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STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION AND LOAD
OKANAGAN RIVER BELOW OKANAGAN LAKE

DATA REPORT

PREPARED FOR:

CANADA - BRITISH COLUMBIA
OKANAGAN BASIN IMPLEMENTATION BOARD

L. JOHN SEMAN

SEPTEMBER 1982

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**Inland Waters Directorate
Pacific and Yukon Region
Vancouver, B.C.**



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CANADA - BRITISH COLUMBIA OKANAGAN BASIN
IMPLEMENTATION AGREEMENT

Statistical Characteristics of Nutrient Concentration and Load
Okanagan River Below Okanagan Lake

DATA REPORT

L. John Zeman

INLAND WATERS DIRECTORATE

VANCOUVER

September 1982

NOTICE

This report was prepared for the Implementation Board under the terms of the Canada-British Columbia Okanagan Basin Implementation Agreement. The information contained in this report is preliminary and subject to revision. The Implementation Board does not necessarily concur with opinions expressed in this report.

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A

OKANAGAN RIVER BELOW OKANAGAN LAKE

Topographic Map of the Okanagan River Between Okanagan and
Osoyoos Lakes 2

Water Quality and Stream Gauging Stations 2

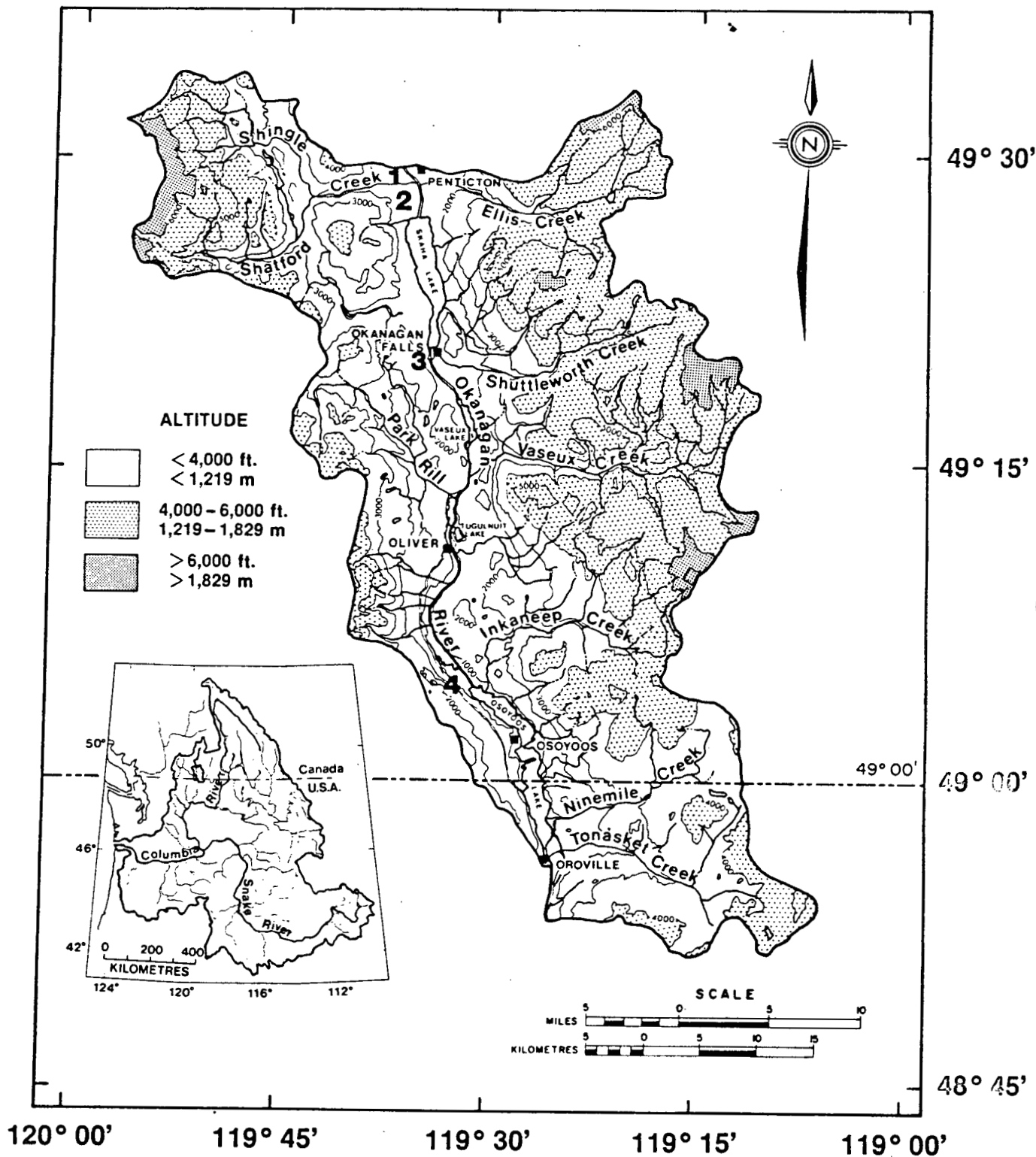


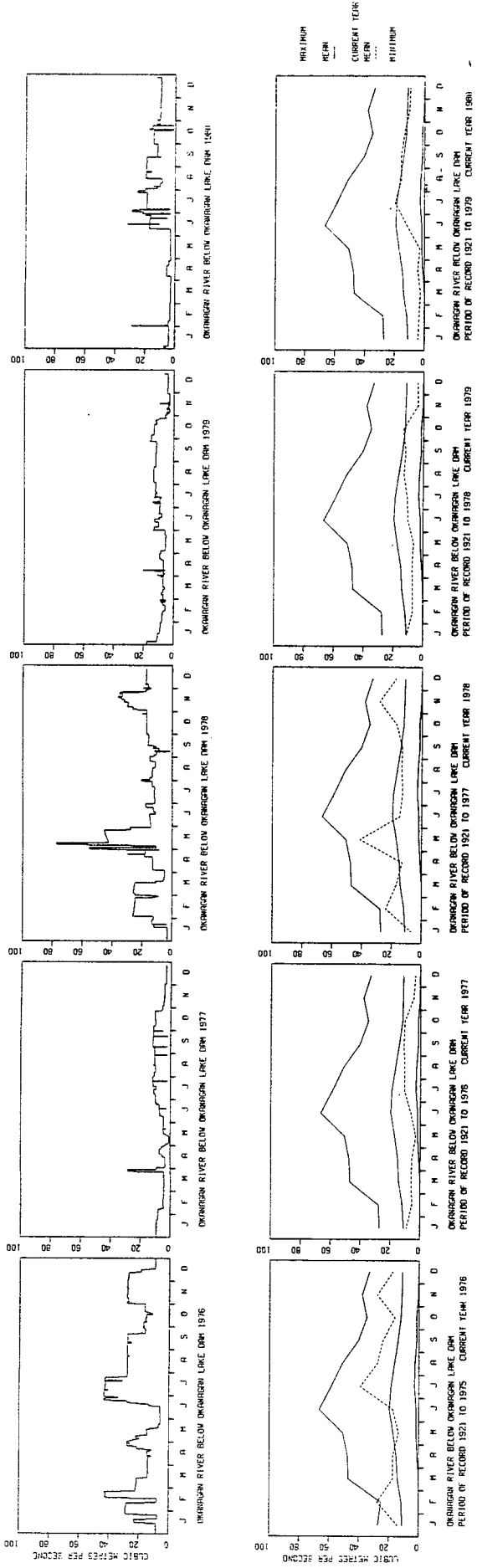
Figure 1. Southern part of the Okanagan River Basin. Hydrometric stations (1, 3 and 4) and Water Quality Sampling sites (1, 2, 3 and 4)

B

OKANAGAN RIVER BELOW OKANAGAN LAKE

DISCHARGE

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C-1

OKANAGAN RIVER BELOW OKANAGAN LAKE

Statistical Characteristics of Nutrient Concentrations
Period of Sampling February 1976 to December 1980.

TOTAL PHOSPHORUS (P)

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STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 TOTAL PHOSPHORUS (P)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN (MG/L)	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
1976 FEBRUARY	6	0.0070	0.010	0.008	0.0012	0.0005	± 0.0012
JULY	36	0.0060	0.017	0.008	0.0021	0.0004	± 0.0007
AUGUST	18	0.0060	0.028	0.009	0.0051	0.0012	± 0.0025
SEPTEMBER	54	0.0050	0.040	0.009	0.0054	0.0007	± 0.0015
DECEMBER	33	0.0060	0.019	0.008	0.0032	0.0006	± 0.0011
1977 MARCH	21	0.0070	0.032	0.012	0.0064	0.0014	± 0.0029
APRIL	14	0.0100	0.018	0.012	0.0020	0.0005	± 0.0012
MAY	26	0.0050	0.050	0.009	0.0085	0.0017	± 0.0035
JUNE	61	0.0050	0.024	0.009	0.0026	0.0003	± 0.0007
JULY	48	0.0050	0.018	0.007	0.0026	0.0004	± 0.0007
AUGUST	44	0.0040	0.012	0.006	0.0012	0.0002	± 0.0004
OCTOBER	4	0.0090	0.013	0.011	0.0018	0.0009	± 0.0029
NOVEMBER	4	0.0080	0.015	0.011	0.0038	0.0019	± 0.0060
DECEMBER	22	0.0050	0.018	0.009	0.0035	0.0008	± 0.0016
1978 JANUARY	4	0.0060	0.027	0.012	0.0097	0.0049	± 0.0155
FEBRUARY	30	0.0060	0.017	0.009	0.0036	0.0007	± 0.0013
MARCH	40	0.0060	0.013	0.008	0.0023	0.0004	± 0.0007
APRIL	20	0.0050	0.012	0.007	0.0018	0.0004	± 0.0008
MAY	30	0.0050	0.013	0.009	0.0023	0.0004	± 0.0008
JUNE	24	0.0060	0.015	0.009	0.0023	0.0005	± 0.0010
JULY	40	0.0040	0.009	0.006	0.0009	0.0001	± 0.0003
AUGUST	24	0.0040	0.100	0.009	0.0194	0.0040	± 0.0082
SEPTEMBER	25	0.0040	0.011	0.007	0.0017	0.0003	± 0.0007
OCTOBER	7	0.0070	0.018	0.012	0.0037	0.0014	± 0.0034
NOVEMBER	8	0.0090	0.014	0.011	0.0017	0.0006	± 0.0014
DECEMBER	2	0.0220	0.026	0.024	0.0028	0.0020	± 0.0254
1979 JANUARY	7	0.0060	0.010	0.008	0.0015	0.0006	± 0.0014
FEBRUARY	6	0.0060	0.012	0.010	0.0027	0.0011	± 0.0028
MARCH	4	0.0110	0.018	0.015	0.0038	0.0019	± 0.0060
APRIL	4	0.0100	0.024	0.016	0.0063	0.0032	± 0.0101
MAY	4	0.0100	0.018	0.015	0.0031	0.0015	± 0.0049
JULY	8	0.0100	0.015	0.012	0.0016	0.0006	± 0.0013
AUGUST	8	0.0050	0.014	0.009	0.0032	0.0011	± 0.0026
SEPTEMBER	8	0.0080	0.011	0.009	0.0010	0.0004	± 0.0008
OCTOBER	8	0.0080	0.013	0.010	0.0018	0.0006	± 0.0015
NOVEMBER	8	0.0080	0.013	0.010	0.0017	0.0006	± 0.0014
DECEMBER	4	0.0100	0.021	0.013	0.0052	0.0026	± 0.0083

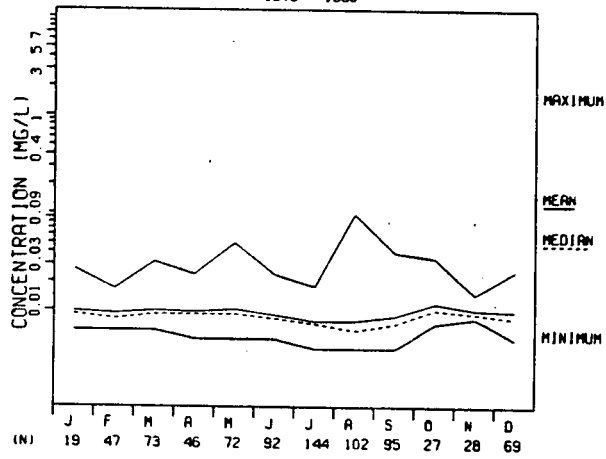
STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 TOTAL PHOSPHORUS (P)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN (MG/L)	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
1980 JANUARY	8	0.0090	0.013	0.010	0.0014	0.0005	± 0.0012
FEBRUARY	5	0.0070	0.010	0.008	0.0011	0.0005	± 0.0014
MARCH	8	0.0070	0.015	0.010	0.0025	0.0009	± 0.0021
APRIL	8	0.0070	0.009	0.008	0.0009	0.0003	± 0.0008
MAY	12	0.0090	0.039	0.014	0.0086	0.0025	± 0.0055
JUNE	7	0.0080	0.011	0.010	0.0014	0.0005	± 0.0013
JULY	12	0.0050	0.011	0.007	0.0016	0.0004	± 0.0010
AUGUST	8	0.0070	0.015	0.011	0.0032	0.0011	± 0.0026
SEPTEMBER	8	0.0070	0.014	0.010	0.0028	0.0010	± 0.0023
OCTOBER	8	0.0070	0.035	0.015	0.0097	0.0034	± 0.0081
NOVEMBER	8	0.0080	0.009	0.008	0.0005	0.0002	± 0.0004
DECEMBER	8	0.0080	0.014	0.011	0.0023	0.0008	± 0.0019

STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 TOTAL PHOSPHORUS (P)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN (MG/L.)	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
- 78-79-80 JANUARY	19	0.0060	0.027	0.010	0.0046	0.0010	± 0.0022
1976 - 78-79-80 FEBRUARY	47	0.0060	0.017	0.009	0.0031	0.0004	± 0.0009
- 77-78-79-80 MARCH	73	0.0060	0.032	0.010	0.0044	0.0005	± 0.0010
- 77-78-79-80 APRIL	46	0.0050	0.024	0.010	0.0039	0.0006	± 0.0011
- 77-78-79-80 MAY	72	0.0050	0.050	0.010	0.0067	0.0008	± 0.0016
- 77-78-80 JUNE	92	0.0050	0.024	0.009	0.0024	0.0003	± 0.0005
1976-77-78-79-80 JULY	144	0.0040	0.018	0.007	0.0023	0.0002	± 0.0004
1976-77-78-79-80 AUGUST	102	0.0040	0.100	0.008	0.0098	0.0010	± 0.0019
1976-78-79-80 SEPTEMBER	95	0.0040	0.040	0.008	0.0044	0.0004	± 0.0009
- 77-78-79-80 OCTOBER	27	0.0070	0.035	0.012	0.0059	0.0011	± 0.0023
- 77-78-79-80 NOVEMBER	28	0.0080	0.015	0.010	0.0021	0.0004	± 0.0008
1976-77-78-79-80 DECEMBER	69	0.0050	0.026	0.010	0.0043	0.0005	± 0.0010

TOTAL PHOSPHORUS (P)
BELOW OKANAGAN LAKE DAM
1976 - 1980



STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 TOTAL PHOSPHORUS (P)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN (MG/L)	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
1976 FEB JUL AUG SEP DEC	147	0.0050	0.040	0.008	0.0041	0.0003	± 0.0007
1977 MAR APR MAY JUN JUL AUG OCT NOV DEC	244	0.0040	0.050	0.009	0.0044	0.0003	± 0.0006
1978 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC	254	0.0040	0.100	0.008	0.0056	0.0004	± 0.0008
1979 JAN FEB MAR APR MAY JUL AUG SEP OCT NOV DEC	69	0.0050	0.024	0.011	0.0036	0.0004	± 0.0009
1980 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC	100	0.0050	0.039	0.010	0.0048	0.0005	± 0.0010

STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 TOTAL PHOSPHORUS (P)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN (MG/L)	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
APRIL TO SEPTEMBER							
1976	108	0.0050	0.040	0.009	0.0045	0.0004	± 0.0009
1977	193	0.0040	0.050	0.008	0.0041	0.0003	± 0.0006
1978	163	0.0040	0.100	0.008	0.0076	0.0006	± 0.0012
1979	32	0.0050	0.024	0.011	0.0040	0.0007	± 0.0014
1980	55	0.0050	0.039	0.010	0.0050	0.0007	± 0.0013
1976-80	551	0.0040	0.100	0.008	0.0056	0.0002	± 0.0005
OCTOBER TO MARCH							
1976-77	54	0.0060	0.032	0.010	0.0050	0.0007	± 0.0014
1977-78	104	0.0050	0.027	0.009	0.0035	0.0003	± 0.0007
1978-79	34	0.0060	0.026	0.011	0.0045	0.0008	± 0.0016
1979-80	41	0.0070	0.021	0.010	0.0025	0.0004	± 0.0008
1980-81	24	0.0070	0.035	0.012	0.0061	0.0013	± 0.0026
1976-80	257	0.0050	0.035	0.010	0.0042	0.0003	± 0.0005
APRIL TO MARCH							
1976-80	808	0.0040	0.100	0.009	0.0052	0.0002	± 0.0004

STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 TOTAL PHOSPHORUS (P)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN (MG/L)	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
1976 FEB JUL AUG SEP DEC	814	0.0040	0.100	0.009	0.0052	0.0002	± 0.0004
1977 MAR APR MAY JUN JUL AUG OCT NOV DEC							
1978 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC							
1979 JAN FEB MAR APR MAY JUN AUG SEP OCT NOV DEC							
1980 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC							

HISTOGRAM					
MIDPOINT	HIST%	COUNT	TP		
.40000 -2	10.0	81	+XXXXXXXXXXXXXXXXXXXX		
.74286 -2	60.6	490	+XXXXXXXXXXXXXXXXXXXX		
.10857 -1	18.6	150	+XXXXXXXXXXXXXXXXXXXX		
.14286 -1	6.3	51	+XXXXXXXXXXXXXXXXXXXX		
.17714 -1	2.5	20	+XXXX		
.21143 -1	.4	3	+X		
.24571 -1	.5	4	+X		
.28000 -1	.4	3	+X		
.31429 -1	.1	1	+X		
.34857 -1	.1	1	+X		
.38286 -1	.1	1	+X		
.41714 -1	.1	1	+X		
.45143 -1	0.	0	+X		
.48571 -1	.1	1	+X		
.52000 -1	0.	0	+X		
.55429 -1	0.	0	+X		
.58857 -1	0.	0	+X		
.62286 -1	0.	0	+X		
.65714 -1	0.	0	+X		
.69143 -1	0.	0	+X		
.72571 -1	0.	0	+X		
.76000 -1	0.	0	+X		
.79429 -1	0.	0	+X		
.82857 -1	0.	0	+X		
.86286 -1	0.	0	+X		
.89714 -1	0.	0	+X		
.93143 -1	0.	0	+X		
.96571 -1	0.	0	+X		
.10000	.1	1	+X		
MISSING		340			
TOTAL		1148			
			(INTERVAL WIDTH= .34286 -2)		

CONCENTRATION (mg l⁻¹)

C-2

OKANAGAN RIVER BELOW OKANAGAN LAKE

Statistical Characteristics of Nutrient Concentrations
Period of Sampling February 1976 to December 1980.

TOTAL PHOSPHORUS (P)

Median concentrations and their statistical characteristics determined for

Individual Months	15
All Months	17
Individual Years	18
Seasons	19
April to September	
October to March	
April to March	
All Years	20
Cumulative distribution of concentration	21

STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 TOTAL PHOSPHORUS (P)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN (MG/L)	CONFIDENCE INTERVAL LOWER	CONFIDENCE INTERVAL UPPER	PROBABILITY LEVEL
1976					
FEBRUARY	6	0.008	0.0070	0.0100	0.969
JULY	36	0.007	0.0070	0.0080	0.953
AUGUST	18	0.007	0.0070	0.0070	0.969
SEPTEMBER	54	0.007	0.0070	0.0090	0.960
DECEMBER	33	0.007	0.0070	0.0080	0.965
1977					
MARCH	21	0.010	0.0090	0.0120	0.973
APRIL	14	0.012	0.0110	0.0130	0.965
MAY	26	0.007	0.0060	0.0090	0.971
JUNE	61	0.008	0.0080	0.0090	0.960
JULY	48	0.007	0.0060	0.0070	0.956
AUGUST	44	0.005	0.0050	0.0050	0.951
OCTOBER	4	0.010			
NOVEMBER	4	0.008			
DECEMBER	22	0.007	0.0070	0.0110	0.965
1978					
JANUARY	4	0.008	0.0070	0.0090	0.957
FEBRUARY	30	0.008	0.0070	0.0080	0.961
MARCH	40	0.006	0.0060	0.0080	0.959
APRIL	20	0.006	0.0070	0.0100	0.957
MAY	30	0.009	0.0080	0.0090	0.957
JUNE	24	0.008	0.0060	0.0060	0.961
JULY	40	0.006	0.0050	0.0060	0.957
AUGUST	24	0.005	0.0060	0.0080	0.957
SEPTEMBER	25	0.006	0.0070	0.0180	0.984
OCTOBER	7	0.010	0.0090	0.0140	0.961
NOVEMBER	8	0.010			
DECEMBER	2	0.022			
1979					
JANUARY	7	0.008	0.0060	0.0100	0.984
FEBRUARY	6	0.010	0.0060	0.0120	0.969
MARCH	4	0.012			
APRIL	4	0.012			
MAY	4	0.015			
JULY	8	0.011	0.0100	0.0150	0.961
AUGUST	8	0.008	0.0060	0.0140	0.961
SEPTEMBER	8	0.009	0.0080	0.0110	0.961
OCTOBER	8	0.009	0.0080	0.0130	0.961
NOVEMBER	8	0.010	0.0080	0.0130	0.961
DECEMBER	4	0.011			

STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 TOTAL PHOSPHORUS (P)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN (MG/L)	CONFIDENCE INTERVAL LOWER	CONFIDENCE INTERVAL UPPER	PROBABILITY LEVEL
1980 JANUARY	8	0.010	0.0090	0.0130	0.961
FEBRUARY	5	0.008		0.0070	0.969
MARCH	8	0.009	0.0080	0.0150	0.961
APRIL	8	0.009	0.0070	0.0090	0.961
MAY	12	0.011	0.0090	0.0180	0.961
JUNE	7	0.010	0.0080	0.0110	0.984
JULY	12	0.007	0.0060	0.0080	0.961
AUGUST	8	0.009	0.0080	0.0150	0.961
SEPTEMBER	8	0.008	0.0080	0.0140	0.961
OCTOBER	8	0.010	0.0080	0.0350	0.961
NOVEMBER	8	0.008	0.0080	0.0090	0.961
DECEMBER	8	0.010	0.0090	0.0140	0.961

STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 TOTAL PHOSPHORUS (P)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN (MG/L)	CONFIDENCE INTERVAL LOWER	CONFIDENCE INTERVAL UPPER	PROBABILITY LEVEL
- 78-79-80 JANUARY	19	0.009	0.0080	0.0110	0.959
1976- 78-79-80 FEBRUARY	47	0.008	0.0070	0.0090	0.960
-77-78-79-80 MARCH	73	0.009	0.0080	0.0100	0.953
-77-78-79-80 APRIL	46	0.009	0.0080	0.0110	0.960
-77-78-79-80 MAY	72	0.009	0.0080	0.0100	0.956
-77-78- 80 JUNE	92	0.008	0.0080	0.0090	0.953
1976-77-78-79-80 JULY	144	0.007	0.0070	0.0070	0.954
1976-77-78-79-80 AUGUST	102	0.006	0.0050	0.0060	0.952
1976- 78-79-80 SEPTEMBER	95	0.007	0.0070	0.0080	0.960
-77-78-79-80 OCTOBER	27	0.010	0.0090	0.0120	0.964
-77-78-79-80 NOVEMBER	28	0.009	0.0090	0.0110	0.964
1976-77-78-79-80 DECEMBER	69	0.008	0.0070	0.0090	0.959

STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 TOTAL PHOSPHORUS (P)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN (MG/L)	CONFIDENCE INTERVAL LOWER	CONFIDENCE INTERVAL UPPER	PROBABILITY LEVEL
1976 FEB JUL AUG SEP DEC	147	0.007	0.0070	0.0080	0.953
1977 MAR APR MAY JUN JUL AUG OCT NOV DEC	244	0.008	0.0070	0.0080	0.953
1978 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC	254	0.007	0.0070	0.0080	0.955
1979 JAN FEB MAR APR MAY JUL AUG SEP OCT NOV DEC	69	0.010	0.0090	0.0110	0.959
1980 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC	100	0.009	0.0090	0.0100	0.954

STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 TOTAL PHOSPHORUS (P)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN (MG/L)	CONFIDENCE INTERVAL		PROBABILITY LEVEL
			LOWER	UPPER	
APRIL TO SEPTEMBER					
1976	108	0.007	0.0070	0.0080	0.957
1977	193	0.007	0.0070	0.0080	0.956
1978	163	0.006	0.0060	0.0070	0.959
1979	32	0.010	0.0090	0.0120	0.965
1980	55	0.009	0.0080	0.0100	0.956
1976-80	551	0.007	0.0070	0.0080	0.950
OCTOBER TO MARCH					
1976-77	54	0.008	0.0070	0.0090	0.960
1977-78	104	0.008	0.0070	0.0090	0.961
1978-79	34	0.010	0.0100	0.0120	0.959
1979-80	41	0.010	0.0090	0.0110	0.956
1980-81	24	0.009	0.0090	0.0130	0.957
1976-80	257	0.009	0.0080	0.0090	0.954
APRIL TO MARCH					
1976-80	808	0.008	0.0080	0.0080	0.951

STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 TOTAL PHOSPHORUS (P)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN (MG/L)	CONFIDENCE INTERVAL LOWER	CONFIDENCE INTERVAL UPPER	PROBABILITY LEVEL
1976 FEB JUL AUG SEP DEC					
1977 MAR APR MAY JUN JUL AUG OCT NOV DEC					
1978 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC					
1979 JAN FEB MAR APR MAY JUL AUG SEP OCT NOV DEC					
1980 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC	814	0.008	0.0080	0.0080	0.950

DISTRIBUTIONAL ANALYSIS

CUMULATIVE SAMPLE DISTRIBUTION OF TP H- 808

1.00000 + .93 2* 3 .

x35

x

x

x

x

x

x

x

x

x

x

x

x

x

x

x

x

x

x

x

x

x

x

x

x

x

x

x

x

x

x

x

x

x

x

x

x

0. .40000 -2 .14667 -1 .25333 -1 .36000 -1 .46667 -1 .57333 -1 .68000 -1 .78667 -1 .89333 -1 TP

PROB QUANTILE LEVEL CONFIDENCE INTERVAL SIZE

.1000 .50000 -2 .9500 .50000 -2 .60000 -2 .9539
 .3000 .70000 -2 .9500 .60000 -2 .70000 -2 .9542
 .5000 .80000 -2 .9500 .80000 -2 .9511
 .7000 .90000 -2 .9500 .90000 -2 .9542
 .9000 .13000 -1 .9500 .12000 -1 .14000 -1 .9539

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OKANAGAN RIVER BELOW OKANAGAN LAKE

Statistical Characteristics of Nutrient Loads

Period of Sampling February 1976 to December 1980.

