11	13.5	3.0	8.3
12	14.0	-5.0	4.5
13	16.0	-4.5	5.8
14	17.0	-1.5	7.8
15	17.5	-1.0	8.3
16	15.0	1.0	8.0
17	15.0	2.0	8.5
18	17.0	2.0	9.5
19	18.5	1.0	9.8
20	18.5	2.0	10.3
21	14.5	5.0	9.8
22	15.0	-0.5	7.3
23	18.0	3.0	10.5
24	18.0	0.0	9.0
25	14.5	6.5	10.5
26	15.0	8.0	11.5
27	20.0	10.0	15.0
28	18.5	11.0	14.8
29	19.0	9.0	14.0
30	17.5	10.0	13.8
31	18.0	9.0	13.5
MEAN			9.8

TABLE 20
Maximum/Minimum/Mean Daily Air Temperatures (°C)
Fort Fraser 13S, June 1990 (AES Data)

DATE	MAX	MIN	MEAN
1	20.0	4.0	12.0
2	19.0	2.0	10.5
3	14.0	6.5	10.3
4	16.5	2.0	9.3
5	19.0	4.0	11.5
6	21.0	-1.0	10.0
7	13.5	10.0	11.8
8	18.5	4.0	11.3
9	18.5	4.0	11.3
10	11.0	4.0	7.5
11	12.0	8.5	10.3
12	12.0	5.0	8.5
13	20.0	3.0	11.5
14	25.0	5.0	15.0
15	22.5	6.0	14.3
16	16.5	6.0	11.3
17	20.5	4.0	12.3
18	20.0	4.0	12.0
19	18.0	6.0	12.0
20	20.0	5.0	12.5
21	29.0	5.0	17.0
22	28.5	10.0	19.3
23	19.0	4.0	11.5
24	21.5	1.0	11.3
25	21.5	4.0	12.8
26	17.5	9.0	13.3
27	21.5	2.0	11.8
28	18.5	9.5	14.0
29	19.5	7.0	13.3
30	18.0	9.0	13.5
MEAN			12.1

TABLE 21
Maximum/Minimum/Mean Daily Air Temperatures (°C)
Fort Fraser 13S, July 1990 (AES Data)

DATE	MAX	MIN	MEAN
1	17.0	3.0	10.0
2	19.5	2.5	11.0
3	13.0	10.0	11.5
4	20.0	9.0	14.5
5	22.0	10.0	16.0
6	23.0	11.0	17.0
7	25.0	10.0	17.5
8	20.0	12.0	16.0
9	24.0	7.0	15.5
10	29.0	6.0	17.5
11	28.5	8.0	18.3
12	25.0	12.0	18.5
13	21.0	5.0	13.0
14	22.5	3.5	13.0
15	20.0	8.0	14.0
16	17.0	9.5	13.3
17	20.0	2.0	11.0
18	19.0	8.0	13.5
19	23.0	4.0	13.5
20	25.0	6.0	15.5
21	28.0	5.0	16.5
22	29.5	6.0	17.8
23	28.0	11.0	19.5
24	27.0	10.0	18.5
25	30.0	11.5	20.8
26	25.0	10.0	17.5
27	26.0	10.0	18.0
28	27.5	9.0	18.3
29	29.5	7.0	18.3
30	28.0	9.0	18.5
31	26.5	10.0	18.3
MEAN			15.9

TABLE 22
Maximum/Minimum/Mean Daily Air Temperatures (°C)
Fort Fraser 13S, August 1990 (AES Data)

DATE	MAX	MIN	MEAN
1	20.0	6.0	13.0
2	21.5	6.0	13.8
3	19.0	5.5	12.3
4	28.0	6.0	17.0
5	32.0	10.0	21.0
6	22.0	10.0	16.0
7	20.0	10.0	15.0
8	27.0	6.0	16.5
9	28.0	10.0	19.0
10	30.0	10.0	20.0
11	32.0	9.0	20.5
12	32.5	9.0	20.8
13	30.0	8.0	19.0
14	25.0	10.0	17.5
15	21.5	12.0	16.8
16	23.0	11.0	17.0
17	21.5	13.0	17.3
18	25.0	8.0	16.5
19	29.0	8.0	18.5
20	29.0	7.5	18.3
21	28.0	11.0	19.5
22	18.5	12.0	15.3
23	12.5	7.0	9.8
24	16.0	0.5	8.3
25	19.0	1.0	10.0
26	21.0	0.0	10.5
27	19.0	3.0	11.0
28	23.0	9.0	16.0
29	22.0	6.0	14.0
30	18.0	9.0	13.5
31	18.0	10.0	14.0
MEAN			15.7

TABLE 23
Maximum/Minimum/Mean Daily Air Temperatures (°C)
Fort Fraser 13S, September 1990 (AES Data)

DATE	MAX	MIN	MEAN
1	17.0	4.0	10.5
2	16.0	0.0	8.0
3	20.0	-0.5	9.8
4	21.5	2.0	11.8
5	21.5	2.5	12.0
6	25.5	2.0	13.8
7	22.0	5.5	13.8
8	22.0	4.0	13.0
9	25.0	3.0	14.0
10	25.0	4.0	14.5
11	23.0	6.0	14.5
12	20.0	5.0	12.5
13	24.5	4.0	14.3
14	24.0	3.0	13.5
15	25.0	3.0	14.0
16	20.0	5.0	12.5
17	19.0	-1.5	8.8
18	20.0	5.0	12.5
19	18.0	-1.0	8.5
20	16.0	1.5	8.8
21	25.0	4.0	14.5
22	26.5	3.0	14.8
23	25.5	6.0	15.8
24	23.5	7.0	15.3
25	18.5	2.0	10.3
26	18.0	-2.0	8.0
27	15.5	-4.0	5.8
28	21.0	2.0	11.5
29	15.5	-2.5	6.5
30	15.0	4.0	9.5
MEAN			11.8

TABLE 24
Maximum/Minimum/Mean Daily Air Temperatures (°C)
Fort Fraser 13S, October 1990 (AES Data)

DATE	MAX	MIN	MEAN
1	10.0	5.0	7.5
2	11.5	0.0	5.8
3	4.5	-3.5	0.5
4	4.0	0.0	2.0
5	4.0	-0.5	1.8
6	6.5	-4.0	1.3
7	7.0	0.0	3.5
8	13.5	4.5	9.0
9	10.5	6.0	8.3
10	9.0	-2.5	3.3
11	1.5	-4.5	-1.5
12	10.0	-3.0	3.5
13	8.0	-1.0	3.5
14	8.0	-4.5	1.8
15	6.5	-7.0	-0.3
16	6.5	-3.0	1.8
17	3.5	-3.5	0.0
18	8.0	0.5	4.3
19	6.0	-5.0	0.5
20	6.0	-5.0	0.5
21	9.5	0.0	4.8
22	8.0	-1.0	3.5
23	9.0	1.0	5.0
24	11.5	2.0	6.8
25	3.0	0.0	1.5
26	6.5	-2.0	2.3
27	10.0	2.0	6.0
28	3.0	-3.0	0.0
29	1.5	-5.5	-2.0
30	4.0	-5.0	-0.5
31	4.5	-4.5	0.0
MEAN			2.7

TABLE 25
Maximum/Minimum/Mean Daily Air Temperatures (°C)
Fort Fraser 13S, November 1990 (AES Data)

DATE	MAX	MIN	MEAN
1	5.0	-8.0	-1.5
2	1.0	-8.5	-3.8
3	8.5	-2.0	3.3
4	3.5	-4.0	-0.3
5	0.0	-9.5	-4.8
6	-3.5	-9.5	-6.5
7	8.0	-9.0	-0.5
8	0.5	-5.0	-2.3
9	2.0	-5.0	-1.5
10	-1.0	-5.5	-3.3
11	-9.0	-11.5	-10.3
12	1.5	-10.5	-4.5
13	4.0	-8.0	-2.0
14	-0.5	-10.5	-5.5
15	1.0	-10.0	-4.5
16	2.0	-9.0	-3.5
17	3.5	-11.5	-4.0
18	2.0	0.0	1.0
19	2.0	-8.0	-3.0
20	-8.5	-16.0	-12.3
21	-1.0	-14.0	-7.5
22	0.0	-10.5	-5.3
23	-9.5	-11.0	-10.3
24	-11.0	-18.0	-14.5
25	-13.0	-18.5	-15.8
26	-8.5	-21.5	-15.0
27	1.0	-13.0	-6.0
28	4.0	-8.0	-2.0
29	-3.0	-9.0	-6.0
30	-6.5	-17.0	-11.8
MEAN			-5.5

TABLE 26
Maximum/Minimum/Mean Daily Air Temperatures (°C)
Fort Fraser 13S, December 1990 (AES Data)

DATE	MAX	MIN	MEAN
1	-6.5	-17.0	-11.8
2	-8.0	-17.0	-12.5
3	4.0	-11.0	-3.5
4	1.5	-7.0	-2.8
5	5.0	-9.0	-2.0
6	8.5	-0.5	4.0
7	6.5	-1.5	1.0
8	5.0	-2.0	1.5
9	0.0	-11.0	-5.5
10	-6.0	-16.0	-11.0
11	-3.5	-8.0	-5.8
12	-5.0	-13.0	-9.0
13	-2.0	-17.0	-9.5
14	-1.5	-3.0	-2.3
15	-6.5	-17.5	-12.0
16	1.5	-17.5	-8.0
17	1.5	-11.0	-4.8
18	-17.0	-25.5	-21.3
19	-22.0	-35.0	-28.5
20	-22.0	-35.5	-28.8
21	-18.0	-32.0	-25.0
22	-15.0	-24.0	-19.5
23	-2.5	-24.0	-13.3
24	-5.0	-8.5	-6.8
25	1.0	-8.5	-3.8
26	4.0	-7.0	-1.5
27	-16.5	-24.0	-20.3
28	-24.0	-38.5	-31.3
29	-21.5	-38.0	-29.8
30	-18.0	-25.5	-21.8
31	-15.5	-19.5	-17.5
MEAN			-11.7

TABLE 27
1990 Mean Daily Air Temperatures (°C)
Vanderhoof (AES Data)

DATE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	-2.5	-21.8	3.3	7.3	7.3	14.0	12.0	16.0	11.5	8.8	-0.8	-12.5
2	-5.3	-13.8	-1.8	5.3	8.5	12.8	12.3	14.5	9.0	6.8	-3.3	-9.0
3	-0.3	-7.5	-4.0	4.5	13.5	11.8	12.0	14.0	10.8	0.8	5.0	0.3
4	-2.0	-10.8	-4.5	4.5	14.0	10.3	15.5	19.8	13.3	2.3	-1.5	-4.0
5	1.0	-3.5	0.3	5.3	15.3	11.5	18.5	23.0	14.3	2.3	-4.5	-2.8
6	-3.3	-7.5	2.3	5.0	6.5	12.3	18.8	17.3	14.3	1.0	-5.5	4.0
7	1.3	-6.8	-3.0	4.3	7.3	13.5	18.0	15.3	16.5	3.5	2.0	5.0
8	-4.0	-11.0	-1.0	-0.5	9.8	13.5	17.8	17.3	14.0	9.5	-2.3	3.0
9	0.3	-1.8	-8.0	-2.0	10.3	14.0	16.5	21.5	14.0	8.0	-0.5	-7.0
10	-5.5	-4.8	1.8	0.0	9.8	9.8	19.0	21.5	14.5	4.0	-2.5	-9.8
11	-13.3	-7.3	-4.0	3.3	9.5	9.5	21.0	23.0	15.3	-0.5	-8.0	-6.3
12	-9.0	-15.5	-1.0	5.3	5.8	10.0	19.5	23.3	14.0	4.5	-4.0	-8.5
13	-4.0	-24.8	2.5	8.3	8.0	12.3	14.5	22.3	13.5	4.0	0.5	-8.5
14	-7.3	-16.0	4.3	8.0	9.8	16.0	13.8	20.8	14.3	1.8	-4.3	-1.5
15	-5.3	-18.5	0.5	6.0	9.0	17.0	15.3	18.8	15.0	1.0	-3.3	-12.0
16	-11.8	-25.0	2.3	7.0	9.5	13.3	14.5	18.0	13.3	2.5	-1.5	-5.3
17	-16.3	-27.5	-0.3	5.8	8.8	13.3	12.3	18.0	10.3	1.0	-5.0	-7.3
18	-13.5	-16.8	4.8	7.3	10.8	15.3	14.3	19.0	13.3	5.3	-1.0	-20.3
19	-12.5	-10.0	3.3	8.0	10.8	14.3	15.0	19.0	9.5	0.5	-4.0	-28.3
20	-7.5	-1.3	-3.3	8.3	13.3	13.8	16.8	18.5	8.8	0.5	-15.3	-32.3
21	-1.0	4.0	-3.5	8.8	10.8	19.8	18.3	20.3	14.0	5.3	-7.8	-25.0
22	-0.5	5.0	-7.3	7.8	9.0	22.5	19.3	15.3	16.5	3.8	-9.3	-17.0
23	-7.5	0.5	-7.5	8.5	11.8	13.8	21.5	11.5	16.0	4.8	-10.3	-17.8
24	-1.0	4.0	-5.8	7.8	13.8	13.8	20.0	8.5	14.8	8.8	-12.8	-12.3
25	0.3	1.5	-4.0	5.0	11.5	14.8	22.0	12.0	12.0	2.3	-12.8	-7.3
26	-8.3	-2.8	4.3	5.8	13.5	14.3	19.3	11.8	9.3	3.0	-12.8	-2.8
27	-3.8	-2.5	2.5	3.0	16.5	14.0	18.0	11.3	7.5	5.8	-7.0	-21.0
28	-5.8	-3.8	5.8	3.8	16.8	15.0	17.8	16.3	13.5	0.8	0.5	-33.5
29	-16.3		6.3	5.3	15.0	14.3	20.3	16.3	7.5	-1.3	-6.5	-30.3
30	-24.5		6.8	7.5	13.8	15.3	20.3	14.3	9.0	3.8	-12.3	-20.8
31	-32.3		3.5		14.0		19.0	14.3		1.0		-17.8
MEAN	-7.1	-8.8	-0.1	5.5	11.1	13.9	17.2	17.2	12.7	3.4	-5.0	-11.9

MEAN ANNUAL = 4.1

TABLE 28
Maximum/Minimum/Mean Daily Air Temperatures (°C)
Vanderhoof, January, 1990 (AES Data)

DATE	MAX	MIN	MEAN
1	1.0	-5.0	-2.5
2	2.0	-12.5	-5.3
3	3.0	-3.5	-0.3
4	2.0	-6.0	-2.0
5	4.5	-2.5	1.0
6	2.5	-9.0	-3.3
7	6.5	-4.0	1.3
8	2.0	-10.0	-4.0
9	5.5	-5.0	0.3
10	-1.5	-9.5	-5.5
11	-6.5	-20.0	-13.3
12	-4.0	-14.0	-9.0
13	-1.5	-6.5	-4.0
14	-4.5	-10.0	-7.3
15	-1.5	-9.0	-5.3
16	-6.5	-17.0	-11.8
17	-11.5	-21.0	-16.3
18	-7.5	-19.5	-13.5
19	-8.0	-17.0	-12.5
20	0.0	-15.0	-7.5
21	1.0	-3.0	-1.0
22	4.5	-5.5	-0.5
23	0.5	-15.5	-7.5
24	4.0	-6.0	-1.0
25	3.0	-2.5	0.3
26	0.0	-16.5	-8.3
27	-1.5	-6.0	-3.8
28	-2.5	-9.0	-5.8
29	-14.5	-18.0	-16.3
30	-22.5	-26.5	-24.5
31	-23.5	-41.0	-32.3
MEAN			-7.1

TABLE 29
Maximum/Minimum/Mean Daily Air Temperatures (°C)
Vanderhoof, February 1990 (AES Data)

DATE	MAX	MIN	MEAN
1	-17.0	-26.5	-21.8
2	-6.0	-21.5	-13.8
3	-1.0	-14.0	-7.5
4	0.0	-21.5	-10.8
5	3.0	-10.0	-3.5
6	1.0	-16.0	-7.5
7	-0.5	-13.0	-6.8
8	-3.0	-19.0	-11.0
9	3.5	-7.0	-1.8
10	2.0	-11.5	-4.8
11	-3.5	-11.0	-7.3
12	-11.0	-20.0	-15.5
13	-14.5	-35.0	-24.8
14	-7.0	-25.0	-16.0
15	-14.5	-22.5	-18.5
16	-19.5	-30.5	-25.0
17	-15.5	-39.5	-27.5
18	-11.0	-22.5	-16.8
19	1.5	-21.5	-10.0
20	3.0	-5.5	-1.3
21	8.0	0.0	4.0
22	10.5	-0.5	5.0
23	7.5	-6.5	0.5
24	10.0	-2.0	4.0
25	5.5	-2.5	1.5
26	5.5	-11.0	-2.8
27	8.0	-13.0	-2.5
28	2.0	-9.5	-3.8
MEAN			-8.8

TABLE 30
Maximum/Minimum/Mean Daily Air Temperatures (°C)
Vanderhoof, March 1990 (AES Data)

DATE	MAX	MIN	MEAN
1	9.5	-3.0	3.3
2	7.0	-10.5	-1.8
3	6.0	-14.0	-4.0
4	3.5	-12.5	-4.5
5	7.5	-7.0	0.3
6	6.5	-2.0	2.3
7	0.5	-6.5	-3.0
8	3.5	-5.5	-1.0
9	2.0	-18.0	-8.0
10	5.5	-2.0	1.8
11	5.0	-13.0	-4.0
12	7.0	-9.0	-1.0
13	5.0	0.0	2.5
14	8.0	0.5	4.3
15	6.5	-5.5	0.5
16	4.0	0.5	2.3
17	6.5	-7.0	-0.3
18	8.5	1.0	4.8
19	10.5	-4.0	3.3
20	-0.5	-6.0	-3.3
21	-0.5	-6.5	-3.5
22	-1.0	-13.5	-7.3
23	2.0	-17.0	-7.5
24	6.0	-17.5	-5.8
25	6.0	-14.0	-4.0
26	11.5	-3.0	4.3
27	10.5	-5.5	2.5
28	13.5	-2.0	5.8
29	13.0	-0.5	6.3
30	11.5	2.0	6.8
31	10.5	-3.5	3.5
MEAN			-0.1

TABLE 31
Maximum/Minimum/Mean Daily Air Temperatures (°C)
Vanderhoof, April 1990 (AES Data)

DATE	MAX	MIN	MEAN
1	12.0	2.5	7.3
2	12.0	-1.5	5.3
3	11.5	-2.5	4.5
4	14.0	-5.0	4.5
5	15.0	-4.5	5.3
6	14.0	-4.0	5.0
7	13.5	-5.0	4.3
8	4.5	-5.5	-0.5
9	2.5	-6.5	-2.0
10	9.0	-9.0	0.0
11	8.5	-2.0	3.3
12	15.0	-4.5	5.3
13	14.5	2.0	8.3
14	16.5	-0.5	8.0
15	15.0	-3.0	6.0
16	18.5	-4.5	7.0
17	10.5	1.0	5.8
18	14.0	0.5	7.3
19	13.5	2.5	8.0
20	15.5	1.0	8.3
21	12.0	5.5	8.8
22	12.0	3.5	7.8
23	13.0	4.0	8.5
24	12.5	3.0	7.8
25	12.0	-2.0	5.0
26	11.5	0.0	5.8
27	9.0	-3.0	3.0
28	10.0	-2.5	3.8
29	15.5	-5.0	5.3
30	17.0	-2	7.5
MEAN			5.5

TABLE 32
Maximum/Minimum/Mean Daily Air Temperatures (°C)
Vanderhoof, May 1990 (AES Data)

DATE	MAX	MIN	MEAN
1	10.5	4.0	7.3
2	16.5	0.5	8.5
3	20.0	7.0	13.5
4	24.0	4.0	14.0
5	26.5	4.0	15.3
6	9.0	4.0	6.5
7	12.5	2.0	7.3
8	14.0	5.5	9.8
9	14.5	6.0	10.3
10	16.5	3.0	9.8
11	13.0	6.0	9.5
12	14.0	-2.5	5.8
13	17.5	-1.5	8.0
14	18.5	1.0	9.8
15	19.0	-1.0	9.0
16	16.0	3.0	9.5
17	16.0	1.5	8.8
18	18.0	3.5	10.8
19	18.0	3.5	10.8
20	20.0	6.5	13.3
21	15.0	6.5	10.8
22	15.5	2.5	9.0
23	19.0	4.5	11.8
24	21.0	6.5	13.8
25	13.0	10.0	11.5
26	17.5	9.5	13.5
27	23.0	10.0	16.5
28	21.5	12.0	16.8
29	19.0	11.0	15.0
30	16.5	11.0	13.8
31	17.0	11.0	14.0
MEAN			11.1

TABLE 33
Maximum/Minimum/Mean Daily Air Temperatures (°C)
Vanderhoof, June 1990 (AES Data)

DATE	MAX	MIN	MEAN
1	20.0	8.0	14.0
2	21.0	4.5	12.8
3	16.0	7.5	11.8
4	16.5	4.0	10.3
5	19.0	4.0	11.5
6	22.0	2.5	12.3
7	16.5	10.5	13.5
8	19.0	8.0	13.5
9	20.0	8.0	14.0
10	12.0	7.5	9.8
11	11.0	8.0	9.5
12	13.5	6.5	10.0
13	20.5	4.0	12.3
14	26.5	5.5	16.0
15	22.5	11.5	17.0
16	18.5	8.0	13.3
17	20.5	6.0	13.3
18	22.0	8.5	15.3
19	19.5	9.0	14.3
20	21.0	6.5	13.8
21	27.5	12.0	19.8
22	29.0	16.0	22.5
23	20.0	7.5	13.8
24	22.5	5.0	13.8
25	23.5	6.0	14.8
26	18.0	10.5	14.3
27	23.0	5.0	14.0
28	19.0	11.0	15.0
29	20.5	8.0	14.3
30	21.0	9.5	15.3
MEAN			13.9

TABLE 34
Maximum/Minimum/Mean Daily Air Temperatures (°C)
Vanderhoof, July 1990 (AES Data)

DATE	MAX	MIN	MEAN
1	19.5	4.5	12.0
2	20.5	4.0	12.3
3	14.0	10.0	12.0
4	21.5	9.5	15.5
5	25.5	11.5	18.5
6	24.5	13.0	18.8
7	26.0	10.0	18.0
8	22.0	13.5	17.8
9	24.0	9.0	16.5
10	29.5	8.5	19.0
11	30.0	12.0	21.0
12	26.0	13.0	19.5
13	22.0	7.0	14.5
14	23.0	4.5	13.8
15	21.0	9.5	15.3
16	19.5	9.5	14.5
17	20.0	4.5	12.3
18	19.0	9.5	14.3
19	24.5	5.5	15.0
20	26.5	7.0	16.8
21	29.0	7.5	18.3
22	30.5	8.0	19.3
23	29.0	14.0	21.5
24	28.5	11.5	20.0
25	31.5	12.5	22.0
26	25.5	13.0	19.3
27	25.5	10.5	18.0
28	28.5	7.0	17.8
29	31.5	9.0	20.3
30	30.5	10.0	20.3
31	27.0	11.0	19.0

MEAN 17.2

TABLE 35
Maximum/Minimum/Mean Daily Air Temperatures (°C)
Vanderhoof, August 1990 (AES Data)

DATE	MAX	MIN	MEAN
1	21.0	11.0	16.0
2	21.5	7.5	14.5
3	21.5	6.5	14.0
4	29.5	10.0	19.8
5	34.5	11.5	23.0
6	22.0	12.5	17.3
7	21.0	9.5	15.3
8	27.0	7.5	17.3
9	29.5	13.5	21.5
10	32.0	11.0	21.5
11	34.5	11.5	23.0
12	34.5	12.0	23.3
13	32.5	12.0	22.3
14	25.5	16.0	20.8
15	24.0	13.5	18.8
16	24.0	12.0	18.0
17	22.5	13.5	18.0
18	27.5	10.5	19.0
19	29.5	8.5	19.0
20	29.0	8.0	18.5
21	27.5	13.0	20.3
22	20.0	10.5	15.3
23	15.5	7.5	11.5
24	16.5	0.5	8.5
25	21.5	2.5	12.0
26	21.0	2.5	11.8
27	20.0	2.5	11.3
28	23.5	9.0	16.3
29	24.0	8.5	16.3
30	17.0	11.5	14.3
31	18.0	10.5	14.3

MEAN 17.2

TABLE 36
Maximum/Minimum/Mean Daily Air Temperatures (°C)
Vanderhoof, September 1990 (AES Data)

DATE	MAX	MIN	MEAN
1	16.0	7.0	11.5
2	17.0	1.0	9.0
3	20.5	1.0	10.8
4	24.0	2.5	13.3
5	23.0	5.5	14.3
6	25.5	3.0	14.3
7	24.5	8.5	16.5
8	22.0	6.0	14.0
9	25.0	3.0	14.0
10	25.5	3.5	14.5
11	23.0	7.5	15.3
12	21.5	6.5	14.0
13	24.5	2.5	13.5
14	25.0	3.5	14.3
15	26.0	4.0	15.0
16	21.5	5.0	13.3
17	20.5	0.0	10.3
18	19.0	7.5	13.3
19	18.0	1.0	9.5
20	14.0	3.5	8.8
21	24.0	4.0	14.0
22	28.0	5.0	16.5
23	26.0	6.0	16.0
24	24.0	5.5	14.8
25	18.5	5.5	12.0
26	18.5	0.0	9.3
27	17.0	-2.0	7.5
28	22.0	5.0	13.5
29	17.0	-2.0	7.5
30	16.0	2.0	9.0

MEAN 12.7

TABLE 37
Maximum/Minimum/Mean Daily Air Temperatures (°C)
Vanderhoof, October 1990 (AES Data)

DATE	MAX	MIN	MEAN
1	12.0	5.5	8.8
2	11.5	2.0	6.8
3	5.0	-3.5	0.8
4	4.0	0.5	2.3
5	6.5	-2.0	2.3
6	7.0	-5.0	1.0
7	8.0	-1.0	3.5
8	13.5	5.5	9.5
9	12.0	4.0	8.0
10	9.5	-1.5	4.0
11	3.0	-4.0	-0.5
12	10.5	-1.5	4.5
13	8.5	-0.5	4.0
14	8.5	-5.0	1.8
15	7.0	-5.0	1.0
16	6.5	-1.5	2.5
17	3.5	-1.5	1.0
18	8.5	2.0	5.3
19	6.5	-5.5	0.5
20	7.0	-6.0	0.5
21	10.0	0.5	5.3
22	8.5	-1.0	3.8
23	10.0	-0.5	4.8
24	12.0	5.5	8.8
25	4.0	0.5	2.3
26	7.5	-1.5	3.0
27	11.0	0.5	5.8
28	4.0	-2.5	0.8
29	2.0	-4.5	-1.3
30	8.0	-0.5	3.8
31	5.0	-3.0	1.0

MEAN 3.4

TABLE 38
Maximum/Minimum/Mean Daily Air Temperatures (°C)
Vanderhoof, November 1990 (AES Data)