TOTAL PHOSPHORUS (P)

Arithmetic mean loads and their statistical characteristics determined for

Individual Months	23
All Months	25
Graph of monthly load ranges	26
Individual Years	27
Seasons	28
April to September	
October to March	
April to March	
All Years	29

STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 TOTAL PHOSPHORUS (P)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

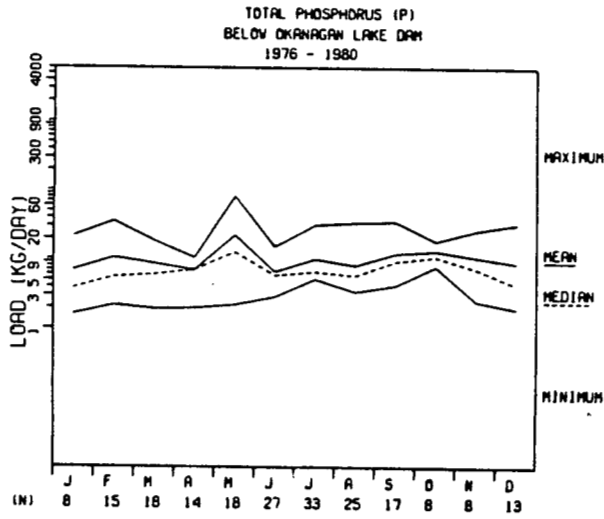
SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN (KG/DAY)	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
1976 FEBRUARY	1	20.4000	20.4000	20.400	5.1205	2.5602	± 8.1480
JULY	4	20.2000	31.300	27.500			
AUGUST	1	21.9000	21.900	21.900	8.9522	4.4761	± 14.2450
SEPTEMBER	4	15.8000	35.400	22.125	1.2021	0.8500	± 10.8001
DECEMBER	2	17.8000	19.500	18.650	0.9609	0.4804	± 1.5290
1977 MARCH	4	4.0100	6.030	4.595	0.8240	0.3685	± 1.0232
APRIL	5	6.0400	8.290	7.110	0.9880	0.4033	± 1.0368
MAY	6	2.1800	4.650	3.070	2.1009	0.4952	± 1.0447
JUNE	18	2.8500	9.600	5.001	2.2146	0.6142	± 1.3382
JULY	13	5.1800	13.100	6.911	0.8372	0.2322	± 0.5059
AUGUST	13	3.3800	6.360	5.085	2.1850	1.5450	± 19.6310
OCTOBER	2	7.9100	11.000	9.455			
NOVEMBER	1	4.0900	4.090	4.090	1.0216	0.3861	± 0.9448
DECEMBER	7	1.9400	4.290	2.990	9.3921	4.6960	± 14.9447
1978 JANUARY	4	1.6200	21.700	8.967	10.4760	3.3128	± 7.4942
FEBRUARY	10	2.8000	35.500	12.315	5.9423	1.7917	± 3.9922
MARCH	11	2.0000	18.600	11.234	2.5405	1.1361	± 3.1547
APRIL	5	3.7600	10.100	7.894	20.6260	6.5225	± 14.7550
MAY	10	10.0000	83.000	36.730	2.7430	1.0368	± 2.5367
JUNE	7	7.8000	15.300	10.471	0.6121	0.1846	± 0.4112
JULY	11	5.5800	7.590	6.410	11.6110	4.7402	± 12.1851
AUGUST	6	4.8800	33.900	10.220	2.5930	0.8643	± 1.9930
SEPTEMBER	9	4.2600	12.200	8.010	2.9698	2.1000	± 26.6830
OCTOBER	2	14.3000	18.500	16.400	5.0649	2.9242	± 12.5821
NOVEMBER	3	16.6000	26.200	20.467			
DECEMBER	1	32.8000	32.800	32.800	0.4525	0.3200	± 4.0660
1979 JANUARY	2	6.0600	6.700	6.380	0.7920	0.5600	± 7.1152
FEBRUARY	2	4.4600	5.580	5.020			
MARCH	1	9.0900	9.090	9.090	3.3022	2.3350	± 29.6690
APRIL	2	5.8300	10.500	8.165			
MAY	1	12.6000	12.600	12.600	2.4749	1.7500	± 22.2359
JULY	2	10.9000	14.400	12.650	2.6784	1.5464	± 6.6537
AUGUST	3	7.1900	12.100	10.263	0.2121	0.1500	± 1.9059
SEPTEMBER	2	9.1100	9.410	9.260	0.5657	0.4000	± 5.0822
OCTOBER	2	8.8500	9.650	9.250	0.2616	0.1850	± 2.3506
NOVEMBER	2	2.5100	2.880	2.695			
DECEMBER	1	4.6900	4.690	4.690			

STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 TOTAL PHOSPHORUS (P)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN (KG/DAY)	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
1980 JANUARY	2	3.5000	3.820	3.660	0.2263	0.1600	± 2.0330
FEBRUARY	2	2.1600	2.290	2.225	0.0919	0.0650	± 0.8259
MARCH	2	1.9200	3.010	2.465	0.7707	0.5450	± 6.9249
APRIL	2	1.9800	3.790	2.885	1.2799	0.9050	± 11.4990
MAY	1	6.0800	6.080	6.080			
JUNE	2	2.8900	12.700	7.795	6.9367	4.9050	± 62.3240
JULY	3	11.3000	14.700	12.433	1.9630	1.1333	± 4.8765
AUGUST	2	10.0000	13.900	11.950	2.7577	1.9500	± 24.7770
SEPTEMBER	2	9.2800	18.500	13.890	6.5195	4.6100	± 58.5760
OCTOBER	2	18.4000	18.700	18.550	0.2121	0.1500	± 1.9060
NOVEMBER	2	7.3700	8.270	7.820	0.6364	0.4500	± 5.7179
DECEMBER	2	8.1300	10.500	9.315	1.6758	1.1850	± 15.0569

STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 TOTAL PHOSPHORUS (P)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN (KG/DAY)	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
- 78-79-80 JANUARY	8	1.6200	21.700	6.994	6.5841	2.3278	± 5.5043
1976- 78-79-80 FEBRUARY	15	2.1600	35.500	10.536	9.6966	2.5037	± 5.3699
-77-78-79-80 MARCH	18	1.9200	18.600	8.665	5.8025	1.3677	± 2.8857
-77-78-79-80 APRIL	14	1.9800	10.500	6.937	2.5063	0.6698	± 1.4471
-77-78-79-80 MAY	18	2.1800	83.000	22.467	22.3490	5.2677	± 11.1140
-77-78- 80 JUNE	27	2.8500	15.300	6.626	3.5197	0.6774	± 1.3924
1976-77-78-79-80 JULY	33	5.1800	31.300	10.089	7.2402	1.2604	± 2.5674
1976-77-78-79-80 AUGUST	25	3.3800	33.900	8.160	6.7196	1.3439	± 2.7737
1976- 78-79-80 SEPTEMBER	17	4.2600	35.400	12.170	7.5489	1.8309	± 3.8811
-77-78-79-80 OCTOBER	8	7.9100	18.700	13.414	4.6379	1.6397	± 3.8773
-77-78-79-80 NOVEMBER	8	2.5100	26.200	10.815	8.6708	3.0656	± 7.2490
1976-77-78-79-80 DECEMBER	13	1.9400	32.800	8.796	9.2838	2.5749	± 5.6100



STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 TOTAL PHOSPHORUS (P)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN (KG/DAY)	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
1976 FEB JUL AUG SEP DEC	12	15.8000	35.400	23.175	6.3963	1.8465	± 4.0640
1977 MAR APR MAY JUN JUL AUG OCT NOV DEC	69	1.9400	13.100	5.250	2.1728	0.2616	± 0.5219
1978 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC	79	1.6200	83.000	13.843	13.1470	1.4792	± 2.9450
1979 JAN FEB MAR APR MAY JUL AUG SEP OCT NOV DEC	20	2.5100	14.400	8.200	3.3198	0.7423	± 1.5537
1980 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC	24	1.9200	18.700	8.520	5.5654	1.1360	± 2.3498

STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 TOTAL PHOSPHORUS (P)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN (KG/DAY)	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
APRIL TO SEPTEMBER							
1976	9	15.8000	35.400	24.489	6.9319	2.3106	± 5.3280
1977	55	2.1800	13.100	5.453	2.0673	0.2788	± 0.5588
1978	48	3.7600	83.000	14.250	15.3750	2.2192	± 4.4644
1979	10	5.8300	14.400	10.354	2.5606	0.8097	± 1.8319
1980	12	1.9800	18.500	9.702	5.1210	1.4783	± 3.2535
1976-80	134	1.9800	83.000	10.629	10.9390	0.9450	± 1.8692
OCTOBER TO MARCH							
1976-77	6	4.0100	19.500	9.280	7.3158	2.9867	± 7.6772
1977-78	35	1.6200	35.500	9.329	7.7742	1.3141	± 2.6707
1978-79	11	4.4600	32.800	14.445	9.2234	2.7810	± 6.1964
1979-80	11	1.9200	9.650	4.116	2.6673	0.8042	± 1.7920
1980-81	6	7.3700	18.700	11.895	5.2604	2.1475	± 5.5202
1976-80	69	1.6200	35.500	9.533	7.6755	0.9240	± 1.8437
APRIL TO MARCH							
1976-80	203	1.6200	83.000	10.256	9.9447	0.6980	± 1.3760

STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 TOTAL PHOSPHORUS (P)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
1976 FEB JUL AUG SEP DEC	204	1.6200	83.000	10.306	9.9456	0.6963	± 1.3730
1977 MAR APR MAY JUN JUL AUG OCT NOV DEC							
1978 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC							
1979 JAN FEB MAR APR MAY JUL AUG SEP OCT NOV DEC							
1980 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC							

(KG/DAY)

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OKANAGAN RIVER BELOW OKANAGAN LAKE

Statistical Characteristics of Nutrient Loads

Period of Sampling February 1976 to December 1980.

TOTAL PHOSPHORUS (P)

Median loads and their statistical characteristics determined for

Individual Months	31
All Months	33
Individual Years	34
Seasons	35
April to September	
October to March	
April to March	
All Years	36

STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 TOTAL PHOSPHORUS (P)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN (KG/DAY)	CONFIDENCE INTERVAL LOWER	CONFIDENCE INTERVAL UPPER	PROBABILITY LEVEL
1976 FEBRUARY	1	20.400			
JULY	4	27.700			
AUGUST	1	21.900			
SEPTEMBER	4	18.500			
DECEMBER	2	17.800			
1977 MARCH	4	4.110			
APRIL	5	7.050			
MAY	6	2.440	2.1800	6.0400	0.969
JUNE	18	4.680	3.1800	4.6500	0.969
JULY	13	6.260	5.2700	6.1700	0.969
AUGUST	13	4.970	4.5300	7.4800	0.978
OCTOBER	2	7.910		5.9100	0.978
NOVEMBER	1	4.090			
DECEMBER	7	2.720	1.9400	4.2900	0.984
1978 JANUARY	4	2.150			
FEBRUARY	10	6.980	3.0500	19.8000	0.979
MARCH	11	14.500	3.7700	15.8000	0.961
APRIL	5	8.540		3.7600	0.969
MAY	10	36.700	17.8000	48.1000	0.979
JUNE	7	9.870	7.8000	15.3000	0.984
JULY	11	6.360	5.8500	7.2600	0.961
AUGUST	6	5.360	4.8800	33.9000	0.969
SEPTEMBER	9	7.740	5.9500	11.9000	0.961
OCTOBER	2	14.300			
NOVEMBER	3	18.600			
DECEMBER	1	32.800			
1979 JANUARY	2	6.060			
FEBRUARY	2	4.460			
MARCH	1	9.090			
APRIL	2	5.830			
MAY	1	12.600			
JULY	2	10.900			
AUGUST	3	11.500			
SEPTEMBER	2	9.110			
OCTOBER	2	8.850			
NOVEMBER	2	2.510			
DECEMBER	1	4.690			

STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 TOTAL PHOSPHORUS (P)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN (KG/DAY)	CONFIDENCE INTERVAL LOWER	CONFIDENCE INTERVAL UPPER	PROBABILITY LEVEL
1980 JANUARY	2	3.500			
FEBRUARY	2	2.160			
MARCH	2	1.920			
APRIL	2	1.980			
MAY	1	6.080			
JUNE	2	2.890			
JULY	3	11.300			
AUGUST	2	10.000			
SEPTEMBER	2	9.280			
OCTOBER	2	18.400			
NOVEMBER	2	7.370			
DECEMBER	2	8.130			

STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 TOTAL PHOSPHORUS (P)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN (KG/DAY)	CONFIDENCE INTERVAL LOWER	CONFIDENCE INTERVAL UPPER	PROBABILITY LEVEL
-78-79-80 JANUARY	8	3.820	2.1500	21.7000	0.961
1976-78-79-80 FEBRUARY	15	5.580	3.0500	18.3000	0.965
-77-78-79-80 MARCH	18	6.030	3.7700	15.5000	0.969
-77-78-79-80 APRIL	14	7.050	5.8300	9.6800	0.965
-77-78-79-80 MAY	18	12.600	3.8900	38.8000	0.969
-77-78-80 JUNE	27	5.870	3.4200	8.7300	0.964
1976-77-78-79-80 JULY	33	6.640	6.2100	9.7800	0.965
1976-77-78-79-80 AUGUST	25	5.880	4.9700	6.3600	0.957
1976-78-79-80 SEPTEMBER	17	9.280	7.7400	15.8000	0.951
-77-78-79-80 OCTOBER	8	11.000	8.8500	18.7000	0.961
-77-78-79-80 NOVEMBER	8	7.370	2.8800	26.2000	0.961
1976-77-78-79-80 DECEMBER	13	4.290	2.2300	17.8000	0.978

STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 TOTAL PHOSPHORUS (P)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN (KG/DAY)	CONFIDENCE INTERVAL		PROBABILITY LEVEL
			LOWER	UPPER	
1976 FEB JUL AUG SEP DEC	12	20.200	18.5000	30.8000	0.961
1977 MAR APR MAY JUN JUL AUG OCT NOV DEC	69	5.160	4.5300	5.8800	0.959
1978 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC	79	9.230	7.4300	12.1000	0.958
1979 JAN FEB MAR APR MAY JUL AUG SEP OCT NOV DEC	20	8.850	5.8300	10.5000	0.959
1980 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC	24	8.130	3.7900	11.3000	0.957

STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 TOTAL PHOSPHORUS (P)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN (KG/DAY)	CONFIDENCE INTERVAL LOWER	CONFIDENCE INTERVAL UPPER	PROBABILITY LEVEL
APRIL TO SEPTEMBER					
1976	9	21.900	18.5000	31.3000	0.961
1977	55	5.310	4.8100	6.1100	0.956
1978	48	7.800	6.6900	10.0000	0.956
1979	10	10.500	7.1900	12.6000	0.979
1980	12	10.000	3.7900	13.9000	0.961
1976-80	134	6.690	6.1700	7.7400	0.953
OCTOBER TO MARCH					
1976-77	6	4.230	4.0100	19.5000	0.969
1977-78	35	6.980	3.7600	13.8000	0.959
1978-79	11	14.300	6.0600	26.2000	0.961
1979-80	11	3.010	2.2900	8.8500	0.961
1980-81	6	8.270	7.3700	18.7000	0.969
1976-80	69	6.980	4.2300	9.6500	0.959
APRIL TO MARCH					
1976-80	203	6.710	6.1500	7.8000	0.951

STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 TOTAL PHOSPHORUS (P)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN	CONFIDENCE INTERVAL LOWER	CONFIDENCE INTERVAL UPPER	PROBABILITY LEVEL
1976 FEB JUL AUG SEP DEC	204	6.710	6.1500	7.8000	0.958
1977 MAR APR MAY JUN JUL AUG OCT NOV DEC					
1978 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC					
1979 JAN FEB MAR APR MAY JUN AUG SEP OCT NOV DEC					
1980 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC					

(KG/DAY)

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OKANAGAN RIVER BELOW OKANAGAN LAKE

Statistical Characteristics of Nutrient Concentrations
Period of Sampling February 1976 to December 1980.

TOTAL DISSOLVED PHOSPHORUS (P)

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STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 TOTAL DISSOLVED PHOSPHORUS (P)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN (MG/L)	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
1976 FEBRUARY	18	0.0040	0.007	0.006	0.0009	0.0002	± 0.0005
JULY							
AUGUST							
1976 SEPTEMBER	18	0.0040	0.009	0.005	0.0014	0.0003	± 0.0007
DECEMBER	24	0.0040	0.007	0.005	0.0009	0.0002	± 0.0004
1977 MARCH	12	0.0040	0.004	0.004			
APRIL							
MAY	26	0.0030	0.007	0.004	0.0009	0.0002	± 0.0004
JUNE	61	0.0030	0.012	0.004	0.0015	0.0002	± 0.0004
JULY	48	0.0030	0.006	0.003	0.0007	0.0001	± 0.0002
AUGUST	44	0.0020	0.005	0.003	0.0006	0.0001	± 0.0002
OCTOBER	4	0.0040	0.008	0.005	0.0019	0.0009	± 0.0030
NOVEMBER	4	0.0030	0.007	0.004	0.0020	0.0010	± 0.0032
DECEMBER	22	0.0020	0.009	0.003	0.0014	0.0003	± 0.0006
1978 JANUARY	4	0.0030	0.020	0.008	0.0083	0.0042	± 0.0133
FEBRUARY	30	0.0030	0.008	0.004	0.0019	0.0003	± 0.0007
MARCH	40	0.0020	0.007	0.003	0.0012	0.0002	± 0.0004
APRIL	20	0.0020	0.003	0.003	0.0005	0.0001	± 0.0002
MAY	30	0.0020	0.005	0.003	0.0008	0.0002	± 0.0003
JUNE	24	0.0030	0.006	0.004	0.0007	0.0002	± 0.0002
JULY	40	0.0020	0.005	0.003	0.0007	0.0001	± 0.0002
AUGUST	24	0.0020	0.006	0.003	0.0009	0.0002	± 0.0004
SEPTEMBER	25	0.0020	0.007	0.004	0.0012	0.0002	± 0.0005
OCTOBER	7	0.0030	0.013	0.006	0.0036	0.0014	± 0.0034
NOVEMBER	8	0.0040	0.005	0.005	0.0005	0.0002	± 0.0004
DECEMBER	2	0.0080	0.008	0.008			
1979 JANUARY	7	0.0030	0.006	0.004	0.0012	0.0005	± 0.0011
FEBRUARY	6	0.0040	0.007	0.005	0.0012	0.0005	± 0.0013
MARCH	3	0.0030	0.004	0.004	0.0006	0.0003	± 0.0014
APRIL	4	0.0020	0.003	0.002	0.0005	0.0003	± 0.0008
MAY	4	0.0030	0.005	0.004	0.0008	0.0004	± 0.0013
JULY	8	0.0040	0.007	0.006	0.0011	0.0004	± 0.0009
AUGUST	8	0.0030	0.005	0.004	0.0006	0.0002	± 0.0005
SEPTEMBER	8	0.0060	0.008	0.007	0.0007	0.0003	± 0.0006
OCTOBER	8	0.0040	0.008	0.006	0.0014	0.0005	± 0.0012
NOVEMBER	8	0.0050	0.008	0.007	0.0011	0.0004	± 0.0009
DECEMBER	4	0.0060	0.007	0.006	0.0006	0.0003	± 0.0009

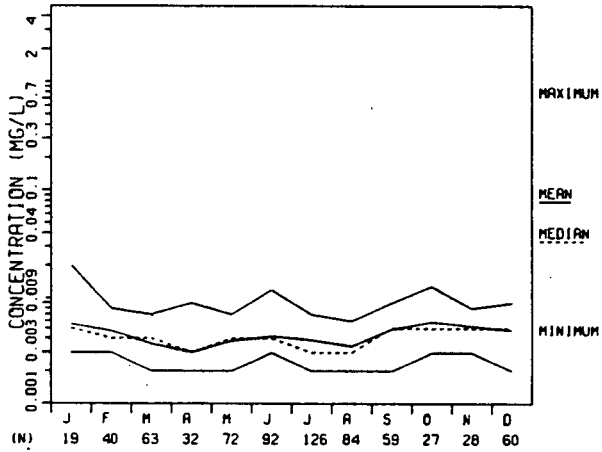
STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 TOTAL DISSOLVED PHOSPHORUS (P)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN (MG/L)	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
1980 JANUARY	8	0.0050	0.006	0.006	0.0005	0.0002	± 0.0004
FEBRUARY	4	0.0050	0.006	0.006	0.0005	0.0003	± 0.0008
MARCH	8	0.0030	0.006	0.005	0.0010	0.0004	± 0.0009
APRIL	8	0.0030	0.009	0.005	0.0020	0.0007	± 0.0017
MAY	12	0.0050	0.006	0.005	0.0005	0.0002	± 0.0003
JUNE	7	0.0040	0.005	0.004	0.0005	0.0002	± 0.0005
JULY	12	0.0030	0.006	0.004	0.0010	0.0003	± 0.0006
AUGUST	8	0.0040	0.006	0.005	0.0007	0.0003	± 0.0006
SEPTEMBER	8	0.0040	0.006	0.005	0.0009	0.0003	± 0.0008
OCTOBER	8	0.0050	0.006	0.005	0.0005	0.0002	± 0.0004
NOVEMBER	8	0.0040	0.006	0.005	0.0005	0.0002	± 0.0004
DECEMBER	8	0.0050	0.009	0.006	0.0012	0.0004	± 0.0010

STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 TOTAL DISSOLVED PHOSPHORUS (P)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN (MG/L)	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
-78-79-80 JANUARY	19	0.0030	0.020	0.006	0.0037	0.0009	± 0.0018
1976-78-79-80 FEBRUARY	40	0.0030	0.008	0.005	0.0017	0.0003	± 0.0006
-77-78-79-80 MARCH	63	0.0020	0.007	0.004	0.0011	0.0001	± 0.0003
-77-78-79-80 APRIL	32	0.0020	0.009	0.003	0.0014	0.0002	± 0.0005
-77-78-79-80 MAY	72	0.0020	0.007	0.004	0.0013	0.0002	± 0.0003
-77-78-80 JUNE	92	0.0030	0.012	0.004	0.0013	0.0001	± 0.0003
1976-77-78-79-80 JULY	126	0.0020	0.007	0.004	0.0013	0.0001	± 0.0002
1976-77-78-79-80 AUGUST	84	0.0020	0.006	0.003	0.0008	0.0001	± 0.0002
1976-78-79-80 SEPTEMBER	59	0.0020	0.009	0.005	0.0015	0.0002	± 0.0004
-77-78-79-80 OCTOBER	27	0.0030	0.013	0.006	0.0021	0.0004	± 0.0008
-77-78-79-80 NOVEMBER	28	0.0030	0.008	0.005	0.0013	0.0003	± 0.0005
1976-77-78-79-80 DECEMBER	60	0.0020	0.009	0.005	0.0017	0.0002	± 0.0004

TOTAL DISSOLVED PHOSPHORUS (P)
BELOW OKANAGAN LAKE DAM
1976 - 1980



STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 TOTAL DISSOLVED PHOSPHORUS (P)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN (MG/L)	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
1976 FEB JUL AUG SEP DEC	60	0.0040	0.009	0.005	0.0011	0.0001	± 0.0003
1977 MAR APR MAY JUN JUL AUG OCT NOV DEC	221	0.0020	0.012	0.004	0.0012	0.0001	± 0.0002
1978 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC	254	0.0020	0.020	0.004	0.0018	0.0001	± 0.0002
1979 JAN FEB MAR APR MAY JUL AUG SEP OCT NOV DEC	68	0.0020	0.008	0.005	0.0017	0.0002	± 0.0004
1980 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC	99	0.0030	0.009	0.005	0.0011	0.0001	± 0.0002

STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 TOTAL DISSOLVED PHOSPHORUS (P)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
(MG/L)							
APRIL TO SEPTEMBER							
1976	36	0.0040	0.009	0.005	0.0012	0.0002	± 0.0004
1977	179	0.0020	0.012	0.004	0.0012	0.0001	± 0.0002
1978	163	0.0020	0.007	0.003	0.0010	0.0001	± 0.0001
1979	32	0.0020	0.008	0.005	0.0017	0.0003	± 0.0006
1980	55	0.0030	0.009	0.005	0.0011	0.0001	± 0.0003
1976-80	465	0.0020	0.012	0.004	0.0013	0.0001	± 0.0001
OCTOBER TO MARCH							
1976-77	36	0.0040	0.007	0.005	0.0009	0.0001	± 0.0003
1977-78	104	0.0020	0.020	0.004	0.0022	0.0002	± 0.0004
1978-79	33	0.0030	0.013	0.005	0.0020	0.0004	± 0.0007
1979-80	40	0.0030	0.008	0.006	0.0012	0.0002	± 0.0004
1980-81	24	0.0040	0.009	0.006	0.0009	0.0002	± 0.0004
1976-80	237	0.0020	0.020	0.005	0.0020	0.0001	± 0.0003
APRIL TO MARCH							
1976-80	702	0.0020	0.020	0.004	0.0016	0.0001	± 0.0001

STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 TOTAL DISSOLVED PHOSPHORUS (P)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
1976 FEB JUL AUG SEP DEC	702	0.0020	0.020	0.004	0.0016	0.0001	± 0.0001
1977 MAR APR MAY JUN JUL AUG OCT NOV DEC							
1978 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC							
1979 JAN FEB MAR APR MAY JUN AUG SEP OCT NOV DEC							
1980 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC							

(MG/L)

HISTOGRAM

MIDPOINT	HIST%	COUNT	DP
.20000 -2	8.1	57	XXXXXXXXXXXXXXXXXXXX
.26923 -2	30.8	216	XXXXXXXXXXXXXXXXXXXX
.33846 -2	0.	0	XXXXXXXXXXXXXXXXXXXX
.40769 -2	28.5	200	XXXXXXXXXXXXXXXXXXXX
.47692 -2	15.1	106	XXXXXXXXXXXXXXXXXXXX
.54615 -2	0.	0	XXXXXXXXXXXXXXXXXXXX
.61538 -2	10.0	70	XXXXXXXXXXXXXXXXXXXX
.68462 -2	4.4	31	XXXXXXXXXXXXXXXXXXXX
.75385 -2	0.	0	XXXXXXXXXXXXXXXXXXXX
.82308 -2	2.1	15	XXXXXXXXXXXX
.89231 -2	.6	4	XXXX
.96154 -2	0.	0	
1.0308 -1	0.	0	
1.1000 -1	0.	0	
1.1692 -1	.1	1	X
1.2385 -1	0.	0	
1.3077 -1	.1	1	X
1.3769 -1	0.	0	
1.4462 -1	0.	0	
1.5154 -1	0.	0	
1.5846 -1	0.	0	
1.6538 -1	0.	0	
1.7231 -1	0.	0	
1.7923 -1	0.	0	
1.8615 -1	0.	0	
1.9308 -1	0.	0	
2.0000 -1	.1	1	X

FREQUENCY

PERCENT

CONCENTRATION (ml l⁻¹)

MISSING 446
TOTAL 1148 (INTERVAL WIDTH= .69231 -3)

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OKANAGAN RIVER BELOW OKANAGAN LAKE

Statistical Characteristics of Nutrient Concentrations
Period of Sampling February 1976 to December 1980.

TOTAL DISSOLVED PHOSPHORUS (P)

Median concentrations and their statistical characteristics determined for

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All Months	49
Individual Years	50
Seasons	51
April to September	
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STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 TOTAL DISSOLVED PHOSPHORUS (P)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN (MG/L)	CONFIDENCE INTERVAL LOWER	CONFIDENCE INTERVAL UPPER	PROBABILITY LEVEL
1976 FEBRUARY	18	0.006	0.0050	0.0060	0.969
JULY					
AUGUST					
1976 SEPTEMBER	18	0.005	0.0040	0.0060	0.969
DECEMBER	24	0.005	0.0050	0.0050	0.957
MARCH	12	0.004	0.0040	0.0040	0.961
1977 APRIL					
MAY	26	0.004	0.0040	0.0050	0.971
JUNE	61	0.004	0.0040	0.0040	0.960
JULY	48	0.003	0.0030	0.0030	0.956
1977 AUGUST	44	0.003	0.0030	0.0030	0.951
OCTOBER	4	0.004			
NOVEMBER	4	0.003			
1978 DECEMBER	22	0.003	0.0030	0.0040	0.965
JANUARY	4	0.003			
FEBRUARY	30	0.004	0.0030	0.0040	0.957
MARCH	40	0.003	0.0030	0.0040	0.961
1978 APRIL	20	0.003	0.0020	0.0030	0.959
MAY	30	0.002	0.0020	0.0030	0.957
JUNE	24	0.004	0.0030	0.0040	0.957
JULY	40	0.003	0.0030	0.0030	0.961
1978 AUGUST	24	0.003	0.0030	0.0040	0.957
SEPTEMBER	25	0.004	0.0030	0.0040	0.957
OCTOBER	7	0.004	0.0030	0.0130	0.984
1978 NOVEMBER	8	0.005	0.0040	0.0050	0.961
DECEMBER	2	0.008			
1979 JANUARY	7	0.004	0.0030	0.0060	0.984
FEBRUARY	6	0.005	0.0040	0.0070	0.969
MARCH	3	0.004			
1979 APRIL	4	0.002			
MAY	4	0.004			
JULY	8	0.006	0.0050	0.0070	0.961
1979 AUGUST	8	0.004	0.0030	0.0050	0.961
SEPTEMBER	8	0.007	0.0060	0.0080	0.961
OCTOBER	8	0.007	0.0050	0.0080	0.961
1979 NOVEMBER	8	0.006	0.0060	0.0080	0.961
DECEMBER	4	0.006			

STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 TOTAL DISSOLVED PHOSPHORUS (P)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN (MG/L)	CONFIDENCE INTERVAL LOWER	CONFIDENCE INTERVAL UPPER	PROBABILITY LEVEL
1980 JANUARY	8	0.006	0.0050	0.0060	0.961
FEBRUARY	4	0.006			
MARCH	8	0.005	0.0040	0.0060	0.961
APRIL	8	0.004	0.0030	0.0090	0.961
MAY	12	0.005	0.0050	0.0060	0.961
JUNE	7	0.004	0.0040	0.0050	0.984
JULY	12	0.004	0.0030	0.0050	0.961
AUGUST	8	0.005	0.0040	0.0060	0.961
SEPTEMBER	8	0.005	0.0040	0.0060	0.961
OCTOBER	8	0.005	0.0050	0.0060	0.961
NOVEMBER	8	0.005	0.0050	0.0060	0.961
DECEMBER	8	0.006	0.0050	0.0090	0.961

STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 TOTAL DISSOLVED PHOSPHORUS (P)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN (MG/L)	CONFIDENCE INTERVAL LOWER	CONFIDENCE INTERVAL UPPER	PROBABILITY LEVEL
-78-79-80 JANUARY	19	0.005	0.0040	0.0060	0.959
1976-78-79-80 FEBRUARY	40	0.004	0.0040	0.0050	0.961
-77-78-79-80 MARCH	63	0.004	0.0030	0.0040	0.957
-77-78-79-80 APRIL	32	0.003	0.0020	0.0030	0.965
-77-78-79-80 MAY	72	0.004	0.0030	0.0040	0.956
-77-78-80 JUNE	92	0.004	0.0040	0.0040	0.953
1976-77-78-79-80 JULY	126	0.003	0.0030	0.0040	0.960
1976-77-78-79-80 AUGUST	84	0.003	0.0030	0.0030	0.962
1976-78-79-80 SEPTEMBER	59	0.005	0.0040	0.0050	0.964
-77-78-79-80 OCTOBER	27	0.005	0.0050	0.0070	0.964
-77-78-79-80 NOVEMBER	28	0.005	0.0050	0.0060	0.964
1976-77-78-79-80 DECEMBER	60	0.005	0.0040	0.0050	0.960

STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 TOTAL DISSOLVED PHOSPHORUS (P)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN (MG/L)	CONFIDENCE INTERVAL LOWER	CONFIDENCE INTERVAL UPPER	PROBABILITY LEVEL
1976 FEB JUL AUG SEP DEC	60	0.005	0.0050	0.0050	0.960
1977 MAR APR MAY JUN JUL AUG OCT NOV DEC	221	0.004	0.0030	0.0040	0.957
1978 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC	254	0.003	0.0030	0.0030	0.955
1979 JAN FEB MAR APR MAY JUL AUG SEP OCT NOV DEC	68	0.005	0.0050	0.0060	0.961
1980 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC	99	0.005	0.0050	0.0050	0.956

STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 TOTAL DISSOLVED PHOSPHORUS (P)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN (MG/L)	CONFIDENCE INTERVAL LOWER	CONFIDENCE INTERVAL UPPER	PROBABILITY LEVEL
APRIL TO SEPTEMBER					
1976	36	0.005	0.0050	0.0060	0.953
1977	179	0.004	0.0030	0.0040	0.956
1978	163	0.003	0.0030	0.0030	0.959
1979	32	0.005	0.0040	0.0060	0.965
1980	55	0.005	0.0040	0.0050	0.956
1976-80	465	0.004	0.0040	0.0040	0.954
OCTOBER TO MARCH					
1976-77	36	0.004	0.0040	0.0050	0.953
1977-78	104	0.003	0.0030	0.0040	0.961
1978-79	33	0.005	0.0040	0.0050	0.965
1979-80	40	0.006	0.0060	0.0060	0.961
1980-81	24	0.005	0.0050	0.0060	0.957
1976-80	237	0.004	0.0040	0.0050	0.956
APRIL TO MARCH					
1976-80	702	0.004	0.0040	0.0040	0.950

STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 TOTAL DISSOLVED PHOSPHORUS (P)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN	CONFIDENCE INTERVAL		PROBABILITY LEVEL
			LOWER	UPPER	
1976 FEB JUL AUG SEP DEC					
1977 MAR APR MAY JUN JUL AUG OCT NOV DEC					
1978 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC					
1979 JAN FEB MAR APR MAY JUN AUG SEP OCT NOV DEC					
1980 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC	702	0.004	0.0040	0.0040	0.950

(MG/L)

DISTRIBUTIONAL ANALYSIS

CUMULATIVE SAMPLE DISTRIBUTION OF DP N= 702
 1.00000 + DP N X 4

X

X

X

X

X

0.

 .20000 -2 .40000 -2 .60000 -2 .80000 -2 .10000 -1 .12000 -1 .14000 -1 .16000 -1 .18000 -1 .20000 -1

PROB QUANTILE LEVEL CONFIDENCE INTERVAL SIZE

.1000	.30000 -2	.9500	.20000 -2	.30000 -2	.9562
.3000	.30000 -2	.9500	.30000 -2	.30000 -2	.9570
.5000	.40000 -2	.9500	.40000 -2	.40000 -2	.9502
.7000	.50000 -2	.9500	.40000 -2	.50000 -2	.9520
.9000	.60000 -2	.9500	.60000 -2	.60000 -2	.9562

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OKANAGAN RIVER BELOW OKANAGAN LAKE

Statistical Characteristics of Nutrient Loads

Period of Sampling February 1976 to December 1980.

TOTAL DISSOLVED PHOSPHORUS (P)

Arithmetic mean loads and their statistical characteristics determined for

Individual Months	55
All Months	57
Graph of monthly load ranges	58
Individual Years	59
Seasons	60
April to September	
October to March	
April to March	
All Years	61

STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 TOTAL DISSOLVED PHOSPHORUS (P)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

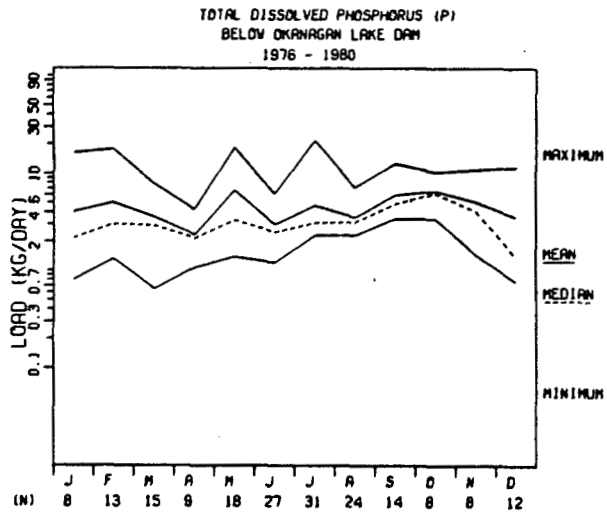
SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN (KG/DAY)	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
1976 FEBRUARY	2	13.8000	21.900	17.850	5.7276	4.0500	± 51.4600
JULY							
AUGUST							
1976 SEPTEMBER	1	12.7000	12.700	12.700			
DECEMBER	1	11.6000	11.600	11.600			
1977 MARCH	1	1.5200	1.520	1.520			
APRIL							
MAY	6	1.5500	1.930	1.728	0.1587	0.0648	± 0.1665
JUNE	18	1.2800	4.980	2.323	1.0034	0.2365	± 0.4990
JULY	13	2.6200	3.580	3.028	0.3184	0.0883	± 0.1924
AUGUST	13	2.3100	3.960	2.922	0.4792	0.1329	± 0.2896
OCTOBER	2	3.4200	6.230	4.825	1.9870	1.4050	± 17.8520
NOVEMBER	1	1.4600	1.460	1.460			
DECEMBER	7	0.7670	2.070	1.122	0.4629	0.1750	± 0.4281
1978 JANUARY	4	0.8060	16.100	5.364	7.2567	3.6283	± 11.5470
FEBRUARY	10	1.3200	17.500	5.863	5.1024	1.6135	± 3.6500
MARCH	11	0.6480	7.780	4.321	2.3849	0.7191	± 1.6023
APRIL	5	1.3300	4.280	2.984	1.1204	0.5011	± 1.3911
MAY	10	3.2100	18.300	10.525	5.0958	1.6114	± 3.6452
JUNE	7	3.2700	5.550	4.549	0.8580	0.3243	± 0.7935
JULY	11	2.2900	4.340	3.261	0.5984	0.1804	± 0.4020
AUGUST	6	2.5900	4.300	3.545	0.6835	0.2791	± 0.7173
SEPTEMBER	9	3.4600	7.490	4.832	1.4279	0.4760	± 1.0976
OCTOBER	2	6.2500	10.300	8.275	2.8638	2.0250	± 25.7300
NOVEMBER	3	7.3600	10.900	8.883	1.8208	1.0512	± 4.5234
DECEMBER	1	11.0000	11.000	11.000			
1979 JANUARY	2	3.2400	3.680	3.460	0.3111	0.2200	± 2.7954
FEBRUARY	2	2.2900	3.030	2.660	0.5233	0.3700	± 4.7013
MARCH	1	2.3100	2.310	2.310			
APRIL	2	1.1700	1.570	1.370	0.2828	0.2000	± 2.5412
MAY	1	3.3100	3.310	3.310			
JULY	2	5.1800	7.660	6.420	1.7536	1.2400	± 15.7558
AUGUST	3	4.3100	5.750	4.793	0.8285	0.4783	± 2.0581
SEPTEMBER	2	6.5800	7.120	6.850	0.3818	0.2700	± 3.4309
OCTOBER	2	5.4900	7.370	6.430	1.3294	0.9400	± 11.9439
NOVEMBER	2	1.7300	1.820	1.775	0.0636	0.0450	± 0.5718
DECEMBER	1	2.3000	2.300	2.300			

STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 TOTAL DISSOLVED PHOSPHORUS (P)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN (KG/DAY)	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
1980 JANUARY	2	1.9100	2.150	2.030	0.1697	0.1200	± 1.5247
FEBRUARY	1	1.5500	1.550	1.550			
MARCH	2	1.0400	1.220	1.130	0.1273	0.0900	± 1.1436
APRIL	2	1.0700	2.130	1.600	0.7495	0.5300	± 6.7343
MAY	1	1.3900	1.390	1.390			
JUNE	2	1.2000	6.160	3.680	3.5072	2.4800	± 31.5110
JULY	3	6.1000	8.070	7.313	1.0614	0.6128	± 2.6367
AUGUST	2	3.9500	7.170	5.560	2.2769	1.6100	± 20.4570
SEPTEMBER	2	4.6400	9.050	6.845	3.1183	2.2050	± 28.0170
OCTOBER	2	6.5600	7.040	6.800	0.3394	0.2400	± 3.0495
NOVEMBER	2	4.1200	5.150	4.635	0.7283	0.5150	± 6.5438
DECEMBER	2	4.6300	5.490	5.060	0.6081	0.4300	± 5.4638

STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 TOTAL DISSOLVED PHOSPHORUS (P)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN (KG/DAY)	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
-78-79-80 JANUARY	8	0.8060	16.100	4.054	4.9838	1.7620	± 4.1665
1976-78-79-80 FEBRUARY	13	1.3200	17.500	5.038	4.6981	1.3030	± 2.8390
-77-78-79-80 MARCH	15	0.6480	7.780	3.575	2.4023	0.6203	± 1.3303
-77-78-79-80 APRIL	9	1.0700	4.280	2.318	1.1570	0.3857	± 0.8893
-77-78-79-80 MAY	18	1.3900	18.300	6.684	5.7809	1.3626	± 2.8748
-77-78-80 JUNE	27	1.2000	6.160	3.001	1.5164	0.2918	± 0.5999
1976-77-78-79-80 JULY	31	2.2900	21.900	4.701	3.9761	0.7141	± 1.4584
1976-77-78-79-80 AUGUST	24	2.3100	7.170	3.532	1.1322	0.2311	± 0.4780
1976-78-79-80 SEPTEMBER	14	3.4600	12.700	5.970	2.5751	0.6882	± 1.4868
-77-78-79-80 OCTOBER	8	3.4200	10.300	6.583	1.9302	0.6824	± 1.6137
-77-78-79-80 NOVEMBER	8	1.4600	10.900	5.116	3.5030	1.2385	± 2.9285
1976-77-78-79-80 DECEMBER	12	0.7670	11.600	3.573	3.9236	1.1326	± 2.4929



STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 TOTAL DISSOLVED PHOSPHORUS (P)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN (KG/DAY)	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
1976 FEB JUL AUG SEP DEC	4	11.6000	21.900	15.000	4.6869	2.3434	± 7.4579
1977 MAR APR MAY JUN JUL AUG OCT NOV DEC	61	0.7670	6.230	2.460	1.0212	0.1308	± 0.2615
1978 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC	79	0.6480	18.300	5.499	3.9201	0.4410	± 0.8780
1979 JAN FEB MAR APR MAY JUL AUG SEP OCT NOV DEC	20	1.1700	7.660	4.012	2.0850	0.4662	± 0.9758
1980 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC	23	1.0400	9.050	4.329	2.6120	0.5446	± 1.1295

STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 TOTAL DISSOLVED PHOSPHORUS (P)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN (KG/DAY)	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
APRIL TO SEPTEMBER							
1976	3	12.7000	21.9000	16.133	5.0243	2.9008	± 12.4808
1977	50	1.2800	4.9800	2.591	0.7939	0.1123	± 0.2256
1978	48	1.3300	18.3000	5.263	3.6765	0.5307	± 1.0675
1979	10	1.1700	7.6600	4.697	2.2104	0.6990	± 1.5812
1980	12	1.0700	9.0500	4.892	2.9078	0.8394	± 1.8475
1976-80	123	1.0700	21.9000	4.360	3.4707	0.3129	± 0.6195
OCTOBER TO MARCH							
1976-77	2	1.5200	11.6000	6.560	7.1276	5.0400	± 64.0390
1977-78	35	0.6480	17.5000	4.188	4.0665	0.6874	± 1.3969
1978-79	11	2.2900	11.0000	6.250	3.5162	1.0602	± 2.3622
1979-80	10	1.0400	7.3700	2.658	2.0722	0.6553	± 1.4824
1980-81	6	4.1200	7.0400	5.498	1.1206	0.4575	± 1.1761
1976-80	64	0.6480	17.5000	4.500	3.7099	0.4637	± 0.9267
APRIL TO MARCH							
1976-80	187	0.6480	21.9000	4.408	3.5451	0.2592	± 0.5114

STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 TOTAL DISSOLVED PHOSPHORUS (P)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
1976 FEB JUL AUG SEP DEC	187	0.6480	21.900	4.408	3.5451	0.2592	± 0.5114
1977 MAR APR MAY JUN JUL AUG OCT NOV DEC							
1978 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC							
1979 JAN FEB MAR APR MAY JUL AUG SEP OCT NOV DEC							
1980 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC							

(KG/DAY)

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OKANAGAN RIVER BELOW OKANAGAN LAKE

Statistical Characteristics of Nutrient Loads

Period of Sampling February 1976 to December 1980.

TOTAL DISSOLVED PHOSPHORUS (P)

Median loads and their statistical characteristics determined for

Individual Months	63
All Months	65
Individual Years	66
Seasons	67
April to September	
October to March	
April to March	
All Years	68

STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 TOTAL DISSOLVED PHOSPHORUS (P)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN (KG/DAY)	CONFIDENCE INTERVAL LOWER	CONFIDENCE INTERVAL UPPER	PROBABILITY LEVEL
1976 FEBRUARY	2	13.800			
JULY					
AUGUST	1	12.700			
SEPTEMBER	1	11.600			
DECEMBER	1	1.520			
1977 MARCH	1				
APRIL					
MAY	6	1.620	1.5500	1.9300	0.969
JUNE	18	2.010	1.5500	2.8100	0.969
JULY	13	2.980	2.7500	3.4900	0.978
AUGUST	13	2.790	2.5300	3.3200	0.978
OCTOBER	2	3.420			
NOVEMBER	1	1.460			
DECEMBER	7	0.902	0.7670	2.0700	0.984
1978 JANUARY	4	1.080			
FEBRUARY	10	3.490	1.4300	8.7100	0.979
MARCH	11	5.450	1.6700	6.5600	0.961
APRIL	5	3.130		1.3300	0.969
MAY	10	10.800	3.5700	16.5000	0.979
JUNE	7	4.650	3.2700	5.5500	0.984
JULY	11	3.100	3.0400	4.0500	0.961
AUGUST	6	3.450	2.5900	4.3000	0.969
SEPTEMBER	9	4.260	3.7200	6.8000	0.961
OCTOBER	2	6.250			
NOVEMBER	3	8.390			
DECEMBER	1	11.000			
1979 JANUARY	2	3.240			
FEBRUARY	2	2.290			
MARCH	1	2.310			
APRIL	2	1.170			
MAY	1	3.310			
JULY	2	5.180			
AUGUST	3	4.320			
SEPTEMBER	2	6.580			
OCTOBER	2	5.490			
NOVEMBER	2	1.730			
DECEMBER	1	2.300			

STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 TOTAL DISSOLVED PHOSPHORUS (P)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN	CONFIDENCE INTERVAL		PROBABILITY LEVEL
			LOWER	UPPER	
1980 JANUARY	2	1.910			
FEBRUARY	1	1.550			
MARCH	2	1.040			
APRIL	2	1.070			
MAY	1	1.390			
JUNE	2	1.200			
JULY	3	7.770			
AUGUST	2	3.950			
SEPTEMBER	2	4.640			
OCTOBER	2	6.560			
NOVEMBER	2	4.120			
DECEMBER	2	4.630			

(KG/DAY)

STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 TOTAL DISSOLVED PHOSPHORUS (P)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN (KG/DAY)	CONFIDENCE INTERVAL LOWER	CONFIDENCE INTERVAL UPPER	PROBABILITY LEVEL
-78-79-80 JANUARY	8	2.150	1.0800	16.1000	0.961
1976-78-79-80 FEBRUARY	13	3.030	1.5500	8.5800	0.978
-77-78-79-80 MARCH	15	2.900	1.5200	5.9500	0.965
-77-78-79-80 APRIL	9	2.130	1.1700	3.6200	0.961
-77-78-79-80 MAY	18	3.310	1.8000	10.8000	0.969
-77-78-80 JUNE	27	2.480	1.9600	4.1800	0.964
1976-77-78-79-80 JULY	31	3.100	3.0100	3.6000	0.971
1976-77-78-79-80 AUGUST	24	3.180	2.7900	3.9600	0.957
1976-78-79-80 SEPTEMBER	14	4.870	3.8800	7.4900	0.965
-77-78-79-80 OCTOBER	8	6.250	5.4900	10.3000	0.961
-77-78-79-80 NOVEMBER	8	4.120	1.7300	10.9000	0.961
1976-77-78-79-80 DECEMBER	12	1.380	0.8990	5.4900	0.961

STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 TOTAL DISSOLVED PHOSPHORUS (P)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN (KG/DAY)	CONFIDENCE INTERVAL LOWER	CONFIDENCE INTERVAL UPPER	PROBABILITY LEVEL
1976 FEB JUL AUG SEP DEC	4	12.700			
1977 MAR APR MAY JUN JUL AUG OCT NOV DEC	61	2.530	2.0100	2.8100	0.960
1978 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC	79	4.130	3.5700	5.2200	0.958
1979 JAN FEB MAR APR MAY JUN AUG SEP OCT NOV DEC	20	3.310	2.3000	5.4900	0.959
1980 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC	23	4.630	1.9100	6.1600	0.965

STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 TOTAL DISSOLVED PHOSPHORUS (P)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN (KG/DAY)	CONFIDENCE INTERVAL		PROBABILITY LEVEL
			LOWER	UPPER	
APRIL TO SEPTEMBER					
1976	3	13.800			
1977	50	2.640	2.4100	2.8600	0.951
1978	48	3.880	3.5700	4.3400	0.956
1979	10	4.320	1.5700	7.1200	0.979
1980	12	4.640	1.3900	7.7700	0.961
1976-80	123	3.310	3.0400	3.6000	0.953
OCTOBER TO MARCH					
1976-77	2	1.520			
1977-78	35	2.900	1.4600	5.5400	0.959
1978-79	11	6.250	3.0300	10.9000	0.961
1979-80	10	1.820	1.2200	5.4900	0.979
1980-81	6	5.150	4.1200	7.0400	0.969
1976-80	64	3.340	2.1500	5.4900	0.954
APRIL TO MARCH					
1976-80	187	3.310	3.0400	3.6000	0.951

STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 TOTAL DISSOLVED PHOSPHORUS (P)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN	CONFIDENCE INTERVAL		PROBABILITY LEVEL
			LOWER	UPPER	
1976 FEB JUL AUG SEP DEC	187	3.310	3.0400	3.6000	0.951
1977 MAR APR MAY JUN JUL AUG OCT NOV DEC					
1978 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC					
1979 JAN FEB MAR APR MAY JUL AUG SEP OCT NOV DEC					
1980 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC					

(KG/DAY)

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OKANAGAN RIVER BELOW OKANAGAN LAKE

Statistical Characteristics of Nutrient Concentrations

Period of Sampling February 1976 to December 1980.