DATE	MAX	MIN	MEAN
1	5.5	-7.0	-0.8
2	1.5	-8.0	-3.3
3	10.0	0.0	5.0
4	0.5	-3.5	-1.5
5	1.0	-10.0	-4.5
6	0.0	-11.0	-5.5
7	9.0	-6.0	2.0
8	0.5	-5.0	-2.3
9	1.5	-2.5	-0.5
10	0.0	-5.0	-2.5
11	-4.5	-11.5	-8.0
12	2.0	-10.0	-4.0
13	4.5	-3.5	0.5
14	-1.0	-7.5	-4.3
15	3.0	-9.5	-3.3
16	2.5	-5.5	-1.5
17	1.0	-11.0	-5.0
18	3.0	-5.0	-1.0
19	1.0	-9.0	-4.0
20	-11.0	-19.5	-15.3
21	-2.5	-13.0	-7.8
22	-8.0	-10.5	-9.3
23	-9.5	-11.0	-10.3
24	-10.0	-15.5	-12.8
25	-11.5	-14.0	-12.8
26	-9.0	-16.5	-12.8
27	1.5	-15.5	-7.0
28	5.0	-4.0	0.5
29	-3.0	-10.0	-6.5
30	-8.0	-6.5	-12.3
MEAN			-5.0

TABLE 39
Maximum/Minimum/Mean Daily Air Temperatures (°C)
Vanderhoof, December 1990 (AES Data)

DATE	MAX	MIN	MEAN
1	-6.0	-18.5	-12.5
2	0.0	-18.0	-9.0
3	7.5	-7.0	0.3
4	0.0	-8.0	-4.0
5	5.5	-11.0	-2.8
6	7.5	0.5	4.0
7	8.0	2.0	5.0
8	6.5	-0.5	3.0
9	-2.5	-11.5	-7.0
10	-6.0	-13.5	-9.8
11	-6.0	-7.5	-6.3
12	-6.5	-11.5	-8.5
13	-0.5	-16.5	-8.5
14	0.5	-3.5	-1.5
15	-6.5	-17.5	-12.0
16	1.0	-11.5	-6.3
17	1.5	-16.0	-7.3
18	-19.0	-21.5	-20.3
19	-23.0	-33.5	-28.3
20	-25.5	-39.0	-32.3
21	-18.0	-32.0	-25.0
22	-15.0	-19.0	-17.0
23	-11.5	-24.0	-17.8
24	-8.0	-16.5	-12.3
25	-4.5	-10.0	-7.3
26	4.0	-9.5	-2.8
27	-17.0	-25.0	-21.0
28	-27.5	-39.5	-33.5
29	-21.0	-39.5	-30.3
30	-16.5	-25.0	-20.8
31	-15.5	-20.0	-17.8
MEAN			-11.9

TABLE 40
Accumulated Degree Days Below 0°C
Irvine's, Winter 1989-90 (WSC-DCP and DFO Data)

DATE	OCTOBER 1989		NOVEMBER 1989		DECEMBER 1989		JANUARY 1990		FEBRUARY 1990		MARCH 1990		APRIL 1990	
	Mean Temp	Cumul-ative Temp	Mean Temp	Cumul-ative Temp	Mean Temp	Cumul-ative Temp	Mean Temp	Cumul-ative Temp	Mean Temp	Cumul-ative Temp	Mean Temp	Cumul-ative Temp	Mean Temp	Cumul-ative Temp
1			0.7	11.0	-1.6	97.8	-5.6	250.8	-21.6	508.7	0.2	751.0	5.2	823.4
2			5.0	11.0	0.2	97.8	-6.4	257.2	-16.0	524.7	-3.2	754.2	2.9	823.4
3			5.8	11.0	0.2	97.8	-1.9	259.1	-8.9	533.6	-5.2	759.4	3.4	823.4
4			2.2	11.0	-1.4	99.2	-4.0	263.1	-9.9	543.5	-2.6	762.0	0.7	823.4
5			2.5	11.0	-2.9	102.1	-1.5	264.6	-6.1	549.6	0.2	762.0	2.9	823.4
6			0.7	11.0	-4.0	106.1	-4.3	268.9	-9.1	558.7	0.2	762.0	2.3	823.4
7			1.6	11.0	-2.3	108.4	-1.8	270.7	-9.3	568.0	-3.8	765.8	2.4	823.4
8			4.2	11.0	-6.9	115.3	-5.2	275.9	-10.1	578.1	-6.2	772.0	-1.6	825.0
9			5.8	11.0	-9.1	124.4	-2.6	278.5	-1.0	579.1	-8.8	780.8	-2.5	827.5
10			0.5	11.0	-7.7	132.1	-5.7	284.2	-2.9	582.0	-0.8	781.6	-1.8	829.3
11			-4.6	15.6	-9.2	141.3	-14.0	298.2	-6.3	588.3	-2.8	784.4		
12			-5.3	20.9	-1.3	142.6	-7.6	305.8	-16.2	604.5	-1.4	785.8		
13			-3.5	24.4	0.0	142.6	-4.1	309.9	-21.8	626.3	1.2	785.8		
14			-4.0	28.4	-1.4	144.0	-7.1	317.0	-11.3	637.6	1.6	785.8		
15	-1.3	1.3	-4.6	33.0	-1.2	145.2	-9.0	326.0	-15.2	652.8	-0.3	786.1		
16	-1.8	3.1	-2.4	35.4	-0.9	146.1	-12.6	338.6	-26.6	679.4	1.1	786.1		
17	4.8	3.1	-1.1	36.5	-3.8	149.9	-17.4	356.0	-27.2	706.6	0.4	786.1		
18	5.9	3.1	4.3	36.5	-8.4	158.3	-11.5	367.5	-17.3	723.9	2.7	786.1		
19	3.6	3.1	-0.3	36.8	-11.7	170.0	-11.6	379.1	-13.1	737.0	0.8	786.1		
20	2.7	3.1	-3.7	40.5	-19.6	189.6	-4.5	383.6	-1.8	738.8	-2.0	788.1		
21	1.7	3.1	-5.8	46.3	-16.6	206.2	0.3	383.6	3.4	738.8	-3.6	791.7		
22	1.0	3.1	-6.0	52.3	-10.1	216.3	-2.0	385.6	3.5	738.8	-9.6	801.3		
23	4.2	3.1	-2.5	54.8	-3.7	220.0	-5.2	390.8	-1.4	740.2	-10.3	811.6		
24	6.0	3.1	-7.4	62.2	-2.7	222.7	-3.2	394.0	3.0	740.2	-7.5	819.1		
25	4.6	3.1	-8.0	70.2	0.9	222.7	-0.7	394.7	0.6	740.2	-4.3	823.4		
26	2.6	3.1	-7.3	77.5	-1.0	223.7	-9.1	403.8	-2.8	743.0	2.2	823.4		
27	-2.3	5.4	-7.4	84.9	-0.4	224.1	-3.9	407.7	-4.7	747.7	0.8	823.4		
28	-2.9	8.3	-2.8	87.7	-5.8	229.9	-7.3	415.0	-3.3	751.0	4.2	823.4		
29	2.0	8.3	-5.1	92.8	-4.7	234.6	-15.4	430.4			4.0	823.4		
30	0.7	8.3	-3.4	96.2	-4.1	238.7	-23.9	454.3			4.3	823.4		
31	-2.7	11.0			-6.5	245.2	-32.8	487.1			2.3	823.4		

TABLE 41
Accumulated Degree Days Below 0°C
Fort Fraser, Winter 1989-90 (WSC-DCP Data)

DATE	OCTOBER 1989		NOVEMBER 1989		DECEMBER 1989		JANUARY 1990		FEBRUARY 1990		MARCH 1990		APRIL 1990	
	Mean Temp	Cumul-ative Temp	Mean Temp	Cumul-ative Temp	Mean Temp	Cumul-ative Temp	Mean Temp	Cumul-ative Temp	Mean Temp	Cumul-ative Temp	Mean Temp	Cumul-ative Temp	Mean Temp	Cumul-ative Temp
1			2.0	5.6	-1.5	75.6	-3.0	197.7	-21.8	427.3	3.0	659.3	5.5	720.7
2			6.5	5.6	1.5	75.6	-5.3	203.0	-16.3	443.6	-1.3	660.6	3.5	720.7
3			6.8	5.6	0.5	75.6	0.8	203.0	-7.8	451.4	-4	664.6	4.5	720.7
4			5.3	5.6	1.8	75.6	-1.3	204.3	-8.5	459.9	-1.0	665.6	2.8	720.7
5			4.5	5.6	-4.5	80.1	-0.5	204.8	-5.0	464.9	1.8	665.6	4.8	720.7
6			0.8	5.6	-1.8	81.9	-2.3	207.1	-6.5	471.4	0.5	665.6	4.0	720.7
7			1.3	5.6	-4.3	86.2	-0.5	207.6	-8.0	479.4	-4.0	669.6	3.0	720.7
8			5.5	5.6	-6.0	92.2	-1.3	208.9	-10.0	489.4	-1.5	671.1	-1.5	722.2
9			6.8	5.6	-3.8	96.0	-1.0	209.9	0.8	489.4	-9.3	680.4	-2.3	724.5
10			1.3	5.6	-7.3	103.3	-4.5	214.4	-3.3	492.7	1.0	680.4	-0.8	725.3
11			-3.0	8.6	-5.8	109.1	-12.5	226.9	-3.5	496.2	-1.5	681.9		
12			-4.0	12.6	1.0	109.1	-8.3	235.2	-14.5	510.7	-1.0	682.9		
13			-4.3	16.9	2.3	109.1	-3.0	238.2	-22.5	533.2	2.0	682.9		
14			-4.0	20.9	0.5	109.1	-5.0	243.2	-15.8	549.0	0.8	682.9		
15			-4.3	25.2	-1.3	110.4	-7.0	250.2	-16.5	565.5	-0.5	683.4		
16	-1.5	1.5	0.0	25.2	-0.8	111.2	-13.0	263.2	-29.0	594.5	2.0	683.4		
17	2.5	1.5	-0.8	26.0	-5.3	116.5	-16.0	279.2	-26.5	621.0	2.3	683.4		
18	8.0	1.5	6.0	26.0	-8.3	124.8	-13.0	292.2	-18.5	639.5	3.3	683.4		
19	5.0	1.5	1.0	26.0	-13.0	137.8	-10.0	302.2	-13.3	652.8	4.0	683.4		
20	3.5	1.5	-3.0	29.0	-18.5	156.3	-4.3	306.5	-3.5	656.3	-1.8	685.2		
21	3.8	1.5	-4.5	33.5	-17.3	173.6	1.3	306.5	2.3	656.3	-4.0	689.2		
22	2.5	1.5	-6.0	39.5	-8.3	181.9	-0.3	306.8	6.3	656.3	-11.0	700.2		
23	4.5	1.5	-0.5	40.0	-1.5	183.4	-5.5	312.3	0.5	656.3	-10.0	710.2		
24	7.3	1.5	-4.3	44.3	-1.5	184.9	-2.8	315.1	4.3	656.3	-7.0	717.2		
25	5.5	1.5	-5.5	49.8	3.3	184.9	-0.8	315.9	1.8	656.3	-3.5	720.7		
26	4.0	1.5	-5.5	55.3	0.3	184.9	-7.0	322.9	1.5	656.3	3.0	720.7		
27	-0.3	1.8	-7.5	62.8	1.3	184.9	-4.0	326.9	-2.5	658.8	3.5	720.7		
28	-1.5	3.3	-4.3	67.1	-3.5	188.4	-5.8	332.7	-0.5	659.3	5.5	720.7		
29	3.5	3.3	-4.5	71.6	-1.3	189.7	-16.0	348.7			5.8	720.7		
30	2.5	3.3	-2.5	74.1	-2.5	192.2	-24.5	373.2			6.5	720.7		
31	-2.3	5.6			-2.5	194.7	-32.3	405.5			2.5	720.7		

TABLE 42
Accumulated Degree Days Below 0°C
Vanderhoof, Winter 1989-90 (AES Data)

DATE	OCTOBER 1989		NOVEMBER 1989		DECEMBER 1989		JANUARY 1990		FEBRUARY 1990		MARCH 1990		APRIL 1990	
	Mean Temp	Cumul-ative Temp	Mean Temp	Cumul-ative Temp	Mean Temp	Cumul-ative Temp	Mean Temp	Cumul-ative Temp	Mean Temp	Cumul-ative Temp	Mean Temp	Cumul-ative Temp	Mean Temp	Cumul-ative Temp
1			1.0	4.3	1.0	52.5	-2.5	189.2	-21.8	432.9	3.3	672.2	7.3	731.2
2			7.0	4.3	5.3	52.5	-5.3	194.5	-13.8	446.7	-1.8	674.0	5.3	731.2
3			6.8	4.3	5.5	52.5	-0.3	194.8	-7.5	454.2	-4.0	678.0	4.5	731.2
4			5.0	4.3	2.3	52.5	-2.0	196.8	-10.8	465.0	-4.5	682.5	4.5	731.2
5			4.5	4.3	-2.5	55.0	1.0	196.8	-3.5	468.5	0.3	682.5	5.3	731.2
6			0.5	4.3	-3.0	58.0	-3.3	200.1	-7.5	476.0	2.3	682.5	5.0	731.2
7			2.3	4.3	-1.3	59.3	1.3	200.1	-6.8	482.8	-3.0	685.5	4.3	731.2
8			4.8	4.3	-7.0	66.3	-4.0	204.1	-11.0	493.8	-1.0	686.5	-0.5	731.7
9			7.8	4.3	-6.3	72.6	0.3	204.1	-1.8	495.6	-8.0	694.5	-2.0	733.7
10			0.5	4.3	-9.8	82.4	-5.5	209.6	-4.8	500.4	1.8	694.5		
11			-2.5	6.8	-7.5	89.9	-13.3	222.9	-7.3	507.7	-4.0	698.5		
12			-3.3	10.1	-2.5	92.4	-9.0	231.9	-15.5	523.2	-1.0	699.5		
13			-1.3	11.4	-2.0	94.4	-4.0	235.9	-24.8	548.0	2.5	699.5		
14			-3.0	14.4	-1.0	95.4	-7.3	243.2	-16.0	564.0	4.3	699.5		
15			-3.8	18.2	-2.5	97.9	-5.3	248.5	-18.5	582.5	0.5	699.5		
16			-0.8	19.0	-1.3	99.2	-11.8	260.3	-25.0	607.5	2.3	699.5		
17			-1.3	20.3	-5.3	104.5	-16.3	276.6	-27.5	635.0	-0.3	699.8		
18			7.5	20.3	-8.0	112.5	-13.5	290.1	-16.8	651.8	4.8	699.8		
19			1.8	20.3	-14.0	126.5	-12.5	302.6	-10.0	661.8	3.3	699.8		
20			-2.5	22.8	-19.0	145.5	-7.5	310.1	-1.3	663.1	-3.3	703.1		
21			-4.0	26.8	-15.5	161.0	-1.0	311.1	4.0	663.1	-3.5	706.6		
22			-3.3	30.1	-8.3	169.3	-0.5	311.6	5.0	663.1	-7.3	713.9		
23			-1.3	31.4	-1.5	170.8	-7.5	319.1	0.5	663.1	-7.5	721.4		
24			-5.3	36.7	-0.8	171.6	-1.0	320.1	4.0	663.1	-5.8	727.2		
25			-6.0	42.7	2.0	171.6	0.3	320.1	1.5	663.1	-4.0	731.2		
26			-5.5	48.2	-0.8	172.4	-8.3	328.4	-2.8	665.9	4.3	731.2		
27			-4.3	52.5	2.3	172.4	-3.8	332.2	-2.5	668.4	2.5	731.2		
28	-2.3	2.3	2.8	52.5	-6.0	178.4	-5.8	338.0	-3.8	672.2	5.8	731.2		
29	1.3	2.3	1.3	52.5	-4.0	182.4	-16.3	354.3			6.3	731.2		
30	3.3	2.3	2.5	52.5	-2.3	184.7	-24.5	378.8			6.8	731.2		
31	-2.0	4.3			-2.0	186.7	-32.3	411.1			3.5	731.2		

TABLE 43
1990 Mean Daily Water Temperatures (°C) Nechako River at Irvine's
(Unpublished WSC-DCP Data)

DATE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	1.6	0.0	1.3	2.7	4.6	11.4	14.7	18.0	16.8	13.1	5.4	0.9
2	1.5	0.0	1.0	2.5	4.8	11.3	14.8	17.7	16.1	12.3	4.9	0.9
3	1.8	0.0	0.9	2.8	5.1	10.4	14.8	17.4	16.3	11.6	5.4	1.8
4	1.5	0.0	1.1	2.6	5.3	11.2	15.3	17.4	16.2	11.6	5.2	1.6
5	1.7	0.2	1.4	3.0	5.5	11.6	15.3	17.7	16.6	11.2	4.6	1.5
6	1.5	0.3	1.3	3.0	5.2	11.8	15.7	17.9	16.5	10.9	4.5	2.1
7	1.6	0.3	1.1	3.1	5.6	11.1	16.6	17.2	16.3	11.2	4.6	2.2
8	1.2	0.3	0.9	2.6	5.7	11.5	16.7	17.3	16.6	11.3	4.5	1.9
9	1.1	0.7	0.7	2.7	5.9	12.1	16.9	17.5	16.3	11.1	4.4	1.0
10	0.9	0.8	1.4	3.1	6.2	11.4	17.5	17.6	16.5	10.1	4.3	1.1
11	0.4	0.5	1.4	3.5	6.5	11.5	18.1	18.0	16.6	9.5	2.8	1.6
12	0.9	0.0	1.4	3.6	6.2	11.2	17.3	18.1	16.6	9.4	3.2	1.2
13	1.3	0.0	1.5	3.8	6.2	11.6	17.5	18.0	16.3	9.1	3.5	1.0
14	1.0	0.2	1.7	3.8	7.1	12.1	17.4	18.3	16.2	8.6	3.4	1.6
15	0.0	0.1	1.6	3.9	7.5	13.4	17.2	17.8	16.0	8.5	3.4	0.9
16	0.4	0.0	1.7	3.8	7.7	13.0	16.7	17.8	16.2	8.2	3.5	1.1
17	0.1	0.0	1.8	3.8	7.6	12.7	16.5	17.8	15.6	8.1	3.0	1.3
18	0.5	0.0	2.2	3.8	7.8	12.9	16.5	18.0	15.5	7.7	3.5	0.0
19	0.5	0.0	1.9	4.1	8.4	12.8	16.5	18.3	14.9	7.7	3.4	0.0
20	1.0	0.1	1.7	3.8	8.0	13.0	16.7	18.7	14.8	7.3	2.3	0.0
21	1.4	0.4	1.5	4.0	8.0	14.2	17.1	18.9	15.6	7.5	1.9	0.0
22	1.2	0.8	0.7	4.0	8.4	15.0	17.0	18.9	15.7	7.1	2.2	0.2
23	0.7	0.8	1.0	4.1	9.2	15.0	16.9	17.8	15.6	7.2	1.5	0.2
24	1.0	1.2	1.3	4.1	10.1	14.4	17.2	17.3	15.5	7.6	1.4	0.6
25	1.2	0.8	1.7	4.1	10.0	14.2	17.6	17.2	15.1	7.3	1.4	0.9
26	0.4	0.8	2.4	4.2	9.6	14.3	17.8	17.2	14.5	6.8	1.5	1.1
27	1.0	0.8	2.3	4.2	8.9	14.5	17.7	17.0	13.9	6.8	1.5	0.3
28	0.7	0.9	2.6	4.1	9.0	14.6	17.9	17.3	14.0	6.3	1.6	0.0
29	0.1		2.6	4.3	10.1	14.9	18.1	17.5	13.3	5.9	1.4	0.0
30	0.0		2.9	4.4	10.7	14.2	18.3	17.2	13.4	6.0	1.1	n/a
31	0.0		2.6		10.9		18.3	17.2		5.8		0.0
MEAN	0.9	0.4	1.6	3.6	7.5	12.8	16.9	17.7	15.6	8.8	3.2	0.9

MEAN ANNUAL = 7.5

Source: Jan - Oct Unpublished WSC-DCP data from magnetic tape.
Nov to Dec Unpublished WSC-DCP data from EP Microvax (dayfiles)

TABLE 44
Maximum/Minimum/Mean Daily Water Temperatures (°C)
Nechako River at Irvine's, January 1990
(Unpublished WSC-DCP Data)

DATE	MAX	MIN	MEAN
1	1.7	1.4	1.6
2	1.8	1.2	1.5
3	1.9	1.6	1.8
4	1.8	1.2	1.5
5	1.9	1.6	1.7
6	1.8	1.3	1.5
7	1.7	1.4	1.6
8	1.4	0.9	1.2
9	1.3	0.8	1.1
10	1.3	0.6	0.9
11	0.8	0.2	0.4
12	1.2	0.6	0.9
13	1.6	1.1	1.3
14	1.3	0.9	1.0
15	0.0	0.0	0.0
16	0.5	0.2	0.4
17	0.2	0.0	0.1
18	0.9	0.1	0.5
19	0.8	0.2	0.5
20	1.6	0.5	1.0
21	1.6	1.2	1.4
22	1.4	1.1	1.2
23	1.1	0.5	0.7
24	1.4	0.6	1.0
25	1.5	0.6	1.2
26	0.8	0.1	0.4
27	1.3	0.8	1.0
28	1.1	0.5	0.7
29	0.4	0.0	0.1
30	0.0	0.0	0.0
31	0.0	0.0	0.0
MEAN			0.9

TABLE 45
Maximum/Minimum/Mean Daily Water Temperatures (°C)
Nechako River at Irvine's, February 1990
(Unpublished WSC-DCP Data)

DATE	MAX	MIN	MEAN
1	0.0	0.0	0.0
2	0.0	0.0	0.0
3	0.0	0.0	0.0
4	0.0	0.0	0.0
5	0.5	0.0	0.2
6	0.6	0.1	0.3
7	0.6	0.1	0.3
8	0.7	0.0	0.3
9	1.2	0.4	0.7
10	1.2	0.4	0.8
11	0.7	0.2	0.5
12	0.2	0.0	0.0
13	0.0	0.0	0.0
14	0.6	0.0	0.2
15	0.3	0.0	0.1
16	0.0	0.0	0.0
17	0.0	0.0	0.0
18	0.0	0.0	0.0
19	0.0	0.0	0.0
20	0.3	0.0	0.1
21	1.1	0.1	0.4
22	1.5	0.4	0.8
23	1.5	0.4	0.8
24	2.0	0.7	1.2
25	1.4	0.4	0.8
26	1.6	0.1	0.8
27	1.6	0.1	0.8
28	1.6	0.4	0.9
MEAN			0.4

TABLE 46
Maximum/Minimum/Mean Daily Water Temperatures (°C)
Nechako River at Irvine's, March 1990
(Unpublished WSC-DCP Data)

DATE	MAX	MIN	MEAN
1	2.2	0.7	1.3
2	1.9	0.3	1.0
3	1.9	0.2	0.9
4	1.9	0.5	1.1
5	1.9	0.8	1.4
6	2.1	0.7	1.3
7	1.6	0.6	1.1
8	1.7	0.2	0.9
9	1.4	0.1	0.7
10	2.2	1.1	1.4
11	2.4	0.7	1.4
12	2.3	0.5	1.4
13	1.7	1.3	1.5
14	2.7	1.2	1.7
15	2.4	0.8	1.6
16	2.2	1.4	1.7
17	2.9	1.1	1.8
18	3.2	1.6	2.2
19	3.2	0.8	1.9
20	2.3	1.1	1.7
21	2.2	0.7	1.5
22	1.5	0.1	0.7
23	2.6	0.0	1.0
24	3.0	0.1	1.3
25	3.3	0.4	1.7
26	4.1	1.3	2.4
27	3.8	1.1	2.3
28	4.2	1.6	2.6
29	3.8	1.7	2.6
30	4.2	2.1	2.9
31	4.1	1.4	2.6
MEAN			1.6

TABLE 47
Maximum/Minimum/Mean Daily Water Temperatures (°C)
Nechako River at Irvine's, April 1990
(Unpublished WSC-DCP Data)

DATE	MAX	MIN	MEAN
1	3.1	2.0	2.7
2	3.5	1.6	2.5
3	4.4	1.5	2.8
4	4.5	1.5	2.6
5	4.7	1.7	3.0
6	4.7	1.7	3.0
7	4.8	1.9	3.1
8	3.8	1.5	2.6
9	4.3	1.6	2.7
10	4.9	2.0	3.1
11	4.4	2.9	3.5
12	4.6	2.8	3.6
13	4.8	3.3	3.8
14	5.1	3.1	3.8
15	5.1	3.1	3.9
16	5.0	3.1	3.8
17	4.4	3.3	3.8
18	4.4	3.4	3.8
19	4.4	3.7	4.1
20	4.5	3.2	3.8
21	4.5	3.7	4.0
22	4.6	3.7	4.0
23	4.7	3.8	4.1
24	4.6	3.7	4.1
25	4.6	3.7	4.1
26	4.7	3.8	4.2
27	4.7	3.8	4.2
28	4.6	3.7	4.1
29	5.2	3.7	4.3
30	5.0	3.9	4.4
MEAN			3.6

TABLE 48
Maximum/Minimum/Mean Daily Water Temperatures (°C)
Nechako River at Irvine's, May 1990
(Unpublished WSC-DCP Data)

DATE	MAX	MIN	MEAN
1	4.9	4.3	4.6
2	5.5	4.4	4.8
3	6.0	4.6	5.1
4	6.4	4.6	5.3
5	6.7	4.9	5.5
6	5.6	4.8	5.2
7	6.4	5.0	5.6
8	6.3	5.2	5.7
9	6.3	5.5	5.9
10	7.2	5.5	6.2
11	7.3	5.9	6.5
12	7.5	5.1	6.2
13	7.2	5.0	6.2
14	8.2	6.3	7.1
15	8.8	6.4	7.5
16	8.3	7.0	7.7
17	8.9	6.8	7.6
18	9.0	6.8	7.8
19	9.9	7.1	8.4
20	9.1	7.0	8.0
21	9.5	6.7	8.0
22	9.7	8.0	8.4
23	10.8	8.1	9.2
24	11.5	8.9	10.1
25	10.3	9.7	10.0
26	10.3	9.1	9.6
27	10.2	7.4	8.9
28	10.0	7.8	9.0
29	11.4	9.2	10.1
30	11.5	10.2	10.7
31	11.6	10.6	10.9
MEAN			7.5

TABLE 49
Maximum/Minimum/Mean Daily Water Temperatures (°C)
Nechako River at Irvine's, June 1990
(Unpublished WSC-DCP Data)

DATE	MAX	MIN	MEAN
1	12.7	10.3	11.4
2	12.4	10.6	11.3
3	10.9	10.0	10.4
4	13.0	10.0	11.2
5	13.3	10.4	11.6
6	13.6	10.5	11.8
7	11.7	10.4	11.1
8	12.7	10.4	11.5
9	13.3	11.1	12.1
10	11.9	10.7	11.4
11	11.8	11.2	11.5
12	11.7	10.8	11.2
13	13.2	10.4	11.6
14	13.8	10.3	12.1
15	15.1	12.3	13.4
16	13.8	12.4	13.0
17	14.5	11.5	12.7
18	14.5	11.8	12.9
19	13.6	11.9	12.8
20	14.9	11.9	13.0
21	16.5	12.4	14.2
22	16.4	13.7	15.0
23	16.0	14.1	15.0
24	16.0	13.2	14.4
25	15.9	13.1	14.2
26	15.3	13.5	14.3
27	16.1	13.2	14.5
28	16.3	13.7	14.6
29	15.9	13.6	14.9
30	15.2	13.5	14.2
MEAN			12.8