RATIO OF TOTAL DISSOLVED PHOSPHORUS (P) TO TOTAL PHOSPHORUS (P)

Arithmetic mean concentrations and their statistical characteristics determined for:

Individual Months	70
All Months	72
Graph of monthly concentration ranges	73
Individual Years	74
Seasons	75
April to September	
October to March	
April to March	
All Years	76
Histogram of concentration distribution	77

STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF TOTAL DISSOLVED PHOSPHORUS (P) / TOTAL PHOSPHORUS (P)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

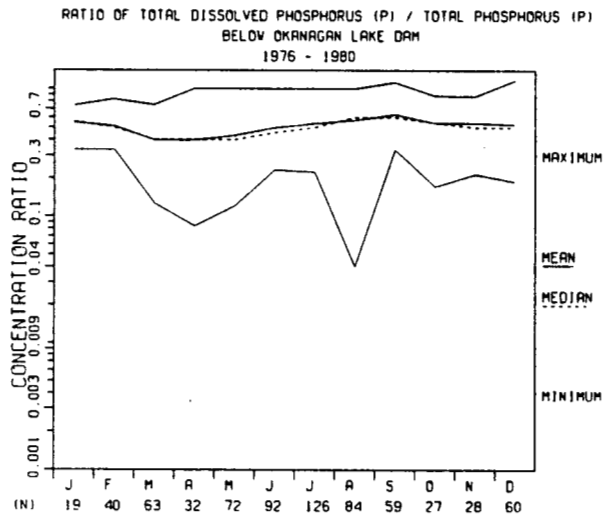
SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
1976 FEBRUARY	18	0.3529	0.875	0.714	0.1453	0.0342	± 0.0723
JULY							
AUGUST							
SEPTEMBER	18	0.3333	1.125	0.689	0.2140	0.0504	± 0.1064
DECEMBER	24	0.2632	1.167	0.660	0.1994	0.0407	± 0.0842
1977 MARCH	12	0.1250	0.500	0.397	0.0928	0.0268	± 0.0590
APRIL							
MAY	26	0.1200	1.000	0.590	0.2153	0.0422	± 0.0870
JUNE	61	0.2308	1.000	0.523	0.1765	0.0226	± 0.0452
JULY	48	0.2222	1.000	0.485	0.1510	0.0218	± 0.0438
AUGUST	44	0.3333	1.000	0.584	0.1160	0.0175	± 0.0353
OCTOBER	4	0.4000	0.615	0.469	0.0992	0.0496	± 0.1579
NOVEMBER	4	0.2143	0.467	0.358	0.1049	0.0525	± 0.1670
DECEMBER	22	0.1875	0.571	0.387	0.1011	0.0216	± 0.0448
1978 JANUARY	4	0.3333	0.741	0.529	0.2048	0.1024	± 0.3258
FEBRUARY	30	0.3333	0.571	0.475	0.0788	0.0144	± 0.0294
MARCH	40	0.2500	0.571	0.384	0.0922	0.0146	± 0.0295
APRIL	20	0.1667	0.500	0.385	0.0830	0.0185	± 0.0388
MAY	30	0.1667	0.600	0.309	0.0984	0.0180	± 0.0368
JUNE	24	0.2667	0.750	0.452	0.1141	0.0233	± 0.0482
JULY	40	0.2857	0.833	0.512	0.1009	0.0160	± 0.0323
AUGUST	24	0.0400	1.000	0.598	0.1845	0.0377	± 0.0779
SEPTEMBER	25	0.3333	1.000	0.606	0.1450	0.0290	± 0.0598
OCTOBER	7	0.2000	0.800	0.496	0.2425	0.0917	± 0.2243
NOVEMBER	8	0.3571	0.556	0.443	0.0617	0.0218	± 0.0516
DECEMBER	2	0.3077	0.364	0.336	0.0396	0.0280	± 0.3554
1979 JANUARY	7	0.3750	0.625	0.532	0.0837	0.0317	± 0.0774
FEBRUARY	6	0.3333	0.833	0.573	0.1744	0.0712	± 0.1830
MARCH	3	0.2222	0.333	0.276	0.0556	0.0321	± 0.1382
APRIL	4	0.0833	0.250	0.161	0.0774	0.0387	± 0.1231
MAY	4	0.2222	0.294	0.264	0.0302	0.0151	± 0.0481
JULY	8	0.3636	0.583	0.505	0.0712	0.0252	± 0.0595
AUGUST	8	0.2500	0.800	0.506	0.1962	0.0694	± 0.1640
SEPTEMBER	8	0.6000	0.875	0.746	0.0997	0.0352	± 0.0833
OCTOBER	8	0.4000	0.889	0.700	0.1775	0.0627	± 0.1484
NOVEMBER	8	0.4546	0.875	0.681	0.1577	0.0558	± 0.1318
DECEMBER	4	0.2857	0.636	0.540	0.1701	0.0851	± 0.2707

STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF TOTAL DISSOLVED PHOSPHORUS (P) / TOTAL PHOSPHORUS (P)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
1980 JANUARY	8	0.3846	0.667	0.566	0.1054	0.0373	± 0.0881
FEBRUARY	4	0.6000	0.750	0.683	0.0649	0.0324	± 0.1032
MARCH	8	0.2000	0.750	0.498	0.1774	0.0627	± 0.1483
APRIL	8	0.3333	1.000	0.546	0.2055	0.0727	± 0.1718
MAY	12	0.1539	0.600	0.456	0.1546	0.0446	± 0.0982
JUNE	7	0.3636	0.500	0.445	0.0498	0.0188	± 0.0461
JULY	12	0.3636	0.714	0.599	0.1144	0.0330	± 0.0727
AUGUST	8	0.3333	0.571	0.461	0.0848	0.0300	± 0.0709
SEPTEMBER	8	0.3846	0.750	0.512	0.1111	0.0393	± 0.0928
OCTOBER	8	0.1714	0.714	0.467	0.1940	0.0686	± 0.1622
NOVEMBER	8	0.5000	0.750	0.590	0.0764	0.0270	± 0.0639
DECEMBER	8	0.3846	0.750	0.560	0.1352	0.0478	± 0.1130

STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF TOTAL DISSOLVED PHOSPHORUS (P) / TOTAL PHOSPHORUS (P)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
- 78-79-80 JANUARY	19	0.3333	0.741	0.546	0.1182	0.0271	± 0.0570
1976- 78-79-80 FEBRUARY	40	0.3333	0.833	0.510	0.1160	0.0183	± 0.0371
-77-78-79-80 MARCH	63	0.1250	0.750	0.396	0.1126	0.0142	± 0.0283
-77-78-79-80 APRIL	32	0.0833	1.000	0.398	0.1654	0.0292	± 0.0596
-77-78-79-80 MAY	72	0.1200	1.000	0.433	0.2033	0.0240	± 0.0478
-77-78- 80 JUNE	92	0.2308	1.000	0.499	0.1586	0.0165	± 0.0329
1976-77-78-79-80 JULY	126	0.2222	1.000	0.538	0.1492	0.0133	± 0.0263
1976-77-78-79-80 AUGUST	84	0.0400	1.000	0.569	0.1488	0.0162	± 0.0323
1976- 78-79-80 SEPTEMBER	59	0.3333	1.125	0.637	0.1727	0.0225	± 0.0450
-77-78-79-80 OCTOBER	27	0.1714	0.889	0.544	0.2099	0.0404	± 0.0830
-77-78-79-80 NOVEMBER	28	0.2143	0.875	0.541	0.1565	0.0296	± 0.0607
1976-77-78-79-80 DECEMBER	60	0.1875	1.167	0.528	0.1967	0.0254	± 0.0508



STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF TOTAL DISSOLVED PHOSPHORUS (P) / TOTAL PHOSPHORUS (P)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
1976 FEB JUL. AUG SEP DEC	60	0.2632	1.167	0.685	0.1879	0.0243	± 0.0485
1977 MAR APR MAY JUN JUL AUG OCT NOV DEC	221	0.1200	1.000	0.510	0.1663	0.0112	± 0.0220
1978 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC	254	0.0400	1.000	0.461	0.1489	0.0093	± 0.0184
1979 JAN FEB MAR APR MAY JUL AUG SEP OCT NOV DEC	68	0.0833	0.889	0.543	0.2077	0.0252	± 0.0503
1980 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC	99	0.1539	1.000	0.527	0.1425	0.0143	± 0.0284

STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF TOTAL DISSOLVED PHOSPHORUS (P) / TOTAL PHOSPHORUS (P)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
APRIL TO SEPTEMBER							
1976	36	0.3333	1.125	0.701	0.1807	0.0301	± 0.0611
1977	179	0.1200	1.000	0.537	0.1675	0.0125	± 0.0247
1978	163	0.0400	1.000	0.477	0.1619	0.0127	± 0.0250
1979	32	0.0833	0.875	0.492	0.2243	0.0396	± 0.0809
1980	55	0.1539	1.000	0.508	0.1389	0.0187	± 0.0375
1976-80	465	0.0400	1.125	0.522	0.1770	0.0082	± 0.0161
OCTOBER TO MARCH							
1976-77	36	0.1250	1.167	0.572	0.2113	0.0352	± 0.0715
1977-78	104	0.1875	0.741	0.419	0.1058	0.0104	± 0.0206
1978-79	33	0.2000	0.833	0.475	0.1611	0.0280	± 0.0571
1979-80	40	0.2000	0.889	0.611	0.1643	0.0260	± 0.0525
1980-81	24	0.1714	0.750	0.539	0.1471	0.0300	± 0.0621
1976-80	237	0.1250	1.167	0.495	0.1662	0.0108	± 0.0213
APRIL TO MARCH							
1976-80	702	0.0400	1.167	0.513	0.1738	0.0066	± 0.0129

STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF TOTAL DISSOLVED PHOSPHORUS (P) / TOTAL PHOSPHORUS (P)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
1976 FEB JUL AUG SEP DEC	702	0.0400	1.167	0.513	0.1738	0.0066	± 0.0129
1977 MAR APR MAY JUN JUL AUG OCT NOV DEC							
1978 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC							
1979 JAN FEB MAR APR MAY JUN AUG SEP OCT NOV DEC							
1980 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC							

HISTOGRAM

MIDPOINT	HIST%	COUNT	DP TP
.40000	.1	1 +X	
.83333	.1	1 +X	
.12667	.4	3 +XX	
.17000	1.0	7 +XXX	
.21333	2.1	15 +XXXX	
.25667	3.0	21 +XXXXX	
.30000	4.4	31 +XXXXXX	
.34333	7.4	52 +XXXXXXX	
.38667	9.0	63 +XXXXXXXX	
.43000	11.8	83 +XXXXXXXXX	
.47333	2.6	18 +XXXXXXXX	
.51667	17.9	126 +XXXXXXXXXX	
.56000	9.4	66 +XXXXXXXXXX	
.60333	7.5	53 +XXXXXXXXXX	
.64667	9.3	65 +XXXXXXXXXX	
.69000	.3	2 +X	
.73333	4.6	32 +XXXXXXXXXX	
.77667	1.0	7 +XXX	
.82000	3.1	22 +XXXXXXXXXX	
.86333	2.6	18 +XXXXXXXXXX	
.90667	.1	1 +X	
.95000	0.	0 +	
.99333	1.9	13 +XXXXXXXX	
1.0367	0.	0 +	
1.0800	0.	0 +	
1.1233	.1	1 +X	
1.1667	.1	1 +X	
MISSING		446	
TOTAL		1148	(INTERVAL WIDTH= .43333 -1)

FREQUENCY
PERCENT

CONCENTRATION RATIO

E-2

OKANAGAN RIVER BELOW OKANAGAN LAKE

Statistical Characteristics of Nutrient Concentrations

Period of Sampling February 1976 to December 1980.

RATIO OF TOTAL DISSOLVED PHOSPHORUS (P) TO TOTAL PHOSPHORUS (P)

Median concentrations and their statistical characteristics determined for

Individual Months	79
All Months	81
Individual Years	82
Seasons	83
April to September	
October to March	
April to March	
All Years	84
Cumulative distribution of concentration data	85

STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF TOTAL DISSOLVED PHOSPHORUS (P) / TOTAL PHOSPHORUS (P)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN	CONFIDENCE INTERVAL		PROBABILITY LEVEL
			LOWER	UPPER	
1976 FEBRUARY	18	0.667	0.6250	0.8571	0.969
JULY					
AUGUST					
SEPTEMBER	18	0.667	0.5714	0.8000	0.969
DECEMBER	24	0.667	0.5714	0.8333	0.957
MARCH	12	0.400	0.4000	0.4444	0.961
1977 APRIL					
MAY	26	0.571	0.4444	0.6667	0.971
JUNE	61	0.500	0.4444	0.5000	0.960
JULY	48	0.429	0.4286	0.5000	0.956
AUGUST	44	0.600	0.6000	0.6000	0.951
OCTOBER	4	0.417			
NOVEMBER	4	0.375			
DECEMBER	22	0.400	0.3333	0.4286	0.965
1978 JANUARY	4	0.375			
FEBRUARY	30	0.500	0.4444	0.5000	0.957
MARCH	40	0.375	0.3333	0.4286	0.961
APRIL	20	0.375	0.3333	0.4286	0.959
MAY	30	0.300	0.2500	0.3333	0.957
JUNE	24	0.444	0.4000	0.5000	0.957
JULY	40	0.500	0.5000	0.5000	0.961
AUGUST	24	0.600	0.5000	0.6667	0.957
SEPTEMBER	25	0.571	0.5000	0.6667	0.957
OCTOBER	7	0.400	0.2000	0.8000	0.984
NOVEMBER	8	0.417	0.4000	0.5556	0.961
DECEMBER	2	0.308			
1979 JANUARY	7	0.556	0.3750	0.6250	0.984
FEBRUARY	6	0.500	0.3333	0.8333	0.969
MARCH	3	0.273			
APRIL	4	0.111			
MAY	4	0.267			
JULY	8	0.500	0.4667	0.5833	0.961
AUGUST	8	0.500	0.2857	0.8000	0.961
SEPTEMBER	8	0.727	0.6667	0.8750	0.961
OCTOBER	8	0.667	0.5385	0.8889	0.961
NOVEMBER	8	0.727	0.4615	0.8750	0.961
DECEMBER	4	0.600			

STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF TOTAL DISSOLVED PHOSPHORUS (P) / TOTAL PHOSPHORUS (P)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN	CONFIDENCE INTERVAL		PROBABILITY LEVEL
			LOWER	UPPER	
1980 JANUARY	8	0.545	0.4546	0.6667	0.961
FEBRUARY	4	0.667			
MARCH	8	0.455	0.3333	0.7500	0.961
APRIL	8	0.444	0.4286	1.0000	0.961
MAY	12	0.545	0.2778	0.5556	0.961
JUNE	7	0.455	0.3636	0.5000	0.984
JULY	12	0.600	0.5000	0.7143	0.961
AUGUST	8	0.444	0.3846	0.5714	0.961
SEPTEMBER	8	0.500	0.4286	0.7500	0.961
OCTOBER	8	0.500	0.2500	0.7143	0.961
NOVEMBER	8	0.556	0.5556	0.7500	0.961
DECEMBER	8	0.500	0.4286	0.7500	0.961

STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF TOTAL DISSOLVED PHOSPHORUS (P) / TOTAL PHOSPHORUS (P)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN	CONFIDENCE INTERVAL LOWER	CONFIDENCE INTERVAL UPPER	PROBABILITY LEVEL
-78-79-80 JANUARY	19	0.556	0.5000	0.6667	0.959
1976-78-79-80 FEBRUARY	40	0.500	0.5000	0.5333	0.961
-77-78-79-80 MARCH	63	0.400	0.3333	0.4286	0.957
-77-78-79-80 APRIL	32	0.400	0.3333	0.4286	0.965
-77-78-79-80 MAY	72	0.400	0.3333	0.4546	0.956
-77-78-80 JUNE	92	0.455	0.4444	0.5000	0.953
1976-77-78-79-80 JULY	126	0.500	0.5000	0.5454	0.960
1976-77-78-79-80 AUGUST	84	0.600	0.5000	0.6000	0.962
1976-78-79-80 SEPTEMBER	59	0.600	0.5556	0.6667	0.964
-77-78-79-80 OCTOBER	27	0.545	0.4000	0.7143	0.964
-77-78-79-80 NOVEMBER	28	0.500	0.4546	0.6000	0.964
1976-77-78-79-80 DECEMBER	60	0.500	0.4286	0.6000	0.960

STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF TOTAL DISSOLVED PHOSPHORUS (P) / TOTAL PHOSPHORUS (P)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN	CONFIDENCE INTERVAL LOWER	CONFIDENCE INTERVAL UPPER	PROBABILITY LEVEL
1976 FEB JUL AUG SEP DEC	60	0.667	0.6250	0.7778	0.960
1977 MAR APR MAY JUN JUL AUG OCT NOV DEC	221	0.500	0.4444	0.5000	0.957
1978 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC	254	0.444	0.4286	0.5000	0.955
1979 JAN FEB MAR APR MAY JUL AUG SEP OCT NOV DEC	68	0.556	0.5000	0.6250	0.961
1980 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC	99	0.545	0.5000	0.5556	0.956

STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF TOTAL DISSOLVED PHOSPHORUS (P) / TOTAL PHOSPHORUS (P)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

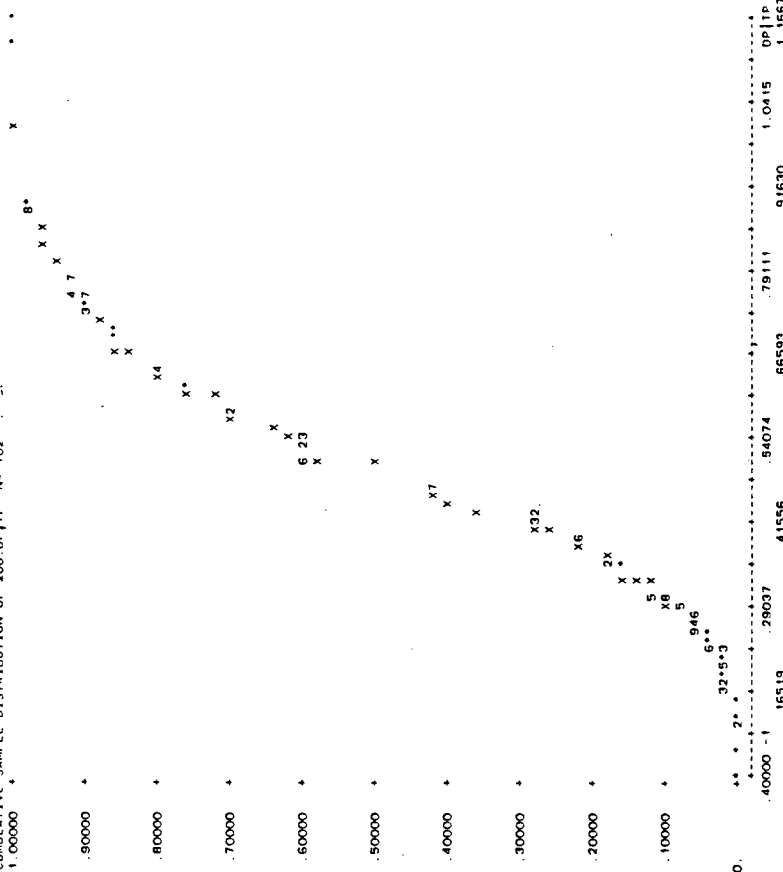
SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN	CONFIDENCE INTERVAL LOWER	CONFIDENCE INTERVAL UPPER	PROBABILITY LEVEL
APRIL TO SEPTEMBER					
1976	36	0.667	0.6250	0.8000	0.953
1977	179	0.500	0.5000	0.5556	0.956
1978	163	0.500	0.4444	0.5000	0.959
1979	32	0.500	0.3636	0.6667	0.965
1980	55	0.500	0.4615	0.5556	0.956
1976-80	465	0.500	0.5000	0.5000	0.954
OCTOBER TO MARCH					
1976-77	36	0.500	0.4444	0.6667	0.953
1977-78	104	0.429	0.3750	0.4444	0.961
1978-79	33	0.455	0.3750	0.5556	0.965
1979-80	40	0.625	0.5556	0.6667	0.961
1980-81	24	0.556	0.5000	0.6250	0.957
1976-80	237	0.500	0.4444	0.5000	0.956
APRIL TO MARCH					
1976-80	702	0.500	0.5000	0.5000	0.950

STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF TOTAL DISSOLVED PHOSPHORUS (P) / TOTAL PHOSPHORUS (P)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	CONFIDENCE INTERVAL		PROBABILITY LEVEL
		LOWER	UPPER	
1976 FEB JUL AUG SEP DEC	702	0.5000	0.5000	0.950
1977 MAR APR MAY JUN JUL AUG OCT NOV DEC				
1978 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC				
1979 JAN FEB MAR APR MAY JUN AUG SEP OCT NOV DEC				
1980 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC				

DISTRIBUTIONAL ANALYSIS

CUMULATIVE SAMPLE DISTRIBUTION OF 200 DP|TP N= 702



PROB	QUANTILE	LEVEL	CONFIDENCE INTERVAL	SIZE
.1000	.30000	.9500	.28571	.33333
.3000	.42857	.9500	.40000	.42857
.5000	.50000	.9500	.50000	.50000
.7000	.60000	.9500	.57143	.60000
.9000	.75000	.9500	.71429	.80000
				.9562

OKANAGAN RIVER BELOW OKANAGAN LAKE

Statistical Characteristics of Nutrient Loads

Period of Sampling February 1976 to December 1980.

RATIO OF TOTAL DISSOLVED PHOSPHORUS (P) TO TOTAL PHOSPHORUS (P)

Arithmetic mean loads and their statistical characteristics determined for

Individual Months	87
All Months	89
Graph of monthly load ranges	90
Individual Years	91
Seasons	92
April to September	
October to March	
April to March	
All Years	93

STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF TOTAL DISSOLVED PHOSPHORUS (P) / TOTAL PHOSPHORUS (P)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

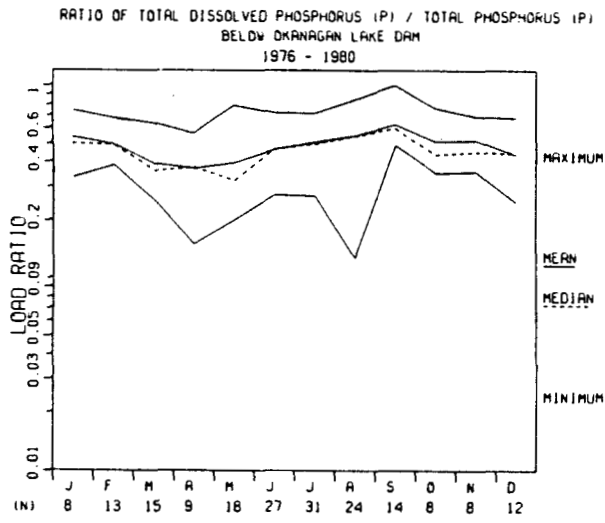
SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
1976 FEBRUARY	2	0.6832	0.711	0.697	0.0197	0.0139	± 0.1771
JULY							
AUGUST							
SEPTEMBER	1	0.6755	0.676	0.676			
DECEMBER	1	0.5949	0.595	0.595			
1977 MARCH	1	0.3593	0.359	0.359			
APRIL							
MAY	6	0.4021	0.791	0.604	0.1643	0.0671	± 0.1725
JUNE	18	0.2704	0.723	0.478	0.1106	0.0261	± 0.0550
JULY	13	0.2664	0.577	0.464	0.1001	0.0278	± 0.0605
AUGUST	13	0.4293	0.846	0.584	0.1103	0.0306	± 0.0667
OCTOBER	2	0.4324	0.566	0.499	0.0948	0.0670	± 0.8513
NOVEMBER	1	0.3570	0.357	0.357			
DECEMBER	7	0.2469	0.483	0.382	0.0904	0.0342	± 0.0836
1978 JANUARY	4	0.3336	0.742	0.529	0.2051	0.1026	± 0.3264
FEBRUARY	10	0.3844	0.573	0.475	0.0631	0.0199	± 0.0451
MARCH	11	0.3142	0.496	0.386	0.0609	0.0184	± 0.0409
APRIL	5	0.2998	0.424	0.375	0.0521	0.0233	± 0.0647
MAY	10	0.2006	0.414	0.298	0.0750	0.0237	± 0.0537
JUNE	7	0.3412	0.547	0.444	0.0679	0.0257	± 0.0628
JULY	11	0.3914	0.682	0.507	0.0733	0.0221	± 0.0492
AUGUST	6	0.1268	0.765	0.537	0.2201	0.0898	± 0.2310
SEPTEMBER	9	0.5000	1.000	0.623	0.1499	0.0500	± 0.1152
OCTOBER	2	0.4371	0.557	0.497	0.0846	0.0598	± 0.7604
NOVEMBER	3	0.4160	0.451	0.437	0.0184	0.0106	± 0.0457
DECEMBER	1	0.3354	0.335	0.335			
1979 JANUARY	2	0.4836	0.607	0.545	0.0875	0.0618	± 0.7858
FEBRUARY	2	0.5135	0.543	0.528	0.0209	0.0148	± 0.1878
MARCH	1	0.2541	0.254	0.254			
APRIL	2	0.1495	0.201	0.175	0.0362	0.0256	± 0.3250
MAY	1	0.2627	0.263	0.263			
JULY	2	0.4752	0.504	0.504	0.0401	0.0284	± 0.3603
AUGUST	3	0.3570	0.599	0.485	0.1219	0.0704	± 0.3027
SEPTEMBER	2	0.7223	0.757	0.739	0.0243	0.0172	± 0.2183
OCTOBER	2	0.6203	0.764	0.692	0.1014	0.0717	± 0.9110
NOVEMBER	2	0.6319	0.689	0.661	0.0405	0.0286	± 0.3640
DECEMBER	1	0.4904	0.490	0.490			

STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF TOTAL DISSOLVED PHOSPHORUS (P) / TOTAL PHOSPHORUS (P)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
1980 JANUARY	2	0.5000	0.614	0.557	0.0808	0.0571	± 0.7261
FEBRUARY	1	0.6769	0.677	0.677			
MARCH	2	0.3455	0.635	0.490	0.2050	0.1449	± 1.8418
APRIL	2	0.5404	0.562	0.551	0.0153	0.0108	± 0.1372
MAY	1	0.2286	0.229	0.229			
JUNE	2	0.4152	0.485	0.450	0.0494	0.0349	± 0.4435
JULY	3	0.5286	0.714	0.594	0.1040	0.0601	± 0.2585
AUGUST	2	0.3950	0.516	0.455	0.0854	0.0604	± 0.7676
SEPTEMBER	2	0.4892	0.500	0.495	0.0076	0.0054	± 0.0687
OCTOBER	2	0.3508	0.383	0.367	0.0225	0.0159	± 0.2021
NOVEMBER	2	0.5590	0.623	0.591	0.0450	0.0319	± 0.4048
DECEMBER	2	0.4409	0.675	0.558	0.1657	0.1172	± 1.4887

STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF TOTAL DISSOLVED PHOSPHORUS (P) / TOTAL PHOSPHORUS (P)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
- 78-79-80 JANUARY	8	0.3336	0.742	0.540	0.1422	0.0503	± 0.1189
1976- 78-79-80 FEBRUARY	13	0.3844	0.677	0.498	0.0793	0.0220	± 0.0479
- 77-78-79-80 MARCH	15	0.2541	0.635	0.389	0.0921	0.0238	± 0.0510
- 77-78-79-80 APRIL	9	0.1495	0.562	0.370	0.1388	0.0463	± 0.1067
- 77-78-79-80 MAY	18	0.2006	0.791	0.394	0.1858	0.0438	± 0.0924
- 77-78- 80 JUNE	27	0.2704	0.723	0.467	0.0970	0.0187	± 0.0384
1976-77-78-79-80 JULY	31	0.2664	0.714	0.509	0.1028	0.0185	± 0.0377
1976-77-78-79-80 AUGUST	24	0.1268	0.846	0.549	0.1432	0.0292	± 0.0605
1976- 78-79-80 SEPTEMBER	14	0.4892	1.000	0.625	0.1368	0.0366	± 0.0790
- 77-78-79-80 OCTOBER	8	0.3508	0.764	0.514	0.1387	0.0490	± 0.1160
- 77-78-79-80 NOVEMBER	8	0.3570	0.689	0.521	0.1203	0.0425	± 0.1005
1976-77-78-79-80 DECEMBER	12	0.2469	0.675	0.434	0.1224	0.0353	± 0.0778



STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF TOTAL DISSOLVED PHOSPHORUS (P) / TOTAL PHOSPHORUS (P)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
1976 FEB JUL AUG SEP DEC	4	0.5949	0.711	0.666	0.0499	0.0250	± 0.0794
1977 MAR APR MAY JUN JUL AUG OCT NOV DEC	61	0.2469	0.846	0.496	0.1283	0.0164	± 0.0328
1978 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC	79	0.1268	1.000	0.457	0.1374	0.0155	± 0.0308
1979 JAN FEB MAR APR MAY JUN AUG SEP OCT NOV DEC	20	0.1495	0.764	0.508	0.1816	0.0406	± 0.0850
1980 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC	23	0.2286	0.714	0.509	0.1205	0.0251	± 0.0521

STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF TOTAL DISSOLVED PHOSPHORUS (P) / TOTAL PHOSPHORUS (P)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
APRIL TO SEPTEMBER							
1976	3	0.6755	0.711	0.690	0.0187	0.0108	± 0.0464
1977	50	0.2664	0.846	0.517	0.1260	0.0178	± 0.0358
1978	48	0.1268	1.000	0.466	0.1573	0.0227	± 0.0457
1979	10	0.1495	0.757	0.456	0.2098	0.0664	± 0.1501
1980	12	0.2286	0.714	0.493	0.1150	0.0332	± 0.0731
1976-80	123	0.1268	1.000	0.494	0.1481	0.0134	± 0.0264
OCTOBER TO MARCH							
1976-77	2	0.3593	0.595	0.477	0.1665	0.1178	± 1.4964
1977-78	35	0.2469	0.742	0.433	0.1041	0.0176	± 0.0358
1978-79	11	0.2541	0.607	0.458	0.1010	0.0305	± 0.0679
1979-80	10	0.3455	0.764	0.597	0.1203	0.0380	± 0.0861
1980-81	6	0.3508	0.675	0.505	0.1331	0.0544	± 0.1397
1976-80	64	0.2469	0.764	0.471	0.1219	0.0152	± 0.0304
APRIL TO MARCH							
1976-80	187	0.1268	1.000	0.486	0.1398	0.0102	± 0.0202

STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF TOTAL DISSOLVED PHOSPHORUS (P) / TOTAL PHOSPHORUS (P)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
1976 FEB JUL AUG SEP DEC	187	0.1268	1.000	0.486	0.1398	0.0102	± 0.0202
1977 MAR APR MAY JUN JUL AUG OCT NOV DEC							
1978 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC							
1979 JAN FEB MAR APR MAY JUN AUG SEP OCT NOV DEC							
1980 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC							

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OKANAGAN RIVER BELOW OKANAGAN LAKE

Statistical Characteristics of Nutrient Loads

Period of Sampling February 1976 to December 1980.

RATIO OF TOTAL DISSOLVED PHOSPHORUS (P) TO TOTAL PHOSPHORUS (P)

Median loads and their statistical characteristics determined for

Individual Months	95
All Months	97
Individual Years	98
Seasons	99
April to September	
October to March	
April to March	
All Years	100

STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF TOTAL DISSOLVED PHOSPHORUS (P) / TOTAL PHOSPHORUS (P)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN	CONFIDENCE INTERVAL LOWER	CONFIDENCE INTERVAL UPPER	PROBABILITY LEVEL
1976 FEBRUARY					
JULY	2	0.683			
AUGUST					
SEPTEMBER	1	0.676			
DECEMBER	1	0.595			
1977 MARCH	1	0.359			
APRIL					
MAY	6	0.623	0.4021	0.7910	0.969
JUNE	18	0.470	0.4003	0.5292	0.969
JULY	13	0.477	0.3934	0.5712	0.978
AUGUST	13	0.550	0.5010	0.6203	0.978
OCTOBER	2	0.432			
NOVEMBER	1	0.357			
DECEMBER	7	0.367	0.2469	0.4825	0.984
1978 JANUARY	4	0.375			
FEBRUARY	10	0.471	0.4109	0.5705	0.979
MARCH	11	0.358	0.3449	0.4841	0.961
APRIL	5	0.374		0.2998	0.969
MAY	10	0.280	0.2205	0.3920	0.979
JUNE	7	0.459	0.3412	0.5474	0.984
JULY	11	0.499	0.4608	0.5417	0.961
AUGUST	6	0.545	0.1268	0.7653	0.969
SEPTEMBER	9	0.600	0.5007	0.6409	0.961
OCTOBER	2	0.437			
NOVEMBER	3	0.443			
DECEMBER	1	0.335			
1979 JANUARY	2	0.484			
FEBRUARY	2	0.513			
MARCH	1	0.254			
APRIL	2	0.150			
MAY	1	0.263			
JULY	2	0.475			
AUGUST	3	0.500			
SEPTEMBER	2	0.722			
OCTOBER	2	0.620			
NOVEMBER	2	0.632			
DECEMBER	1	0.490			

STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF TOTAL DISSOLVED PHOSPHORUS (P) / TOTAL PHOSPHORUS (P)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN	CONFIDENCE INTERVAL		PROBABILITY LEVEL
			LOWER	UPPER	
1980 JANUARY	2	0.500			
FEBRUARY	1	0.677			
MARCH	2	0.346			
APRIL	2	0.540			
MAY	1	0.229			
JUNE	2	0.415			
JULY	3	0.540			
AUGUST	2	0.395			
SEPTEMBER	2	0.489			
OCTOBER	2	0.351			
NOVEMBER	2	0.559			
DECEMBER	2	0.441			

STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF TOTAL DISSOLVED PHOSPHORUS (P) / TOTAL PHOSPHORUS (P)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN	CONFIDENCE INTERVAL		PROBABILITY LEVEL
			LOWER	UPPER	
-78-79-80 JANUARY	8	0.500	0.3749	0.7419	0.961
1976-78-79-80 FEBRUARY	13	0.493	0.4300	0.5705	0.978
-77-78-79-80 MARCH	15	0.358	0.3449	0.4234	0.965
-77-78-79-80 APRIL	9	0.374	0.2007	0.5404	0.961
-77-78-79-80 MAY	18	0.321	0.2536	0.4135	0.969
-77-78-80 JUNE	27	0.469	0.4339	0.5158	0.964
1976-77-78-79-80 JULY	31	0.500	0.4752	0.5398	0.971
1976-77-78-79-80 AUGUST	24	0.544	0.5158	0.6088	0.957
1976-78-79-80 SEPTEMBER	14	0.600	0.5007	0.7223	0.965
-77-78-79-80 OCTOBER	8	0.437	0.3826	0.7637	0.961
-77-78-79-80 NOVEMBER	8	0.451	0.4160	0.6892	0.961
1976-77-78-79-80 DECEMBER	12	0.441	0.3354	0.4904	0.961

STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF TOTAL DISSOLVED PHOSPHORUS (P) / TOTAL PHOSPHORUS (P)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN	CONFIDENCE INTERVAL		PROBABILITY LEVEL
			LOWER	UPPER	
1976 FEB JUL AUG SEP DEC	4	0.676			
1977 MAR APR MAY JUN JUL AUG OCT NOV DEC	61	0.498	0.4560	0.5292	0.960
1978 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC	79	0.451	0.4160	0.4806	0.958
1979 JAN FEB MAR APR MAY JUL AUG SEP OCT NOV DEC	20	0.513	0.4752	0.6203	0.959
1980 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC	23	0.516	0.4409	0.5620	0.965

STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF TOTAL DISSOLVED PHOSPHORUS (P) / TOTAL PHOSPHORUS (P)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN	CONFIDENCE INTERVAL		PROBABILITY LEVEL
			LOWER	UPPER	
APRIL TO SEPTEMBER					
1976	3	0.683			
1977	50	0.501	0.4774	0.5607	0.951
1978	48	0.469	0.4236	0.5307	0.956
1979	10	0.475	0.2007	0.7223	0.979
1980	12	0.500	0.4152	0.5404	0.961
1976-80	123	0.500	0.4752	0.5286	0.953
OCTOBER TO MARCH					
1976-77	2	0.359			
1977-78	35	0.423	0.3670	0.4714	0.959
1978-79	11	0.451	0.4160	0.5568	0.961
1979-80	10	0.620	0.4904	0.6892	0.979
1980-81	6	0.441	0.3508	0.6753	0.969
1976-80	64	0.451	0.4234	0.4930	0.954
APRIL TO MARCH					
1976-80	187	0.484	0.4650	0.5000	0.951

STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF TOTAL DISSOLVED PHOSPHORUS (P) / TOTAL PHOSPHORUS (P)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	CONFIDENCE INTERVAL		PROBABILITY LEVEL
		LOWER	UPPER	
1976 FEB JUL AUG SEP DEC	187	0.4650	0.5000	0.951
1977 MAR APR MAY JUN JUL AUG OCT NOV DEC				
1978 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC				
1979 JAN FEB MAR APR MAY JUN AUG SEP OCT NOV DEC				
1980 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC				

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OKANAGAN RIVER BELOW OKANAGAN LAKE

Statistical Characteristics of Nutrient Concentrations

Period of Sampling February 1976 to December 1980.

NITRATE PLUS NITRITE (N)

Arithmetic mean concentrations and their statistical characteristics
determined for:

Individual Months	102
All Months	104
Graph of monthly concentration ranges	105
Individual Years	106
Seasons	107
April to September	
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April to March	
All Years	108
Histogram of concentration distribution	109

STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 NITRATE PLUS NITRITE (N)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

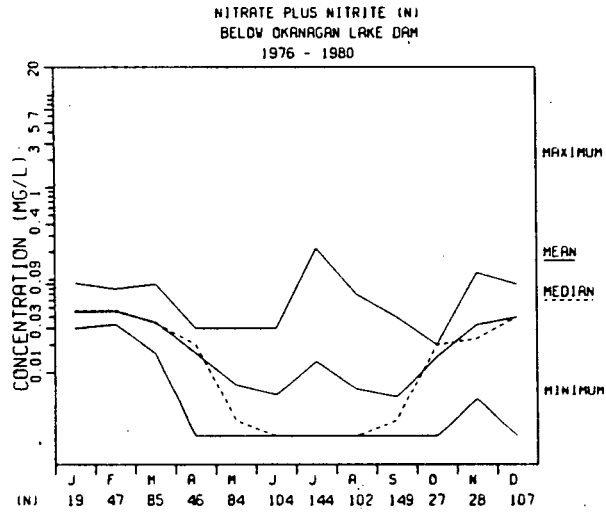
SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN (MG/L)	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
1976 FEBRUARY	6	0.0430	0.051	0.046	0.0033	0.0013	± 0.0034
JULY	36	0.0020	0.220	0.036	0.0435	0.0073	± 0.0147
AUGUST	18	0.0020	0.062	0.008	0.0159	0.0037	± 0.0079
SEPTEMBER	108	0.0020	0.008	0.003	0.0013	0.0001	± 0.0003
DECEMBER	71	0.0360	0.046	0.039	0.0015	0.0002	± 0.0003
1977 MARCH	33	0.0250	0.041	0.033	0.0033	0.0006	± 0.0012
APRIL	14	0.0020	0.022	0.019	0.0051	0.0014	± 0.0029
MAY	38	0.0020	0.030	0.006	0.0070	0.0011	± 0.0023
JUNE	73	0.0020	0.030	0.005	0.0069	0.0008	± 0.0016
JULY	48	0.0020	0.002	0.002			
AUGUST	44	0.0020	0.004	0.002			
OCTOBER	4	0.0020	0.002	0.002	0.0003	0.0000	± 0.0001
NOVEMBER	4	0.0250	0.039	0.032	0.0068	0.0034	± 0.0108
DECEMBER	22	0.0200	0.040	0.035	0.0046	0.0010	± 0.0021
1978 JANUARY	4	0.0330	0.092	0.052	0.0274	0.0137	± 0.0436
FEBRUARY	4	0.0440	0.049	0.047	0.0017	0.0003	± 0.0006
MARCH	30	0.0160	0.044	0.036	0.0069	0.0011	± 0.0022
APRIL	40	0.0020	0.025	0.010	0.0082	0.0018	± 0.0038
MAY	20	0.0020	0.028	0.004	0.0055	0.0010	± 0.0021
JUNE	30	0.0020	0.010	0.002	0.0016	0.0003	± 0.0007
JULY	24	0.0020	0.014	0.003	0.0026	0.0004	± 0.0008
AUGUST	40	0.0020	0.003	0.002	0.0002	0.0000	± 0.0001
SEPTEMBER	24	0.0020	0.003	0.002	0.0002	0.0000	± 0.0001
OCTOBER	25	0.0020	0.017	0.004	0.0043	0.0009	± 0.0018
NOVEMBER	7	0.0050	0.017	0.010	0.0039	0.0015	± 0.0036
DECEMBER	8	0.0050	0.036	0.019	0.0087	0.0031	± 0.0073
1979 JANUARY	2	0.0020	0.002	0.002			
FEBRUARY	7	0.0310	0.048	0.042	0.0060	0.0023	± 0.0055
MARCH	6	0.0330	0.039	0.036	0.0021	0.0008	± 0.0022
APRIL	4	0.0330	0.045	0.040	0.0051	0.0026	± 0.0082
MAY	4	0.0160	0.026	0.023	0.0048	0.0024	± 0.0076
JULY	4	0.0020	0.006	0.003	0.0020	0.0010	± 0.0032
AUGUST	8	0.0200	0.020	0.020			
SEPTEMBER	8	0.0200	0.020	0.020	0.0071	0.0025	± 0.0059
OCTOBER	8	0.0200	0.040	0.023			
NOVEMBER	8	0.0200	0.020	0.020	0.0338	0.0119	± 0.0282
DECEMBER	8	0.0200	0.120	0.016			
	4	0.0500	0.050	0.050			

STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 NITRATE PLUS NITRITE (N)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN (MG/L)	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
1980 JANUARY	8	0.0300	0.050	0.045	0.0076	0.0027	± 0.0063
FEBRUARY	5	0.0400	0.080	0.048	0.0179	0.0080	± 0.0222
MARCH	8	0.0200	0.090	0.035	0.0245	0.0087	± 0.0205
APRIL	8	0.0200	0.030	0.023	0.0046	0.0016	± 0.0039
MAY	12	0.0200	0.020	0.020			
JUNE	7	0.0200	0.020	0.020			
JULY	12	0.0200	0.020	0.020			
AUGUST	8	0.0200	0.070	0.029	0.0181	0.0064	± 0.0151
SEPTEMBER	8	0.0200	0.020	0.020			
OCTOBER	8	0.0200	0.020	0.020			
NOVEMBER	8	0.0200	0.050	0.032	0.0139	0.0049	± 0.0116
DECEMBER	8	0.0300	0.090	0.055	0.0214	0.0076	± 0.0179

STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 NITRATE PLUS NITRITE (N)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN (MG/L)	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
- 78-79-80 JANUARY	19	0.0300	0.092	0.045	0.0133	0.0030	± 0.0064
1976- 78-79-80 FEBRUARY	47	0.0330	0.080	0.046	0.0066	0.0010	± 0.0020
- 77-78-79-80 MARCH	85	0.0160	0.090	0.035	0.0089	0.0010	± 0.0019
- 77-78-79-80 APRIL	46	0.0020	0.030	0.016	0.0083	0.0012	± 0.0025
- 77-78-79-80 MAY	84	0.0020	0.030	0.007	0.0078	0.0009	± 0.0017
- 77-78- 80 JUNE	104	0.0020	0.030	0.006	0.0071	0.0007	± 0.0014
1976-77-78-79-80 JULY	144	0.0020	0.220	0.013	0.0260	0.0022	± 0.0043
1976-77-78-79-80 AUGUST	102	0.0020	0.070	0.007	0.0115	0.0011	± 0.0023
1976- 78-79-80 SEPTEMBER	149	0.0020	0.040	0.005	0.0062	0.0005	± 0.0010
- 77-78-79-80 OCTOBER	27	0.0020	0.020	0.015	0.0071	0.0014	± 0.0028
- 77-78-79-80 NOVEMBER	28	0.0050	0.120	0.033	0.0218	0.0041	± 0.0085
1976-77-78-79-80 DECEMBER	107	0.0020	0.090	0.039	0.0094	0.0009	± 0.0018



STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 NITRATE PLUS NITRITE (N)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN (MG/L)	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
1976 FEB JUL AUG SEP DEC	239	0.0020	0.220	0.020	0.0246	0.0016	± 0.0031
1977 MAR APR MAY JUN JUL AUG OCT NOV DEC	280	0.0020	0.041	0.011	0.0132	0.0008	± 0.0016
1978 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC	254	0.0020	0.092	0.015	0.0180	0.0011	± 0.0022
1979 JAN FEB MAR APR MAY JUL AUG SEP OCT NOV DEC	69	0.0020	0.120	0.029	0.0171	0.0021	± 0.0041
1980 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC	100	0.0200	0.090	0.029	0.0164	0.0016	± 0.0033

STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 NITRATE PLUS NITRITE (N)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN (MG/L)	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
APRIL TO SEPTEMBER							
1976	162	0.0020	0.220	0.011	0.0250	0.0020	± 0.0039
1977	217	0.0020	0.030	0.005	0.0065	0.0004	± 0.0009
1978	163	0.0020	0.028	0.004	0.0049	0.0004	± 0.0008
1979	32	0.0020	0.040	0.019	0.0073	0.0013	± 0.0026
1980	55	0.0200	0.070	0.022	0.0074	0.0010	± 0.0020
1976-80	629	0.0020	0.220	0.008	0.0148	0.0006	± 0.0012
OCTOBER TO MARCH							
1976-77	104	0.0250	0.046	0.037	0.0036	0.0004	± 0.0007
1977-78	104	0.0020	0.092	0.038	0.0115	0.0011	± 0.0022
1978-79	34	0.0020	0.048	0.027	0.0148	0.0025	± 0.0052
1979-80	41	0.0200	0.120	0.039	0.0215	0.0034	± 0.0068
1980-81	24	0.0200	0.090	0.036	0.0204	0.0042	± 0.0086
1976-80	307	0.0020	0.120	0.036	0.0133	0.0008	± 0.0015
APRIL TO MARCH							
1976-80	936	0.0020	0.220	0.018	0.0195	0.0006	± 0.0012

STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 NITRATE PLUS NITRITE (N)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
1976 FEB JUL AUG SEP DEC	942	0.0020	0.220	0.018	0.0196	0.0006	± 0.0013
1977 MAR APR MAY JUN JUL AUG OCT NOV DEC							
1978 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC							
1979 JAN FEB MAR APR MAY JUN AUG SEP OCT NOV DEC							
1980 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC							

(MG/L)

HISTOGRAM

MIDPOINT HIST% COUNT FOR 18.NN (EACH X = 5)

MIDPOINT	HIST%	COUNT	PERCENT	FREQUENCY
.20000	-2	48.1	48.1	450 +XX
.92667	-2	4.8	4.8	45 +XXXXXXXXXXXX
.16533	-1	13.8	13.8	129 +XX
.23800	-1	3.5	3.5	33 +XXXXXXXXXXXX
.31067	-1	6.2	6.2	58 +XXXXXXXXXXXX
.38333	-1	14.9	14.9	139 +XX
.45600	-1	5.1	5.1	48 +XXXXXXXXXXXX
.52867	-1	1.9	1.9	18 +XXXX
.60133	-1	.4	.4	4 +X
.67400	-1	.2	.2	2 +X
.74667	-1	.1	.1	1 +X
.81933	-1	.2	.2	2 +X
.89200	-1	.3	.3	3 +X
.96467	-1	0.	0.	0 +
1.0373	0.	0.	0.	0 +
1.1100	0.	0.	0.	0 +
1.1827	.2	2	.2	2 +X
1.2553	.1	1	.1	1 +X
1.3280	0.	0.	0.	0 +
1.4007	0.	0.	0.	0 +
1.4733	0.	0.	0.	0 +
1.5460	0.	0.	0.	0 +
1.6187	0.	0.	0.	0 +
1.6913	0.	0.	0.	0 +
1.7640	0.	0.	0.	0 +
1.8367	0.	0.	0.	0 +
1.9093	0.	0.	0.	0 +
1.9820	0.	0.	0.	0 +
2.0547	0.	0.	0.	0 +
2.1273	0.	0.	0.	0 +
2.2000	.1	1	.1	1 +X
MISSING				212
TOTAL				1148 (INTERVAL WIDTH= .72667 -2)

CONCENTRATION (mg l⁻¹)

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OKANAGAN RIVER BELOW OKANAGAN LAKE

Statistical Characteristics of Nutrient Concentrations
Period of Sampling February 1976 to December 1980.