TABLE 50
Maximum/Minimum/Mean Daily Water Temperatures (°C)
Nechako River at Irvine's, July 1990
(Unpublished WSC-DCP Data)

DATE	MAX	MIN	MEAN
1	16.5	13.3	14.7
2	16.8	13.6	14.8
3	15.3	14.5	14.8
4	16.7	14.2	15.3
5	17.1	14.2	15.3
6	17.0	14.9	15.7
7	18.4	15.2	16.6
8	18.0	16.0	16.7
9	18.9	15.4	16.9
10	19.3	16.1	17.5
11	20.4	16.7	18.1
12	18.2	16.5	17.3
13	18.8	16.3	17.5
14	18.5	16.4	17.4
15	18.0	16.5	17.2
16	17.1	16.3	16.7
17	17.4	15.8	16.5
18	17.3	16.1	16.5
19	17.6	15.8	16.5
20	18.0	15.6	16.7
21	18.2	16.1	17.1
22	18.1	16.2	17.0
23	17.7	16.4	16.9
24	18.2	16.7	17.2
25	18.3	16.8	17.6
26	18.3	17.4	17.8
27	18.3	17.0	17.7
28	18.6	17.3	17.9
29	19.0	17.5	18.1
30	18.9	17.8	18.3
31	19.0	17.7	18.3
MEAN			16.9

TABLE 51
Maximum/Minimum/Mean Daily Water Temperatures (°C)
Nechako River at Irvine's, August 1990
(Unpublished WSC-DCP Data)

DATE	MAX	MIN	MEAN
1	18.3	17.7	18.0
2	18.1	17.4	17.7
3	17.8	17.0	17.4
4	18.3	16.7	17.4
5	18.9	16.7	17.7
6	18.4	17.4	17.9
7	17.7	16.8	17.2
8	18.0	16.7	17.3
9	18.2	16.9	17.5
10	18.5	17.0	17.6
11	19.0	17.3	18.0
12	19.0	17.4	18.1
13	18.8	17.4	18.0
14	19.0	17.9	18.3
15	18.3	17.5	17.8
16	18.4	17.4	17.8
17	18.3	17.4	17.8
18	19.1	17.3	18.0
19	19.6	17.4	18.3
20	19.9	17.8	18.7
21	20.2	18.0	18.9
22	19.2	18.2	18.9
23	18.1	17.4	17.8
24	18.4	16.6	17.3
25	18.4	16.3	17.2
26	18.9	15.9	17.2
27	18.0	16.2	17.0
28	18.5	16.5	17.3
29	18.6	16.5	17.5
30	17.9	16.7	17.2
31	18.3	16.5	17.2
MEAN			17.7

TABLE 52
Maximum/Minimum/Mean Daily Water Temperatures (°C)
Nechako River at Irvine's, September 1990
(Unpublished WSC-DCP Data)

DATE	MAX	MIN	MEAN
1	18.2	16.1	16.8
2	17.3	15.1	16.1
3	18.2	14.8	16.3
4	17.9	15.0	16.2
5	18.4	15.4	16.6
6	18.3	15.2	16.5
7	17.4	15.4	16.3
8	18.2	15.3	16.6
9	18.1	15.1	16.3
10	18.3	15.2	16.5
11	17.9	15.6	16.6
12	18.0	15.6	16.6
13	18.0	15.0	16.3
14	17.9	15.0	16.2
15	17.5	14.7	16.0
16	17.7	15.3	16.2
17	16.9	14.5	15.6
18	16.6	15.0	15.5
19	16.1	13.8	14.9
20	16.2	13.9	14.8
21	17.3	14.4	15.6
22	17.3	14.5	15.7
23	16.9	14.6	15.6
24	16.7	14.5	15.5
25	16.1	14.2	15.1
26	15.9	13.5	14.5
27	14.9	13.2	13.9
28	15.0	13.4	14.0
29	14.0	12.4	13.3
30	14.1	12.9	13.4
MEAN			15.6

TABLE 53
Maximum/Minimum/Mean Daily Water Temperatures (°C)
Nechako River at Irvine's, October 1990
(Unpublished WSC-DCP Data)

DATE	MAX	MIN	MEAN
1	13.5	12.4	13.1
2	13.1	11.7	12.3
3	11.9	11.4	11.6
4	12.1	10.7	11.6
5	11.8	10.9	11.2
6	11.9	10.1	10.9
7	11.8	10.7	11.2
8	12.0	10.9	11.3
9	11.5	10.5	11.1
10	10.6	9.5	10.1
11	9.9	9.2	9.5
12	10.1	9.0	9.4
13	9.5	8.8	9.1
14	9.4	8.0	8.6
15	9.3	7.7	8.5
16	8.8	7.7	8.2
17	8.5	7.8	8.1
18	8.0	7.5	7.7
19	8.3	7.3	7.7
20	7.9	6.7	7.3
21	7.7	7.2	7.5
22	7.5	6.6	7.1
23	7.6	6.8	7.2
24	7.9	7.4	7.6
25	7.5	7.1	7.3
26	7.4	6.2	6.8
27	7.4	6.5	6.8
28	6.7	5.9	6.3
29	6.2	5.6	5.9
30	6.6	5.6	6.0
31	6.1	5.5	5.8
MEAN			8.8

TABLE 54
Maximum/Minimum/Mean Daily Water Temperatures (°C)
Nechako River at Irvine's, November 1990
(Unpublished WSC-DCP Data)

DATE	MAX	MIN	MEAN
1	5.9	5.2	5.4
2	5.8	4.7	5.2
3	6.0	4.9	5.4
4	5.8	4.9	5.2
5	4.9	4.3	4.6
6	4.7	4.1	4.5
7	5.0	4.3	4.6
8	4.8	4.2	4.5
9	4.7	4.1	4.4
10	4.5	4.2	4.4
11	4.2	2.0	2.9
12	3.7	2.6	3.1
13	3.8	3.2	3.5
14	3.7	2.9	3.3
15	3.8	3.0	3.4
16	3.9	3.2	3.5
17	3.3	2.6	3.0
18	3.7	3.2	3.5
19	3.8	2.8	3.5
20	2.7	2.1	2.3
21	2.1	1.8	1.9
22	2.7	2.0	2.2
23	1.9	1.1	1.5
24	1.6	1.3	1.4
25	1.7	1.3	1.5
26	1.8	1.3	1.5
27	1.8	1.3	1.5
28	2.0	1.3	1.6
29	1.6	1.3	1.4
30	1.3	0.7	1.1
MEAN			3.2

TABLE 55
Maximum/Minimum/Mean Daily Water Temperatures (°C)
Nechako River at Irvine's, December 1990
(Unpublished WSC-DCP Data)

DATE	MAX	MIN	MEAN
1	1.1	0.6	0.9
2	1.3	0.6	0.9
3	2.2	1.3	1.8
4	1.9	1.4	1.6
5	1.9	1.2	1.5
6	2.5	1.8	2.1
7	2.6	1.9	2.2
8	2.2	1.4	1.9
9	1.3	0.8	1.0
10	1.4	0.7	1.1
11	1.8	1.4	1.6
12	1.5	0.7	1.2
13	1.3	0.6	1.0
14	1.8	1.2	1.6
15	1.6	0.6	0.9
16	1.5	0.6	1.1
17	1.9	0.2	1.3
18	0.1	0.0	0.0
19	0.0	0.0	0.0
20	0.0	0.0	0.0
21	0.1	0.0	0.0
22	0.4	0.1	0.2
23	0.4	0.0	0.2
24	0.7	0.4	0.6
25	1.2	0.5	0.9
26	1.3	0.9	1.1
27	1.2	0.0	0.3
28	0.0	0.0	0.0
29	0.0	0.0	0.0
30	****	****	****
31	0.0	0.0	0.0
MEAN			0.9

****data unavailable

TABLE 56
1990 Mean Daily Water Temperatures (°C) Nechako River at Greer Creek
(Unpublished DFO Data)

DATE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	0.8	0.0	0.0	3.9	4.9	11.0	15.3	18.5	16.9	11.5	1.7	3.5
2	0.7	0.0	0.3	3.9	5.3	11.1	15.4	18.2	16.4	10.6	4.0	3.5
3	1.1	0.0	0.3	4.3	5.8	10.7	15.3	18.1	16.4	10.4	3.9	3.1
4	1.1	0.0	0.3	4.4	5.7	10.8	15.4	17.9	16.4	9.9	4.0	3.2
5	1.2	0.0	0.4	4.6	6.5	11.1	15.4	18.3	16.8	9.9	3.9	3.3
6	1.2	0.0	0.8	4.7	5.8	11.3	15.8	18.6	16.5	9.4	3.5	3.8
7	1.2	0.0	1.1	4.7	5.3	11.4	16.7	17.9	16.3	9.6	3.1	4.0
8	1.0	0.0	0.9	3.9	5.6	10.8	16.9	17.9	16.5	9.9	3.1	4.0
9	0.7	0.0	0.6	3.6	5.8	11.4	16.9	18.1	16.3	10.1	3.1	3.3
10	0.6	0.0	1.0	3.9	6.4	11.4	17.6	18.2	16.5	9.4	2.9	3.2
11	0.6	0.0	1.3	4.4	6.4	10.4	18.3	18.5	16.4	8.3	2.9	3.3
12	0.3	0.0	1.4	4.4	6.4	9.9	17.9	18.6	16.5	7.9	2.5	3.3
13	0.3	0.0	1.4	4.7	6.4	10.0	17.6	18.6	16.3	7.6	2.1	3.3
14	0.3	0.0	1.4	5.0	6.9	11.4	17.4	18.6	16.1	7.5	2.1	3.3
15	0.2	0.0	1.4	5.0	7.4	12.4	17.1	18.6	15.8	7.5	2.1	3.2
16	0.1	0.0	1.7	4.9	8.1	12.4	16.7	18.3	16.3	7.4	2.1	3.1
17	0.1	0.0	1.8	4.7	7.9	11.9	16.8	18.3	15.4	7.1	2.2	3.8
18	0.1	0.0	2.2	4.6	7.8	12.1	16.8	18.5	15.3	6.7	1.8	0.0
19	0.1	0.0	2.1	4.6	8.2	12.1	16.8	18.8	14.7	6.7	1.9	0.0
20	0.1	0.0	2.1	4.7	8.5	12.6	17.1	19.0	14.9	6.7	1.7	0.0
21	0.1	0.0	1.6	4.9	7.9	15.6	17.4	19.3	15.6	6.8	1.0	0.0
22	0.1	0.0	0.9	4.9	8.2	16.1	17.6	19.4	15.6	6.7	1.0	0.0
23	0.1	0.0	1.2	5.0	8.9	15.7	17.2	18.2	15.6	6.4	0.8	0.0
24	0.1	0.0	1.5	5.0	8.1	15.1	17.6	17.5	15.6	6.7	0.6	0.0
25	0.1	0.0	2.0	4.9	9.7	14.9	17.9	17.4	15.1	6.9	0.6	0.0
26	0.1	0.0	2.4	5.1	9.4	15.0	18.3	17.4	14.7	6.4	0.7	0.0
27	0.1	0.0	2.6	5.1	9.0	15.1	17.9	17.4	14.2	6.3	0.4	0.0
28	0.1	0.0	2.9	4.9	9.2	15.3	18.2	17.5	14.2	6.1	0.7	0.0
29	0.1		2.9	5.1	9.9	15.0	18.3	17.9	13.3	5.6	0.7	0.0
30	0.0		3.1	5.3	10.1	15.1	18.5	17.6	13.6	5.3	1.0	0.0
31	0.0		2.8		10.8		18.5	17.4		5.4		
MEAN	0.4	0.0	1.5	4.6	7.5	12.6	17.1	18.2	15.7	7.8	2.1	1.9

TABLE 57
Maximum/Minimum/Mean Daily Water Temperatures (°C)
Nechako River at Greer Creek, January 1990
(Unpublished DFO Data)

DATE	MAX	MIN	MEAN
1	0.8	0.8	0.8
2	0.8	0.6	0.7
3	1.4	0.8	1.1
4	1.4	0.8	1.1
5	1.4	1.0	1.2
6	1.4	1.0	1.2
7	1.4	1.0	1.2
8	1.4	0.6	1.0
9	0.8	0.6	0.7
10	0.8	0.4	0.6
11	0.8	0.4	0.6
12	0.3	0.2	0.3
13	0.3	0.2	0.3
14	0.3	0.2	0.3
15	0.3	0.0	0.2
16	0.2	0.0	0.1
17	0.2	0.0	0.1
18	0.2	0.0	0.1
19	0.2	0.0	0.1
20	0.1	0.0	0.1
21	0.1	0.0	0.1
22	0.1	0.0	0.1
23	0.1	0.0	0.1
24	0.1	0.0	0.1
25	0.1	0.0	0.1
26	0.1	0.0	0.1
27	0.1	0.0	0.1
28	0.1	0.0	0.1
29	0.2	0.0	0.1
30	0.0	0.0	0.0
31	0.0	0.0	0.0
MEAN			0.4

TABLE 58
Maximum/Minimum/Mean Daily Water Temperatures (°C)
Nechako River at Greer Creek, February 1990
(Unpublished DFO Data)

DATE	MAX	MIN	MEAN
1	0.0	0.0	0.0
2	0.0	0.0	0.0
3	0.0	0.0	0.0
4	0.0	0.0	0.0
5	0.0	0.0	0.0
6	0.0	0.0	0.0
7	0.0	0.0	0.0
8	0.0	0.0	0.0
9	0.0	0.0	0.0
10	0.0	0.0	0.0
11	0.0	0.0	0.0
12	0.0	0.0	0.0
13	0.0	0.0	0.0
14	0.0	0.0	0.0
15	0.0	0.0	0.0
16	0.0	0.0	0.0
17	0.0	0.0	0.0
18	0.0	0.0	0.0
19	0.0	0.0	0.0
20	0.0	0.0	0.0
21	0.0	0.0	0.0
22	0.0	0.0	0.0
23	0.0	0.0	0.0
24	0.0	0.0	0.0
25	0.0	0.0	0.0
26	0.0	0.0	0.0
27	0.0	0.0	0.0
28	0.0	0.0	0.0
MEAN			0.0

Note: Nechako River at Greer Creek covered in ice during February 1990.

TABLE 59
Maximum/Minimum/Mean Daily Water Temperatures (°C)
Nechako River at Greer Creek, March 1990
(Unpublished DFO Data)

DATE	MAX	MIN	MEAN
1	0.0	0.0	0.0
2	0.6	0.0	0.3
3	0.6	0.0	0.3
4	0.6	0.0	0.3
5	0.8	0.0	0.4
6	0.8	0.8	0.8
7	1.1	1.1	1.1
8	1.1	0.6	0.9
9	0.8	0.3	0.6
10	1.4	0.6	1.0
11	1.7	0.8	1.3
12	1.7	1.1	1.4
13	1.7	1.1	1.4
14	1.7	1.1	1.4
15	1.7	1.1	1.4
16	1.7	1.7	1.7
17	2.2	1.4	1.8
18	2.5	1.9	2.2
19	2.5	1.7	2.1
20	2.5	1.7	2.1
21	1.7	1.4	1.6
22	1.1	0.6	0.9
23	1.7	0.6	1.2
24	1.9	1.1	1.5
25	2.5	1.4	2.0
26	3.3	1.4	2.4
27	3.3	1.9	2.6
28	3.6	2.2	2.9
29	3.3	2.5	2.9
30	3.3	2.8	3.1
31	3.3	2.2	2.8
MEAN			1.5

TABLE 60
Maximum/Minimum/Mean Daily Water Temperatures (°C)
Nechako River at Greer Creek, April 1990
(Unpublished DFO Data)

DATE	MAX	MIN	MEAN
1	4.2	3.6	3.9
2	4.4	3.3	3.9
3	4.7	3.9	4.3
4	5.0	3.9	4.4
5	5.3	3.9	4.6
6	5.3	4.2	4.7
7	5.3	4.2	4.7
8	4.7	3.1	3.9
9	4.4	2.8	3.6
10	5.0	2.8	3.9
11	5.0	3.9	4.4
12	5.3	3.6	4.4
13	5.3	4.2	4.7
14	5.8	4.2	5.0
15	5.8	4.2	5.0
16	5.6	4.2	4.9
17	5.3	4.2	4.7
18	5.0	4.2	4.6
19	5.0	4.2	4.6
20	5.3	4.2	4.7
21	5.3	4.4	4.9
22	5.3	4.4	4.9
23	5.6	4.4	5.0
24	5.6	4.4	5.0
25	5.3	4.4	4.9
26	5.6	4.7	5.1
27	5.6	4.7	5.1
28	5.3	4.4	4.9
29	5.8	4.4	5.1
30	5.8	4.7	5.3
MEAN			4.6

TABLE 61
Maximum/Minimum/Mean Daily Water Temperatures (°C)
Nechako River at Greer Creek, May 1990
(Unpublished DFO Data)

DATE	MAX	MIN	MEAN
1	5.3	4.4	4.9
2	6.1	4.4	5.3
3	6.7	5.0	5.8
4	6.4	5.0	5.7
5	7.2	5.8	6.5
6	6.7	5.0	5.8
7	5.6	5.0	5.3
8	5.8	5.3	5.6
9	6.4	5.3	5.8
10	7.2	5.6	6.4
11	6.9	5.8	6.4
12	7.2	5.6	6.4
13	7.2	5.6	6.4
14	7.8	6.1	6.9
15	8.1	6.7	7.4
16	9.2	6.9	8.1
17	8.9	6.9	7.9
18	8.9	6.7	7.8
19	9.4	6.9	8.2
20	9.4	7.5	8.5
21	8.9	6.9	7.9
22	8.9	7.5	8.2
23	10.6	7.2	8.9
24	10.6	5.6	8.1
25	10.6	8.9	9.7
26	10.0	8.9	9.4
27	9.7	8.3	9.0
28	9.7	8.6	9.2
29	10.6	9.2	9.9
30	10.6	9.7	10.1
31	11.4	10.3	10.8
MEAN			7.5

TABLE 62
Maximum/Minimum/Mean Daily Water Temperatures (°C)
Nechako River at Greer Creek, June 1990
(Unpublished DFO Data)

DATE	MAX	MIN	MEAN
1	11.9	10.0	11.0
2	11.9	10.3	11.1
3	11.7	9.7	10.7
4	12.5	9.2	10.8
5	12.2	10.0	11.1
6	12.5	10.0	11.3
7	12.5	10.3	11.4
8	11.7	10.0	10.8
9	12.5	10.3	11.4
10	12.5	10.3	11.4
11	10.6	10.3	10.4
12	10.3	9.4	9.9
13	10.8	9.2	10.0
14	12.5	10.3	11.4
15	13.3	11.4	12.4
16	13.1	11.7	12.4
17	12.8	11.1	11.9
18	13.1	11.1	12.1
19	12.8	11.4	12.1
20	13.9	11.4	12.6
21	16.9	14.2	15.6
22	17.2	15.0	16.1
23	16.7	14.7	15.7
24	16.1	14.2	15.1
25	15.8	13.9	14.9
26	15.8	14.2	15.0
27	16.1	14.2	15.1
28	16.4	14.2	15.3
29	15.8	14.2	15.0
30	15.6	14.7	15.1
MEAN			12.6

TABLE 63
Maximum/Minimum/Mean Daily Water Temperatures (°C)
Nechako River at Greer Creek, July 1990
(Unpublished DFO Data)

DATE	MAX	MIN	MEAN
1	16.7	13.9	15.3
2	16.7	14.2	15.4
3	15.8	14.7	15.3
4	16.4	14.4	15.4
5	16.1	14.7	15.4
6	16.7	15.0	15.8
7	18.3	15.0	16.7
8	17.8	16.1	16.9
9	18.3	15.6	16.9
10	19.2	16.1	17.6
11	19.7	16.9	18.3
12	18.9	16.9	17.9
13	18.9	16.4	17.6
14	18.3	16.4	17.4
15	17.8	16.4	17.1
16	17.2	16.1	16.7
17	17.8	15.8	16.8
18	17.5	16.1	16.8
19	17.8	15.8	16.8
20	18.1	16.1	17.1
21	18.3	16.4	17.4
22	18.3	16.9	17.6
23	17.8	16.7	17.2
24	18.3	16.9	17.6
25	18.6	17.2	17.9
26	18.9	17.8	18.3
27	18.6	17.2	17.9
28	18.9	17.5	18.2
29	18.9	17.8	18.3
30	18.9	18.1	18.5
31	19.2	17.8	18.5
MEAN			17.1

TABLE 64
Maximum/Minimum/Mean Daily Water Temperatures (°C)
Nechako River at Greer Creek, August 1990
(Unpublished DFO Data)

DATE	MAX	MIN	MEAN
1	18.9	18.1	18.5
2	18.6	17.8	18.2
3	18.6	17.5	18.1
4	18.6	17.2	17.9
5	19.2	17.5	18.3
6	19.2	18.1	18.6
7	18.6	17.2	17.9
8	18.6	17.2	17.9
9	18.6	17.5	18.1
10	18.9	17.5	18.2
11	19.2	17.8	18.5
12	19.2	18.1	18.6
13	19.2	18.1	18.6
14	19.2	18.1	18.6
15	19.4	17.8	18.6
16	18.9	17.8	18.3
17	18.9	17.8	18.3
18	19.2	17.8	18.5
19	19.7	17.8	18.8
20	20.0	18.1	19.0
21	20.3	18.3	19.3
22	20.3	18.6	19.4
23	18.6	17.8	18.2
24	18.1	16.9	17.5
25	18.1	16.7	17.4
26	18.3	16.4	17.4
27	18.3	16.4	17.4
28	18.3	16.7	17.5
29	18.6	17.2	17.9
30	18.3	16.9	17.6
31	17.8	16.9	17.4
MEAN			18.2

TABLE 65
Maximum/Minimum/Mean Daily Water Temperatures (°C)
Nechako River at Greer Creek, September 1990
(Unpublished DFO Data)

DATE	MAX	MIN	MEAN
1	17.8	16.1	16.9
2	17.2	15.6	16.4
3	17.8	15.0	16.4
4	17.5	15.3	16.4
5	18.1	15.6	16.8
6	17.8	15.3	16.5
7	16.9	15.6	16.3
8	17.8	15.3	16.5
9	17.5	15.0	16.3
10	17.8	15.3	16.5
11	17.2	15.6	16.4
12	17.5	15.6	16.5
13	17.5	15.0	16.3
14	17.2	15.0	16.1
15	16.9	14.7	15.8
16	17.2	15.3	16.3
17	16.4	14.4	15.4
18	16.1	14.4	15.3
19	15.6	13.9	14.7
20	15.8	13.9	14.9
21	16.7	14.4	15.6
22	16.7	14.4	15.6
23	16.4	14.7	15.6
24	16.4	14.7	15.6
25	15.8	14.4	15.1
26	15.6	13.9	14.7
27	14.7	13.6	14.2
28	14.7	13.6	14.2
29	13.9	12.8	13.3
30	14.2	13.1	13.6
MEAN			15.7

TABLE 66
Maximum/Minimum/Mean Daily Water Temperatures (°C)
Nechako River at Greer Creek, October 1990
(Unpublished DFO Data)

DATE	MAX	MIN	MEAN
1	11.7	11.4	11.5
2	11.1	10.0	10.6
3	10.8	10.0	10.4
4	10.0	9.7	9.9
5	10.0	9.7	9.9
6	9.7	9.2	9.4
7	9.7	9.4	9.6
8	10.0	9.7	9.9
9	10.3	10.0	10.1
10	10.0	8.9	9.4
11	8.9	7.8	8.3
12	8.1	7.8	7.9
13	7.8	7.5	7.6
14	7.8	7.2	7.5
15	7.8	7.2	7.5
16	7.5	7.2	7.4
17	7.2	6.9	7.1
18	6.9	6.4	6.7
19	6.7	6.7	6.7
20	6.9	6.4	6.7
21	7.2	6.4	6.8
22	7.2	6.1	6.7
23	6.7	6.1	6.4
24	7.2	6.1	6.7
25	7.2	6.7	6.9
26	6.7	6.1	6.4
27	6.4	6.1	6.3
28	6.4	5.8	6.1
29	5.8	5.3	5.6
30	5.3	5.3	5.3
31	5.6	5.3	5.4
MEAN			7.8

TABLE 67
Maximum/Minimum/Mean Daily Water Temperatures (°C)
Nechako River at Greer Creek, November 1990
(Unpublished DFO Data)

DATE	MAX	MIN	MEAN
1	1.7	1.7	1.7
2	4.2	3.9	4.0
3	4.2	3.6	3.9
4	4.2	3.9	4.0
5	4.2	3.6	3.9
6	3.6	3.3	3.5
7	3.3	2.8	3.1
8	3.3	2.8	3.1
9	3.3	2.8	3.1
10	3.1	2.8	2.9
11	3.1	2.8	2.9
12	2.8	2.2	2.5
13	2.2	1.9	2.1
14	2.2	1.9	2.1
15	2.2	1.9	2.1
16	2.2	1.9	2.1
17	2.2	2.2	2.2
18	2.2	1.4	1.8
19	2.2	1.7	1.9
20	2.2	1.1	1.7
21	1.1	0.8	1.0
22	1.1	0.8	1.0
23	1.1	0.6	0.8
24	0.6	0.6	0.6
25	0.6	0.6	0.6
26	0.8	0.6	0.7
27	0.6	0.3	0.4
28	0.8	0.6	0.7
29	0.8	0.6	0.7
30	1.1	0.8	1.0
MEAN			2.1

TABLE 68
Maximum/Minimum/Mean Daily Water Temperatures (°C)
Nechako River at Greer Creek, December 1990
(Unpublished DFO Data)

DATE	MAX	MIN	MEAN
1	3.6	3.3	3.5
2	3.6	3.3	3.5
3	3.3	2.8	3.1
4	3.6	2.8	3.2
5	3.6	3.1	3.3
6	4.2	3.3	3.8
7	4.2	3.9	4.0
8	4.2	3.9	4.0
9	3.9	2.8	3.3
10	3.3	3.1	3.2
11	3.6	3.1	3.3
12	3.6	3.1	3.3
13	3.6	3.1	3.3
14	3.6	3.1	3.3
15	3.3	3.1	3.2
16	3.3	2.8	3.1
17	3.9	3.6	3.8
18	0.0	0.0	0.0
19	0.0	0.0	0.0
20	0.0	0.0	0.0
21	0.0	0.0	0.0
22	0.0	0.0	0.0
23	0.0	0.0	0.0
24	0.0	0.0	0.0
25	0.0	0.0	0.0
26	0.0	0.0	0.0
27	0.0	0.0	0.0
28	0.0	0.0	0.0
29	0.0	0.0	0.0
30	0.0	0.0	0.0
31	0.0	0.0	0.0
MEAN			1.9

TABLE 69
1990 Mean Daily Water Temperatures (°C) Nechako River at Fort Fraser
(Unpublished DFO Data)