NITRATE PLUS NITRITE (N)

Median concentrations and their statistical characteristics determined for

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All Months	113
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Seasons	115
April to September	
October to March	
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STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 NITRATE PLUS NITRITE (N)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN (MG/L)	CONFIDENCE INTERVAL LOWER	CONFIDENCE INTERVAL UPPER	PROBABILITY LEVEL
1976 FEBRUARY	6	0.045	0.0430	0.0510	0.969
JULY	36	0.027	0.0130	0.0360	0.953
AUGUST	18	0.002	0.0020	0.0040	0.969
SEPTEMBER	108	0.003	0.0020	0.0030	0.957
DECEMBER	71	0.040	0.0390	0.0400	0.956
1977 MARCH	33	0.033	0.0320	0.0340	0.965
APRIL	14	0.020	0.0180	0.0220	0.965
MAY	38	0.003	0.0030	0.0040	0.966
JUNE	73	0.002	0.0020	0.0020	0.953
JULY	48	0.002	0.0020	0.0020	0.956
AUGUST	44	0.002	0.0020	0.0020	0.951
OCTOBER	4	0.002			
NOVEMBER	4	0.028			
DECEMBER	22	0.036			
1978 JANUARY	4	0.035	0.0340	0.0380	0.965
FEBRUARY	30	0.047	0.0460	0.0480	0.957
MARCH	40	0.036	0.0340	0.0380	0.961
APRIL	20	0.006	0.0060	0.0140	0.959
MAY	30	0.002	0.0020	0.0020	0.957
JUNE	24	0.002	0.0020	0.0020	0.957
JULY	40	0.002	0.0020	0.0020	0.961
AUGUST	24	0.002	0.0020	0.0020	0.957
SEPTEMBER	25	0.002	0.0020	0.0040	0.957
OCTOBER	7	0.011	0.0050	0.0170	0.984
NOVEMBER	8	0.017	0.0160	0.0360	0.961
DECEMBER	2	0.002			
1979 JANUARY	7	0.040	0.0310	0.0480	0.984
FEBRUARY	6	0.037	0.0330	0.0390	0.969
MARCH	4	0.039			
APRIL	4	0.024			
MAY	4	0.002			
JULY	8	0.020	0.0200	0.0200	0.961
AUGUST	8	0.020	0.0200	0.0200	0.961
SEPTEMBER	8	0.020	0.0200	0.0400	0.961
OCTOBER	8	0.020	0.0200	0.0200	0.961
NOVEMBER	8	0.030	0.0200	0.1200	0.961
DECEMBER	4	0.050			

STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 NITRATE PLUS NITRITE (N)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN (MG/L)	CONFIDENCE INTERVAL LOWER	CONFIDENCE INTERVAL UPPER	PROBABILITY LEVEL
1980 JANUARY	8	0.050	0.0400	0.0500	0.961
FEBRUARY	5	0.040		0.0400	0.969
MARCH	8	0.020	0.0200	0.0900	0.961
APRIL	8	0.020	0.0200	0.0300	0.961
MAY	12	0.020	0.0200	0.0200	0.961
JUNE	7	0.020	0.0200	0.0200	0.984
JULY	12	0.020	0.0200	0.0200	0.961
AUGUST	8	0.020	0.0200	0.0700	0.961
SEPTEMBER	8	0.020	0.0200	0.0200	0.961
OCTOBER	8	0.020	0.0200	0.0200	0.961
NOVEMBER	8	0.020	0.0200	0.0500	0.961
DECEMBER	8	0.040	0.0400	0.0900	0.961

STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 NITRATE PLUS NITRITE (N)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN (MG/L)	CONFIDENCE INTERVAL LOWER	CONFIDENCE INTERVAL UPPER	PROBABILITY LEVEL
- 78-79-80 JANUARY	19	0.046	0.0400	0.0500	0.959
1976- -78-79-80 FEBRUARY	47	0.047	0.0440	0.0480	0.960
-77-78-79-80 MARCH	85	0.034	0.0330	0.0360	0.960
-77-78-79-80 APRIL	46	0.020	0.0160	0.0200	0.960
-77-78-79-80 MAY	84	0.003	0.0030	0.0040	0.962
-77-78- -80 JUNE	104	0.002	0.0020	0.0020	0.961
1976-77-78-79-80 JULY	144	0.002	0.0020	0.0020	0.954
1976-77-78-79-80 AUGUST	102	0.002	0.0020	0.0020	0.952
1976- -78-79-80 SEPTEMBER	149	0.003	0.0020	0.0040	0.951
-77-78-79-80 OCTOBER	27	0.020	0.0120	0.0200	0.964
-77-78-79-80 NOVEMBER	28	0.023	0.0200	0.0390	0.964
1976-77-78-79-80 DECEMBER	107	0.040	0.0390	0.0400	0.957

STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 NITRATE PLUS NITRITE (N)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN (MG/L)	CONFIDENCE INTERVAL LOWER	CONFIDENCE INTERVAL UPPER	PROBABILITY LEVEL
1976 FEB JUL AUG SEP DEC	239	0.005	0.0040	0.0100	0.955
1977 MAR APR MAY JUN JUL AUG OCT NOV DEC	280	0.002	0.0020	0.0030	0.952
1978 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC	254	0.003	0.0020	0.0060	0.955
1979 JAN FEB MAR APR MAY JUL AUG SEP OCT NOV DEC	69	0.020	0.0200	0.0310	0.959
1980 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC	100	0.020	0.0200	0.0200	0.954

STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 NITRATE PLUS NITRITE (N)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN (MG/L)	CONFIDENCE INTERVAL LOWER	CONFIDENCE INTERVAL UPPER	PROBABILITY LEVEL
APRIL TO SEPTEMBER					
1976	162	0.003	0.0030	0.0040	0.951
1977	217	0.002	0.0020	0.0020	0.951
1978	163	0.002	0.0020	0.0020	0.959
1979	32	0.020	0.0200	0.0200	0.965
1980	55	0.020	0.0200	0.0200	0.956
1976-80	629	0.002	0.0020	0.0030	0.954
OCTOBER TO MARCH					
1976-77	104	0.039	0.0380	0.0400	0.961
1977-78	104	0.038	0.0360	0.0420	0.961
1978-79	34	0.031	0.0170	0.0370	0.959
1979-80	41	0.040	0.0200	0.0500	0.956
1980-81	24	0.020	0.0200	0.0400	0.957
1976-80	307	0.038	0.0370	0.0390	0.954
APRIL TO MARCH					
1976-80	936	0.007	0.0050	0.0140	0.950

STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 NITRATE PLUS NITRITE (N)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN	CONFIDENCE INTERVAL LOWER	CONFIDENCE INTERVAL UPPER	PROBABILITY LEVEL
1976 FEB JUL AUG SEP DEC					
1977 MAR APR MAY JUN JUL AUG OCT NOV DEC					
1978 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC					
1979 JAN FEB MAR APR MAY JUL AUG SEP OCT NOV DEC					
1980 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC	942	0.008	0.0050	0.0140	0.953

(MG/L)

DISTRIBUTIONAL ANALYSIS

CUMULATIVE SAMPLE DISTRIBUTION OF NN N= 936

1.00000 + X*2 3* 2

.90000 + X*2 3* 2

X 77
69
X

.80000 + X
X
X
7
X

.70000 + XX
4X
764
XB
X

.60000 +

.50000 + 6
BX
979
X
X
X

.40000 + X
X

.30000 +

.20000 +

.10000 +

PROB	QUANTILE	LEVEL	CONFIDENCE	INTERVAL	SIZE
0.					
	.20000	-2	.26222	-1	.50444
		-1	.98889	-1	.74687
		-1	.14733		.18578
		-1	.17156		.19578
		-1			.22000

.1000	.20000	-2	.9500	.20000	-2	.20000	-2	.9504
.3000	.20000	-2	.9500	.20000	-2	.20000	-2	.9502
.5000	.70000	-2	.9500	.50000	-2	.14000	-1	.9501
.7000	.27000	-1	.9500	.21000	-1	.32000	-1	.9502
.9000	.40000	-1	.9500	.40000	-1	.43000	-1	.9504

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OKANAGAN RIVER BELOW OKANAGAN LAKE

Statistical Characteristics of Nutrient Loads

Period of Sampling February 1976 to December 1980.

NITRATE PLUS NITRITE (N)

Arithmetic mean loads and their statistical characteristics determined for

Individual Months	119
All Months	121
Graph of monthly load ranges	122
Individual Years	123
Seasons	124
April to September	
October to March	
April to March	
All Years	125

STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 NITRATE PLUS NITRITE (N)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

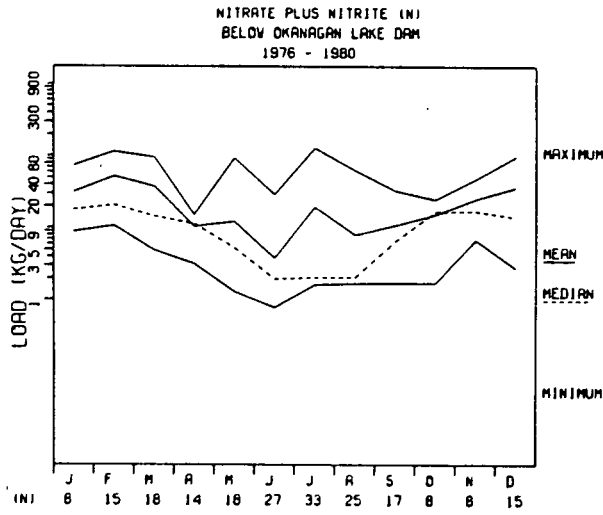
SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN (KG/DAY)	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
1976 FEBRUARY	1	116.0000	116.000	116.000		7.1105	± 22.6295
JULY	4	96.4000	130.000	111.600	14.2210		
AUGUST	1	15.8000	15.800	15.800			
SEPTEMBER	4	5.6000	8.640	7.105	1.3344	0.6672	± 2.1233
DECEMBER	4	87.6000	98.800	91.775	5.0888	2.5444	± 8.0970
1977 MARCH	4	10.6000	14.100	12.650	1.4844	0.7422	± 2.3620
APRIL	5	3.1600	13.800	10.332	4.2138	1.8845	± 5.2320
MAY	6	1.2900	9.910	4.313	3.4148	1.3941	± 3.5836
JUNE	18	0.7710	9.030	2.694	2.7495	0.6481	± 1.3673
JULY	13	1.6300	2.010	1.808	0.1421	0.0394	± 0.0859
AUGUST	13	1.6800	2.040	1.843	0.1336	0.0371	± 0.0808
OCTOBER	2	1.7100	1.720	1.715	0.0071	0.0050	± 0.0635
NOVEMBER	1	11.7000	11.700	11.700			
DECEMBER	7	6.3600	14.100	10.077	2.5816	0.9758	± 2.3877
1978 JANUARY	4	8.9000	74.000	37.550	33.4460	16.7230	± 53.2210
FEBRUARY	10	18.9000	105.000	61.120	43.0730	13.6209	± 30.8130
MARCH	11	6.4800	96.000	53.315	32.9710	9.9411	± 22.1495
APRIL	5	7.0100	12.300	9.898	2.4398	1.0911	± 3.0292
MAY	10	3.2100	94.200	18.460	27.1380	8.5818	± 19.4138
JUNE	7	1.9500	4.820	2.769	0.9424	0.3562	± 0.8715
JULY	11	2.0300	9.610	2.825	2.2536	0.6795	± 1.5140
AUGUST	6	1.9500	2.390	2.237	0.1541	0.0629	± 0.1618
SEPTEMBER	9	1.7000	21.800	6.238	7.4094	2.4698	± 5.6953
OCTOBER	2	11.0000	19.200	15.100	5.7983	4.1000	± 52.0950
NOVEMBER	3	17.3000	48.000	36.333	16.6230	9.5973	± 41.2937
DECEMBER	1	2.7500	2.750	2.750			
1979 JANUARY	2	34.7000	34.700	34.700			
FEBRUARY	2	16.7000	17.600	17.150	0.6364	0.4500	± 5.7180
MARCH	1	24.4000	24.400	24.400			
APRIL	2	19.0000	15.200	14.100	1.5556	1.1000	± 13.9769
MAY	1	2.4900	2.490	2.490			
JULY	2	20.7000	22.700	21.700	1.4142	1.0000	± 12.7061
AUGUST	3	23.0000	23.100	23.033	0.0577	0.0333	± 0.1435
SEPTEMBER	2	20.2000	25.500	22.850	3.7477	2.6500	± 33.6710
OCTOBER	2	16.8000	22.700	19.750	4.1719	2.9500	± 37.4830
NOVEMBER	2	6.8300	16.700	11.765	6.9791	4.9350	± 62.7050
DECEMBER	1	17.7000	17.700	17.700			

STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 NITRATE PLUS NITRITE (N)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN (KG/DAY)	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
1980 JANUARY	2	13.9000	17.9000	15.9000	2.8284	2.0000	± 25.4122
FEBRUARY	2	10.8000	13.5000	12.1500	1.9092	1.3500	± 17.1532
MARCH	2	4.9100	11.7000	8.3050	4.8013	3.3950	± 43.1380
APRIL	2	4.5200	11.9000	8.2100	5.2184	3.6900	± 46.8860
MAY	1	5.2900	5.2900	5.2900			
JUNE	2	5.6300	29.0000	17.3150	16.5250	11.6849	± 148.4750
JULY	3	32.3000	37.5000	34.1670	2.8937	1.6707	± 7.1885
AUGUST	2	15.1000	63.2000	39.1500	34.0120	24.0501	± 305.5798
SEPTEMBER	2	20.6000	32.9000	26.7500	8.6974	6.1500	± 78.1415
OCTOBER	2	24.5000	25.0000	24.7500	0.3536	0.2500	± 3.1770
NOVEMBER	2	19.6000	39.0000	29.3000	13.7180	9.7001	± 123.2500
DECEMBER	2	30.5000	61.0000	45.7500	21.5670	15.2502	± 193.7699

STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 NITRATE PLUS NITRITE (N)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN (KG/DAY)	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
-78-79-80 JANUARY	8	8.9000	74.000	31.425	23.9570	8.4701	± 20.0280
1976-78-79-80 FEBRUARY	15	10.8000	116.000	52.387	44.1040	11.3876	± 24.4240
-77-78-79-80 MARCH	18	4.9100	96.000	37.671	32.5370	7.6690	± 16.1805
-77-78-79-80 APRIL	14	3.1600	15.200	10.412	3.5381	0.9456	± 2.0428
-77-78-79-80 MAY	18	1.2900	94.200	12.126	21.1350	4.9816	± 10.5103
-77-78-80 JUNE	27	0.7710	29.000	3.797	5.5529	1.0687	± 2.1966
1976-77-78-79-80 JULY	33	1.6300	130.000	19.602	36.3960	6.3357	± 12.9054
1976-77-78-79-80 AUGUST	25	1.6800	63.200	8.023	13.7370	2.7474	± 5.6700
1976-78-79-80 SEPTEMBER	17	1.7000	32.900	10.809	9.9227	2.4066	± 5.1017
-77-78-79-80 OCTOBER	8	1.7100	25.000	15.329	9.5509	3.3768	± 7.9850
-77-78-79-80 NOVEMBER	8	6.8300	48.000	25.354	15.7570	5.5709	± 13.1735
1976-77-78-79-80 DECEMBER	15	2.7500	98.800	36.639	37.1820	9.6004	± 20.5905



STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 NITRATE PLUS NITRITE (N)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN (KG/DAY)	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
1976 FEB JUL AUG SEP DEC	14	5.6000	130.000	69.551	48.3440	12.9205	± 27.9125
1977 MAR APR MAY JUN JUL AUG OCT NOV DEC	69	0.7710	14.100	4.489	4.3227	0.5204	± 1.0384
1978 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC	79	1.7000	105.000	23.341	31.7700	3.5744	± 7.1160
1979 JAN FEB MAR APR MAY JUL AUG SEP OCT NOV DEC	20	2.4900	34.700	19.886	7.6757	1.7163	± 3.5920
1980 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC	24	4.5200	63.200	23.456	15.9630	3.2584	± 6.7405

STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 NITRATE PLUS NITRITE (N)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN (KG/DAY)	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
APRIL TO SEPTEMBER							
1976	9	5.6000	130.000	54.513	54.9280	18.3093	± 42.2215
1977	55	0.7710	13.800	3.155	3.2594	0.4395	± 0.8811
1978	48	1.7000	94.200	7.377	13.8030	1.9923	± 4.0078
1979	10	2.4900	25.500	18.889	6.9280	2.1908	± 4.9560
1980	12	4.5200	63.200	24.220	17.2450	4.9782	± 10.9570
1976-80	134	0.7710	130.000	11.177	21.4400	1.8521	± 3.6636
OCTOBER TO MARCH							
1976-77	8	10.6000	98.800	52.212	42.4360	15.0034	± 35.4775
1977-78	35	1.7100	105.000	40.958	37.3250	6.3091	± 12.8210
1978-79	11	2.7500	48.000	24.550	14.0450	4.2347	± 9.4360
1979-80	11	4.9100	22.700	13.949	5.1915	1.5653	± 3.4880
1980-81	6	19.6000	61.000	33.267	15.1100	6.1686	± 15.8575
1976-80	71	1.7100	105.000	34.850	32.3070	3.8341	± 7.6465
APRIL TO MARCH							
1976-80	205	0.7710	130.000	19.376	28.0240	1.9573	± 3.8590

STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 NITRATE PLUS NITRITE (N)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN (KG/DAY)	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
1976 FEB JUL AUG SEP DEC	206	0.7710	130.000	19.845	28.7540	2.0034	± 3.9500
1977 MAR APR MAY JUN JUL AUG OCT NOV DEC							
1978 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC							
1979 JAN FEB MAR APR MAY JUL AUG SEP OCT NOV DEC							
1980 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC							

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OKANAGAN RIVER BELOW OKANAGAN LAKE

Statistical Characteristics of Nutrient Loads

Period of Sampling February 1976 to December 1980.

NITRATE PLUS NITRITE (N)

Median loads and their statistical characteristics determined for

Individual Months	127
All Months	129
Individual Years	130
Seasons	131
April to September	
October to March	
April to March	
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STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 NITRATE PLUS NITRITE (N)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN (KG/DAY)	CONFIDENCE INTERVAL		PROBABILITY LEVEL
			LOWER	UPPER	
1976 FEBRUARY	1	116.000			
JULY	4	106.000			
AUGUST	1	15.800			
SEPTEMBER	4	6.490			
DECEMBER	4	88.500			
1977 MARCH	4	12.700			
APRIL	5	11.300			
MAY	6	2.570	1.2900	3.1600	0.969
JUNE	18	1.290	1.2300	9.9100	0.969
JULY	13	1.750	1.6300	3.4200	0.969
AUGUST	13	1.820	1.7300	1.9900	0.978
OCTOBER	2	1.710		2.0400	0.978
NOVEMBER	1	11.700			
DECEMBER	7	10.200	6.3600	14.1000	0.984
1978 JANUARY	4	9.400			
FEBRUARY	10	21.000	20.2000	105.0000	0.979
MARCH	11	70.300	14.5000	88.7000	0.961
APRIL	5	10.500		7.0100	0.969
MAY	10	9.560	3.5700	20.4000	0.979
JUNE	7	2.610	1.9500	4.8200	0.984
JULY	11	2.060	2.0400	2.3200	0.961
AUGUST	6	2.290	1.9500	2.3900	0.969
SEPTEMBER	9	2.910	1.9600	16.3000	0.961
OCTOBER	2	11.000			
NOVEMBER	3	43.700			
DECEMBER	1	2.750			
1979 JANUARY	2	34.700			
FEBRUARY	2	16.700			
MARCH	1	24.400			
APRIL	2	13.000			
MAY	1	2.490			
JULY	2	20.700			
AUGUST	3	23.000			
SEPTEMBER	2	20.200			
OCTOBER	2	16.800			
NOVEMBER	2	6.830			
DECEMBER	1	17.700			

STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 NITRATE PLUS NITRITE (N)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN (KG/DAY)	CONFIDENCE INTERVAL LOWER	CONFIDENCE INTERVAL UPPER	PROBABILITY LEVEL
1980 JANUARY	2	13.900			
FEBRUARY	2	10.800			
MARCH	2	4.910			
APRIL	2	4.520			
MAY	1	5.290			
JUNE	2	5.630			
JULY	3	32.700			
AUGUST	2	15.100			
SEPTEMBER	2	20.600			
OCTOBER	2	24.500			
NOVEMBER	2	19.600			
DECEMBER	2	30.500			

STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 NITRATE PLUS NITRITE (N)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN (KG/DAY)	CONFIDENCE INTERVAL LOWER	CONFIDENCE INTERVAL UPPER	PROBABILITY LEVEL
- 78-79-80 JANUARY	8	17.900	9.4000	74.0000	0.961
1976- 78-79-80 FEBRUARY	15	20.900	17.6000	104.0000	0.965
-77-78-79-80 MARCH	18	14.500	11.7000	72.0000	0.969
-77-78-79-80 APRIL	14	11.300	7.6800	13.0000	0.965
-77-78-79-80 MAY	18	5.290	2.8900	11.7000	0.969
-77-78- 80 JUNE	27	1.950	1.2900	3.4200	0.964
1976-77-78-79-80 JULY	33	2.050	1.9900	2.3200	0.965
1976-77-78-79-80 AUGUST	25	2.040	1.8200	2.3000	0.957
1976- 78-79-80 SEPTEMBER	17	6.490	2.9100	20.2000	0.951
-77-78-79-80 OCTOBER	8	16.800	1.7200	25.0000	0.961
-77-78-79-80 NOVEMBER	8	17.300	11.7000	48.0000	0.961
1976-77-78-79-80 DECEMBER	15	14.100	9.7500	87.6000	0.965

STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 NITRATE PLUS NITRITE (N)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN (KG/DAY)	CONFIDENCE INTERVAL LOWER	CONFIDENCE INTERVAL UPPER	PROBABILITY LEVEL
1976 FEB JUL AUG SEP DEC	14	88.500	8.6400	114.0000	0.965
1977 MAR APR MAY JUN JUL AUG OCT NOV DEC	69	1.910	1.7500	2.5700	0.959
1978 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC	79	8.980	3.2500	13.3000	0.958
1979 JAN FEB MAR APR MAY JUL AUG SEP OCT NOV DEC	20	20.200	16.7000	23.0000	0.959
1980 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC	24	19.600	13.5000	32.3000	0.957

STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 NITRATE PLUS NITRITE (N)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN (KG/DAY)	CONFIDENCE INTERVAL		PROBABILITY LEVEL
			LOWER	UPPER	
APRIL TO SEPTEMBER					
1976	9	15.800	6.4900	114.0000	0.961
1977	55	1.820	1.7400	2.0000	0.956
1978	48	2.610	2.3100	4.8200	0.956
1979	10	20.700	13.0000	23.1000	0.979
1980	12	20.600	5.6300	32.9000	0.961
1976-80	134	2.610	2.2900	4.5200	0.953
OCTOBER TO MARCH					
1976-77	8	14.100	12.7000	98.8000	0.961
1977-78	35	20.800	11.7000	70.3000	0.959
1978-79	11	19.200	16.7000	43.7000	0.961
1979-80	11	13.900	10.8000	17.9000	0.961
1980-81	6	25.000	19.6000	61.0000	0.969
1976-80	71	19.200	16.7000	25.0000	0.956
APRIL TO MARCH					
1976-80	205	8.980	6.3600	11.7000	0.957

STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 NITRATE PLUS NITRITE (N)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN	CONFIDENCE INTERVAL LOWER	CONFIDENCE INTERVAL UPPER	PROBABILITY LEVEL
1976 FEB JUL AUG SEP DEC	206	8.980	6.3600	11.7000	0.957
1977 MAR APR MAY JUN JUL AUG OCT NOV DEC					
1978 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC					
1979 JAN FEB MAR APR MAY JUL AUG SEP OCT NOV DEC					
1980 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC					

(KG/DAY)

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OKANAGAN RIVER BELOW OKANAGAN LAKE

Statistical Characteristics of Nutrient Concentrations

Period of Sampling February 1976 to December 1980.

RATIO OF NITRATE PLUS NITRITE (N) TO TOTAL NITROGEN (N)

Arithmetic mean concentrations and their statistical characteristics determined for:

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STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF NITRATE PLUS NITRITE (N) / TOTAL NITROGEN (N)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

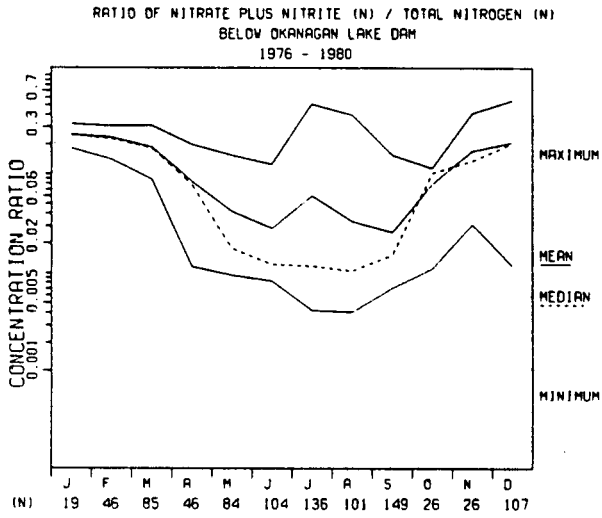
SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
1976 FEBRUARY	6	0.2205	0.264	0.240	0.164	0.0067	± 0.0172
JULY	36	0.0129	0.518	0.163	0.1314	0.0219	± 0.0445
AUGUST	18	0.0066	0.215	0.029	0.0519	0.0122	± 0.0258
SEPTEMBER	108	0.0082	0.028	0.015	0.0053	0.0005	± 0.0010
DECEMBER	71	0.1411	0.235	0.203	0.185	0.0022	± 0.0044
1977 MARCH	33	0.1191	0.205	0.169	0.185	0.0032	± 0.0066
APRIL	14	0.0116	0.124	0.073	0.0242	0.0065	± 0.0140
MAY	38	0.0111	0.138	0.032	0.0326	0.0053	± 0.0107
JUNE	73	0.0085	0.119	0.025	0.0277	0.0032	± 0.0065
JULY	48	0.0071	0.014	0.011	0.0017	0.0002	± 0.0005
AUGUST	44	0.0056	0.021	0.010	0.0029	0.0004	± 0.0009
OCTOBER	4	0.0111	0.012	0.012	0.0007	0.0003	± 0.0011
NOVEMBER	4	0.1556	0.217	0.184	0.0322	0.0161	± 0.0512
DECEMBER	22	0.0154	0.218	0.184	0.0423	0.0090	± 0.0187
1978 JANUARY	4	0.1842	0.288	0.229	0.0486	0.0243	± 0.0773
FEBRUARY	30	0.2043	0.306	0.246	0.0344	0.0063	± 0.0129
MARCH	40	0.0880	0.259	0.197	0.0428	0.0068	± 0.0137
APRIL	20	0.0133	0.147	0.062	0.0451	0.0101	± 0.0211
MAY	30	0.0095	0.156	0.023	0.0311	0.0057	± 0.0116
JUNE	24	0.0083	0.038	0.013	0.0056	0.0011	± 0.0024
JULY	40	0.0043	0.046	0.011	0.0088	0.0014	± 0.0028
AUGUST	24	0.0041	0.013	0.009	0.0025	0.0005	± 0.0011
SEPTEMBER	25	0.0071	0.077	0.020	0.0200	0.0040	± 0.0083
OCTOBER	7	0.0313	0.094	0.059	0.0206	0.0078	± 0.0191
NOVEMBER	8	0.0313	0.189	0.111	0.0450	0.0159	± 0.0376
DECEMBER	2	0.0118	0.012	0.012	0.0370	0.0140	± 0.0342
1979 JANUARY	7	0.1823	0.282	0.232	0.188	0.0077	± 0.0197
FEBRUARY	6	0.1393	0.185	0.167	0.188	0.0077	± 0.0197
MARCH	4	0.1833	0.225	0.209	0.189	0.0095	± 0.0301
APRIL	4	0.0889	0.126	0.114	0.173	0.0086	± 0.0275
MAY	4	0.0133	0.040	0.020	0.133	0.0067	± 0.0212
JULY	4	0.1143	0.118	0.116	0.0019	0.0010	± 0.0031
AUGUST	4	0.0930	0.118	0.110	0.0090	0.0034	± 0.0083
SEPTEMBER	8	0.0851	0.157	0.104	0.0224	0.0079	± 0.0187
OCTOBER	8	0.1053	0.114	0.109	0.0042	0.0015	± 0.0035
NOVEMBER	8	0.1081	0.414	0.208	0.1059	0.0374	± 0.0885
DECEMBER	4	0.2564	0.270	0.262	0.0066	0.0033	± 0.0105

STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF NITRATE PLUS NITRITE (N) / TOTAL NITROGEN (N)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
1980 JANUARY	8	0.1818	0.323	0.276	0.0481	0.0170	± 0.0402
FEBRUARY	4	0.2162	0.286	0.240	0.0312	0.0156	± 0.0496
MARCH	8	0.1429	0.310	0.193	0.0677	0.0239	± 0.0566
APRIL	8	0.1212	0.200	0.145	0.0322	0.0114	± 0.0269
MAY	12	0.1212	0.133	0.128	0.0044	0.0013	± 0.0028
JUNE	7	0.1176	0.125	0.121	0.0030	0.0011	± 0.0028
JULY	8	0.1176	0.125	0.121	0.0020	0.0007	± 0.0016
AUGUST	8	0.1081	0.400	0.182	0.0937	0.0331	± 0.0783
SEPTEMBER	8	0.0976	0.121	0.112	0.0075	0.0027	± 0.0063
OCTOBER	7	0.1000	0.111	0.106	0.0048	0.0018	± 0.0044
NOVEMBER	6	0.1176	0.286	0.193	0.0800	0.0326	± 0.0839
DECEMBER	8	0.2000	0.563	0.353	0.1272	0.0450	± 0.1063

STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF NITRATE PLUS NITRITE (N) / TOTAL NITROGEN (N)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
- 78-79-80 JANUARY	19	0.1818	0.323	0.250	0.0478	0.0110	± 0.0230
1976- 78-79-80 FEBRUARY	46	0.1393	0.306	0.234	0.0400	0.0059	± 0.0119
-77-78-79-80 MARCH	85	0.0880	0.310	0.187	0.0397	0.0043	± 0.0086
-77-78-79-80 APRIL	46	0.0116	0.200	0.084	0.0470	0.0069	± 0.0140
-77-78-79-80 MAY	84	0.0095	0.156	0.042	0.0457	0.0050	± 0.0099
-77-78- 80 JUNE	104	0.0083	0.125	0.029	0.0345	0.0034	± 0.0067
1976-77-78-79-80 JULY	136	0.0043	0.518	0.061	0.0959	0.0082	± 0.0163
1976-77-78-79-80 AUGUST	101	0.0041	0.400	0.034	0.0606	0.0060	± 0.0120
1976- 78-79-80 SEPTEMBER	149	0.0071	0.157	0.026	0.0304	0.0025	± 0.0049
-77-78-79-80 OCTOBER	26	0.0111	0.114	0.080	0.0379	0.0074	± 0.0153
-77-78-79-80 NOVEMBER	26	0.0313	0.414	0.171	0.0827	0.0162	± 0.0334
1976-77-78-79-80 DECEMBER	107	0.0118	0.563	0.209	0.0648	0.0063	± 0.0124



STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF NITRATE PLUS NITRITE (N) / TOTAL NITROGEN (N)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
1976 FEB JUL AUG SEP DEC	239	0.0066	0.518	0.100	0.1035	0.0067	± 0.0132
1977 MAR APR MAY JUN JUL AUG OCT NOV DEC	280	0.0056	0.218	0.055	0.0682	0.0041	± 0.0080
1978 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC	254	0.0041	0.306	0.082	0.0956	0.0060	± 0.0118
1979 JAN FEB MAR APR MAY JUN AUG SEP OCT NOV DEC	64	0.0133	0.414	0.151	0.0749	0.0094	± 0.0187
1980 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC	92	0.0976	0.563	0.177	0.0916	0.0096	± 0.0190

STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF NITRATE PLUS NITRITE (N) / TOTAL NITROGEN (N)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
APRIL TO SEPTEMBER							
1976	162	0.0066	0.518	0.050	0.0880	0.0069	± 0.0137
1977	217	0.0056	0.138	0.023	0.0269	0.0018	± 0.0036
1978	163	0.0041	0.156	0.021	0.0275	0.0022	± 0.0043
1979	27	0.0133	0.157	0.096	0.0358	0.0069	± 0.0142
1980	51	0.0976	0.400	0.135	0.0438	0.0061	± 0.0123
1976-80	620	0.0041	0.518	0.042	0.0614	0.0025	± 0.0048
OCTOBER TO MARCH							
1976-77	104	0.1191	0.235	0.192	0.0242	0.0024	± 0.0047
1977-78	104	0.0111	0.306	0.202	0.0598	0.0059	± 0.0116
1978-79	34	0.0118	0.282	0.141	0.0770	0.0132	± 0.0269
1979-80	40	0.1053	0.414	0.207	0.0821	0.0130	± 0.0263
1980-81	21	0.1000	0.563	0.225	0.1379	0.0301	± 0.0628
1976-80	303	0.0111	0.563	0.194	0.0680	0.0039	± 0.0077
APRIL TO MARCH							
1976-80	923	0.0041	0.563	0.092	0.0958	0.0032	± 0.0062

STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF NITRATE PLUS NITRITE (N) / TOTAL NITROGEN (N)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
1976 FEB JUL AUG SEP DEC	929	0.0041	0.563	0.093	0.0962	0.0032	± 0.0062
1977 MAR APR MAY JUN JUL AUG OCT NOV DEC							
1978 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC							
1979 JAN FEB MAR APR MAY JUN AUG SEP OCT NOV DEC							
1980 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC							

HISTOGRAM		205. NN TN	
MIDPOINT	HIST%	FREQUENCY	PERCENT
.40816	-2 35.6	329	14.6
.22696	-1 14.6	135	5.9
.41310	-1 2.6	24	1.1
.59923	-1 1.7	16	0.7
.78537	-1 1.4	13	0.6
.97151	-1 3.4	31	1.4
.11577	7.4	68	3.0
.13438	3.0	28	1.2
.15299	3.0	28	1.2
.17161	2.8	26	1.1
.19022	5.7	53	2.3
.20884	7.7	71	3.1
.22745	3.7	34	1.5
.24606	2.0	18	0.8
.26468	1.7	16	0.7
.28329	1.4	13	0.6
.30190	.7	6	0.3
.32052	.4	4	0.2
.33913	.1	1	0.0
.35775	.1	1	0.0
.37636	.1	1	0.0
.39497	.2	2	0.1
.41359	.1	1	0.0
.43220	0.	0	0.0
.45082	0.	0	0.0
.46943	.1	1	0.0
.48804	0.	0	0.0
.50666	.1	1	0.0
.52527	.1	1	0.0
.54389	0.	0	0.0
.56250	.1	1	0.0

CONCENTRATION RATIO

MISSING 225
TOTAL 1148 (INTERVAL WIDTH= .18614 -1)

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OKANAGAN RIVER BELOW OKANAGAN LAKE

Statistical Characteristics of Nutrient Concentrations

Period of Sampling February 1976 to December 1980.

RATIO OF NITRATE PLUS NITRITE (N) TO TOTAL NITROGEN (N)

Median concentrations and their statistical characteristics determined for

Individual Months	143
All Months	145
Individual Years	146
Seasons	147
April to September	
October to March	
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Cumulative distribution of concentration data	149

STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF NITRATE PLUS NITRITE (N) / TOTAL NITROGEN (N)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN	CONFIDENCE INTERVAL		PROBABILITY LEVEL
			LOWER	UPPER	
1976					
FEBRUARY	6	0.237	0.2205	0.2642	0.969
JULY	36	0.129	0.0809	0.2171	0.953
AUGUST	18	0.011	0.0099	0.0170	0.969
SEPTEMBER	108	0.015	0.0120	0.0167	0.957
DECEMBER	71	0.205	0.2000	0.2108	0.956
1977					
MARCH	33	0.174	0.1619	0.1790	0.965
APRIL	14	0.074	0.0621	0.0866	0.965
MAY	38	0.019	0.0171	0.0222	0.966
JUNE	73	0.012	0.0114	0.0138	0.953
JULY	48	0.011	0.0100	0.0111	0.956
AUGUST	44	0.009	0.0083	0.0111	0.951
OCTOBER	4	0.012			
NOVEMBER	4	0.156			
DECEMBER	22	0.194	0.1800	0.2059	0.965
1978					
JANUARY	4	0.194			
FEBRUARY	30	0.244	0.2091	0.2706	0.957
MARCH	40	0.206	0.1941	0.2211	0.961
APRIL	20	0.040	0.0316	0.0933	0.959
MAY	30	0.013	0.0125	0.0133	0.957
JUNE	24	0.012	0.0118	0.0143	0.957
JULY	40	0.008	0.0071	0.0100	0.961
AUGUST	24	0.009	0.0069	0.0105	0.957
SEPTEMBER	25	0.011	0.0100	0.0130	0.957
OCTOBER	7	0.061	0.0313	0.0944	0.984
NOVEMBER	8	0.100	0.0941	0.1895	0.961
DECEMBER	2	0.012			
1979					
JANUARY	7	0.229	0.1823	0.2824	0.984
FEBRUARY	6	0.168	0.1393	0.1850	0.969
MARCH	4	0.205			
APRIL	4	0.118			
MAY	4	0.013			
JULY	4	0.114			
AUGUST	7	0.111	0.0930	0.1176	0.984
SEPTEMBER	8	0.098	0.0889	0.1569	0.961
OCTOBER	8	0.105	0.1053	0.1143	0.961
NOVEMBER	8	0.158	0.1143	0.4138	0.961
DECEMBER	4	0.256			

STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF NITRATE PLUS NITRITE (N) / TOTAL NITROGEN (N)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN	CONFIDENCE INTERVAL LOWER	CONFIDENCE INTERVAL UPPER	PROBABILITY LEVEL
1980 JANUARY	8	0.294	0.2424	0.3226	0.961
FEBRUARY	4	0.229			
MARCH	8	0.148	0.1429	0.3103	0.961
APRIL	8	0.129	0.1250	0.2000	0.961
MAY	12	0.129	0.1250	0.1333	0.961
JUNE	7	0.121	0.1176	0.1250	0.984
JULY	8	0.121	0.1212	0.1250	0.961
AUGUST	8	0.174	0.1176	0.4000	0.961
SEPTEMBER	8	0.111	0.1081	0.1212	0.961
OCTOBER	7	0.105	0.1000	0.1111	0.984
NOVEMBER	6	0.125	0.1176	0.2857	0.969
DECEMBER	8	0.296	0.2353	0.5625	0.961

STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF NITRATE PLUS NITRITE (N) / TOTAL NITROGEN (N)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN	CONFIDENCE INTERVAL		PROBABILITY LEVEL
			LOWER	UPPER	
- 78-79-80 JANUARY	19	0.250	0.2222	0.2941	0.959
1976- 78-79-80 FEBRUARY	46	0.229	0.2162	0.2611	0.960
-77-78-79-80 MARCH	85	0.183	0.1784	0.1944	0.960
-77-78-79-80 APRIL	46	0.077	0.0590	0.1182	0.960
-77-78-79-80 MAY	84	0.018	0.0154	0.0222	0.962
-77-78- 80 JUNE	104	0.012	0.0118	0.0138	0.961
1976-77-78-79-80 JULY	136	0.012	0.0105	0.0131	0.952
1976-77-78-79-80 AUGUST	101	0.011	0.0095	0.0118	0.954
1976- 78-79-80 SEPTEMBER	149	0.015	0.0125	0.0172	0.951
-77-78-79-80 OCTOBER	26	0.103	0.0611	0.1053	0.971
-77-78-79-80 NOVEMBER	26	0.135	0.1167	0.2167	0.971
1976-77-78-79-80 DECEMBER	107	0.205	0.2000	0.2108	0.957

STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF NITRATE PLUS NITRITE (N) / TOTAL NITROGEN (N)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN	CONFIDENCE INTERVAL LOWER	CONFIDENCE INTERVAL UPPER	PROBABILITY LEVEL
1976 FEB JUL AUG SEP DEC	239	0.022	0.0193	0.0625	0.955
1977 MAR APR MAY JUN JUL AUG OCT NOV DEC	280	0.013	0.0123	0.0165	0.952
1978 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC	254	0.017	0.0133	0.0320	0.955
1979 JAN FEB MAR APR MAY JUL AUG SEP OCT NOV DEC	64	0.118	0.1143	0.1579	0.954
1980 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC	92	0.129	0.1250	0.1429	0.953

STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF NITRATE PLUS NITRITE (N) / TOTAL NITROGEN (N)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN	CONFIDENCE INTERVAL		PROBABILITY LEVEL
			LOWER	UPPER	
APRIL TO SEPTEMBER					
1976	162	0.017	0.0136	0.0178	0.951
1977	217	0.012	0.0115	0.0125	0.951
1978	163	0.012	0.0105	0.0125	0.959
1979	27	0.105	0.0952	0.1176	0.964
1980	51	0.121	0.1212	0.1250	0.951
1976-80	620	0.013	0.0125	0.0143	0.951
OCTOBER TO MARCH					
1976-77	104	0.195	0.1854	0.2010	0.961
1977-78	104	0.209	0.2000	0.2118	0.961
1978-79	34	0.139	0.0944	0.1850	0.959
1979-80	40	0.216	0.1429	0.2564	0.961
1980-81	21	0.200	0.1111	0.2857	0.973
1976-80	303	0.200	0.1942	0.2050	0.956
APRIL TO MARCH					
1976-80	923	0.031	0.0222	0.0585	0.952

STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF NITRATE PLUS NITRITE (N) / TOTAL NITROGEN (N)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN	CONFIDENCE INTERVAL LOWER	CONFIDENCE INTERVAL UPPER	PROBABILITY LEVEL
1976 FEB JUL AUG SEP DEC					
1977 MAR APR MAY JUN JUL AUG OCT NOV DEC					
1978 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC					
1979 JAN FEB MAR APR MAY JUN AUG SEP OCT NOV DEC					
1980 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC	929	0.032	0.0222	0.0598	0.951

DISTRIBUTIONAL ANALYSIS

CUMULATIVE SAMPLE DISTRIBUTION OF 205 NN|TN N= 923 OUT OF 1148

1.00000 + 633 33*

90000 + 7534

80000 + 646*

70000 + 3X 42

60000 + X X*

50000 + 4X*

40000 + 3X X7

30000 + 6X 68

20000 + X6* 774

10000 + X2 X2

0. X5 X5

X X

X X

X X

X X

X X

X X

X X

X X

X X

X X

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X X

X X

X X

X X

PROB	QUANTILE	LEVEL	CONFIDENCE	INTERVAL	SIZE
1000	.89238	-2	.9500	.80809	-2 .99502 -2 .9520
3000	.12500	-1	.8500	.11765	-1 .13043 -1 .8518
5000	.31250	-1	.8500	.22222	-1 .58462 -1 .9518
7000	.14599	.9500	.12690	.16514	.9518
8000	.22159	.9500	.21622	.22897	.9520

40816 -2 .66128 -1 .12817 .19022 .25227 .31431 .37636 .43841 .50045 .56250

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OKANAGAN RIVER BELOW OKANAGAN LAKE

Statistical Characteristics of Nutrient Loads

Period of Sampling February 1976 to December 1980.

RATIO OF NITRATE PLUS NITRITE (N) TO TOTAL NITROGEN (N)

Arithmetic mean loads and their statistical characteristics determined for

Individual Months	151
All Months	153
Graph of monthly load ranges	154
Individual Years	155
Seasons	156
April to September	
October to March	
April to March	
All Years	157

STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF NITRATE PLUS NITRITE (N) / TOTAL NITROGEN (N)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

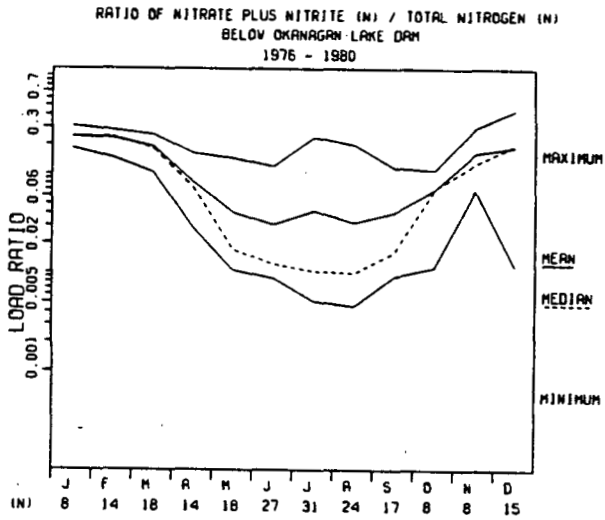
SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
1976 FEBRUARY	1	0.2412	0.241	0.241	0.0417	0.0208	± 0.0663
JULY	4	0.1511	0.241	0.182			
AUGUST	1	0.0292	0.029	0.029	0.0029	0.0015	± 0.0047
SEPTEMBER	4	0.0113	0.018	0.015	0.0192	0.0096	± 0.0306
DECEMBER	4	0.1633	0.206	0.191	0.0186	0.0093	± 0.0296
1977 MARCH	4	0.1382	0.179	0.166	0.0173	0.0077	± 0.0215
APRIL	5	0.0411	0.088	0.069	0.0418	0.0171	± 0.0439
MAY	6	0.0172	0.120	0.053	0.0307	0.0072	± 0.0152
JUNE	18	0.0088	0.104	0.028	0.0307	0.0072	± 0.0152
JULY	13	0.0083	0.012	0.010	0.0012	0.0003	± 0.0007
AUGUST	13	0.0060	0.012	0.009	0.0022	0.0006	± 0.0013
OCTOBER	2	0.0115	0.012	0.012	0.0007	0.0005	± 0.0064
NOVEMBER	1	0.1837	0.184	0.184			
DECEMBER	7	0.0226	0.203	0.164	0.0649	0.0245	± 0.0600
1978 JANUARY	4	0.1840	0.288	0.229	0.0488	0.0244	± 0.0777
FEBRUARY	10	0.2072	0.283	0.245	0.0285	0.0090	± 0.0204
MARCH	11	0.1053	0.246	0.200	0.0414	0.0125	± 0.0278
APRIL	5	0.0286	0.128	0.063	0.0407	0.0182	± 0.0505
MAY	10	0.0106	0.146	0.027	0.0418	0.0132	± 0.0299
JUNE	7	0.0094	0.022	0.014	0.0040	0.0015	± 0.0037
JULY	11	0.0052	0.035	0.011	0.0083	0.0025	± 0.0056
AUGUST	6	0.0046	0.011	0.008	0.0024	0.0010	± 0.0025
SEPTEMBER	9	0.0092	0.073	0.024	0.0243	0.0081	± 0.0186
OCTOBER	2	0.0433	0.072	0.058	0.0204	0.0144	± 0.1834
NOVEMBER	3	0.0703	0.134	0.111	0.0357	0.0206	± 0.0886
DECEMBER	1	0.0118	0.012	0.012			
1979 JANUARY	2	0.2053	0.265	0.235	0.0421	0.0298	± 0.3784
FEBRUARY	2	0.1465	0.178	0.162	0.0221	0.0156	± 0.1988
MARCH	1	0.2085	0.209	0.209			
APRIL	2	0.1092	0.119	0.114	0.0067	0.0048	± 0.0604
MAY	1	0.0201	0.020	0.020			
JULY	1	0.1156	0.116	0.116			
AUGUST	2	0.1045	0.116	0.110	0.0082	0.0058	± 0.0739
SEPTEMBER	2	0.0914	0.119	0.105	0.0192	0.0136	± 0.1728
OCTOBER	2	0.1051	0.113	0.109	0.0054	0.0038	± 0.0487
NOVEMBER	2	0.1242	0.303	0.213	0.1261	0.0892	± 1.1331
DECEMBER	1	0.2618	0.262	0.262			

STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF NITRATE PLUS NITRITE (N) / TOTAL NITROGEN (N)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
1980 JANUARY	2	0.2426	0.310	0.276	0.0475	0.0336	± 0.4263
FEBRUARY	1	0.2459	0.246	0.246			
MARCH	2	0.1440	0.254	0.199	0.0776	0.0549	± 0.6976
APRIL	2	0.1270	0.163	0.145	0.0256	0.0181	± 0.2304
MAY	1	0.1290	0.129	0.129			
JUNE	2	0.1203	0.121	0.121	0.0005	0.0004	± 0.0047
JULY	2	0.1202	0.122	0.121	0.0015	0.0011	± 0.0135
AUGUST	2	0.1578	0.201	0.180	0.0308	0.0217	± 0.2763
SEPTEMBER	2	0.1102	0.113	0.111	0.0018	0.0013	± 0.0160
OCTOBER	2	0.1033	0.109	0.106	0.0039	0.0028	± 0.0355
NOVEMBER	2	0.1233	0.255	0.189	0.0931	0.0658	± 0.8363
DECEMBER	2	0.2500	0.452	0.351	0.1427	0.1009	± 1.2824

STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF NITRATE PLUS NITRITE (N) / TOTAL NITROGEN (N)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
- 78-79-80 JANUARY	8	0.1840	0.310	0.242	0.0452	0.0160	± 0.0378
1976- 78-79-80 FEBRUARY	14	0.1465	0.283	0.233	0.0388	0.0104	± 0.0224
-77-78-79-80 MARCH	18	0.1053	0.254	0.193	0.0406	0.0096	± 0.0202
-77-78-79-80 APRIL	14	0.0286	0.163	0.084	0.0404	0.0108	± 0.0233
-77-78-79-80 MAY	18	0.0106	0.146	0.041	0.0456	0.0107	± 0.0227
-77-78-79-80 JUNE	27	0.0088	0.121	0.031	0.0364	0.0070	± 0.0144
1976-77-78-79-80 JULY	31	0.0052	0.241	0.043	0.0647	0.0116	± 0.0237
1976-77-78-79-80 AUGUST	24	0.0046	0.201	0.032	0.0540	0.0110	± 0.0228
1976- 78-79-80 SEPTEMBER	17	0.0092	0.119	0.042	0.0422	0.0102	± 0.0217
-77-78-79-80 OCTOBER	8	0.0115	0.113	0.071	0.0433	0.0153	± 0.0362
-77-78-79-80 NOVEMBER	8	0.0703	0.303	0.165	0.0774	0.0274	± 0.0647
1976-77-78-79-80 DECEMBER	15	0.0118	0.452	0.193	0.1000	0.0258	± 0.0554



STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF NITRATE PLUS NITRITE (N) / TOTAL NITROGEN (N)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
1976 FEB JUL AUG SEP DEC	14	0.0113	0.241	0.130	0.0908	0.0243	± 0.0524
1977 MAR APR MAY JUN JUL AUG OCT NOV DEC	69	0.0060	0.203	0.050	0.0631	0.0076	± 0.0152
1978 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC	79	0.0046	0.288	0.090	0.0984	0.0111	± 0.0220
1979 JAN FEB MAR APR MAY JUL AUG SEP OCT NOV DEC	18	0.0201	0.303	0.150	0.0722	0.0170	± 0.0359
1980 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC	22	0.1033	0.452	0.181	0.0874	0.0186	± 0.0387

STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF NITRATE PLUS NITRITE (N) / TOTAL NITROGEN (N)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
APRIL TO SEPTEMBER							
1976	9	0.0113	0.241	0.091	0.0901	0.0300	± 0.0693
1977	55	0.0060	0.120	0.026	0.0294	0.0040	± 0.0079
1978	48	0.0046	0.146	0.022	0.0289	0.0042	± 0.0084
1979	8	0.0201	0.119	0.099	0.0333	0.0118	± 0.0278
1980	11	0.1102	0.201	0.135	0.0278	0.0084	± 0.0187
1976-80	131	0.0046	0.241	0.043	0.0513	0.0045	± 0.0089
OCTOBER TO MARCH							
1976-77	8	0.1382	0.206	0.178	0.0220	0.0078	± 0.0184
1977-78	35	0.0115	0.288	0.198	0.0687	0.0116	± 0.0236
1978-79	11	0.0118	0.265	0.133	0.0780	0.0235	± 0.0524
1979-80	10	0.1051	0.310	0.210	0.0800	0.0253	± 0.0572
1980-81	6	0.1033	0.452	0.215	0.1350	0.0551	± 0.1416
1976-80	70	0.0115	0.452	0.189	0.0780	0.0093	± 0.0186
APRIL TO MARCH							
1976-80	201	0.0046	0.452	0.093	0.0932	0.0066	± 0.0130

STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF NITRATE PLUS NITRITE (N) / TOTAL NITROGEN (N)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
1976 FEB JUL AUG SEP DEC	202	0.0046	0.452	0.094	0.0935	0.0066	± 0.0130
1977 MAR APR MAY JUN JUL AUG OCT NOV DEC							
1978 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC							
1979 JAN FEB MAR APR MAY JUN AUG SEP OCT NOV DEC							
1980 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC							

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OKANAGAN RIVER BELOW OKANAGAN LAKE

Statistical Characteristics of Nutrient Loads

Period of Sampling February 1976 to December 1980.