DATE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	0.0	0.0	0.0	5.0	5.2	12.2	15.3	18.6	16.5	11.3	3.3	0.0
2	0.0	0.0	0.0	4.8	5.5	13.5	15.6	17.9	16.0	10.3	2.7	0.0
3	0.0	0.0	0.0	4.4	6.5	12.5	15.5	17.7	15.9	9.0	3.2	0.0
4	0.0	0.0	0.0	5.6	6.7	11.8	15.9	18.2	16.0	8.5	3.3	0.0
5	0.0	0.0	0.0	5.1	7.0	13.1	17.4	19.0	16.6	8.5	2.6	0.0
6	0.0	0.0	0.0	5.3	6.4	14.0	17.3	18.7	16.5	8.0	1.8	0.0
7	0.0	0.0	0.0	5.0	5.8	14.2	17.7	17.7	16.3	8.5	2.0	0.0
8	0.0	0.0	0.0	3.6	6.5	12.7	18.4	17.8	16.6	9.2	1.7	0.0
9	0.0	0.0	0.0	2.5	6.8	13.8	18.8	18.7	16.5	9.9	2.0	0.0
10	0.0	0.0	0.0	2.8	7.4	13.0	19.3	18.9	16.3	8.7	2.2	0.0
11	0.0	0.0	0.0	3.6	7.9	11.7	20.4	19.0	16.2	7.1	0.8	0.0
12	0.0	0.0	0.0	4.0	7.7	11.0	20.0	19.2	16.6	6.5	0.1	0.0
13	0.0	0.0	0.0	4.7	8.1	11.9	18.4	19.1	16.3	6.2	0.0	0.0
14	0.0	0.0	0.0	5.2	8.4	15.0	18.4	19.0	16.2	6.1	0.3	0.0
15	0.0	0.0	0.0	5.4	8.9	14.7	18.0	18.8	16.2	5.9	0.7	0.0
16	0.0	0.0	0.0	5.2	9.6	13.9	17.4	18.4	15.9	5.9	0.8	0.0
17	0.0	0.0	0.0	4.8	9.4	14.4	17.1	18.6	14.5	5.3	0.7	0.0
18	0.0	0.0	0.0	4.5	9.3	14.8	17.3	18.6	14.5	5.2	1.2	0.1
19	0.0	0.0	0.0	4.8	9.6	14.7	17.6	19.0	13.8	4.9	1.7	0.3
20	0.0	0.0	0.0	5.0	10.8	14.8	17.9	19.4	13.2	4.9	0.3	0.4
21	0.0	0.0	0.0	5.0	8.4	16.9	18.3	19.9	14.3	5.6	0.0	0.1
22	0.0	0.0	0.0	5.0	7.4	18.4	18.7	19.0	15.5	5.3	0.0	0.4
23	0.0	0.0	0.0	5.1	10.0	17.4	18.3	17.5	16.1	5.3	0.0	0.0
24	0.0	0.0	0.0	5.0	11.1	16.5	18.4	16.5	15.6	5.8	0.0	0.0
25	0.0	0.0	0.0	4.7	10.8	16.4	18.8	16.8	14.6	5.8	0.0	0.0
26	0.0	0.0	0.3	4.9	11.0	15.9	18.8	16.9	13.4	5.5	0.0	0.1
27	0.0	0.0	2.2	4.7	12.4	16.2	18.5	16.5	12.3	5.4	0.0	0.1
28	0.0	0.0	4.2	4.5	11.4	15.9	18.6	16.9	12.0	4.9	0.0	0.1
29	0.0	0.0	4.7	4.8	11.7	16.2	19.0	17.7	11.6	4.0	0.0	0.1
30	0.0	0.0	5.4	5.3	12.1	15.9	19.0	17.3	11.6	3.7	0.0	0.0
31	0.0	0.0	4.8		12.0		18.9	16.8		3.7		0.0
MEAN	0.0	0.0	0.7	4.7	8.8	14.5	18.0	18.2	15.1	6.6	1.1	0.1

MEAN ANNUAL = 7.3

Source: Jan. 1 - Apr. 3 unpublished DFO thermograph data
Sept. 1 - Sept. 10 unpublished DFO thermograph data

TABLE 70
Maximum/Minimum/Mean Daily Water Temperatures (°C)
Nechako River at Fort Fraser, January 1990
(Unpublished DFO Data)

DATE	MAX	MIN	MEAN
1	0.0	0.0	0.0
2	0.0	0.0	0.0
3	0.0	0.0	0.0
4	0.0	0.0	0.0
5	0.0	0.0	0.0
6	0.0	0.0	0.0
7	0.0	0.0	0.0
8	0.0	0.0	0.0
9	0.0	0.0	0.0
10	0.0	0.0	0.0
11	0.0	0.0	0.0
12	0.0	0.0	0.0
13	0.0	0.0	0.0
14	0.0	0.0	0.0
15	0.0	0.0	0.0
16	0.0	0.0	0.0
17	0.0	0.0	0.0
18	0.0	0.0	0.0
19	0.0	0.0	0.0
20	0.0	0.0	0.0
21	0.0	0.0	0.0
22	0.0	0.0	0.0
23	0.0	0.0	0.0
24	0.0	0.0	0.0
25	0.0	0.0	0.0
26	0.0	0.0	0.0
27	0.0	0.0	0.0
28	0.0	0.0	0.0
29	0.0	0.0	0.0
30	0.0	0.0	0.0
31	0.0	0.0	0.0
MEAN			0.0

TABLE 71
Maximum/Minimum/Mean Daily Water Temperatures (°C)
Nechako River at Fort Fraser, February 1990
(Unpublished DFO Data)

DATE	MAX	MIN	MEAN
1	0.0	0.0	0.0
2	0.0	0.0	0.0
3	0.0	0.0	0.0
4	0.0	0.0	0.0
5	0.0	0.0	0.0
6	0.0	0.0	0.0
7	0.0	0.0	0.0
8	0.0	0.0	0.0
9	0.0	0.0	0.0
10	0.0	0.0	0.0
11	0.0	0.0	0.0
12	0.0	0.0	0.0
13	0.0	0.0	0.0
14	0.0	0.0	0.0
15	0.0	0.0	0.0
16	0.0	0.0	0.0
17	0.0	0.0	0.0
18	0.0	0.0	0.0
19	0.0	0.0	0.0
20	0.0	0.0	0.0
21	0.0	0.0	0.0
22	0.0	0.0	0.0
23	0.0	0.0	0.0
24	0.0	0.0	0.0
25	0.0	0.0	0.0
26	0.0	0.0	0.0
27	0.0	0.0	0.0
28	0.0	0.0	0.0
MEAN			0.0

TABLE 72
Maximum/Minimum/Mean Daily Water Temperatures (°C)
Nechako River at Fort Fraser, March 1990
(Unpublished DFO Data)

DATE	MAX	MIN	MEAN
1	0.0	0.0	0.0
2	0.0	0.0	0.0
3	0.0	0.0	0.0
4	0.0	0.0	0.0
5	0.0	0.0	0.0
6	0.0	0.0	0.0
7	0.0	0.0	0.0
8	0.0	0.0	0.0
9	0.0	0.0	0.0
10	0.0	0.0	0.0
11	0.0	0.0	0.0
12	0.0	0.0	0.0
13	0.0	0.0	0.0
14	0.0	0.0	0.0
15	0.0	0.0	0.0
16	0.0	0.0	0.0
17	0.0	0.0	0.0
18	0.0	0.0	0.0
19	0.0	0.0	0.0
20	0.0	0.0	0.0
21	0.0	0.0	0.0
22	0.0	0.0	0.0
23	0.0	0.0	0.0
24	0.0	0.0	0.0
25	0.0	0.0	0.0
26	1.1	0.0	0.3
27	3.3	1.1	2.2
28	5.3	3.1	4.2
29	5.5	3.8	4.7
30	6.1	4.7	5.4
31	5.8	3.8	4.8
MEAN			0.7

TABLE 73
Maximum/Minimum/Mean Daily Water Temperatures (°C)
Nechako River at Fort Fraser, April 1990
(Unpublished DFO Data)

DATE	MAX	MIN	MEAN
1	5.5	4.4	5.0
2	5.8	3.8	4.8
3	5.5	3.3	4.4
4	5.9	4.9	5.6
5	6.2	3.6	5.1
6	6.5	3.9	5.3
7	5.9	3.9	5.0
8	4.9	2.3	3.6
9	3.6	1.0	2.5
10	4.2	1.0	2.8
11	4.6	2.6	3.6
12	5.5	2.6	4.0
13	5.9	3.3	4.7
14	6.8	3.9	5.2
15	6.8	4.2	5.4
16	6.5	4.2	5.2
17	5.2	4.2	4.8
18	5.2	3.9	4.5
19	5.2	4.2	4.8
20	5.5	4.6	5.0
21	5.2	4.9	5.0
22	5.5	4.6	5.0
23	5.5	4.9	5.1
24	5.2	4.9	5.0
25	5.2	4.6	4.7
26	5.5	4.6	4.9
27	4.9	4.2	4.7
28	4.9	4.2	4.5
29	5.5	4.2	4.8
30	5.5	5.2	5.3
MEAN			4.7

TABLE 74
Maximum/Minimum/Mean Daily Water Temperatures (°C)
Nechako River at Fort Fraser, May 1990
(Unpublished DFO Data)

DATE	MAX	MIN	MEAN
1	5.2	5.2	5.2
2	6.2	4.9	5.5
3	7.1	6.2	6.5
4	7.1	6.5	6.7
5	7.8	6.5	7.0
6	6.8	5.9	6.4
7	6.2	5.2	5.8
8	7.1	5.9	6.5
9	7.5	6.2	6.8
10	8.1	6.5	7.4
11	8.8	7.1	7.9
12	8.8	6.8	7.7
13	9.7	6.8	8.1
14	9.7	6.8	8.4
15	10.4	7.1	8.9
16	10.7	8.4	9.6
17	10.4	8.4	9.4
18	13.4	7.5	9.3
19	15.4	3.9	9.6
20	17.9	2.3	10.8
21	13.4	2.0	8.4
22	14.0	0.4	7.4
23	17.5	3.0	10.0
24	18.6	3.3	11.1
25	12.4	8.8	10.8
26	15.4	8.4	11.0
27	19.3	9.7	12.4
28	12.4	10.1	11.4
29	13.0	10.4	11.7
30	13.0	11.4	12.1
31	15.1	10.1	12.0
MEAN			8.8

TABLE 75
Maximum/Minimum/Mean Daily Water Temperatures (°C)
Nechako River at Fort Fraser, June 1990
(Unpublished DFO Data)

DATE	MAX	MIN	MEAN
1	15.1	7.5	12.2
2	15.1	11.7	13.5
3	14.0	12.0	12.5
4	13.4	10.1	11.8
5	15.4	11.0	13.1
6	16.1	11.7	14.0
7	15.4	12.7	14.2
8	13.7	11.4	12.7
9	15.8	11.7	13.8
10	14.7	12.4	13.0
11	12.7	11.0	11.7
12	11.7	10.4	11.0
13	18.9	7.1	11.9
14	24.2	4.2	15.0
15	20.8	7.5	14.7
16	19.3	6.2	13.9
17	15.8	12.7	14.4
18	16.4	13.0	14.8
19	15.8	13.4	14.7
20	16.4	13.0	14.8
21	19.3	14.4	16.9
22	20.4	16.1	18.4
23	19.3	15.8	17.4
24	18.2	14.4	16.5
25	17.5	14.7	16.4
26	17.1	14.7	15.9
27	18.2	14.0	16.2
28	17.1	14.7	15.9
29	17.5	14.7	16.2
30	16.8	14.7	15.9
MEAN			14.5

TABLE 76
Maximum/Minimum/Mean Daily Water Temperatures (°C)
Nechako River at Fort Fraser, July 1990
(Unpublished DFO Data)

DATE	MAX	MIN	MEAN
1	16.4	13.7	15.3
2	17.9	13.0	15.6
3	16.8	14.7	15.5
4	17.5	14.0	15.9
5	19.3	15.4	17.4
6	18.9	15.8	17.3
7	19.6	16.1	17.7
8	20.0	16.8	18.4
9	20.8	16.8	18.8
10	21.5	17.1	19.3
11	22.6	18.2	20.4
12	21.5	18.9	20.0
13	19.6	16.8	18.4
14	19.6	16.8	18.4
15	18.9	17.1	18.0
16	18.6	16.4	17.4
17	18.2	16.1	17.1
18	17.9	16.8	17.3
19	18.9	16.4	17.6
20	19.3	16.8	17.9
21	19.6	17.1	18.3
22	19.6	17.5	18.7
23	18.6	17.9	18.3
24	19.3	17.5	18.4
25	19.6	18.2	18.8
26	19.3	18.6	18.8
27	19.3	17.9	18.5
28	19.3	17.9	18.6
29	19.6	18.6	19.0
30	19.3	18.9	19.0
31	19.6	18.6	18.9
MEAN			18.0

TABLE 77
Maximum/Minimum/Mean Daily Water Temperatures (°C)
Nechako River at Fort Fraser, August 1990
(Unpublished DFO Data)

DATE	MAX	MIN	MEAN
1	18.9	17.9	18.6
2	18.2	17.5	17.9
3	17.9	17.5	17.7
4	19.6	17.5	18.2
5	20.0	18.2	19.0
6	19.3	17.9	18.7
7	17.9	17.5	17.7
8	18.9	17.1	17.8
9	19.6	18.2	18.7
10	19.6	18.2	18.9
11	19.6	18.6	19.0
12	20.0	18.9	19.2
13	19.6	18.6	19.1
14	19.3	18.6	19.0
15	19.3	18.2	18.8
16	19.3	17.9	18.4
17	19.3	17.9	18.6
18	19.6	17.9	18.6
19	20.4	17.9	19.0
20	20.8	18.2	19.4
21	21.1	18.6	19.9
22	19.6	18.2	19.0
23	18.2	16.8	17.5
24	17.5	15.4	16.5
25	18.2	15.4	16.8
26	18.9	15.1	16.9
27	17.9	15.1	16.5
28	18.2	15.4	16.9
29	18.9	16.1	17.7
30	18.6	16.4	17.3
31	17.5	16.1	16.8
MEAN			18.2

TABLE 78
Maximum/Minimum/Mean Daily Water Temperatures (°C)
Nechako River at Fort Fraser, September 1990
(Unpublished DFO Data)

DATE	MAX	MIN	MEAN
1	16.9	16.1	16.5
2	16.6	15.5	16.0
3	16.9	15.0	15.9
4	16.6	15.5	16.0
5	17.5	15.8	16.6
6	17.2	15.8	16.5
7	17.2	15.5	16.3
8	17.2	16.1	16.6
9	16.9	16.1	16.5
10	17.2	15.5	16.3
11	16.8	15.4	16.2
12	17.5	15.4	16.6
13	17.1	15.1	16.3
14	17.1	14.7	16.2
15	16.8	15.1	16.2
16	16.4	15.4	15.9
17	15.4	13.7	14.5
18	15.1	14.0	14.5
19	14.4	13.0	13.8
20	13.7	12.7	13.2
21	15.4	13.0	14.3
22	16.4	14.0	15.5
23	16.8	15.1	16.1
24	16.1	14.7	15.6
25	15.8	14.0	14.6
26	14.0	12.4	13.4
27	13.4	11.4	12.3
28	12.4	11.7	12.0
29	12.4	10.7	11.6
30	12.0	10.7	11.6
MEAN			15.1

TABLE 79
Maximum/Minimum/Mean Daily Water Temperatures (°C)
Nechako River at Fort Fraser, October 1990
(Unpublished DFO Data)

DATE	MAX	MIN	MEAN
1	11.7	10.7	11.3
2	10.7	9.7	10.3
3	9.7	8.8	9.0
4	9.1	8.1	8.5
5	9.1	7.8	8.5
6	8.4	7.5	8.0
7	9.1	7.8	8.5
8	9.7	8.8	9.2
9	10.4	9.4	9.9
10	9.4	8.1	8.7
11	8.4	6.5	7.1
12	6.8	6.2	6.5
13	6.5	5.5	6.2
14	6.8	5.2	6.1
15	6.2	5.2	5.9
16	6.2	5.5	5.9
17	5.9	4.9	5.3
18	5.5	4.9	5.2
19	5.2	4.2	4.9
20	5.2	4.2	4.9
21	6.2	5.2	5.6
22	5.9	4.6	5.3
23	5.9	5.2	5.3
24	6.2	5.5	5.8
25	6.2	5.5	5.8
26	5.9	5.2	5.5
27	5.5	5.2	5.4
28	5.5	4.6	4.9
29	4.6	3.6	4.0
30	3.9	3.3	3.7
31	3.9	3.3	3.7
MEAN			6.6

TABLE 80
Maximum/Minimum/Mean Daily Water Temperatures (°C)
Nechako River at Fort Fraser, November 1990
(Unpublished DFO Data)

DATE	MAX	MIN	MEAN
1	3.6	3.0	3.3
2	3.3	2.3	2.7
3	3.6	2.6	3.2
4	3.6	3.0	3.3
5	3.3	2.3	2.6
6	2.3	1.7	1.8
7	2.3	1.7	2.0
8	2.3	1.3	1.7
9	2.3	2.0	2.0
10	2.3	2.0	2.2
11	2.0	0.0	0.8
12	0.4	0.0	0.1
13	0.0	0.0	0.0
14	0.7	0.0	0.3
15	1.0	0.7	0.7
16	1.0	0.4	0.8
17	1.0	0.4	0.7
18	1.7	1.0	1.2
19	2.0	1.3	1.7
20	1.3	0.0	0.3
21	0.0	0.0	0.0
22	0.0	0.0	0.0
23	0.0	0.0	0.0
24	0.0	0.0	0.0
25	0.0	0.0	0.0
26	0.0	0.0	0.0
27	0.0	0.0	0.0
28	0.0	0.0	0.0
29	0.0	0.0	0.0
30	0.0	0.0	0.0
MEAN			1.1

TABLE 81
Maximum/Minimum/Mean Daily Water Temperatures (°C)
Nechako River at Fort Fraser, December 1990
(Unpublished DFO Data)

DATE	MAX	MIN	MEAN
1	0.0	0.0	0.0
2	0.0	0.0	0.0
3	0.0	0.0	0.0
4	0.0	0.0	0.0
5	0.0	0.0	0.0
6	0.0	0.0	0.0
7	0.0	0.0	0.0
8	0.0	0.0	0.0
9	0.0	0.0	0.0
10	0.0	0.0	0.0
11	0.0	0.0	0.0
12	0.0	0.0	0.0
13	0.0	0.0	0.0
14	0.0	0.0	0.0
15	0.0	0.0	0.0
16	0.0	0.0	0.0
17	0.0	0.0	0.0
18	0.4	0.0	0.1
19	0.4	0.0	0.3
20	0.4	0.4	0.4
21	0.4	0.0	0.1
22	0.4	0.0	0.4
23	0.0	0.0	0.0
24	0.0	0.0	0.0
25	0.0	0.0	0.0
26	0.4	0.0	0.1
27	0.4	0.0	0.1
28	0.4	0.0	0.1
29	0.4	0.0	0.1
30	0.0	0.0	0.0
31	0.0	0.0	0.0
MEAN			0.1

TABLE 82
1990 Mean Daily Water Temperatures (°C) Nechako River at Vanderhoof
(Unpublished DFO Data)

DATE	JAN	FEB	MAR	APR	MAY	JUN	NOV	DEC
1	0.0	0.0	0.0	0.0	6.2	13.0	****	0.0
2	0.0	0.0	0.0	0.0	2.5	6.2	****	0.0
3	0.0	0.0	0.0	0.0	3.0	7.7	****	0.0
4	0.0	0.0	0.0	0.0	3.0	8.5	****	0.0
5	0.0	0.0	0.0	0.0	3.5	9.0	****	0.0
6	0.0	0.0	0.0	0.0	4.0	7.7	****	0.0
7	0.0	0.0	0.0	0.0	4.3	7.2	****	0.0
8	0.0	0.0	0.0	0.0	3.2	7.2	****	0.0
9	0.0	0.0	0.0	0.0	2.6	8.0	****	0.0
10	0.0	0.0	0.0	0.0	2.5	8.2	****	0.0
11	0.0	0.0	0.0	0.0	3.5	9.0	****	0.0
12	0.0	0.0	0.0	0.0	3.0	8.5	0.0	0.0
13	0.0	0.0	0.0	0.0	3.7	8.7	0.0	0.0
14	0.0	0.0	0.0	0.0	4.5	9.5	0.0	0.0
15	0.0	0.0	0.0	0.0	5.2	9.7	0.0	0.0
16	0.0	0.0	0.0	0.0	6.0	10.5	0.0	0.0
17	0.0	0.0	0.0	0.0	5.7	10.2	0.0	0.0
18	0.0	0.0	0.0	0.0	5.0	10.5	0.0	0.0
19	0.0	0.0	0.0	0.0	5.3	11.0	0.0	0.0
20	0.0	0.0	0.0	0.0	5.5	11.5	0.0	0.0
21	0.0	0.0	0.0	0.0	5.7	11.7	0.0	0.0
22	0.0	0.0	0.0	0.0	6.2	11.2	0.0	0.0
23	0.0	0.0	0.0	0.0	7.0	11.5	****	0.0
24	0.0	0.0	0.0	0.0	7.5	12.2	****	0.0
25	0.0	0.0	0.0	0.0	7.0	12.2	****	0.0
26	0.0	0.0	0.0	0.0	7.0	12.2	****	0.0
27	0.0	0.0	0.0	0.0	6.5	12.2	****	0.0
28	0.0	0.0	0.0	0.0	6.0	12.5	****	0.0
29	0.0	0.0	0.0	0.0	6.5	12.5	****	0.0
30	0.0	0.0	0.0	0.0	6.5	13.0	****	0.0
31	0.0	0.0	0.0	0.0	12.5	****	0.0	0.0
MEAN	0.0	0.0	0.0	4.7	10.0	****	****	0.0

June 23 to November 11 data unavailable

TABLE 83

Maximum/Minimum/Mean Daily Water Temperatures (°C)
Nechako River at Vanderhoof, January 1990
(Unpublished DFO Data)

DATE	MAX	MIN	MEAN
1	0.0	0.0	0.0
2	0.0	0.0	0.0
3	0.0	0.0	0.0
4	0.0	0.0	0.0
5	0.0	0.0	0.0
6	0.0	0.0	0.0
7	0.0	0.0	0.0
8	0.0	0.0	0.0
9	0.0	0.0	0.0
10	0.0	0.0	0.0
11	0.0	0.0	0.0
12	0.0	0.0	0.0
13	0.0	0.0	0.0
14	0.0	0.0	0.0
15	0.0	0.0	0.0
16	0.0	0.0	0.0
17	0.0	0.0	0.0
18	0.0	0.0	0.0
19	0.0	0.0	0.0
20	0.0	0.0	0.0
21	0.0	0.0	0.0
22	0.0	0.0	0.0
23	0.0	0.0	0.0
24	0.0	0.0	0.0
25	0.0	0.0	0.0
26	0.0	0.0	0.0
27	0.0	0.0	0.0
28	0.0	0.0	0.0
29	0.0	0.0	0.0
30	0.0	0.0	0.0
31	0.0	0.0	0.0
MEAN			0.0

TABLE 84

Maximum/Minimum/Mean Daily Water Temperatures (°C)
Nechako River at Vanderhoof, February 1990
(Unpublished DFO Data)

DATE	MAX	MIN	MEAN
1	0.0	0.0	0.0
2	0.0	0.0	0.0
3	0.0	0.0	0.0
4	0.0	0.0	0.0
5	0.0	0.0	0.0
6	0.0	0.0	0.0
7	0.0	0.0	0.0
8	0.0	0.0	0.0
9	0.0	0.0	0.0
10	0.0	0.0	0.0
11	0.0	0.0	0.0
12	0.0	0.0	0.0
13	0.0	0.0	0.0
14	0.0	0.0	0.0
15	0.0	0.0	0.0
16	0.0	0.0	0.0
17	0.0	0.0	0.0
18	0.0	0.0	0.0
19	0.0	0.0	0.0
20	0.0	0.0	0.0
21	0.0	0.0	0.0
22	0.0	0.0	0.0
23	0.0	0.0	0.0
24	0.0	0.0	0.0
25	0.0	0.0	0.0
26	0.0	0.0	0.0
27	0.0	0.0	0.0
28	0.0	0.0	0.0
MEAN			0.0

TABLE 85

Maximum/Minimum/Mean Daily Water Temperatures (°C)
Nechako River at Vanderhoof, March 1990
(Unpublished DFO Data)

DATE	MAX	MIN	MEAN
1	0.0	0.0	0.0
2	0.0	0.0	0.0
3	0.0	0.0	0.0
4	0.0	0.0	0.0
5	0.0	0.0	0.0
6	0.0	0.0	0.0
7	0.0	0.0	0.0
8	0.0	0.0	0.0
9	0.0	0.0	0.0
10	0.0	0.0	0.0
11	0.0	0.0	0.0
12	0.0	0.0	0.0
13	0.0	0.0	0.0
14	0.0	0.0	0.0
15	0.0	0.0	0.0
16	0.0	0.0	0.0
17	0.0	0.0	0.0
18	0.0	0.0	0.0
19	0.0	0.0	0.0
20	0.0	0.0	0.0
21	0.0	0.0	0.0
22	0.0	0.0	0.0
23	0.0	0.0	0.0
24	0.0	0.0	0.0
25	0.0	0.0	0.0
26	0.0	0.0	0.0
27	0.0	0.0	0.0
28	0.0	0.0	0.0
29	0.0	0.0	0.0
30	0.0	0.0	0.0
31	0.0	0.0	0.0
MEAN			0.0

TABLE 86

Maximum/Minimum/Mean Daily Water Temperatures (°C)
Nechako River at Vanderhoof, April 1990
(Unpublished DFO Data)

DATE	MAX	MIN	MEAN
1	0.0	0.0	0.0
2	3.0	2.0	2.5
3	4.5	1.5	3.0
4	5.0	1.5	3.0
5	5.0	2.0	3.5
6	6.0	2.0	4.0
7	6.0	2.5	4.3
8	4.5	2.0	3.2
9	4.2	1.0	2.6
10	4.0	1.0	2.5
11	4.5	2.5	3.5
12	4.0	2.0	3.0
13	4.0	3.5	3.7
14	5.5	3.5	4.5
15	6.5	4.0	5.2
16	7.5	4.5	6.0
17	6.0	5.5	5.7
18	5.5	4.5	5.0
19	6.0	4.5	5.3
20	6.0	5.0	5.5
21	6.0	5.5	5.7
22	7.5	5.0	6.2
23	7.5	6.5	7.0
24	8.0	7.0	7.5
25	8.0	6.0	7.0
26	8.0	6.0	7.0
27	7.0	6.0	6.5
28	6.5	5.5	6.0
29	7.5	5.5	6.5
30	7.0	6.0	6.5
MEAN	5.7	3.8	4.7

TABLE 87
Maximum/Minimum/Mean Daily Water Temperatures (°C)
Nechako River at Vanderhoof, May 1990
(Unpublished DFO Data)

DATE	MAX	MIN	MEAN
1	6.5	6.0	6.2
2	7.0	5.5	6.2
3	8.5	7.0	7.7
4	9.0	8.0	8.5
5	9.5	8.5	9.0
6	8.5	7.0	7.7
7	7.5	7.0	7.2
8	7.5	7.0	7.2
9	8.5	7.5	8.0
10	9.0	7.5	8.2
11	10.0	8.0	9.0
12	9.5	7.5	8.5
13	10.0	7.5	8.7
14	10.5	8.5	9.5
15	11.0	8.5	9.7
16	11.0	10.0	10.5
17	11.0	9.5	10.2
18	11.5	9.5	10.5
19	12.0	10.0	11.0
20	12.5	10.5	11.5
21	12.0	11.5	11.7
22	12.0	10.5	11.2
23	13.0	10.0	11.5
24	13.0	11.5	12.2
25	12.5	12.0	12.2
26	13.0	11.5	12.2
27	13.0	11.5	12.2
28	12.5	12.5	12.5
29	13.5	11.5	12.5
30	13.5	12.5	13.0
31	13.0	12.0	12.5
MEAN			10.0

TABLE 88
Maximum/Minimum/Mean Daily Water Temperatures (°C)
Nechako River at Vanderhoof, June 1990
(Unpublished DFO Data)

DATE	MAX	MIN	MEAN
1	14.0	12.0	13.0
2	15.0	13.0	14.0
3	14.0	12.5	13.2
4	13.5	12.5	13.0
5	14.5	12.5	13.5
6	15.5	13.0	14.2
7	15.0	14.5	14.7
8	15.0	14.0	14.5
9	15.5	14.0	14.7
10	14.0	13.0	13.5
11	13.0	12.5	12.7
12	12.5	12.0	12.2
13	13.5	11.5	12.2
14	15.5	12.5	14.0
15	16.5	14.5	15.5
16	16.0	15.0	15.5
17	16.5	14.5	15.5
18	16.5	14.5	15.5
19	16.0	15.0	15.5
20	16.5	14.5	15.5
21	18.0	15.5	17.2
22	20.0	17.0	18.5
23	****	****	****
24	****	****	****
25	****	****	****
26	****	****	****
27	****	****	****
28	****	****	****
29	****	****	****
30	****	****	****
31	****	****	****
MEAN	****	****	****

June 23 - 31 data unavailable

TABLE 89
Maximum/Minimum/Mean Daily Water Temperatures (°C)
Nechako River at Vanderhoof, November 1990
(Unpublished DFO Data)

DATE	MAX	MIN	MEAN
1	****	****	****
2	****	****	****
3	****	****	****
4	****	****	****
5	****	****	****
6	****	****	****
7	****	****	****
8	****	****	****
9	****	****	****
10	****	****	****
11	****	****	****
12	0.0	0.0	0.0
13	0.0	0.0	0.0
14	0.0	0.0	0.0
15	0.0	0.0	0.0
16	0.0	0.0	0.0
17	0.0	0.0	0.0
18	0.0	0.0	0.0
19	0.0	0.0	0.0
20	0.0	0.0	0.0
21	0.0	0.0	0.0
22	0.0	0.0	0.0
23	0.0	0.0	0.0
24	0.0	0.0	0.0
25	0.0	0.0	0.0
26	0.0	0.0	0.0
27	0.0	0.0	0.0
28	0.0	0.0	0.0
29	0.0	0.0	0.0
30	0.0	0.0	0.0
MEAN			****

Nov 1-11 data unavailable

TABLE 90
Maximum/Minimum/Mean Daily Water Temperatures (°C)
Nechako River at Vanderhoof, December 1990
(Unpublished DFO Data)

DATE	MAX	MIN	MEAN
1	0.0	0.0	0.0
2	0.0	0.0	0.0
3	0.0	0.0	0.0
4	0.0	0.0	0.0
5	0.0	0.0	0.0
6	0.0	0.0	0.0
7	0.0	0.0	0.0
8	0.0	0.0	0.0
9	0.0	0.0	0.0
10	0.0	0.0	0.0
11	0.0	0.0	0.0
12	0.0	0.0	0.0
13	0.0	0.0	0.0
14	0.0	0.0	0.0
15	0.0	0.0	0.0
16	0.0	0.0	0.0
17	0.0	0.0	0.0
18	0.0	0.0	0.0
19	0.0	0.0	0.0
20	0.0	0.0	0.0
21	0.0	0.0	0.0
22	0.0	0.0	0.0
23	0.0	0.0	0.0
24	0.0	0.0	0.0
25	0.0	0.0	0.0
26	0.0	0.0	0.0
27	0.0	0.0	0.0
28	0.0	0.0	0.0
29	0.0	0.0	0.0
30	0.0	0.0	0.0
31	0.0	0.0	0.0
MEAN			0.0

TABLE 91
1990 Mean Daily Water Temperatures (°C) Nautley River
(Unpublished DFO and TECL Data)

DATE	FEB	MAR	APR	MAY	JUN	JUL	AUG	NOV	DEC
1	****	****	****	****	****	****	****	****	0.5
2	0.0	1.5	****	6.9	12.5	****	19.0	****	0.5
3	0.0	0.5	****	7.1	13.0	****	18.3	****	0.5
4	0.0	0.0	****	7.3	12.8	****	18.6	****	0.5
5	0.0	0.0	****	7.5	13.0	****	19.1	****	0.5
6	0.0	0.0	****	7.4	13.0	****	19.0	****	0.6
7	0.0	0.0	****	7.4	13.9	****	19.4	****	0.5
8	0.0	0.0	****	7.4	14.7	****	18.7	****	0.7
9	0.0	0.0	****	7.5	15.1	****	19.2	****	0.7
10	0.0	0.0	****	7.7	15.2	19.6	19.0	****	0.5
11	0.0	0.0	****	7.7	15.3	20.7	20.2	****	0.3
12	0.0	0.0	****	8.0	14.7	19.8	20.3	3.0	0.3
13	0.0	0.0	****	8.4	14.1	19.5	20.2	3.1	0.1
14	0.0	0.0	3.9	8.5	14.2	19.4	19.8	3.1	0.1
15	0.0	0.0	4.2	9.5	14.1	19.3	19.5	3.1	0.1
16	****	0.0	4.7	10.1	15.8	18.2	19.6	3.0	0.1
17	****	0.0	4.7	10.4	15.6	18.4	19.4	2.9	0.1
18	****	0.0	4.3	10.5	15.4	17.4	19.3	2.9	0.1
19	****	0.0	4.3	10.9	15.2	17.5	19.4	2.9	0.1
20	****	0.0	5.7	11.5	15.2	17.8	19.4	1.5	0.0
21	****	0.0	6.3	11.6	15.2	19.3	****	1.3	0.0
22	****	0.0	6.3	11.8	15.5	19.4	****	1.5	0.0
23	****	****	5.9	12.5	****	20.1	****	1.2	0.0
24	****	****	5.9	12.8	****	20.3	****	0.8	0.0
25	****	0.0	5.5	12.9	****	19.7	****	0.6	0.0
26	****	0.8	5.3	12.9	****	19.8	****	0.7	0.1
27	****	0.8	****	11.6	****	19.3	****	0.7	0.1
28	****	1.4	****	10.8	****	19.7	****	0.8	0.0
29	****	****	****	12.2	****	19.9	****	0.9	0.0
30	****	****	****	11.9	****	20.1	****	0.5	0.0
31	****	****	****	11.6	****	20.1	****	****	0.0
MEAN									0.1

SOURCE: Feb 2 - Jun 22 unpublished DFO thermograph data
July 10 - Aug 19 unpublished Triton Environmental Consultants Ltd. data
Nov 12 - Dec 31 unpublished DFO datalogger data

TABLE 92
Maximum/Minimum/Mean Daily Water Temperatures (°C)
Nautley River, February 1990
(Unpublished DFO Data)

DATE	MAX	MIN	MEAN
1	****	****	****
2	0.0	0.0	0.0
3	0.0	0.0	0.0
4	0.0	0.0	0.0
5	0.0	0.0	0.0
6	0.0	0.0	0.0
7	0.0	0.0	0.0
8	0.0	0.0	0.0
9	0.0	0.0	0.0
10	0.0	0.0	0.0
11	0.0	0.0	0.0
12	0.0	0.0	0.0
13	0.0	0.0	0.0
14	0.0	0.0	0.0
15	0.0	0.0	0.0
16	****	****	****
17	****	****	****
18	****	****	****
19	****	****	****
20	****	****	****
21	****	****	****
22	****	****	****
23	****	****	****
24	****	****	****
25	****	****	****
26	****	****	****
27	****	****	****
28	****	****	****

****data unavailable

TABLE 93
Maximum/Minimum/Mean Daily Water Temperatures (°C)
Nautley River, March 1990
(Unpublished DFO Data)

DATE	MAX	MIN	MEAN
1	****	****	****
2	1.5	1.5	1.5
3	0.5	0.5	0.5
4	0.0	0.0	0.0
5	0.0	0.0	0.0
6	0.0	0.0	0.0
7	0.0	0.0	0.0
8	0.0	0.0	0.0
9	0.0	0.0	0.0
10	0.0	0.0	0.0
11	0.0	0.0	0.0
12	0.0	0.0	0.0
13	0.0	0.0	0.0
14	0.0	0.0	0.0
15	0.0	0.0	0.0
16	0.0	0.0	0.0
17	0.0	0.0	0.0
18	0.0	0.0	0.0
19	0.0	0.0	0.0
20	0.0	0.0	0.0
21	0.0	0.0	0.0
22	0.0	0.0	0.0
23	****	****	****
24	****	****	****
25	0.0	0.0	0.0
26	1.1	0.5	0.8
27	1.1	0.5	0.8
28	1.6	1.1	1.4
29	****	****	****
30	****	****	****
31	****	****	****

****data unavailable

TABLE 94
Maximum/Minimum/Mean Daily Water Temperatures (°C)
Nautilus River, April 1990
(Unpublished DFO Data)

DATE	MAX	MIN	MEAN
1	****	****	****
2	****	****	****
3	****	****	****
4	****	****	****
5	****	****	****
6	****	****	****
7	****	****	****
8	****	****	****
9	****	****	****
10	****	****	****
11	****	****	****
12	****	****	****
13	****	****	****
14	3.9	3.9	3.9
15	4.4	3.9	4.2
16	5.0	4.4	4.7
17	5.0	4.4	4.7
18	5.3	3.3	4.3
19	5.3	3.3	4.3
20	6.1	5.3	5.7
21	6.6	6.1	6.3
22	6.4	6.3	6.3
23	6.3	5.5	5.9
24	6.3	5.5	5.9
25	5.8	5.2	5.5
26	5.5	5.2	5.3
27	****	****	****
28	****	****	****
29	****	****	****
30	****	****	****
31	****	****	****

****data unavailable

TABLE 95
Maximum/Minimum/Mean Daily Water Temperatures (°C)
Nautilus River, May 1990
(Unpublished DFO Data)

DATE	MAX	MIN	MEAN
1	***	****	***
2	7.2	6.6	6.9
3	7.5	6.6	7.1
4	7.7	6.9	7.3
5	7.7	7.2	7.5
6	7.5	7.2	7.4
7	7.5	7.2	7.4
8	7.5	7.2	7.4
9	7.7	7.2	7.5
10	8.0	7.5	7.7
11	8.0	7.5	7.7
12	8.3	7.7	8.0
13	8.8	0.0	8.4
14	8.8	7.3	8.5
15	10.3	8.8	9.5
16	10.5	9.7	10.1
17	10.5	10.3	10.4
18	10.5	10.5	10.5
19	11.4	10.5	10.9
20	12.2	10.8	11.5
21	12.2	11.1	11.6
22	12.2	11.4	11.8
23	12.7	12.2	12.5
24	13.3	12.2	12.8
25	13.0	12.7	12.9
26	13.0	12.7	12.9
27	12.7	10.5	11.6
28	11.6	10.0	10.8
29	12.7	11.6	12.2
30	12.2	11.6	11.9
31	11.6	11.6	11.6

****data unavailable

TABLE 96
Maximum/Minimum/Mean Daily Water Temperatures (°C)
Nautilus River, June 1990
(Unpublished DFO Data)

DATE	MAX	MIN	MEAN
1	***	****	***
2	12.7	12.2	12.5
3	13.6	12.5	13.0
4	13.3	12.2	12.8
5	13.3	12.7	13.0
6	13.3	13.3	13.0
7	14.4	14.1	13.9
8	15.3	15.0	14.7
9	15.3	14.7	15.1
10	15.5	15.0	15.2
11	15.5	15.0	15.3
12	15.0	14.4	14.7
13	14.4	13.9	14.1
14	14.4	14.1	14.2
15	15.3	13.9	14.1
16	16.1	15.5	15.8
17	15.8	15.5	15.6
18	15.8	15.0	15.4
19	15.5	15.0	15.2
20	15.5	15.0	15.2
21	15.5	15.0	15.2
22	16.1	15.0	15.5
23	****	****	****
24	****	****	****
25	****	****	****
26	****	****	****
27	****	****	****
28	****	****	****
29	****	****	****
30	****	****	****

****data unavailable

TABLE 97
Maximum/Minimum/Mean Daily Water Temperatures (°C)
Nautilus River, July 1990
(Unpublished TECL Data)

DATE	MAX	MIN	MEAN
1	****	****	****
2	****	****	****
3	****	****	****
4	****	****	****
5	****	****	****
6	****	****	****
7	****	****	****
8	****	****	****
9	****	****	****
10	****	****	19.6
11	****	****	20.7
12	****	****	19.8
13	****	****	19.5
14	****	****	19.4
15	****	****	19.3
16	****	****	18.2
17	****	****	18.4
18	****	****	17.4
19	****	****	17.5
20	****	****	17.8
21	****	****	19.3
22	****	****	19.4
23	****	****	20.1
24	****	****	20.3
25	****	****	19.7
26	****	****	19.8
27	****	****	19.3
28	****	****	19.7
29	****	****	19.9
30	****	****	20.1
31	****	****	20.1

****data unavailable
Average daily means only available

TABLE 98
Maximum/Minimum/Mean Daily Water Temperatures (°C)
Nautley River, August 1990
(Unpublished TECL Data)

DATE	MAX	MIN	MEAN
1	****	****	19.0
2	****	****	18.3
3	****	****	18.6
4	****	****	19.1
5	****	****	19.0
6	****	****	19.4
7	****	****	18.7
8	****	****	19.2
9	****	****	19.0
10	****	****	20.2
11	****	****	20.3
12	****	****	20.2
13	****	****	19.8
14	****	****	19.5
15	****	****	19.6
16	****	****	19.4
17	****	****	19.3
18	****	****	19.4
19	****	****	19.4
20	****	****	****
21	****	****	****
22	****	****	****
23	****	****	****
24	****	****	****
25	****	****	****
26	****	****	****
27	****	****	****
28	****	****	****
29	****	****	****
30	****	****	****
31	****	****	****

****data unavailable
Average means only available

TABLE 99
Maximum/Minimum/Mean Daily Water Temperatures (°C)
Nautley River, November 1990
(Unpublished DFO Data)

DATE	MAX	MIN	MEAN
1	****	****	****
2	****	****	****
3	****	****	****
4	****	****	****
5	****	****	****
6	****	****	****
7	****	****	****
8	****	****	****
9	****	****	****
10	****	****	****
11	****	****	****
12	3.9	2.6	3.0
13	3.9	2.6	3.1
14	3.5	2.6	3.1
15	3.5	2.6	3.1
16	3.9	2.2	3.0
17	3.9	2.2	2.9
18	3.5	2.2	2.9
19	3.9	1.8	2.9
20	1.8	1.4	1.5
21	1.4	1.0	1.3
22	1.8	1.0	1.5
23	1.4	1.0	1.2
24	1.0	0.5	0.8
25	1.0	0.5	0.6
26	1.0	0.5	0.6
27	1.0	0.5	0.7
28	1.0	0.5	0.8
29	1.4	1.4	0.9
30	0.5	0.5	0.5

****data unavailable

TABLE 100
Maximum/Minimum/Mean Daily Water Temperatures (°C)
Nautley River, December 1990
(Unpublished DFO Data)

DATE	MAX	MIN	MEAN
1	0.5	0.5	0.5
2	0.5	0.5	0.5
3	0.5	0.5	0.5
4	0.5	0.5	0.5
5	0.5	0.5	0.5
6	1.0	0.5	0.6
7	0.5	0.5	0.5
8	1.4	0.5	0.7
9	1.0	0.5	0.7
10	0.5	0.5	0.5
11	0.5	0.1	0.3
12	0.5	0.1	0.3
13	0.1	0.1	0.1
14	0.1	0.1	0.1
15	0.1	0.1	0.1
16	0.1	0.1	0.1
17	0.1	0.1	0.1
18	0.1	0.1	0.1
19	0.1	0.1	0.1
20	0.1	0.0	0.0
21	0.0	0.0	0.0
22	0.0	0.0	0.0
23	0.0	0.0	0.0
24	0.0	0.0	0.0
25	0.1	0.0	0.0
26	0.1	0.1	0.1
27	0.1	0.1	0.1
28	0.1	0.0	0.0
29	0.0	0.0	0.0
30	0.0	0.0	0.0
31	0.1	0.0	0.0

MEAN 0.2

TABLE 101
Maximum/Minimum/Mean Daily Water Temperatures (°C)
Nechako River at Finmoore 1990
(Unpublished TECL Data)

DATE	JUL	AUG
1	****	19.9
2	****	18.6
3	****	18.4
4	****	18.7
5	****	19.7
6	****	19.8
7	****	19.1
8	****	18.8
9	****	19.2
10	20.5	19.2
11	21.7	20.8
12	21.7	21.0
13	20.6	20.8
14	19.7	20.5
15	19.3	19.9
16	18.4	19.5
17	18.0	19.4
18	17.9	19.9
19	18.2	19.7
20	18.6	20.1
21	19.6	****
22	20.1	****
23	20.7	****
24	20.6	****
25	20.3	****
26	20.6	****
27	19.9	****
28	19.8	****
29	20.2	****
30	20.2	****
31	20.2	****

****data unavailable

TABLE 102
Accumulated Water Thermal Units (ATU's)
Nechako River at Irvine's, Winter 1989-90 (Peak Spawn to 1000 ATU)
(WSC-DCP Data)

DATE	SEPT 1989		OCT 1989		NOV 1989		DEC 1989		JAN 1990		FEB 1990		MAR 1990		APR 1990		MAY 1990	
	MEAN TEMP (°C)	ATU'S	MEAN TEMP (°C)	ATU'S	MEAN TEMP (°C)	ATU'S	MEAN TEMP (°C)	ATU'S	MEAN TEMP (°C)	ATU'S	MEAN TEMP (°C)	ATU'S	MEAN TEMP (°C)	ATU'S	MEAN TEMP (°C)	ATU'S	MEAN TEMP (°C)	ATU'S
1			13.2	257.8	7.6	584.6	3.3	735.4	1.6	801.6	0.0	828.2	1.3	839.5	2.7	890.5	4.6	999.9
2			13.0	270.8	7.9	592.5	3.5	738.9	1.5	803.1	0.0	828.2	1.0	840.5	2.5	893.0	4.8	1004.7
3			13.0	283.8	8.1	600.6	3.4	742.3	1.8	804.9	0.0	828.2	0.9	841.4	2.8	895.8		
4			13.5	297.3	7.5	608.1	3.1	745.4	1.5	806.4	0.0	828.2	1.1	842.5	2.6	898.4		
5			13.7	311.0	7.2	615.3	3.0	748.4	1.7	808.1	0.2	828.4	1.4	843.9	3.0	901.4		
6			13.0	324.0	6.8	622.1	2.8	751.2	1.5	809.6	0.3	828.7	1.3	845.2	3.0	904.4		
7			13.0	337.0	6.3	628.4	2.7	753.9	1.6	811.2	0.3	829.0	1.1	846.3	3.1	907.5		
8			12.6	349.6	6.6	635.0	2.5	756.4	1.2	812.4	0.3	829.3	0.9	847.2	2.6	910.1		
9			12.8	362.4	6.9	641.9	2.0	758.4	1.1	813.5	0.7	830.0	0.7	847.9	2.7	912.8		
10			12.1	374.5	6.2	648.1	2.4	760.8	0.9	814.4	0.8	830.8	1.4	849.3	3.1	915.9		
11			11.6	386.1	5.3	653.4	2.2	763.0	0.4	814.8	0.5	831.3	1.4	850.7	3.5	919.4		
12			11.4	397.5	5.0	658.4	2.7	765.7	0.9	815.7	0.0	831.3	1.4	852.1	3.6	923.0		
13			11.1	408.6	5.1	663.5	2.8	768.5	1.3	817.0	0.0	831.3	1.5	853.6	3.8	926.8		
14	15.7	15.7	10.8	419.4	4.6	668.1	2.3	770.8	1.0	818.0	0.2	831.5	1.7	855.3	3.8	930.6		
15	14.9	30.6	11.2	430.6	4.5	672.6	2.5	773.3	0.0	818.0	0.1	831.6	1.6	856.9	3.9	934.5		
16	14.6	45.2	9.8	440.4	4.8	677.4	2.7	776.0	0.4	818.4	0.0	831.6	1.7	858.6	3.8	938.3		
17	14.2	59.4	10.5	450.9	5.0	682.4	2.4	778.4	0.1	818.5	0.0	831.6	1.8	860.4	3.8	942.1		
18	14.1	73.5	10.7	461.6	5.4	687.8	1.8	780.2	0.5	819.0	0.0	831.6	2.2	862.6	3.8	945.9		
19	14.3	87.8	10.2	471.8	5.0	692.8	0.9	781.1	0.5	819.5	0.0	831.6	1.9	864.5	4.1	950.0		
20	14.4	102.2	9.9	481.7	4.5	697.3	0.4	781.5	1.0	820.5	0.1	831.7	1.7	866.2	3.8	953.8		
21	14.5	116.7	9.6	491.3	4.1	701.4	0.7	782.2	1.4	821.9	0.4	832.1	1.5	867.7	4.0	957.8		
22	14.4	131.1	9.2	500.5	3.9	705.3	1.5	783.7	1.2	823.1	0.8	832.9	0.7	868.4	4.0	961.8		
23	14.2	145.3	9.5	510.0	4.2	709.5	1.8	785.5	0.7	823.8	0.8	833.7	1.0	869.4	4.1	965.9		
24	14.2	159.5	9.8	519.8	3.6	713.1	1.8	787.3	1.0	824.8	1.2	834.9	1.3	870.7	4.1	970.0		
25	14.4	173.9	9.4	529.2	3.3	716.4	2.1	789.4	1.2	826.0	0.8	835.7	1.7	872.4	4.1	974.1		
26	14.3	188.2	9.0	538.2	3.4	719.8	1.9	791.3	0.4	826.4	0.8	836.5	2.4	874.8	4.2	978.3		
27	14.1	202.3	7.9	546.1	3.1	722.9	1.9	793.2	1.0	827.4	0.8	837.3	2.3	877.1	4.2	982.5		
28	14.3	216.6	7.7	553.8	3.0	725.9	1.5	794.7	0.7	828.1	0.9	838.2	2.6	879.7	4.1	986.6		
29	14.5	231.1	8.2	562.0	3.0	728.9	1.7	796.4	0.1	828.2			2.6	882.3	4.3	990.9		
30	13.5	244.6	7.7	569.7	3.2	732.1	1.9	798.3	0.0	828.2			2.9	885.2	4.4	995.3		
31			7.3	577.0			1.7	800.0	0.0	828.2			2.6	887.8				

TABLE 103
1990 Daily Discharges at Skins Lake Spillway (m³/sec)
(Alcan Smelters and Chemicals Ltd.)

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	MEAN
1.0	35.3	35.1	34.5	33.7	149.5	49.8	49.7	192.8	31.1	30.6	33.6	32.8	59.0
2.0	35.3	35.1	34.5	33.7	49.0	49.1	49.7	14.2	31.1	30.6	33.6	32.8	35.7
3.0	35.3	35.1	34.5	33.7	49.0	49.4	49.3	14.2	31.1	31.7	33.6	32.8	35.8
4.0	35.3	35.1	34.5	33.6	49.0	49.7	49.0	14.2	31.0	33.8	33.6	32.8	36.0
5.0	35.3	35.1	34.4	33.4	49.0	49.1	49.0	212.4	31.0	33.8	33.4	32.8	54.6
6.0	35.3	35.1	34.4	33.4	85.0	49.0	48.8	49.1	453.1	31.0	33.7	33.4	32.8
7.0	35.3	35.1	34.4	33.4	85.0	49.0	49.0	49.3	424.8	31.0	33.7	33.4	32.8
8.0	35.3	35.1	34.3	33.3	85.0	49.0	49.0	49.3	171.1	31.0	33.7	33.4	32.8
9.0	35.3	35.0	34.3	33.3	113.3	49.0	49.1	49.4	160.5	31.0	33.7	33.4	32.8
10.0	35.3	35.0	34.3	33.3	169.9	49.0	49.3	49.4	396.4	30.9	33.6	33.4	32.8
11.0	35.3	35.0	34.2	33.2	226.8	49.0	49.4	80.1	283.2	30.9	33.6	33.4	32.8
12.0	35.3	35.0	34.2	33.2	255.4	49.1	49.4	226.5	172.8	30.9	33.6	33.4	32.8
13.0	35.3	34.9	34.2	33.2	255.4	49.1	49.6	226.5	15.5	30.9	33.6	33.4	32.8
14.0	35.3	34.9	34.2	33.2	254.6	49.3	49.6	226.5	13.7	30.9	33.6	33.4	32.8
15.0	35.3	34.9	34.1	33.1	254.0	49.4	49.7	226.5	65.8	30.9	33.5	33.4	32.8
16.0	35.3	34.9	34.1	33.1	254.0	49.6	49.8	226.5	100.1	30.9	33.5	33.4	32.8
17.0	35.3	34.9	34.0	33.0	253.2	49.6	49.8	226.5	14.2	30.7	33.4	33.4	32.8
18.0	35.3	34.8	34.0	33.0	252.9	49.6	49.4	207.6	14.2	30.7	33.4	33.4	32.8
19.0	35.3	34.8	34.0	33.0	252.3	49.7	49.0	169.9	14.2	30.7	33.4	33.3	32.8
20.0	35.3	34.8	34.0	33.0	252.2	49.8	49.1	264.3	14.2	30.7	33.3	33.3	32.8
21.0	35.3	34.8	34.0	33.0	252.0	49.8	49.1	453.1	14.2	30.7	33.4	33.3	32.8
22.0	35.3	34.8	33.9	33.0	252.0	49.4	49.3	306.8	14.2	30.7	33.3	33.3	32.8
23.0	35.3	34.7	33.9	33.0	251.9	49.0	49.3	155.9	14.2	30.7	33.2	33.3	32.8
24.0	35.3	34.7	33.9	33.0	251.9	49.0	49.4	396.4	14.2	30.7	33.3	33.3	32.8
25.0	35.3	34.7	33.9	33.0	243.6	49.0	49.4	283.2	14.2	30.7	33.3	33.1	32.8
26.0	35.3	34.6	33.8	33.0	251.5	49.1	49.4	283.2	14.2	30.6	33.3	33.1	32.8
27.0	35.3	34.6	33.8	33.0	251.2	49.3	49.4	282.9	14.2	30.6	33.3	33.1	32.8
28.0	35.2	34.6	33.8	33.0	250.9	49.6	49.4	282.6	14.2	30.6	33.3	33.1	32.8
29.0	35.2		33.8	33.0	250.3	49.7	49.6	282.3	14.2	30.6	33.3	33.1	32.8
30.0	35.1		33.8	33.0	250.0	49.8	49.6	282.3	14.2	30.6	33.3	33.1	32.8
31.0	35.1		33.8			50.1		282.0	17.0		33.3		32.8
MEAN	35.3	34.9	34.1	191.6	52.5	49.4	189.2	94.2	30.8	33.2	33.3	32.8	67.6
MEAN ANNUAL = 67.6													

TABLE 104
1990 Daily Discharges at Kemano Powerhouse (m³/sec)
(Alcan Smelters and Chemicals Ltd.)

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	MEAN
1.0	120.7	127.2	110.3	120.2	130.8	112.3	99.5	96.4	111.5	130.6	115.9	132.9	117.4
2.0	116.5	127.8	128.6	127.8	131.9	112.3	98.8	97.0	112.0	131.2	124.5	134.6	120.3
3.0	127.0	126.5	127.9	129.7	131.1	112.9	97.1	96.5	112.1	131.3	134.7	130.4	121.4
4.0	128.0	126.5	127.9	129.9	130.8	111.1	97.3	96.1	111.4	130.2	135.0	130.2	121.2
5.0	128.6	122.2	114.8	131.2	129.8	112.7	97.9	96.3	107.5	113.9	130.3	134.6	118.3
6.0	128.2	127.0	124.1	130.9	131.9	112.6	97.9	96.1	113.5	127.8	129.0	133.3	121.0
7.0	128.5	116.1	124.4	130.9	130.5	115.3	97.4	96.2	116.7	125.2	128.6	133.4	120.3
8.0	111.6	127.1	126.0	131.0	123.0	128.0	97.5	97.0	113.2	124.3	128.4	135.1	120.2
9.0	105.3	127.3	126.7	129.2	129.0	126.5	96.6	93.8	112.7	116.1	128.6	134.3	118.8
10.0	107.0	123.9	126.2	129.2	126.7	125.8	96.4	96.2	112.8	118.1	129.2	134.2	118.8
11.0	111.1	128.1	126.7	128.7	128.6	129.0	96.9	96.6	113.9	122.4	129.0	134.5	120.4
12.0	128.5	110.5	126.3	130.1	131.9	126.8	95.9	96.1	116.1	130.9	120.5	135.0	120.7
13.0	128.8	107.2	126.0	130.3	129.9	126.9	96.2	96.2	112.6	132.0	128.2	131.2	120.5
14.0	128.4	105.7	125.8	130.5	130.0	125.8	96.2	96.9	113.0	120.5	128.2	134.3	119.6
15.0	118.4	105.7	126.1	128.9	127.7	126.4	96.1	96.0	112.0	115.9	123.1	126.3	116.9
16.0	128.8	110.2	128.4	130.3	128.1	121.2	96.4	95.5	112.6	109.3	115.4	134.3	117.5
17.0	128.3	128.9	128.7	129.7	133.3	128.6	95.9	96.2	111.5	128.8	124.9	131.2	122.2
18.0	128.5	129.1	129.9	129.0	130.7	128.0	96.1	96.3	112.8	132.0	131.1	134.7	123.2
19.0	125.2	128.0	118.8	128.1	131.2	128.6	96.2	96.1	114.0	128.9	133.3	134.5	121.9
20.0	128.6	128.1	107.6	120.9	131.1	127.2	96.2	96.3	115.1	132.1	134.8	132.7	120.9
21.0	128.1	128.2	113.9	133.0	130.7	127.3	96.2	96.2	113.2	132.2	134.4	128.6	121.8
22.0	108.8	127.8	114.5	131.9	128.9	126.5	96.1	96.7	113.2	132.4	134.8	134.1	120.5
23.0	105.0	127.1	112.2	114.5	126.9	128.6	97.8	96.6	112.2	132.3	134.7	134.3	118.5
24.0	116.1	126.7	116.6	110.2	126.2	128.6	95.2	96.6	112.4	129.8	134.8	133.1	118.9
25.0	111.0	127.9	116.4	110.5	133.4	128.6	94.5	96.5	112.0	126.5	134.8	134.7	118.9
26.0	120.1	119.7	115.2	109.5	134.7	126.2	86.6	96.8	112.7	122.0	134.7	134.1	117.7
27.0	127.9	112.1	127.3	114.1	134.5	128.1	89.2	105.2	114.9	123.3	130.9	133.3	120.1
28.0	128.0	105.4	124.4	132.4	112.8	120.1	91.6	111.5	128.8	131.9	134.5	134.1	121.3
29.0	116.2		128.1	130.9	112.0	117.0	92.6	111.5	128.8	122.6	134.9	134.1	120.8
30.0	127.1		113.0	122.0	112.6	122.9	94.8	112.0	129.7	120.1	134.7	134.5	120.3
31.0	127.8		126.3		112.3		95.9	111.5		116.7		132.6	117.6
MEAN	121.7	121.7	122.2	126.2	127.8	123.1	95.8	98.5	114.5	125.5	129.9	133.2	120.0

MEAN ANNUAL = 120.0

TABLE 105
1990 Daily Discharge for Nechako River Below Cheslatta Falls (m³/sec)
(Preliminary WSC Data)

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	MEAN
1.0	34.4	34.3	33.9	34.2	263.0	62.9	52.9	288.0	39.8	28.1	29.5	29.6	77.6
2.0	34.4	34.4	33.9	34.5	249.0	61.7	52.7	271.0	38.0	28.0	29.4	29.7	74.7
3.0	34.5	34.5	33.6	34.5	223.0	61.2	53.2	237.0	36.6	27.9	29.9	29.9	69.7
4.0	34.5	34.6	33.5	34.5	199.0	61.5	53.3	204.0	35.5	28.5	30.1	30.4	65.0
5.0	34.7	34.7	33.7	34.9	178.0	61.1	53.4	178.0	35.2	29.0	30.2	30.6	61.1
6.0	34.3	34.6	33.8	35.5	161.0	60.6	54.6	182.0	34.4	29.2	30.0	30.6	60.1
7.0	34.1	34.5	33.7	38.0	148.0	59.9	56.1	226.0	33.9	29.3	29.5	30.4	62.8
8.0	34.5	34.5	34.0	41.4	135.0	59.3	56.8	257.0	33.2	29.6	29.9	30.4	64.6
9.0	34.3	34.7	33.5	44.5	125.0	58.6	56.7	247.0	32.3	30.0	29.6	30.3	63.0
10.0	34.8	34.5	33.5	48.7	117.0	58.5	56.0	242.0	32.3	30.0	29.9	30.3	62.3
11.0	34.5	34.4	33.7	57.9	111.0	59.0	55.6	262.0	32.0	29.4	29.6	30.1	64.1
12.0	34.5	34.3	33.5	75.2	104.0	59.0	59.7	268.0	31.8	29.7	29.8	29.7	65.8
13.0	34.4	34.2	33.4	97.0	99.3	57.9	75.8	254.0	31.4	29.8	30.2	29.7	67.3
14.0	34.6	34.3	33.3	118.0	94.6	57.0	94.5	222.0	30.8	29.9	30.1	29.9	67.4
15.0	34.4	34.3	33.4	139.0	89.9	56.7	112.0	193.0	30.3	29.7	29.9	30.2	67.7
16.0	34.7	34.2	33.5	160.0	86.4	56.4	129.0	172.0	30.7	29.4	29.8	29.8	68.8
17.0	35.4	34.2	33.7	177.0	83.5	55.8	143.0	159.0	30.7	29.1	30.3	30.6	70.2
18.0	34.8	34.3	33.9	191.0	80.6	55.0	158.0	140.0	30.4	29.0	30.2	29.9	70.6
19.0	34.7	34.4	33.5	205.0	77.8	54.6	168.0	123.0	30.3	29.1	30.3	29.5	70.9
20.0	34.6	34.5	33.1	216.0	74.9	54.2	171.0	111.0	29.3	29.2	30.2	29.1	70.6
21.0	34.5	34.5	33.4	225.0	73.5	53.6	193.0	100.0	29.8	29.0	29.8	28.8	72.1
22.0	34.7	34.5	33.7	234.0	72.3	53.2	237.0	90.2	29.2	29.0	30.0	28.7	75.5
23.0	34.2	34.5	33.6	242.0	70.9	52.7	247.0	81.2	28.5	29.0	30.3	28.5	76.0
24.0	34.5	34.2	33.4	247.0	69.5	52.0	243.0	73.2	28.5	28.9	30.3	28.3	75.2
25.0	34.8	34.2	34.0	251.0	67.8	52.0	264.0	66.9	28.7	29.6	30.2	28.1	76.8
26.0	34.6	34.2	33.9	255.0	66.5	51.6	271.0	61.5	28.8	29.8	29.9	28.0	77.1
27.0	34.4	34.2	33.8	260.0	65.2	52.1	274.0	56.2	28.4	30.0	29.7	28.0	77.2
28.0	34.4	33.7	34.1	261.0	64.7	52.0	277.0	51.9	28.2	30.3	29.9	27.9	77.1
29.0	34.4		34.3	263.0	64.6	52.1	281.0	48.2	28.5	29.9	30.6	27.8	81.3
30.0	34.4		34.2	264.0	64.1	52.0	283.0	44.8	28.5	29.8	29.9	27.5	81.1
31.0	34.3		34.2		63.8		287.0	41.9		30.2		27.2	74.1
MEAN	34.5	34.4	33.7	144.0	111.1	56.5	147.4	159.7	31.6	29.3	30.0	29.3	70.1

MEAN ANNUAL = 70.1

Jan 29 - Feb 22 (inclusive): ice conditions
Dec 18 - Dec 31 (inclusive): ice conditions

TABLE 106
1990 Daily Discharge for Nechako River at Vanderhoof (m³/sec)
(Preliminary WSC Data)

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	MEAN
1.0	50.4	49.8	52.4	53.0	327.0	141.0	131.0	311.0	72.6	43.2	42.6	38.0	109.3
2.0	51.0	49.8	52.4	53.6	330.0	140.0	131.0	311.0	69.1	44.5	42.3	37.2	109.3
3.0	51.5	50.0	52.4	54.3	322.0	140.0	132.0	307.0	66.1	43.1	42.6	37.2	108.2
4.0	51.7	50.6	52.3	55.4	300.0	143.0	133.0	282.0	63.2	43.0	42.5	37.4	104.6
5.0	52.4	51.0	52.3	56.8	276.0	143.0	134.0	254.0	61.1	44.6	42.4	37.6	100.4
6.0	52.8	51.4	52.2	58.8	256.0	143.0	134.0	227.0	59.6	44.8	42.4	38.4	96.7
7.0	52.8	51.8	52.1	60.7	241.0	141.0	137.0	214.0	58.5	44.8	42.3	39.2	94.6
8.0	52.6	52.0	52.0	63.0	229.0	141.0	140.0	233.0	57.4	45.1	42.2	39.6	96.6
9.0	52.5	52.0	51.9	65.6	218.0	140.0	141.0	267.0	56.4	45.0	42.2	39.4	97.6
10.0	52.3	52.1	51.6	69.0	208.0	140.0	141.0	278.0	55.3	45.6	42.2	38.6	97.8
11.0	52.0	52.1	51.4	73.3	200.0	144.0	141.0	264.0	54.5	45.2	42.0	38.2	96.6
12.0	51.8	52.0	51.2	78.5	193.0	150.0	141.0	278.0	53.9	44.6	41.5	38.0	97.8
13.0	51.8	51.8	51.2	93.1	187.0	156.0	141.0	290.0	52.8	44.6	41.3	37.9	99.9
14.0	51.8	51.5	51.2	114.0	181.0	165.0	143.0	286.0	51.7	44.3	41.4	37.8	101.6
15.0	51.7	51.0	51.2	138.0	177.0	170.0	152.0	261.0	50.6	43.7	41.4	37.7	102.1
16.0	51.5	50.6	51.5	159.0	171.0	167.0	168.0	236.0	50.2	43.4	41.3	37.5	102.3
17.0	51.0	50.2	51.8	179.0	167.0	162.0	188.0	213.0	49.6	43.4	41.2	36.8	102.8
18.0	51.0	50.0	52.0	200.0	163.0	157.0	203.0	199.0	49.4	43.0	41.0	36.8	103.7
19.0	51.0	49.9	52.2	219.0	161.0	163.0	218.0	186.0	49.0	43.8	40.8	36.3	104.9
20.0	51.0	49.8	52.4	238.0	157.0	150.0	226.0	171.0	47.5	42.9	40.4	36.0	105.1
21.0	51.4	50.0	52.2	251.0	154.0	146.0	236.0	156.0	47.3	43.9	39.9	35.0	105.2
22.0	51.8	50.2	51.4	270.0	152.0	143.0	256.0	146.0	46.8	43.1	39.4	35.4	107.1
23.0	52.0	50.7	50.8	286.0	150.0	140.0	276.0	137.0	46.7	42.3	38.9	36.2	108.9
24.0	52.0	51.2	50.2	300.0	147.0	137.0	282.0	124.0	46.5	42.4	38.4	36.8	109.0
25.0	52.0	51.6	50.2	309.0	145.0	135.0	277.0	114.0	45.9	43.0	38.2	37.0	108.2
26.0	51.8	52.0	50.4	315.0	144.0	133.0	292.0	105.0	45.0	43.2	38.3	36.7	108.9
27.0	51.7	52.1	50.6	318.0	142.0	132.0	302.0	97.8	44.4	43.2	39.0	36.0	109.1
28.0	51.6	52.2	51.0	321.0	140.0	131.0	304.0	91.5	43.9	43.8	39.7	34.6	108.7
29.0	51.2	51.4	324.0	142.0	131.0	307.0	85.2	43.9	43.3	39.8	33.2	113.8	
30.0	50.8	51.8	325.0	141.0	131.0	309.0	80.1	43.0	42.8	38.9	33.4	113.3	
31.0	50.0	52.4	141.0	141.0	76.5	311.0	42.6	34.0	101.1				
MEAN	51.6	51.1	51.6	170.0	195.5	144.8	200.9	202.6	52.7	43.7	40.9	36.8	103.6

MEAN ANNUAL = 103.5

Jan 1-Apr 10, Nov 11-Dec 31: ice conditions
Jun 26-Jul 11, Jul 15-24, Nov 6-10: estimated
Jul 12, 14, 25, Nov 5: manual gauge

TABLE 107
1990 Daily Discharge for Nautley River Near Fort Fraser (m³/sec)
(Preliminary WSC Data)

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	MEAN
1.0	13.2	12.1	11.8	11.7	48.4	65.3	53.1	34.8	18.3	11.7	9.6	5.6	24.6
2.0	13.2	12.4	11.7	12.2	50.2	65.2	53.6	33.3	17.8	11.7	9.2	5.7	24.7
3.0	13.3	12.6	11.6	12.3	51.8	66.5	54.0	31.9	17.5	10.6	9.2	5.9	24.8
4.0	13.3	12.5	11.5	12.5	52.5	68.1	54.7	31.5	17.3	11.0	9.2	6.6	25.1
5.0	13.6	12.4	11.5	13.3	54.6	68.3	54.7	30.9	16.6	11.0	9.4	6.7	25.3
6.0	13.7	12.5	11.4	13.9	55.4	69.2	54.7	30.9	16.5	10.5	8.6	7.4	25.4
7.0	13.6	12.5	11.3	14.2	55.7	70.2	54.3	29.2	16.5	10.7	10.3	7.9	25.5
8.0	13.6	12.4	11.2	15.1	57.0	68.9	53.8	28.8	16.3	10.9	8.8	8.7	25.5
9.0	13.9	12.4	11.2	16.4	58.6	68.2	53.8	27.9	16.1	11.7	8.6	8.7	25.6
10.0	12.9	12.5	11.3	17.1	59.8	68.1	53.3	27.5	15.2	11.7	8.0	8.9	25.5
11.0	12.8	12.4	11.4	17.5	61.7	71.1	52.1	26.7	15.2	10.6	7.5	9.0	25.7
12.0	12.8	12.4	11.3	18.2	63.1	70.2	52.7	26.0	15.1	11.4	8.0	8.8	25.8
13.0	12.9	12.3	11.3	19.0	63.9	69.9	52.0	25.4	14.6	11.9	9.0	8.7	25.9
14.0	12.9	12.2	11.2	19.8	64.8	69.6	51.0	25.8	14.1	10.8	8.6	8.8	25.8
15.0	13.0	12.2	11.2	20.6	65.2	69.5	50.4	25.6	13.8	10.8	8.6	9.0	25.8
16.0	12.9	12.2	11.3	21.4	65.1	69.7	49.7	25.1	14.0	11.1	8.8	9.1	25.9
17.0	12.9	12.2	11.5	23.0	65.3	68.7	47.4	25.1	13.3	9.9	8.6	8.9	25.6
18.0	12.9	12.1	11.4	24.4	66.0	67.7	47.9	24.7	13.4	10.2	8.7	7.8	25.6
19.0	13.0	12.1	11.2	25.5	64.9	66.7	47.6	24.3	13.2	10.5	8.2	7.7	25.4
20.0	13.0	12.1	11.4	26.0	64.1	66.8	46.2	23.7	12.7	9.8	7.9	7.5	25.1
21.0	13.0	12.1	11.5	26.7	64.6	65.3	44.8	23.3	12.3	10.0	7.4	7.4	24.9
22.0	13.0	12.1	11.5	31.0	65.3	64.0	43.8	23.2	12.2	10.1	7.7	7.3	25.1
23.0	12.9	12.1	11.6	32.9	64.7	62.9	42.5	22.1	12.7	9.3	8.1	7.2	24.9
24.0	12.9	12.1	11.8	35.6	64.7	61.7	41.4	21.6	12.9	10.3	7.7	7.2	25.0
25.0	12.8	12.1	11.7	37.2	63.9	60.4	40.8	20.6	12.4	9.8	7.8	7.2	24.7
26.0	12.9	12.0	11.7	40.2	62.8	59.6	40.6	19.7	11.9	9.6	6.8	7.2	24.6
27.0	12.8	11.9	11.6	42.2	62.8	57.5	39.1	20.1	11.5	10.2	7.0	5.8	24.4
28.0	12.6	11.9	11.6	44.5	62.4	56.1	36.5	19.4	11.7	10.0	7.5	5.9	24.2
29.0	12.2	11.5	45.7	63.7	54.8	54.8	35.7	18.5	11.4	9.4	6.5	6.2	25.1
30.0	12.1	11.6	47.0	64.7	53.8	53.8	35.5	18.3	10.8	9.6	5.4	6.4	25.0
31.0	12.0	11.6	11.6	35.4	18.4	31.0	42.6	34.0	101.1				
MEAN	13.0	12.2	11.5	24.6	60.9	65.5	47.5	25.3	14.2	10.5	8.2	7.5	25.1

MEAN ANNUAL = 25.1

Jan 10 - Mar 19, Dec 18 - 31: ice conditions
Oct 18, 22: manual gauge
Oct 19 - 21: estimated

TABLE 108
1990 Daily Discharge for Stuart River Near Fort St. James (m³/sec)
(Preliminary WSC Data)

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	MEAN
1.0	51.7	50.7	49.7	48.5	96.6	210.0	342.0	252.0	158.0	98.2	65.5	45.5	123.2
2.0	50.7	51.4	49.9	47.9	98.5	216.0	343.0	255.0	156.0	98.6	63.5	45.4	123.0
3.0	51.9	52.0	49.2	48.7	101.0	221.0	345.0	250.0	153.0	93.7	61.5	45.6	122.7
4.0	52.7	52.5	48.9	49.2	103.0	230.0	344.0	247.0	150.0	94.8	63.2	46.0	123.4
5.0	52.7	52.4	48.8	49.6	105.0	235.0	343.0	245.0	147.0	92.8	62.7	46.5	123.4
6.0	52.8	52.3	48.7	50.7	109.0	241.0	342.0	242.0	145.0	90.9	57.3	47.0	123.2
7.0	53.2	52.7	48.6	52.4	111.0	245.0	339.0	235.0	144.0	90.5	62.0	47.5	123.4
8.0	53.3	52.7	49.0	53.1	113.0	251.0	337.0	232.0	141.0	88.6	59.8	46.5	123.1
9.0	54.0	53.3	48.8	52.8	116.0	256.0	336.0	230.0	140.0	91.2	59.1	46.0	123.6
10.0	53.6	53.4	49.1	52.7	121.0	264.0	334.0	226.0	137.0	90.5	55.8	44.0	123.4
11.0	52.4	53.4	49.2	53.7	125.0	275.0	332.0	224.0	136.0	82.8	55.7	43.0	123.5
12.0	53.6	52.8	48.3	54.2	128.0	282.0	333.0	220.0	136.0	83.9	56.7	43.5	124.3
13.0	53.9	51.3	48.4	56.3	132.0	287.0	331.0	215.0	131.0	85.0	56.5	44.8	124.3
14.0	53.8	50.5	48.7	56.6	135.0	293.0	325.0	213.0	131.0	82.1	55.5	44.2	124.0
15.0	54.3	50.7	48.8	58.0	139.0	300.0	324.0	209.0	129.0	80.2	53.5	44.3	124.2
16.0	53.2	50.2	49.5	59.4	143.0	306.0	324.0	206.0	129.0	80.8	54.6	44.1	125.0
17.0	52.7	49.8	49.3	60.4	146.0	310.0	318.0	204.0	123.0	74.6	54.9	43.8	123.9
18.0	52.2	49.9	49.2	62.4	150.0	315.0	314.0	201.0	123.0	79.6	53.4	42.4	124.3
19.0	52.6	50.5	49.5	64.5	155.0	318.0	310.0	199.0	122.0	77.9	52.0	41.0	124.3
20.0	51.5	50.8	49.3	67.0	157.0	323.0	307.0	196.0	117.0	72.7	50.5	39.6	123.5
21.0	51.9	50.4	50.0	69.8	161.0	326.0	304.0	194.0	116.0	75.2	50.0	39.7	124.0
22.0	52.5	51.0	49.9	74.1	162.0	331.0	300.0	190.0	114.0	74.6	49.6	39.9	124.1
23.0	52.8	51.5	49.5	77.1	166.0	334.0	297.0	183.0	113.0	67.3	49.4	40.2	123.4
24.0	52.2	50.7	49.3	79.6	171.0	334.0	292.0	181.0	112.0	71.7	48.6	40.6	123.6
25.0	52.9	50.8	49.1	82.7	175.0	336.0	288.0	177.0	111.0	71.5	48.5	41.2	123.6
26.0	52.8	50.6	48.8	85.1	176.0	339.0	288.0	174.0	105.0	68.5	48.4	41.6	123.2
27.0	54.0	50.5	48.7	88.2	181.0	340.0	282.0	172.0	103.0	70.3	48.3	41.0	123.3
28.0	53.8	49.9	48.4	90.5	187.0	340.0	274.0	170.0	101.0	69.2	47.2	38.6	122.5
29.0	52.8	48.2	48.2	91.7	192.0	341.0	270.0	165.0	101.0	66.3	46.5	37.0	128.3
30.0	52.0	48.4	48.4	94.4	198.0	342.0	266.0	163.0	97.6	65.2	46.0	37.2	128.2
31.0	50.5	48.6	48.6	203.0	203.0	203.0	264.0	161.0	68.4	68.4	37.5	37.5	119.0
MEAN	52.7	51.4	49.0	64.3	143.7	291.4	314.5	207.8	127.4	80.6	54.5	42.7	123.3

MEAN ANNUAL = 123.3

TABLE 109
Mean Monthly Air Temperature (°C) for Nechako River at Irvine's
(Unpublished DFO and WSC-DCP Data)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1982	-	-	-	-	-	-	-	-	-	-	-	-9.5
1983	-	-	-	-	-	-	-	-	-	4.0	-1.6	-
1984	-7.1	-0.8	-	-	-	-	-	-	-	0.3	-7.8	-18.2
1985	-10.5	-8.4	-2.0	2.3	8.4	10.6	15.0	13.2	8.0	2.1	-18.2	-12.8
1986	-7.5	-14.2	0.4	2.5	6.8	11.5	13.8	14.8	7.7	6.0	-6.8	-9.6
1987	-9.2	-3.5	-1.5	3.8	7.5	12.8	15.0	12.7	10.0	3.4	-1.3	-7.1
1988	-12.4	-6.0	-0.1	4.4	8.3	10.9	14.4	13.6	8.9	4.6	-1.8	-9.4
1989	-9.5	-14.6	-4.3	4.1	8.8	13.5	14.6	14.5	9.8	3.8	-1.7	-4.8
1990	-7.8	-9.1	-1.5	3.6	8.8	11.8	15.0	14.8	10.3	1.7	-5.8	-12.2
MEAN	-9.1	-8.1	-1.5	3.5	8.1	11.9	14.6	13.9	9.1	3.2	-5.6	-10.5

LONG TERM MEAN = 2.5

TABLE 110
Mean Monthly Water Temperatures (°C) for Nechako River at Irvine's
(Unpublished DFO and WSC-DCP Data)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1980	-	-	-	-	-	-	-	-	13.4	10.0	5.7	1.7
1981	1.5	0.9	2.7	4.0	8.3	12.6	16.3	17.4	14.7	9.2	-	-
1982	0.0	0.1	0.3	1.8	5.4	14.1	-	-	14.2	9.9	4.4	1.5
1983	0.4	0.4	1.6	-	8.8	12.7	14.3	16.3	13.4	8.9	5.1	0.9
1984	0.0	0.1	2.0	3.8	7.1	-	14.0	15.1	12.4	8.8	0.7	0.0
1985	0.5	0.3	1.9	4.0	8.6	13.7	16.3	15.9	13.0	8.6	2.5	0.5
1986	1.1	0.0	1.3	3.9	6.8	13.1	15.7	16.8	13.5	10.2	3.9	1.3
1987	1.4	1.3	1.7	3.9	7.8	13.0	16.8	15.8	14.3	10.2	5.9	1.9
1988	0.7	0.8	2.2	3.9	8.4	11.6	15.3	16.0	13.8	9.7	5.0	1.5
1989	0.8	0.2	1.1	3.1	7.6	14.1	16.5	17.2	15.1	10.7	5.2	2.2
1990	0.9	0.4	1.6	3.6	7.5	12.8	16.9	17.7	15.7	8.8	3.2	0.9
MEAN	0.7	0.5	1.6	3.6	7.6	13.1	15.8	16.5	14.0	9.5	4.2	1.2

LONG TERM MEAN = 7.4

TABLE 111
Mean Monthly Air Temperatures (°C) at Ft. Fraser 13S
(Unpublished AES Data)

DATE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1975	-	-	-	-	-	-	-	-	9.7	3.4	-5.2	-9.3
1976	-8.8	-7.0	-3.1	3.8	7.1	9.6	12.4	13.1	10.3	3.8	-1.5	-4.3
1977	-8.2	-1.6	-0.6	5.2	7.2	11.8	13.3	15.0	7.9	3.9	-5.6	-17.4
1978	-12.4	-6.1	-1.5	4.3	7.0	13.4	15.3	13.4	8.6	5.4	-6.3	-11.4
1979	-18.8	-9.3	0.6	3.4	7.6	10.6	15.0	15.2	10.7	5.8	-5.0	-9.3
1980	-16.6	-6.9	-2.5	5.2	9.2	12.2	13.3	12.2	9.4	4.9	-0.8	-10.0
1981	-4.4	-5.4	1.2	2.3	9.6	10.0	15.1	15.7	9.8	4.6	-0.9	-9.9
1982	-16.5	-11.6	-3.6	0.5	7.7	15.1	15.5	12.8	11.0	4.1	-6.2	-10.2
1983	-8.1	-3.3	-2.0	4.6	10.9	11.6	13.8	13.4	8.0	3.4	-2.4	-17.9
1984	-5.7	-1.0	1.3	3.6	6.4	11.0	13.2	12.7	7.0	0.6	-5.8	-14.4
1985	-7.3	-6.1	-0.7	3.1	9.2	10.9	15.0	-	-	-	-	-
1986	-5.3	-11.5	1.3	2.8	7.3	11.7	13.6	14.6	8.0	6.4	-5.1	-7.8
1987	-6.8	-2.2	-0.8	4.4	8.0	12.4	15.4	12.9	11.3	4.9	-1.0	-6.8
1988	-12.2	-5.8	0.6	4.6	8.6	11.0	12.7	13.7	9.7	6.0	-1.6	-8.3
1989	-9.3	-13.7	-5.1	4.9	8.8	13.2	14.8	15.5	11.7	5.1	-0.7	-3.5
1990	-6.7	-8.4	-0.5	4.6	9.8	12.1	15.9	15.7	11.8	2.7	-5.5	-11.7
TOTAL	-147.1	-99.9	-15.4	57.3	124.4	176.6	214.3	195.9	144.9	65.0	-53.6	-152.2
MEAN	-9.2	-6.2	-1.0	3.6	7.8	11.0	13.4	12.2	9.1	4.1	-3.2	-10.1

LONG TERM MEAN = 2.6

Totals included for computational purposes only

TABLE 112
Seasonal Total Accumulated Air Degree Days
Below 0°C at Ft. Fraser 13S
(Unpublished AES Data)

YEAR	START DATE	BEFORE DEC.31	AFTER JAN.1	END DATE	TOTAL DAYS
1975-76	Oct 21	472.2	606.0	Apr 1	1078.2
1976-77	Oct 15	206.0	357.1	Apr 18	563.1
1977-78	Nov 4	726.1	660.6	Apr 15	1386.7
1978-79	Oct 27	586.2	1027.9	Apr 13	1614.1
1979-80	Oct 18	452.9	823.3	Mar 30	1276.2
1980-81	Oct 15	390.0	345.3	Apr 13	735.3
1981-82	Oct 20	362.5	1036.9	Apr 17	1399.4
1982-83	Oct 17	504.1	444.9	Apr 10	949.0
1983-84	Oct 15	642.3	270.0	Mar 20	912.3
1984-85	Oct 16	742.2	476.8	Apr 19	1219.0
1985-86	Oct 7	774.8	519.9	Apr 12	1294.7
1986-87	Oct 30	425.1	349.8	Apr 18	774.9
1987-88	Nov 2	273.8	586.7	Apr 7	860.5
1988-89	Oct 18	331.7	847.5	Mar 30	1179.2
1989-90	Oct 16	194.7	530.6	Apr 10	725.3
Earliest	Oct 7			Mar 20	
Mean	Oct 20			Apr 9	
Latest	Nov 4			Apr 19	

TABLE 113
Rank and Plotting Position of Seasonal Accumulated
Degree Days Below 0°C at Ft. Fraser 13S
(1975-90)

RANK	PLOTTING POSITION	DAYS	YEARS
1	0.067	1614.1	1978-79
2	0.133	1399.4	1981-82
3	0.200	1386.7	1977-78
4	0.267	1294.7	1985-86
5	0.333	1276.2	1979-80
6	0.400	1219.0	1984-85
7	0.467	1179.2	1988-89
8	0.533	1078.2	1974-76
9	0.600	949.0	1982-83
10	0.667	912.3	1983-84
11	0.733	860.5	1987-88
12	0.800	774.9	1986-87
13	0.867	735.3	1980-81
14	0.861	725.3	1989-90
15	1.000	563.1	1976-77

TABLE 114
 Mean Monthly Air Temperatures (°C) at Vanderhoof
 (Unpublished AES Data)

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
1916	-	-11.2	-2.3	4.8	8.0	12.6	12.6	13.8	8.6	4.0	-4.9	-14.1
1917	-16.1	-12.8	-6.6	2.3	8.4	11.4	12.8	13.1	7.9	3.8	1.9	-17.9
1918	-11.1	-12.2	-6.7	2.6	6.9	10.5	14.2	12.5	10.9	3.8	-1.6	-8.5
1919	-8.5	-14.3	-7.7	4.4	6.5	9.5	13.6	13.3	11.3	-0.5	-8.5	-14.6
1920	-17.2	-8.5	-5.6	-1.2	6.5	10.4	15.6	12.0	10.3	6.0	-2.2	-7.1
1921	-11.3	-4.5	-4.1	2.9	7.8	11.5	11.6	12.3	10.6	8.2	-9.4	-13.4
1922	-14.9	-18.2	-6.0	2.4	7.4	12.3	13.9	14.4	11.0	4.8	-1.8	-11.0
1923	-14.3	-11.5	-4.8	3.5	9.2	13.6	14.4	15.1	9.4	9.3	0.3	-6.6
1924	-10.7	-5.5	-7.9	-0.1	8.8	13.0	14.6	13.3	10.7	2.8	-6.2	-17.4
1925	-12.1	-9.3	-4.4	2.5	10.1	12.6	15.1	12.8	9.4	-0.1	-2.3	-3.1
1926	-4.9	-0.5	-	-	-	-	14.4	13.5	0.1	-0.2	-4.1	-9.4
1927	-14.9	-6.9	-5.9	-	-	-	-	-	-	-	-	-19.7
1928	-12.0	-7.3	-2.4	2.4	10.2	14.6	15.1	13.3	9.9	3.2	-0.6	-9.0
1929	-14.0	-9.6	2.3	1.0	8.1	12.1	12.6	13.5	11.7	4.7	-1.1	-10.7
1930	-21.5	-5.8	-2.0	4.4	7.3	10.8	12.4	15.8	9.1	4.7	-	-0.5
1931	-5.2	-5.0	-3.3	5.0	5.0	11.0	12.9	13.2	9.8	3.1	-6.3	-
1932	-	-	-	-	-	-	-	-	-	-	-	-12.1
1933	-17.1	-4.2	-6.0	-0.9	9.4	12.2	15.6	13.1	10.0	2.9	-6.0	-3.8
1934	-12.2	-24.6	-3.0	3.7	11.3	13.9	13.7	-	8.8	6.0	-1.8	-9.5
1935	-21.1	-12.2	-0.3	4.3	9.5	13.8	14.2	11.6	10.5	5.9	-4.5	-10.3
1936	-9.2	-11.4	-1.9	4.6	8.4	12.3	14.8	13.3	12.7	6.3	-3.7	-9.9
1937	-7.3	-12.1	-4.5	3.8	9.3	12.0	14.6	13.5	9.5	4.6	2.6	-2.2
1938	-10.8	-7.4	2.5	5.9	10.1	12.0	14.8	13.6	11.6	5.1	-7.8	-6.3
1939	-6.3	-5.8	0.3	8.8	9.0	14.1	16.5	15.7	10.1	6.8	-	-10.8
1940	-7.8	-6.3	-1.1	5.4	11.1	-	-	-	-	-	-	-
1951	-	-	-	-	-	13.7	16.0	13.6	9.4	1.6	-3.1	-14.2
1952	-13.7	-8.2	-2.7	3.5	9.4	11.2	14.8	14.2	10.9	6.8	-1.8	-5.6
1953	-15.0	-3.0	-1.1	3.1	10.3	12.2	14.3	13.5	9.3	5.9	1.3	-5.1
1954	-17.6	-6.1	-5.6	-2.3	8.2	10.9	12.1	13.3	8.9	3.8	2.7	-6.6
1955	-8.3	-8.2	-8.4	1.9	6.6	11.8	14.2	11.2	9.0	3.1	-13.4	-16.8
1956	-17.5	-12.0	-3.6	3.6	10.0	11.0	14.8	14.3	9.5	2.2	-2.4	-9.9
1957	-22.2	-12.7	-1.9	4.1	10.6	12.0	12.2	11.0	11.0	1.3	0.1	-6.8
1958	-3.4	-7.6	-2.6	4.7	11.4	16.1	17.5	13.3	8.4	5.7	-4.8	-8.3
1959	-14.0	-10.4	0.4	3.8	8.1	11.7	13.8	10.5	8.6	3.3	-7.6	-3.9
1960	-11.1	-5.1	-3.0	5.0	7.2	11.2	15.1	12.3	8.5	5.0	-2.9	-9.8
1961	-8.2	-5.1	-0.4	4.2	9.1	13.8	15.8	15.0	7.6	3.9	-7.0	-12.1
1962	-11.3	-9.9	-4.8	-	7.3	10.3	14.5	13.2	9.1	5.4	0.3	-
1963	-11.3	-1.1	-0.6	3.9	8.5	11.7	-	15.3	11.8	5.7	-5.5	-8.5
1964	-7.5	-1.6	-3.7	-	-	12.7	13.4	-	8.2	5.1	-5.2	-17.3
1965	-12.0	-7.3	-4.2	3.8	8.7	11.8	15.8	15.5	8.9	5.7	-5.0	-9.5
1966	-16.0	-4.7	-	-	-	-	14.4	12.9	10.4	3.4	-6.0	-9.3
1967	-12.3	-4.3	-6.5	1.4	8.0	13.7	13.5	15.3	11.0	4.3	-1.6	-10.5
1968	-11.2	-9.7	0.3	3.2	8.5	10.2	14.6	12.2	8.6	3.4	-2.0	-15.8
1969	-26.4	-10.5	-1.4	5.0	9.7	15.9	13.8	11.5	9.7	3.2	0.8	-3.5
1970	-	-	-	-	7.6	13.2	13.3	12.8	7.8	4.1	-7.2	-14.8
1971	-14.0	-7.9	-5.5	3.5	8.7	12.0	15.6	14.1	7.5	2.3	-3.4	-18.5
1972	-20.1	-12.5	-1.4	1.2	9.6	11.7	13.5	13.6	7.0	3.0	-1.4	-13.3
1973	-13.0	-9.7	-1.6	3.8	8.8	10.7	13.1	11.1	8.6	2.8	-11.1	-9.2
1974	-18.3	-6.3	-3.9	4.2	7.0	11.0	12.3	14.0	10.3	4.9	-5.4	-6.4
1975	-13.7	-13.7	-5.0	2.0	7.8	11.2	15.7	11.9	9.5	3.6	-5.6	-10.0
1976	-10.2	-9.6	-4.0	3.7	7.9	10.3	13.0	13.3	9.6	3.5	-1.6	-5.5
1977	-9.2	-2.4	-1.4	5.6	8.2	12.1	13.4	15.2	8.1	4.0	-5.1	-17.4
1978	-12.6	-6.4	-1.5	5.0	7.1	13.8	14.0	13.1	8.4	5.1	-7.0	-14.3
1979	-21.1	-15.4	-1.7	3.4	8.0	10.9	15.0	14.4	10.4	5.3	-5.1	-9.8
1980	-17.3	-7.7	-4.4	5.5	9.9	13.1	13.6	-	10.6	6.5	0.6	-8.8
1981	-3.2	-4.1	2.5	4.1	11.6	11.6	16.9	17.4	11.8	5.4	-0.5	-9.2
1982	-17.5	-11.5	-4.0	1.8	9.5	17.3	16.8	14.4	12.3	5.5	-5.9	-9.0
1983	-6.7	-2.2	-0.4	6.3	12.5	12.9	15.3	15.2	9.1	5.1	-0.9	-18.0
1984	-5.2	0.1	2.4	5.2	8.0	12.8	15.4	15.0	8.1	2.1	-5.9	-15.3
1985	-7.1	-6.0	0.1	4.5	11.1	12.9	16.6	15.1	9.2	3.7	-14.9	-9.3
1986	-4.0	-10.5	2.1	4.3	9.2	13.5	15.4	16.2	9.3	7.2	-4.7	-7.3
1987	-6.3	-1.5	0.4	6.2	9.9	14.6	17.3	14.6	13.1	6.1	0.8	-5.3
1988	-11.1	-5.9	1.7	6.4	10.5	13.0	14.8	15.3	10.8	7.8	-0.2	-8.5
1989	-8.9	-15.0	-4.6	6.5	10.8	14.8	16.6	16.7	12.2	6.1	0.3	-3.8
1990	-7.1	-8.8	-0.1	5.5	11.1	13.9	17.2	17.2	12.7	3.4	-5.0	-11.9
TOTAL	-746.1	-511.6	-161.5	210.1	524.7	745.4	885.4	811.4	599.1	271.5	-220.3	-627.0
MEAN	-12.2	-8.3	-2.7	3.7	8.9	12.4	14.5	13.8	9.7	4.4	-3.7	-10.1

LONG TERM MEAN ANNUAL = 2.5

Totals provided for computational purposes only

TABLE 115
Seasonal Total Accumulated Degree Days Below 0°C at Vanderhoof
(Unpublished AES Data)

YEAR	START DATE	BEFORE DEC.31	AFTER JAN 1	END DATE	TOTAL
1916-17	Oct. 1	598.1	1075.7	May 2	1673.8
17-18	Oct. 14	609.2	924.1	Apr. 16	1533.3
18-19	Nov. 5	334.5	918.1	Apr. 13	1252.6
19-20	Oct. 13	792.9	1041.1	Apr. 14	1834.0
20-21	Nov. 8	303.9	678.1	May 6	982.0
21-22	Nov. 7	712.6	1172.5	Apr. 16	1885.1
22-23	Oct. 26	411.0	920.5	Mar. 29	1331.5
23-24	Nov. 4	234.5	763.6	Apr. 27	998.1
24-25	Oct. 17	732.6	798.4	Apr. 15	1531.0
25-29	Oct. 10	331.7	815.1	Apr. 11	1146.8
29-30	Oct. 27	384.4	958.2	Mar. 23	1342.6
35-36	Oct. 8	396.2	1262.6	Apr. 4	1658.8
36-37	Oct. 30	392.5	1039.4	Mar. 28	1431.9
37-38	Oct. 28	491.2	715.7	Apr. 1	1206.9
38-39	Nov. 5	443.5	791.1	Apr. 5	1234.6
39-40	Oct. 5	140.1	560.6	Mar. 23	700.7
40-41	Oct. 26	447.5	468.5	Mar. 25	916.0
52-53	Oct. 25	258.9	630.1	Apr. 14	889.0
53-54	Oct. 23	173.7	789.6	Apr. 30	963.3
54-55	Nov. 6	228.7	776.4	Apr. 25	1005.1
55-56	Oct. 18	937.7	488.8	Apr. 6	1426.5
56-57	Oct. 18	467.1	1129.5	Apr. 12	1596.6
57-58	Oct. 2	282.5	448.7	Mar. 25	731.2
58-59	Oct. 8	411.0	776.6	May 1	1187.6
59-60	Oct. 7	386.9	643.6	Mar. 29	1030.5
60-61	Oct. 17	417.7	495.8	Apr. 14	913.5
61-62	Oct. 9	611.8	827.6	Mar. 28	1439.4
63-64	Oct. 26	452.8	426.0	Mar. 26	878.8
64-65	Oct. 25	716.9	740.4	Apr. 20	1457.3
66-67	Oct. 10	506.1	733.6	Apr. 19	1239.7
67-68	Oct. 28	396.1	685.6	Apr. 12	1081.7
68-69	Oct. 10	573.8	1195.2	Apr. 2	1769.0
70-71	Oct. 5	691.5	842.8	Apr. 16	1534.3
71-72	Oct. 15	728.0	1117.5	Apr. 17	1845.5
72-73	Sep. 22	500.1	748.5	Mar. 28	1248.6
73-74	Oct. 19	618.6	893.8	Apr. 26	1512.4
74-75	Oct. 28	366.6	994.1	Apr. 8	1360.7
75-76	Oct. 25	506.2	749.9	Apr. 3	1256.1
76-77	Oct. 14	246.7	424.0	Mar. 30	670.7
77-78	Oct. 19	711.3	671.1	Apr. 14	1382.4
78-79	Oct. 26	682.9	1166.0	Apr. 13	1848.9
79-80	Oct. 17	474.7	914.2	Apr. 8	1388.9
80-81	Oct. 26	340.5	282.3	Apr. 12	622.8
81-82	Oct. 21	325.7	1044.5	Apr. 15	1370.2
82-83	Oct. 19	468.9	355.2	Mar. 25	824.1
83-84	Nov. 5	621.5	237.1	Mar. 20	858.6
84-85	Oct. 17	738.8	463.0	Mar. 29	1201.8
85-86	Oct. 7	738.5	460.9	Apr. 12	1199.4
86-87	Oct. 30	404.7	306.8	Mar. 28	711.5
87-88	Nov. 14	201.3	461.1	Apr. 2	662.4
88-89	Oct. 28	328.6	867.5	Mar. 22	1196.1
89-90	Oct. 28	186.7	547.0	Apr. 9	733.7
Earliest	Sep. 22			Mar. 20	
Mean	Oct. 23			Apr. 9	
Latest	Nov. 14			May 6	

Based on mean daily temperatures using years with complete records.

TABLE 116
Rank and Plotting Position of Seasonal Total
Accumulated Degree Days Below 0°C
at Vanderhoof

RANK	PLOTTING POSITION	DAYS	YEARS
1	0.019	1885.1	1921-22
2	0.038	1848.9	1978-79
3	0.058	1845.5	1971-72
4	0.077	1834.0	1919-20
5	0.096	1769.0	1968-69
6	0.115	1673.8	1916-17
7	0.135	1658.8	1935-36
8	0.154	1596.6	1956-57
9	0.173	1534.3	1970-71
10	0.192	1533.3	1917-18
11	0.212	1531.0	1924-25
12	0.231	1512.0	1973-74
13	0.250	1457.3	1964-65
14	0.269	1439.4	1961-62
15	0.288	1431.9	1936-37
16	0.308	1426.5	1955-56
17	0.327	1388.9	1979-80
18	0.346	1382.4	1977-78
19	0.365	1370.2	1981-82
20	0.385	1360.7	1974-75
21	0.404	1342.6	1929-30
22	0.423	1331.5	1922-23
23	0.442	1256.1	1975-76
24	0.462	1252.6	1918-19
25	0.481	1248.6	1972-73
26	0.500	1239.7	1966-67
27	0.519	1234.6	1938-39
28	0.538	1206.9	1937-38
29	0.558	1201.8	1984-85
30	0.577	1199.4	1985-86
31	0.596	1196.1	1988-89
32	0.615	1187.6	1958-59
33	0.635	1146.8	1928-29
34	0.654	1081.7	1967-68
35	0.673	1030.5	1959-60
36	0.692	1005.1	1954-55
37	0.712	998.1	1923-24
38	0.731	982.0	1920-21
39	0.750	963.5	1953-54
40	0.769	916.0	1940-41
41	0.788	913.5	1960-61
42	0.808	889.0	1952-53
43	0.827	878.8	1963-64
44	0.846	858.6	1983-84
45	0.865	824.1	1982-83
46	0.881	733.7	1989-90
47	0.885	731.2	1957-58
48	0.904	711.5	1986-87
49	0.923	700.7	1939-40
50	0.942	670.7	1976-77
51	0.962	662.7	1987-88
52	0.981	622.8	1980-81

TABLE 117
 Monthly and Annual Mean Discharges for Skins Lake Spillway (m³/sec)
 (Alcan Smelters and Chemicals Ltd.)

YEAR	JAN	FEB	MAR	APRIL	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	MEAN
1956	2.7	4.6	5.7	5.7	3.3	0.0	1.2	12.2	13.9	0.0	0.0	9.0	4.9
1957	182.0	257.0	190.0	58.0	239.0	175.0	0.0	186.0	106.0	152.0	180.0	232.0	163.0
1958	297.0	219.0	313.0	334.0	109.0	153.0	300.0	294.0	316.0	320.0	316.0	146.0	260.0
1959	124.0	76.3	63.4	63.4	107.0	0.0	250.0	295.0	368.0	379.0	232.0	261.0	186.0
1960	74.1	109.0	131.0	240.0	355.0	249.0	91.6	197.0	264.0	138.0	187.0	108.0	178.0
1961	53.5	34.8	42.5	56.9	207.0	230.0	362.0	366.0	481.0	126.0	20.6	29.7	169.0
1962	30.0	30.6	30.6	30.6	166.0	192.0	278.0	219.0	227.0	222.0	218.0	46.4	141.0
1963	46.7	46.7	46.4	46.2	325.0	337.0	198.0	198.0	194.0	174.0	125.0	42.2	149.0
1964	42.8	43.0	42.5	87.4	407.0	416.0	307.0	198.0	192.0	195.0	127.0	70.8	180.0
1965	69.9	69.1	68.0	67.1	174.0	189.0	198.0	202.0	147.0	88.9	48.1	46.2	114.0
1966	46.2	45.9	45.3	45.3	211.0	229.0	100.0	141.0	316.0	281.0	90.1	88.1	137.0
1967	87.2	85.8	84.4	213.0	287.0	113.0	207.0	201.0	102.0	119.0	99.8	61.8	139.0
1968	60.3	60.6	60.3	59.7	231.0	217.0	303.0	170.0	231.0	237.0	152.0	91.5	156.0
1969	89.9	88.2	85.9	83.8	84.9	168.0	69.3	134.0	156.0	154.0	82.0	70.6	106.0
1970	75.0	73.5	71.8	52.0	44.1	46.8	46.5	90.3	115.0	116.0	68.2	60.6	71.7
1971	74.4	58.8	57.7	57.3	134.0	58.4	77.3	172.0	172.0	191.0	95.5	75.5	101.0
1972	71.3	72.9	71.6	230.0	109.0	83.4	378.0	319.0	219.0	189.0	72.9	72.4	158.0
1973	48.4	70.1	88.3	66.0	55.1	52.3	163.0	79.8	33.5	33.5	49.5	49.3	66.1
1974	75.7	47.7	77.7	243.0	67.8	0.0	165.0	80.7	24.8	179.0	104.0	72.6	93.0
1975	85.7	74.6	73.2	71.9	81.9	89.7	93.5	155.0	96.7	182.0	183.0	86.6	106.0
1976	173.0	86.2	93.2	316.0	192.0	324.0	421.0	434.0	241.0	284.0	257.0	176.0	243.0
1977	50.5	169.0	163.0	102.0	0.0	189.0	182.0	142.0	48.3	54.6	47.3	51.3	110.0
1978	32.7	53.2	52.9	51.2	48.0	38.5	37.9	34.2	34.1	33.4	36.7	34.8	42.0
1979	13.8	31.9	30.8	29.9	31.5	33.4	82.4	64.7	33.6	33.3	17.9	12.5	36.3
1980	33.0	15.6	15.0	15.0	15.2	14.2	29.9	113.0	29.1	32.4	32.5	32.6	30.0
1981	32.1	32.8	32.7	56.8	57.5	56.4	159.0	153.0	27.5	27.2	32.3	32.4	58.8
1982	32.1	31.8	37.5	55.6	38.1	54.0	156.0	87.5	30.7	31.1	31.1	31.1	51.6
1983	31.1	31.1	32.0	49.6	49.6	55.2	161.0	119.0	30.5	30.9	31.2	30.9	54.7
1984	30.6	30.5	33.9	53.6	54.2	54.1	184.0	105.0	30.9	31.3	31.2	31.1	56.1
1985	30.8	30.4	30.3	56.4	54.6	58.4	248.0	151.0	63.5	60.2	33.4	33.3	71.4
1986	33.8	32.9	32.5	56.9	48.8	54.5	153.0	102.0	27.0	32.8	33.3	35.4	53.9
1987	36.0	34.3	34.1	48.5	55.2	57.6	186.0	131.0	56.6	43.0	32.9	34.6	62.8
1988	34.1	33.2	32.4	54.5	46.8	48.5	141.0	98.3	29.9	30.0	30.5	30.7	51.0
1989	30.4	29.9	29.4	40.8	48.2	48.1	158.0	125.0	32.6	32.6	34.1	35.1	54.1
1990	35.3	34.9	34.1	191.6	52.5	49.4	189.2	94.2	30.8	33.2	33.3	32.8	67.6
MEAN	64.7	64.2	66.7	94.0	119.7	118.1	173.6	161.8	129.2	121.9	90.4	67.3	106.3

TABLE 118
 Monthly and Annual Mean Discharges for Kemano Powerhouse (m³/sec)
 (Alcan Smelters and Chemicals Ltd.)

YEAR	JAN	FEB	MAR	APRIL	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	MEAN
1954	-	-	-	-	-	-	-	13.1	15.1	25.5	26.7	27.0	-
1955	22.6	14.7	23.6	23.8	24.8	24.3	24.5	24.8	26.2	29.1	29.7	29.7	24.9
1956	29.4	29.8	36.4	29.7	41.1	48.0	53.6	53.2	54.3	54.3	60.2	67.8	47.4
1957	68.1	66.7	65.8	65.4	65.4	64.3	65.1	63.7	63.9	65.2	66.5	32.1	62.6
1958	60.4	63.7	64.3	63.8	61.3	61.7	63.0	54.0	61.4	63.2	62.9	62.9	62.5
1959	62.0	62.8	63.1	62.2	55.3	63.5	54.1	69.2	55.5	59.3	63.7	66.6	59.3
1960	37.3	66.8	67.5	70.0	69.5	68.6	68.7	0.0	69.7	69.4	71.5	72.4	69.2
1961	72.5	71.9	71.8	71.5	71.8	42.6	0.0	59.5	23.2	65.4	64.9	65.7	51.6
1962	65.0	64.2	64.0	63.8	63.3	62.7	61.9	63.5	59.6	59.9	60.2	60.7	62.1
1963	61.2	60.7	59.9	59.7	58.8	60.8	63.3	70.5	63.8	63.9	65.6	65.8	62.3
1964	65.6	65.8	70.1	70.6	70.4	70.2	70.6	71.1	70.8	72.5	73.4	74.2	70.4
1965	73.7	73.5	73.3	72.7	72.6	71.8	71.1	79.6	71.7	73.4	74.7	75.5	72.9
1966	75.8	75.2	76.3	77.7	78.3	79.1	79.1	91.1	80.2	81.3	81.6	82.7	78.9
1967	83.1	83.2	85.7	87.1	88.6	88.7	91.0	92.5	84.7	83.7	85.4	86.9	86.6
1968	88.2	88.7	87.1	87.8	86.5	85.9	88.5	100.0	94.4	96.5	97.8	99.5	91.1
1969	103.0	104.0	103.0	100.0	99.3	98.7	99.6	7.4	101.0	101.0	103.0	103.0	102.0
1970	105.0	103.0	104.0	103.0	103.0	102.0	49.5	7.4	7.7	10.2	63.1	91.4	70.6
1971	95.3	99.1	102.0	100.0	101.0	101.0	99.3	99.6	101.0	103.0	104.0	106.0	101.0
1972	107.0	107.0	105.0	104.0	102.0	102.0	102.0	102.0	98.5	105.0	109.0	110.0	104.0
1973	111.0	112.0	112.0	112.0	110.0	109.0	107.0	108.0	109.0	111.0	113.0	112.0	110.0
1974	114.0	112.0	112.0	109.0	108.0	108.0	105.0	108.0	107.0	108.0	111.0	109.0	109.0
1975	109.0	97.1	94.2	91.8	88.2	94.9	80.2	78.7	80.0	83.8	88.1	87.1	88.7
1976	89.3	91.4	91.6	89.4	93.2	92.8	91.2	83.3	93.9	98.9	104.0	109.0	94.8
1977	111.0	110.0	110.0	106.0	108.0	107.0	106.0	106.0	107.0	109.0	111.0	112.0	109.0
1978	112.0	111.0	109.0	108.0	108.0	108.0	108.0	109.0	108.0	110.0	110.0	122.0	110.0
1979	125.0	126.0	125.0	113.0	119.0	129.0	124.0	123.0	125.0	127.0	128.0	128.0	124.0
1980	126.0	125.0	123.0	122.0	118.0	104.0	117.0	127.0	126.0	127.0	127.0	107.0	121.0
1981	137.0	139.0	136.0	127.0	124.0	95.1	95.2	103.0	133.0	126.0	122.0	106.0	120.0
1982	120.0	118.0	111.0	110.0	104.0	87.7	90.4	90.2	112.0	113.0	132.0	137.0	110.0
1983	108.0	107.0	105.0	111.0	96.2	88.0	88.8	92.8	103.0	102.0	96.4	104.0	100.0
1984	93.8	94.6	94.1	93.4	93.3	93.4	94.6	93.1	93.6	93.8	94.1	94.3	93.8
1985	94.5	94.2	93.3	92.7	82.3	92.1	92.7	122.0	131.0	127.0	98.2	115.0	104.0
1986	122.0	116.0	93.6	93.5	93.4	93.0	78.8	88.1	92.9	93.4	94.3	94.5	96.0
1987	94.8	94.8	115.0	120.0	93.1	106.0	97.5	92.7	94.2	96.6	139.0	138.0	107.0
1988	138.0	138.0	137.0	130.0	92.8	92.2	92.0	92.1	92.3	91.8	102.0	103.0	108.0
1989	93.5	116.0	93.1	106.0	104.0	91.9	92.0	93.7	93.9	105.0	113.0	120.0	102.0
1990	121.7	121.7	122.2	126.2	127.8	123.1	95.8	98.5	114.5	125.5	129.9	133.2	120.0
MEAN	91.6	92.4	91.7	90.9	88.2	86.4	82.3	81.1	86.2	89.0	93.1	94.0	89.1

TABLE 119
 Monthly and Annual Mean Discharges for Nechako River Below Cheslatta Falls (m³/sec)
 (WSC Data)

YEAR	JAN	FEB	MAR	APRIL	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	MEAN
1980	-	-	-	-	-	-	-	112.0	36.2	35.9	35.4	36.4	-
1981	38.6	37.4	35.9	58.1	77.5	82.1	129.0	204.0	42.3	30.2	34.5	36.4	67.6
1982	37.5	37.1	37.9	60.6	65.7	60.8	113.0	151.0	35.8	34.8	34.9	34.8	59.0
1983	34.1	33.2	31.6	43.0	52.3	56.7	141.0	172.0	34.9	31.1	31.8	31.6	58.2
1984	33.0	31.8	32.0	52.2	65.1	58.4	140.0	161.0	35.5	30.4	31.4	31.6	58.8
1985	30.7	32.3	33.8	48.9	65.5	62.7	207.0	212.0	64.4	61.9	41.5	31.0	74.9
1986	31.3	30.7	30.1	47.6	59.4	59.2	129.0	144.0	32.6	28.8	33.2	33.9	55.3
1987	33.7	32.8	32.5	47.3	72.3	61.0	153.0	180.0	58.6	48.7	31.2	30.7	65.5
1988	31.6	31.4	31.6	45.9	52.0	56.7	114.0	137.0	38.6	32.6	31.8	31.3	53.1
1989	29.8	29.6	28.9	34.3	53.1	48.7	124.0	169.0	37.6	31.1	31.1	33.9	54.3
1990	34.5	34.4	33.7	144.0	111.1	56.5	147.4	159.7	31.6	29.3	30.0	29.3	70.1
MEAN	33.5	33.1	32.8	58.2	67.4	60.3	139.7	169.0	41.2	35.9	33.1	32.5	61.7

TABLE 120
 Monthly and Annual Mean Discharges for Nechako River at Vanderhoof (m³/sec)
 (WSC Data)

YEAR	JAN	FEB	MAR	APRIL	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	MEAN
1915	-	-	-	-	-	-	-	-	165.0	117.0	-	-	-
1948	-	-	-	-	-	-	-	-	237.0	184.0	156.0	144.0	-
1949	-	-	-	-	416.0	638.0	406.0	285.0	197.0	143.0	176.0	-	-
1950	-	-	-	-	261.0	529.0	552.0	284.0	178.0	-	-	-	-
1951	-	-	-	-	427.0	619.0	496.0	263.0	138.0	-	-	-	-
1952	-	-	-	-	327.0	582.0	518.0	292.0	160.0	56.8	-	-	-
1953	-	-	-	-	62.1	100.0	87.0	53.6	33.8	25.2	30.6	-	-
1954	-	-	-	-	79.7	149.0	104.0	109.0	95.9	71.3	63.6	-	-
1955	-	-	-	-	117.0	107.0	60.6	51.7	30.6	18.9	11.7	13.5	-
1956	15.2	13.2	16.8	41.3	84.0	73.2	49.4	29.2	23.7	19.5	10.8	9.5	32.2
1957	122.0	259.0	265.0	78.8	324.0	320.0	132.0	182.0	203.0	133.0	167.0	241.0	202.0
1958	292.0	259.0	314.0	436.0	433.0	188.0	324.0	305.0	310.0	347.0	339.0	172.0	310.0
1959	125.0	98.3	75.8	91.5	241.0	203.0	278.0	330.0	368.0	374.0	334.0	282.0	234.0
1960	177.0	99.1	138.0	264.0	467.0	453.0	176.0	204.0	284.0	186.0	191.0	143.0	232.0
1961	80.6	56.9	56.1	80.4	286.0	290.0	398.0	366.0	503.0	271.0	55.7	39.6	208.0
1962	39.3	38.2	40.8	60.4	181.0	301.0	339.0	331.0	252.0	239.0	249.0	129.0	184.0
1963	71.7	68.6	67.0	101.0	361.0	426.0	291.0	229.0	211.0	187.0	175.0	82.1	190.0
1964	65.1	51.0	49.3	65.0	447.0	571.0	461.0	286.0	234.0	232.0	203.0	87.2	230.0
1965	86.0	85.0	87.8	147.0	300.0	308.0	263.0	232.0	190.0	104.0	78.9	62.8	162.0
1966	60.0	59.4	65.7	122.0	309.0	336.0	197.0	140.0	303.0	316.0	174.0	104.0	183.0
1967	97.6	99.5	96.3	173.0	501.0	336.0	269.0	259.0	170.0	126.0	136.0	94.0	197.0
1968	63.9	60.0	72.2	108.0	346.0	424.0	377.0	255.0	259.0	281.0	283.0	138.0	223.0
1969	107.0	94.2	94.8	146.0	180.0	238.0	178.0	124.0	178.0	177.0	147.0	103.0	147.0
1970	77.8	88.3	94.2	105.0	141.0	136.0	90.9	107.0	133.0	140.0	109.0	75.0	108.0
1971	57.6	55.9	67.0	97.8	256.0	181.0	180.0	220.0	216.0	214.0	156.0	90.8	150.0
1972	80.8	69.1	73.8	208.0	421.0	298.0	471.0	420.0	256.0	233.0	117.0	68.5	227.0
1973	77.7	77.1	80.6	92.3	162.0	146.0	193.0	132.0	60.8	49.7	50.8	56.8	98.5
1974	57.0	55.5	76.7	277.0	356.0	188.0	177.0	181.0	51.8	131.0	162.0	77.7	150.0
1975	56.3	68.2	73.0	94.4	124.0	134.0	134.0	153.0	143.0	168.0	233.0	132.0	126.0
1976	103.0	106.0	101.0	349.0	593.0	537.0	567.0	564.0	334.0	290.0	287.0	189.0	336.0
1977	189.0	193.0	178.0	248.0	227.0	205.0	249.0	181.0	108.0	75.3	64.3	63.7	165.0
1978	63.4	62.3	65.7	86.1	152.0	126.0	88.5	55.5	47.7	42.4	44.7	45.5	73.4
1979	43.3	41.9	56.5	66.0	229.0	167.0	128.0	122.0	49.2	40.3	28.1	19.6	82.6
1980	16.9	16.1	23.4	47.1	49.9	45.8	50.2	138.0	55.6	50.4	50.8	53.9	50.0
1981	54.2	50.3	54.5	78.8	147.0	179.0	174.0	243.0	60.3	41.4	45.8	40.5	97.8
1982	40.2	41.2	43.9	73.9	151.0	163.0	163.0	196.0	59.6	49.9	48.5	42.4	89.9
1983	41.3	41.6	35.4	59.9	91.5	95.5	189.0	218.0	61.9	50.8	47.3	34.3	81.0
1984	39.2	42.7	45.3	81.4	132.0	130.0	179.0	200.0	64.8	55.5	42.3	39.3	88.0
1985	43.4	44.9	47.6	83.7	133.0	153.0	245.0	251.0	93.8	88.3	48.0	35.7	106.0
1986	36.9	37.9	39.2	74.2	112.0	131.0	180.0	180.0	52.6	43.9	42.4	41.9	81.4
1987	41.9	44.8	43.4	89.4	155.0	131.0	185.0	211.0	77.5	64.2	45.5	43.1	94.8
1988	41.2	40.6	40.5	68.2	104.0	126.0	158.0	173.0	63.0	48.7	48.5	47.6	80.1
1989	46.3	38.7	39.5	73.1	139.0	112.0	151.0	195.0	59.0	45.8	48.3	47.2	82.9
1990	51.6	51.1	51.6	170.0	195.5	144.8	200.9	202.6	52.7	43.7	40.9	36.8	103.5
MEAN	76.0	74.5	79.2	126.8	243.4	255.2	240.7	213.2	155.1	132.7	118.5	84.5	148.7

TABLE 121
 Monthly and Annual Mean Discharges for Nautley River Near Ft. Fraser (m³/sec)
 (WSC Data)

YEAR	JAN	FEB	MAR	APRIL	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	MEAN
1950	-	-	-	-	-	-	-	-	17.6	11.4	8.5	8.4	-
1951	-	-	-	11.6	65.9	86.2	40.5	26.5	13.9	8.9	7.3	8.0	-
1952	7.6	7.4	6.5	11.3	79.2	89.2	58.8	30.7	15.7	13.0	8.9	7.0	28.0
1953	7.5	8.8	7.4	8.3	44.1	88.3	74.2	43.7	16.7	15.3	17.8	21.9	29.6
1954	11.7	13.7	11.3	10.4	48.3	126.0	88.0	76.9	67.8	40.8	44.4	48.7	49.2
1955	33.4	26.0	20.8	22.3	53.1	71.4	46.6	34.8	22.5	16.3	7.3	8.7	30.3
1956	10.1	8.7	7.9	13.0	46.2	50.3	32.4	20.1	14.0	10.6	8.1	7.0	19.1
1957	6.6	8.2	9.2	7.9	48.1	68.9	45.7	50.6	43.9	23.1	20.5	32.4	30.6
1958	33.2	26.5	21.6	39.6	134.0	102.0	55.7	30.6	21.6	18.9	15.4	12.0	42.7
1959	12.4	12.7	11.6	17.0	84.5	116.0	111.0	58.7	37.5	28.2	36.0	37.0	47.1
1960	30.4	24.6	21.3	32.9	102.0	112.0	65.9	34.7	23.9	16.0	15.2	11.8	40.9
1961	11.6	10.9	10.8	18.1	72.9	84.0	44.1	21.6	9.0	16.6	7.4	6.3	26.2
1962	7.0	7.9	8.2	13.4	33.9	79.0	80.7	48.3	26.3	18.5	21.5	22.4	30.7
1963	20.4	16.1	15.5	24.5	79.1	76.1	49.1	33.2	20.9	15.5	10.8	8.7	30.9
1964	9.3	9.5	9.1	13.0	54.1	109.0	73.7	65.8	34.3	32.1	25.7	18.6	37.9
1965	17.3	16.9	16.1	22.0	93.4	99.6	58.9	35.1	17.6	11.5	14.1	13.2	34.7
1966	13.6	13.9	12.0	24.9	102.0	101.0	54.7	27.7	20.2	15.9	18.6	19.9	35.4
1967	17.2	15.5	13.4	18.6	113.0	140.0	65.7	36.4	17.4	12.4	10.1	9.0	39.2
1968	8.4	11.3	11.1	14.3	89.3	138.0	72.1	37.5	21.0	20.7	30.7	23.7	39.8
1969	19.5	16.8	12.2	20.2	55.2	79.9	45.9	23.5	15.8	14.9	16.4	22.0	28.6
1970	17.8	16.1	14.3	18.3	51.3	66.8	36.7	23.1	16.4	12.0	9.6	8.3	24.3
1971	7.8	8.6	8.4	10.1	68.0	88.9	85.8	54.7	32.7	19.4	15.7	13.6	34.7
1972	11.8	11.1	15.7	21.8	121.0	192.0	122.0	61.2	27.3	16.6	18.6	18.8	53.3
1973	15.8	14.1	13.1	16.7	64.7	79.8	51.8	28.2	17.6	14.4	11.0	10.3	28.2
1976	16.4	16.6	14.9	32.2	186.0	197.0	135.0	92.5	48.3	20.8	23.6	23.1	68.3
1977	23.7	21.1	18.0	44.4	147.0	81.6	48.0	29.7	18.2	16.9	14.7	11.5	39.8
1978	10.9	10.1	9.0	14.5	59.9	89.7	48.2	25.5	17.8	13.3	12.8	13.4	25.5
1979	12.5	12.5	11.7	13.9	107.0	104.0	57.6	28.6	14.5	9.8	6.0	4.3	32.1
1980	5.0	4.8	5.6	8.7	27.2	28.4	23.0	14.3	13.0	11.6	12.1	13.6	14.0
1981	15.7	13.7	11.8	15.2	56.7	80.0	48.8	24.6	14.0	9.8	9.6	7.3	25.6
1982	8.8	8.6	9.0	9.3	57.1	99.6	57.7	32.0	19.1	13.4	10.9	9.3	28.0
1983	7.2	6.6	6.1	9.6	31.5	31.2	37.4	30.2	17.3	11.8	9.2	7.8	17.3
1984	6.9	8.2	8.2	15.8	42.9	52.3	33.6	19.4	14.6	12.5	9.3	8.3	19.3
1985	8.5	7.5	8.6	12.5	45.3	72.3	40.0	20.9	12.8	9.5	7.0	3.8	20.8
1986	4.3	4.8	5.9	10.5	25.7	56.3	48.1	24.1	13.6	11.3	9.3	7.5	18.5
1987	7.6	7.4	7.5	18.0	62.8	56.5	34.0	19.9	12.5	7.9	8.0	8.3	21.0
1988	10.0	10.0	9.8	12.9	43.1	60.2	40.7	23.5	15.3	12.6	12.6	11.3	21.8
1989	10.0	8.5	9.1	14.2	65.1	52.5	32.4	21.6	14.4	10.5	9.0	10.8	21.5
1990	13.0	12.2	11.5	24.6	60.9	65.5	47.5	25.3	14.2	10.5	8.2	7.5	25.1
MEAN	13.3	12.4	11.5	17.7	71.8	88.8	58.1	35.4	21.6	15.8	14.8	14.3	31.4

TABLE 122
 Monthly and Annual Mean Discharges for Stuart River Near Ft. St. James (m³/sec)
 (WSC Data)

YEAR	JAN	FEB	MAR	APRIL	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	MEAN
1929	-	-	-	-	-	-	-	-	-	-	49.7	24.2	-
1930	23.0	-	-	21.4	39.8	91.5	164.0	138.0	98.1	91.2	47.8	47.9	-
1931	48.5	43.8	39.9	39.8	98.4	202.0	258.0	208.0	144.0	92.1	-	-	-
1933	-	-	-	-	-	-	371.0	286.0	192.0	141.0	-	-	-
1934	-	-	92.6	96.1	252.0	335.0	283.0	206.0	143.0	113.0	122.0	118.0	-
1935	100.0	71.1	48.8	44.5	102.0	213.0	266.0	200.0	136.0	95.4	78.4	71.8	119.0
1936	63.5	47.8	36.3	39.5	142.0	273.0	313.0	253.0	165.0	119.0	88.8	84.2	137.0
1937	93.4	64.8	46.3	53.4	101.0	171.0	204.0	155.0	121.0	91.2	78.9	69.9	104.0
1938	62.7	50.8	43.1	47.2	88.8	177.0	205.0	141.0	94.0	64.5	50.4	44.6	89.4
1939	44.1	72.1	38.9	43.2	111.0	314.0	346.0	241.0	145.0	89.8	76.2	81.5	132.0
1940	79.9	65.3	55.4	68.9	171.0	290.0	275.0	204.0	146.0	95.4	70.3	59.5	102.0
1941	51.6	45.0	38.7	52.2	134.0	207.0	191.0	131.0	94.5	80.6	93.8	104.0	-
1942	92.5	73.4	58.6	56.1	103.0	231.0	238.0	171.0	105.0	68.1	-	-	-
1943	-	-	38.1	43.7	86.0	164.0	205.0	165.0	109.0	73.1	50.9	39.2	-
1944	-	-	-	27.6	62.0	136.0	163.0	127.0	88.4	70.5	63.3	-	-
1945	-	-	32.0	35.5	67.5	171.0	188.0	132.0	77.8	48.6	39.7	38.2	-
1946	36.2	32.0	28.7	28.7	94.3	268.0	276.0	196.0	122.0	78.3	-	-	-
1947	-	-	-	-	107.0	239.0	253.0	173.0	111.0	76.3	72.0	69.7	-
1948	69.9	52.9	39.9	34.4	88.6	327.0	310.0	187.0	118.0	81.5	65.8	59.6	120.0
1949	-	-	27.8	30.6	101.0	259.0	268.0	182.0	128.0	86.8	79.5	-	-
1950	-	-	41.8	35.4	90.5	219.0	289.0	201.0	121.0	74.2	49.9	41.3	-
1951	34.6	31.3	27.9	30.6	104.0	286.0	287.0	189.0	112.0	66.9	48.5	47.7	106.0
1952	39.1	35.1	29.2	31.5	102.0	321.0	402.0	270.0	150.0	97.6	68.8	50.0	133.0
1953	41.0	36.0	30.6	28.7	97.0	378.0	315.0	238.0	154.0	114.0	118.0	122.0	132.0
1954	108.0	88.2	63.8	46.8	80.3	271.0	415.0	326.0	231.0	178.0	180.0	197.0	183.0
1955	164.0	123.0	90.0	71.7	100.0	162.0	210.0	185.0	133.0	96.2	73.0	39.2	121.0
1956	32.4	36.1	30.0	30.7	77.9	171.0	208.0	161.0	106.0	70.6	53.7	49.7	85.8
1957	43.1	36.3	31.0	32.4	99.8	249.0	254.0	216.0	190.0	140.0	106.0	98.4	125.0
1958	94.1	77.1	69.8	81.2	202.0	391.0	330.0	189.0	117.0	89.0	80.8	79.1	150.0
1959	70.1	57.3	43.5	48.4	129.0	311.0	403.0	276.0	182.0	145.0	137.0	120.0	161.0
1960	97.9	83.3	62.2	80.4	195.0	396.0	394.0	262.0	168.0	118.0	104.0	90.4	171.0
1961	78.7	63.8	49.2	55.9	125.0	261.0	260.0	168.0	106.0	72.2	64.6	60.2	114.0
1962	52.6	43.2	36.4	38.6	69.6	154.0	221.0	178.0	119.0	84.8	82.0	84.5	97.3
1963	75.4	61.3	51.1	67.2	154.0	241.0	238.0	177.0	122.0	84.7	63.8	56.3	116.0
1964	49.8	44.6	40.0	41.7	107.0	350.0	475.0	367.0	243.0	173.0	140.0	109.0	179.0
1965	83.3	65.6	53.5	62.9	153.0	311.0	326.0	228.0	137.0	89.1	78.1	77.0	138.0
1966	69.9	54.7	44.8	58.0	158.0	315.0	349.0	237.0	168.0	123.0	94.0	87.1	147.0
1967	73.8	61.5	50.0	46.7	148.0	386.0	373.0	229.0	136.0	103.0	101.0	83.4	150.0
1968	63.8	57.4	49.8	56.8	153.0	353.0	406.0	284.0	184.0	148.0	158.0	147.0	172.0
1969	110.0	76.0	46.7	55.0	127.0	243.0	250.0	163.0	127.0	132.0	139.0	151.0	135.0
1970	136.0	113.0	89.3	80.1	126.0	248.0	267.0	205.0	150.0	107.0	82.5	64.0	139.0
1971	55.7	48.9	41.9	43.3	120.0	251.0	331.0	254.0	165.0	123.0	110.0	101.0	138.0
1972	84.3	65.0	57.9	65.9	170.0	452.0	530.0	340.0	199.0	134.0	118.0	106.0	194.0
1973	89.5	66.5	50.9	55.7	136.0	282.0	317.0	220.0	139.0	98.2	70.8	60.3	133.0
1974	49.1	45.0	39.0	44.6	190.0	375.0	399.0	284.0	178.0	124.0	104.0	86.6	161.0
1975	68.1	51.7	44.2	42.9	97.0	208.0	245.0	191.0	145.0	105.0	83.4	70.4	113.0
1976	61.4	51.9	43.9	56.0	210.0	406.0	427.0	326.0	223.0	152.0	114.0	93.7	181.0
1977	72.7	58.4	49.1	65.7	190.0	301.0	288.0	212.0	144.0	110.0	90.9	72.5	138.0
1978	56.1	44.0	35.2	40.3	92.3	175.0	197.0	138.0	95.4	70.0	67.7	67.5	90.2
1979	61.9	52.8	44.0	43.6	136.0	278.0	297.0	201.0	126.0	87.1	63.2	44.4	120.0
1980	39.2	32.7	29.7	30.9	74.1	150.0	156.0	117.0	83.8	66.9	69.6	78.3	77.6
1981	80.4	71.5	58.7	58.3	142.0	325.0	314.0	197.0	118.0	75.8	54.3	42.7	128.0
1982	39.4	37.5	35.9	34.3	98.5	266.0	320.0	233.0	152.0	104.0	80.6	68.2	123.0
1983	56.5	49.0	43.3	47.7	115.0	192.0	233.0	220.0	154.0	108.0	82.3	64.5	114.0
1984	50.8	42.6	39.2	51.8	112.0	238.0	287.0	216.0	146.0	108.0	91.0	74.0	122.0
1985	55.5	46.0	39.7	42.6	78.8	185.0	222.0	166.0	109.0	76.9	57.8	45.5	94.2
1986	37.7	32.2	31.8	41.1	83.1	206.0	286.0	211.0	129.0	91.5	77.5	70.3	109.0
1987	60.5	50.9	46.6	56.8	141.0	254.0	262.0	183.0	103.0	72.4	60.8	57.8	113.0
1988	47.2	44.3	45.6	54.9	166.0	386.0	369.0	238.0	144.0	95.1	75.6	68.5	145.0
1989	55.4	44.4	37.8	41.1	127.0	214.0	195.0	137.0	85.9	52.8	42.6	46.3	89.9
1990	52.7	51.4	49.0	64.3	143.7	291.4	314.5	207.8	127.4	80.6	54.5	42.7	123.3
MEAN	66.5	55.9	46.5	48.7	121.5	263.1	290.6	208.9	137.7	98.3	82.8	68.8	129.1

TABLE 123
Mean Annual Discharges 1980-90 at All Stations (m³/sec)

YEAR	SKINS LAKE	KEMANO POWER HOUSE	NECHAKO BELOW CHESLATA	NECHAKO NECHAKO AT VANDERHOOF	NAUTLEY NEAR FT. FRASER	STUART NEAR FT ST JAMES
1980	30.0	121.0	*	50.0	14.0	77.6
1981	58.8	120.0	67.6	97.8	25.6	128.0
1982	51.6	110.0	59.0	89.9	28.0	123.0
1983	54.7	100.0	58.2	81.0	17.3	114.0
1984	56.1	93.8	58.8	88.0	19.3	122.0
1985	71.4	104.0	74.9	106.0	20.8	94.2
1986	53.9	96.0	55.3	81.4	18.5	109.0
1987	62.8	107.0	65.5	94.8	21.0	113.0
1988	51.0	108.0	53.1	80.1	21.8	145.0
1989	54.1	102.0	54.3	82.9	21.5	89.9
1990	67.6	120.0	70.1	103.5	25.1	123.3
MEAN	55.6	107.4	61.7	86.9	21.2	112.6

* partial record only

TABLE 124
Ice Effects on the Water Survey of Canada Gauge
Nechako River at Vanderhoof (WSC Data)

YEAR	START	END	TOTAL DAYS	DAYS BEFORE JAN 1	DAYS AFTER JAN 1
1989-90	Nov 14	Apr 10	148	48	100
1988-89	Nov.24	Apr. 18	146	38	108
1987-88	Nov. 16	Apr. 4	140	46	94
1986-87	Nov. 8	Apr. 5	150	54	96
1985-86	Nov. 6	Apr. 6	152	56	96
1984-85	Oct.27	Apr. 9	165	66	99
1983-84	Nov. 16	Mar.29	134	46	88
1982-83	Nov. 17	Apr. 12	147	45	102
1981-82	Nov.28	Apr.24	148	34	114
1980-81	Nov.22	Mar.25	124	40	84
1979-80	Nov. 8	Apr. 10	154	54	100
1978-79	Nov.11	Apr.11	152	51	101
1977-78	Nov.17	Apr. 7	142	45	97
1976-77	Jan. 1	Feb.20	51	0	51
1975-76	Nov.27	Apr.14	139	35	104
1974-75	Nov.22	Apr.18	148	40	108
1973-74	Nov. 3	Apr. 12	161	59	102
1972-73	Nov.28	Apr. 6	130	34	96
1971-72	Nov.29	Apr.11	134	33	101
1970-71	Nov.20	Apr.22	154	42	112
1969-70	Dec.14	Mar. 3	111	18	93
1968-69	Dec. 4	Apr. 8	126	28	98
1967-68	Nov.25	Apr. 9	135	36	99
1966-67	Nov.27	Apr.16	139	34	105
1965-66	Nov.24	Apr. 1	129	38	91
1964-65	Nov.27	Apr.10	134	34	100
1963-64	Nov.17	Apr.20	155	45	110
1962-63	Dec.24	Apr. 7	104	7	97
1961-62	Nov.16	Apr.17	153	46	107
1960-61	Dec.15	Apr. 8	115	17	98
1959-60	Jan. 1	Apr. 6	96	0	96
1958-59	Dec. 6	Apr.12	128	26	102
1957-58	Dec.21	Mar.11	80	10	70
1956-57	Oct.29	Apr. 2	155	63	92
1955-56		Apr.20			
Earliest	Oct.27	Feb.20			
Mean	Nov.24	Apr. 7	135	37	98
Latest	Jan. 1	Apr.24			