RATIO OF NITRATE PLUS NITRITE (N) TO TOTAL NITROGEN (N)

Median loads and their statistical characteristics determined for

Individual Months	159
All Months	161
Individual Years	162
Seasons	163
April to September	
October to March	
April to March	
All Years	164

STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF NITRATE PLUS NITRITE (N) / TOTAL NITROGEN (N)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN	CONFIDENCE INTERVAL LOWER	CONFIDENCE INTERVAL UPPER	PROBABILITY LEVEL
1976 FEBRUARY	1	0.241			
JULY	4	0.155			
AUGUST	1	0.029			
SEPTEMBER	4	0.014			
DECEMBER	4	0.192			
1977 MARCH	4	0.172			
APRIL	5	0.073	0.0411	0.1204	0.969
MAY	6	0.033	0.0172	0.1204	0.969
JUNE	18	0.012	0.0101	0.0326	0.969
JULY	13	0.010	0.0089	0.0112	0.978
AUGUST	13	0.009	0.0075	0.0117	0.978
OCTOBER	2	0.011			
NOVEMBER	1	0.184			
DECEMBER	7	0.190	0.0226	0.2032	0.984
1978 JANUARY	4	0.194			
FEBRUARY	10	0.245	0.2080	0.2754	0.979
MARCH	11	0.212	0.1771	0.2424	0.961
APRIL	5	0.042		0.0286	0.969
MAY	10	0.013	0.0123	0.0250	0.979
JUNE	7	0.013	0.0094	0.0222	0.984
JULY	11	0.009	0.0073	0.0110	0.961
AUGUST	6	0.007	0.0046	0.0107	0.969
SEPTEMBER	9	0.012	0.0094	0.0591	0.961
OCTOBER	2	0.043			
NOVEMBER	3	0.129			
DECEMBER	1	0.012			
1979 JANUARY	2	0.205			
FEBRUARY	2	0.146			
MARCH	1	0.209			
APRIL	2	0.109			
MAY	1	0.020			
JULY	1	0.116			
AUGUST	2	0.105			
SEPTEMBER	2	0.091			
OCTOBER	2	0.105			
NOVEMBER	2	0.124			
DECEMBER	1	0.262			

STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
RATIO OF NITRATE PLUS NITRITE (N) / TOTAL NITROGEN (N)
SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN	CONFIDENCE INTERVAL LOWER	CONFIDENCE INTERVAL UPPER	PROBABILITY LEVEL
1980 JANUARY	2	0.243			
FEBRUARY	1	0.246			
MARCH	2	0.144			
APRIL	2	0.127			
MAY	1	0.129			
JUNE	2	0.120			
JULY	2	0.120			
AUGUST	2	0.158			
SEPTEMBER	2	0.110			
OCTOBER	2	0.103			
NOVEMBER	2	0.123			
DECEMBER	2	0.250			

STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF NITRATE PLUS NITRITE (N) / TOTAL NITROGEN (N)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN	CONFIDENCE INTERVAL LOWER	CONFIDENCE INTERVAL UPPER	PROBABILITY LEVEL
-78-79-80 JANUARY	8	0.243	0.1939	0.3097	0.961
1976-78-79-80 FEBRUARY	14	0.241	0.2080	0.2692	0.965
-77-78-79-80 MARCH	18	0.185	0.1721	0.2257	0.969
-77-78-79-80 APRIL	14	0.074	0.0422	0.1270	0.965
-77-78-79-80 MAY	18	0.017	0.0128	0.0339	0.969
-77-78-80 JUNE	27	0.012	0.0118	0.0222	0.964
1976-77-78-79-80 JULY	31	0.010	0.0090	0.0113	0.971
1976-77-78-79-80 AUGUST	24	0.010	0.0081	0.0118	0.957
1976-78-79-80 SEPTEMBER	17	0.016	0.0114	0.0729	0.951
-77-78-79-80 OCTOBER	8	0.072	0.0125	0.1127	0.961
-77-78-79-80 NOVEMBER	8	0.129	0.1233	0.3025	0.961
1976-77-78-79-80 DECEMBER	15	0.201	0.1633	0.2058	0.965

STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF NITRATE PLUS NITRITE (N) / TOTAL NITROGEN (N)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN	CONFIDENCE INTERVAL LOWER	CONFIDENCE INTERVAL UPPER	PROBABILITY LEVEL
1976 FEB JUL AUG SEP DEC	14	0.155	0.0181	0.2058	0.965
1977 MAR APR MAY JUN JUL AUG OCT NOV DEC	69	0.012	0.0113	0.0239	0.959
1978 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC	79	0.025	0.0128	0.0729	0.958
1979 JAN FEB MAR APR MAY JUN AUG SEP OCT NOV DEC	18	0.119	0.1092	0.2053	0.969
1980 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC	22	0.129	0.1211	0.2459	0.965

STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF NITRATE PLUS NITRITE (N) / TOTAL NITROGEN (N)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN	CONFIDENCE INTERVAL		PROBABILITY LEVEL
			LOWER	UPPER	
APRIL TO SEPTEMBER					
1976	9	0.029	0.0139	0.1790	0.961
1977	55	0.011	0.0102	0.0124	0.956
1978	48	0.012	0.0104	0.0133	0.956
1979	8	0.109	0.0914	0.1187	0.961
1980	11	0.122	0.1202	0.1632	0.961
1976-80	131	0.012	0.0118	0.0163	0.955
OCTOBER TO MARCH					
1976-77	8	0.174	0.1633	0.2058	0.961
1977-78	35	0.207	0.1898	0.2257	0.959
1978-79	11	0.134	0.0703	0.2085	0.961
1979-80	10	0.243	0.1127	0.3025	0.979
1980-81	6	0.123	0.1033	0.4518	0.969
1976-80	70	0.194	0.1788	0.2085	0.959
APRIL TO MARCH					
1976-80	201	0.059	0.0226	0.1038	0.952

STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF NITRATE PLUS NITRITE (N) / TOTAL NITROGEN (N)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	CONFIDENCE INTERVAL		PROBABILITY LEVEL
		LOWER	UPPER	
1976 FEB JUL AUG SEP DEC	202	0.0239	0.1045	0.951
1977 MAR APR MAY JUN JUL AUG OCT NOV DEC				
1978 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC				
1979 JAN FEB MAR APR MAY JUN AUG SEP OCT NOV DEC				
1980 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC				

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OKANAGAN RIVER BELOW OKANAGAN LAKE

Statistical Characteristics of Nutrient Concentrations

Period of Sampling February 1976 to December 1980.

RATIO OF NITRATE PLUS NITRITE (N) TO DISSOLVED SILICA

Arithmetic mean concentrations and their statistical characteristics determined for:

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All Months	168
Graph of monthly concentration ranges	169
Individual Years	170
Seasons	171
April to September	
October to March	
April to March	
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Histogram of concentration distribution	173

STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF NITRATE PLUS NITRITE (N) / DISSOLVED SILICA
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

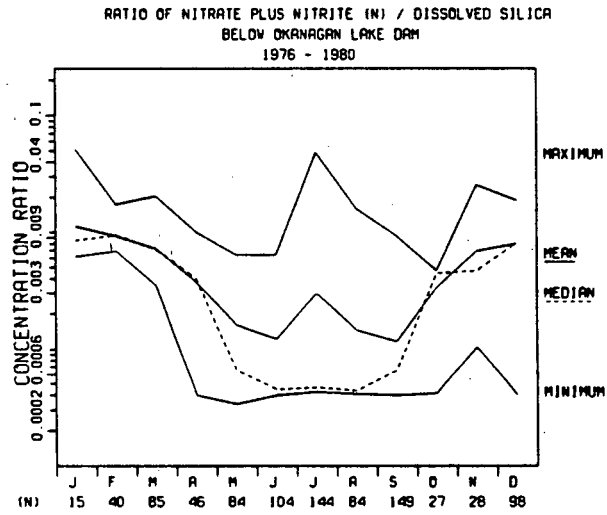
SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
1976 FEBRUARY	36	0.0004	0.048	0.008	0.0095	0.0016	± 0.0032
JULY							
AUGUST							
1976 SEPTEMBER	108	0.0004	0.002	0.001	0.0003	0.0000	± 0.0001
DECEMBER	66	0.0075	0.009	0.008	0.0002	0.0000	± 0.0001
1977 MARCH	33	0.0053	0.009	0.007	0.0007	0.0001	± 0.0002
APRIL	14	0.0004	0.005	0.004	0.0011	0.0003	± 0.0006
MAY	38	0.0003	0.006	0.001	0.0015	0.0002	± 0.0005
JUNE	73	0.0004	0.006	0.001	0.0015	0.0002	± 0.0003
JULY	48	0.0004	0.000	0.000	0.0000	0.0000	± 0.0000
AUGUST	44	0.0004	0.001	0.000	0.0001	0.0000	± 0.0000
OCTOBER	4	0.0004	0.000	0.000	0.0001	0.0000	± 0.0000
NOVEMBER	4	0.0057	0.008	0.007	0.0011	0.0005	± 0.0017
1977 DECEMBER	22	0.0040	0.008	0.007	0.0009	0.0002	± 0.0004
JANUARY	4	0.0067	0.051	0.019	0.0217	0.0109	± 0.0345
FEBRUARY	30	0.0086	0.010	0.009	0.0005	0.0001	± 0.0002
MARCH	40	0.0035	0.009	0.007	0.0013	0.0002	± 0.0004
APRIL	20	0.0009	0.010	0.003	0.0024	0.0005	± 0.0011
MAY	30	0.0004	0.006	0.001	0.0012	0.0002	± 0.0005
JUNE	24	0.0004	0.002	0.001	0.0004	0.0001	± 0.0002
JULY	40	0.0004	0.003	0.001	0.0006	0.0001	± 0.0002
AUGUST	24	0.0005	0.001	0.000	0.0000	0.0000	± 0.0000
SEPTMBER	25	0.0004	0.004	0.001	0.0010	0.0002	± 0.0004
OCTOBER	7	0.0011	0.004	0.002	0.0009	0.0003	± 0.0008
NOVEMBER	8	0.0010	0.007	0.004	0.0017	0.0006	± 0.0014
1978 DECEMBER	2	0.0004	0.000	0.000	0.0000	0.0000	± 0.0001
JANUARY	7	0.0062	0.010	0.008	0.0013	0.0005	± 0.0012
FEBRUARY	6	0.0059	0.008	0.008	0.0004	0.0002	± 0.0004
MARCH	4	0.0067	0.009	0.008	0.0010	0.0005	± 0.0017
APRIL	4	0.0036	0.006	0.005	0.0011	0.0005	± 0.0017
MAY	4	0.0004	0.001	0.001	0.0004	0.0002	± 0.0007
JULY	8	0.0048	0.005	0.005	0.0001	0.0000	± 0.0001
AUGUST	8	0.0047	0.005	0.005	0.0001	0.0000	± 0.0001
SEPTMBER	8	0.0045	0.009	0.005	0.0017	0.0006	± 0.0014
OCTOBER	8	0.0045	0.005	0.005	0.0001	0.0000	± 0.0000
NOVEMBER	8	0.0045	0.026	0.010	0.0070	0.0025	± 0.0059
1978 DECEMBER	8	0.0045					

STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF NITRATE PLUS NITRITE (N) / DISSOLVED SILICA
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
1980 JANUARY	4	0.0065	0.011	0.009	0.0018	0.0009	± 0.0028
FEBRUARY	4	0.0087	0.017	0.011	0.0043	0.0022	± 0.0069
MARCH	8	0.0044	0.020	0.008	0.0056	0.0020	± 0.0047
APRIL	8	0.0045	0.007	0.005	0.0010	0.0004	± 0.0009
MAY	12	0.0044	0.005	0.005	0.0001	0.0000	± 0.0001
JUNE	7	0.0045	0.005	0.005	0.0001	0.0000	± 0.0000
JULY	12	0.0045	0.005	0.005	0.0001	0.0000	± 0.0000
AUGUST	8	0.0047	0.016	0.007	0.0041	0.0014	± 0.0034
SEPTEMBER	8	0.0047	0.005	0.005	0.0001	0.0000	± 0.0000
OCTOBER	8	0.0044	0.005	0.004	0.0001	0.0000	± 0.0000
NOVEMBER	8	0.0043	0.010	0.007	0.0025	0.0009	± 0.0021
DECEMBER	8	0.0061	0.019	0.011	0.0045	0.0016	± 0.0038

STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF NITRATE PLUS NITRITE (N) / DISSOLVED SILICA
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
- 78-79-80 JANUARY	15	0.0062	0.051	0.011	0.0111	0.0029	± 0.0062
1976- 78-79-80 FEBRUARY	40	0.0069	0.017	0.009	0.0015	0.0002	± 0.0005
-77-78-79-80 MARCH:	85	0.0035	0.020	0.007	0.0019	0.0002	± 0.0004
-77-78-79-80 APRIL	46	0.0004	0.010	0.004	0.0020	0.0003	± 0.0006
-77-78-79-80 MAY	84	0.0003	0.006	0.002	0.0018	0.0002	± 0.0004
-77-78- 80 JUNE	104	0.0004	0.006	0.001	0.0016	0.0002	± 0.0003
1976-77-78-79-80 JULY	144	0.0004	0.048	0.003	0.0057	0.0005	± 0.0009
1976-77-78-79-80 AUGUST	84	0.0004	0.016	0.001	0.0024	0.0003	± 0.0005
1976- 78-79-80 SEPTEMBER	149	0.0004	0.009	0.001	0.0014	0.0001	± 0.0002
-77-78-79-80 OCTOBER	27	0.0004	0.005	0.003	0.0016	0.0003	± 0.0006
-77-78-79-80 NOVEMBER	28	0.0010	0.026	0.007	0.0046	0.0009	± 0.0018
1976-77-78-79-80 DECEMBER	98	0.0004	0.019	0.008	0.0020	0.0002	± 0.0004



STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF NITRATE PLUS NITRITE (N) / DISSOLVED SILICA
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
1976 FEB JUL AUG SEP DEC	210	0.0004	0.048	0.004	0.0054	0.0004	± 0.0007
1977 MAR APR MAY JUN JUL AUG OCT NOV DEC	280	0.0003	0.009	0.002	0.0027	0.0002	± 0.0003
1978 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC	254	0.0004	0.051	0.003	0.0046	0.0003	± 0.0006
1979 JAN FEB MAR APR MAY JUN AUG SEP OCT NOV DEC	65	0.0004	0.026	0.006	0.0034	0.0004	± 0.0008
1980 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC	95	0.0043	0.020	0.006	0.0034	0.0003	± 0.0007

STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF NITRATE PLUS NITRITE (N) / DISSOLVED SILICA
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
APRIL TO SEPTEMBER							
1976	144	0.0004	0.048	0.002	0.0057	0.0005	± 0.0009
1977	217	0.0003	0.006	0.001	0.0014	0.0001	± 0.0002
1978	163	0.0004	0.010	0.001	0.0013	0.0001	± 0.0002
1979	32	0.0004	0.009	0.004	0.0017	0.0003	± 0.0006
1980	55	0.0044	0.016	0.005	0.0017	0.0002	± 0.0005
1976-80	611	0.0003	0.048	0.002	0.0033	0.0001	± 0.0003
OCTOBER TO MARCH							
1976-77	99	0.0053	0.009	0.008	0.0007	0.0001	± 0.0001
1977-78	104	0.0004	0.051	0.008	0.0047	0.0005	± 0.0009
1978-79	34	0.0004	0.010	0.005	0.0030	0.0005	± 0.0010
1979-80	32	0.0044	0.026	0.008	0.0051	0.0009	± 0.0018
1980-81	24	0.0043	0.019	0.007	0.0041	0.0008	± 0.0017
1976-80	293	0.0004	0.051	0.008	0.0037	0.0002	± 0.0004
APRIL TO MARCH							
1976-80	904	0.0003	0.051	0.004	0.0043	0.0001	± 0.0003

STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF NITRATE PLUS NITRITE (N) / DISSOLVED SILICA
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
1976 FEB JUL AUG SEP DEC	904	0.0003	0.051	0.004	0.0043	0.0001	± 0.0003
1977 MAR APR MAY JUN JUL AUG OCT NOV DEC							
1978 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC							
1979 JAN FEB MAR APR MAY JUL AUG SEP OCT NOV DEC							
1980 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC							

HISTOGRAM	MIDPOINT	HIST%	COUNT	NN SIO2
	.3398 -3	47.9	433	+XX
	.20314 -2	5.1	46	+XXXXXXXXXXXX
	.37238 -2	7.6	69	+XXXXXXXXXXXXXXXXXXXX
	.54162 -2	11.4	103	+XXXXXXXXXXXXXXXXXXXXXXXXXXXX
	.71086 -2	10.7	97	+XXXXXXXXXXXXXXXXXXXXXXXXXXXX
	.88010 -2	13.5	122	+XXXXXXXXXXXXXXXXXXXXXXXXXXXX
	.10493 -1	1.7	15	+XXX
	.12186 -1	.8	7	+XX
	.13878 -1	0.	0	+
	.15571 -1	.2	2	+X
	.17263 -1	.3	3	+X
	.18955 -1	.1	1	+X
	.20648 -1	.1	1	+X
	.22340 -1	0.	0	+
	.24033 -1	0.	0	+
	.25725 -1	.2	2	+X
	.27417 -1	.1	1	+X
	.29110 -1	0.	0	+
	.30802 -1	0.	0	+
	.32495 -1	0.	0	+
	.34187 -1	0.	0	+
	.35879 -1	0.	0	+
	.37572 -1	0.	0	+
	.39264 -1	0.	0	+
	.40957 -1	0.	0	+
	.42649 -1	0.	0	+
	.44341 -1	0.	0	+
	.46034 -1	0.	0	+
	.47726 -1	.1	1	+X
	.49419 -1	0.	0	+
	.51111 -1	.1	1	+X

FREQUENCY

PERCENT

CONCENTRATION RATIO

MISSING 244
TOTAL 1148 (INTERVAL WIDTH= .16924 -2)

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OKANAGAN RIVER BELOW OKANAGAN LAKE

Statistical Characteristics of Nutrient Concentrations

Period of Sampling February 1976 to December 1980.

RATIO OF NITRATE PLUS NITRITE (N) TO DISSOLVED SILICA

Median concentrations and their statistical characteristics determined for

Individual Months	175
All Months	177
Individual Years	178
Seasons	179
April to September	
October to March	
April to March	
All Years	180
Cumulative distribution of concentration data	181

STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF NITRATE PLUS NITRITE (N) / DISSOLVED SILICA
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN	CONFIDENCE INTERVAL LOWER	CONFIDENCE INTERVAL UPPER	PROBABILITY LEVEL
1976 FEBRUARY	36	0.006	0.0029	0.0080	0.953
JULY					
AUGUST					
SEPTEMBER	108	0.001	0.0004	0.0007	0.957
DECEMBER	66	0.008	0.0082	0.0083	0.950
1977 MARCH	33	0.007	0.0067	0.0071	0.965
APRIL	14	0.004	0.0035	0.0046	0.965
MAY	38	0.001	0.0007	0.0009	0.966
JUNE	73	0.000	0.0004	0.0005	0.953
JULY	48	0.000	0.0004	0.0004	0.956
AUGUST	44	0.000	0.0004	0.0004	0.951
OCTOBER	4	0.000			
NOVEMBER	4	0.008			
DECEMBER	22	0.007	0.0069	0.0076	0.965
1978 JANUARY	4	0.007			
FEBRUARY	30	0.009	0.0092	0.0096	0.957
MARCH	40	0.007	0.0069	0.0076	0.961
APRIL	20	0.002	0.0014	0.0047	0.959
MAY	30	0.000	0.0004	0.0005	0.957
JUNE	24	0.000	0.0004	0.0004	0.957
JULY	40	0.000	0.0005	0.0005	0.961
AUGUST	24	0.000	0.0005	0.0005	0.957
SEPTEMBER	25	0.000	0.0005	0.0009	0.957
OCTOBER	7	0.002	0.0011	0.0038	0.984
NOVEMBER	8	0.003	0.0031	0.0069	0.961
DECEMBER	2	0.000			
1979 JANUARY	7	0.008	0.0062	0.0098	0.984
FEBRUARY	6	0.008	0.0069	0.0080	0.969
MARCH	4	0.008			
APRIL	4	0.005			
MAY	4	0.000			
JULY	8	0.005	0.0048	0.0050	0.961
AUGUST	8	0.005	0.0047	0.0049	0.961
SEPTEMBER	8	0.005	0.0047	0.0093	0.961
OCTOBER	8	0.005	0.0045	0.0047	0.961
NOVEMBER	8	0.007	0.0047	0.0255	0.961
DECEMBER	8	0.007			

STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF NITRATE PLUS NITRITE (N) / DISSOLVED SILICA
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN	CONFIDENCE INTERVAL LOWER	CONFIDENCE INTERVAL UPPER	PROBABILITY LEVEL
1980 JANUARY	4	0.009			
FEBRUARY	4	0.009			
MARCH	8	0.005	0.0044	0.0205	0.961
APRIL	8	0.005	0.0045	0.0068	0.961
MAY	12	0.005	0.0044	0.0047	0.961
JUNE	7	0.005	0.0045	0.0047	0.984
JULY	12	0.005	0.0047	0.0048	0.961
AUGUST	8	0.005	0.0047	0.0159	0.961
SEPTEMBER	8	0.005	0.0047	0.0048	0.961
OCTOBER	8	0.004	0.0044	0.0045	0.961
NOVEMBER	8	0.004	0.0043	0.0098	0.961
DECEMBER	8	0.008	0.0082	0.0188	0.961

STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF NITRATE PLUS NITRITE (N) / DISSOLVED SILICA
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN	CONFIDENCE INTERVAL		PROBABILITY LEVEL
			LOWER	UPPER	
- 78-79-80 JANUARY	15	0.009	0.0069	0.0098	0.965
1976- 78-79-80 FEBRUARY	40	0.009	0.0087	0.0096	0.961
-77-78-79-80 MARCH	85	0.007	0.0069	0.0073	0.960
-77-78-79-80 APRIL	46	0.004	0.0035	0.0045	0.960
-77-78-79-80 MAY	84	0.001	0.0006	0.0009	0.962
-77-78- -80 JUNE	104	0.000	0.0004	0.0005	0.961
1976-77-78-79-80 JULY	144	0.000	0.0005	0.0005	0.954
1976-77-78-79-80 AUGUST	84	0.000	0.0004	0.0005	0.962
1976- 78-79-80 SEPTEMBER	149	0.001	0.0005	0.0008	0.951
-77-78-79-80 OCTOBER	27	0.004	0.0026	0.0045	0.964
-77-78-79-80 NOVEMBER	28	0.005	0.0043	0.0080	0.964
1976-77-78-79-80 DECEMBER	98	0.008	0.0081	0.0082	0.956

STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF NITRATE PLUS NITRITE (N) / DISSOLVED SILICA
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN	CONFIDENCE INTERVAL LOWER	CONFIDENCE INTERVAL UPPER	PROBABILITY LEVEL
1976 FEB JUL AUG SEP DEC	210	0.001	0.0009	0.0022	0.955
1977 MAR APR MAY JUN JUL AUG OCT NOV DEC	280	0.000	0.0004	0.0007	0.952
1978 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC	254	0.001	0.0005	0.0014	0.955
1979 JAN FEB MAR APR MAY JUN AUG SEP OCT NOV DEC	65	0.005	0.0047	0.0058	0.954
1980 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC	95	0.005	0.0047	0.0048	0.960

STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF NITRATE PLUS NITRITE (N) / DISSOLVED SILICA
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN	CONFIDENCE INTERVAL LOWER	CONFIDENCE INTERVAL UPPER	PROBABILITY LEVEL
APRIL TO SEPTEMBER					
1976	144	0.001	0.0007	0.0009	0.954
1977	217	0.000	0.0004	0.0004	0.951
1978	163	0.000	0.0005	0.0005	0.959
1979	32	0.005	0.0047	0.0049	0.965
1980	55	0.005	0.0047	0.0048	0.956
1976-80	611	0.000	0.0005	0.0007	0.952
OCTOBER TO MARCH					
1976-77	99	0.008	0.0079	0.0082	0.956
1977-78	104	0.008	0.0073	0.0082	0.961
1978-79	34	0.006	0.0033	0.0077	0.959
1979-80	32	0.007	0.0047	0.0087	0.965
1980-81	24	0.005	0.0044	0.0082	0.957
1976-80	293	0.008	0.0075	0.0080	0.953
APRIL TO MARCH					
1976-80	904	0.002	0.0011	0.0030	0.950

STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF NITRATE PLUS NITRITE (N) / DISSOLVED SILICA
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN	CONFIDENCE INTERVAL LOWER	CONFIDENCE INTERVAL UPPER	PROBABILITY LEVEL
1976 FEB JUL AUG SEP DEC	904	0.002	0.0011	0.0030	0.950
1977 MAR APR MAY JUN JUL AUG OCT NOV DEC					
1978 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC					
1979 JAN FEB MAR APR MAY JUL AUG SEP OCT NOV DEC					
1980 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC					

DISTRIBUTIONAL ANALYSIS

CUMULATIVE SAMPLE DISTRIBUTION OF N=102 N=904

1.00000	+	36*223
		X5			
.90000	+	89			
		9X			
		X			
		X			
		X			
		X			
		X			
.80000	+	X			
		7X			
		X			
		X			
		X			
.70000	+	X*			
		X*			
		X8			
		3X6			
		X			
		X			
.60000	+	X*			
		X			
		X			
		69			
		X7			
.50000	+	X5			
		X5			
		X			
		X			
.40000	+	X			
		X			
		6			
		X			
		X			
.30000	+	X			
		X			
		X			
.20000	+	X			
		X			
.10000	+	X			
		X			
0.		X			
		X			
		X			

.33898 -3
 .55803 -2
 .11622 -1
 .17263 -1
 .22804 -1
 .34187 -1
 .28546 -1
 .39828 -1
 .45470 -1
 .51111 -1

PROB QUANTILE LEVEL CONFIDENCE INTERVAL SIZE

.1000	.42553	-3	.9500	.42553	-3	.43478	-3	.9843
.3000	.46512	-3	.9500	.45455	-3	.46512	-3	.9800
.5000	.49558	-2	.9500	.47619	-2	.50435	-2	.9503
.7000	.54348	-2	.9500	.47619	-2	.66667	-2	.8900
.9000	.63333	-2	.9500	.63333	-2	.86275	-2	.8843

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OKANAGAN RIVER BELOW OKANAGAN LAKE

Statistical Characteristics of Nutrient Loads

Period of Sampling February 1976 to December 1980.

RATIO OF NITRATE PLUS NITRITE (N) TO DISSOLVED SILICA

Arithmetic mean loads and their statistical characteristics determined for

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All Months	185
Graph of monthly load ranges	186
Individual Years	187
Seasons	188
April to September	
October to March	
April to March	
All Years	189

STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF NITRATE PLUS NITRITE (N) / DISSOLVED SILICA
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

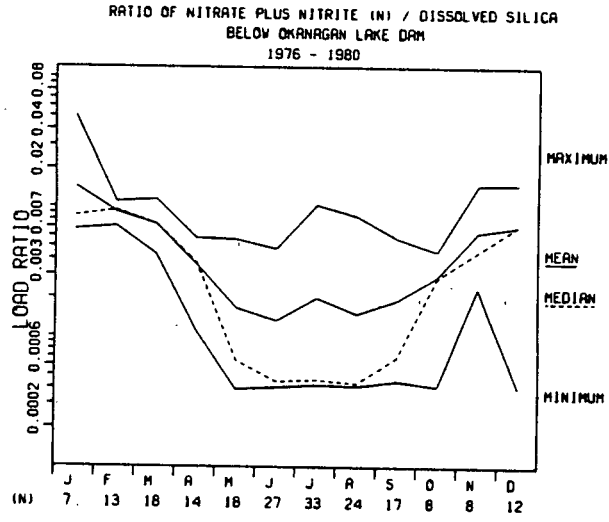
SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
1976 FEBRUARY	4	0.0058	0.011	0.007	0.0022	0.0011	± 0.0034
JULY	4	0.0005	0.001	0.001	0.0001	0.0001	± 0.0002
AUGUST	2	0.0079	0.008	0.008	0.0003	0.0002	± 0.0026
SEPTEMBER	4	0.0060	0.008	0.007	0.0009	0.0004	± 0.0014
DECEMBER	5	0.0014	0.005	0.004	0.0012	0.0006	± 0.0015
MARCH	6	0.0007	0.006	0.002	0.0019	0.0008	± 0.0020
APRIL	18	0.0004	0.005	0.001	0.0015	0.0004	± 0.0008
MAY	13	0.0004	0.000	0.000	0.0000	0.0000	± 0.0000
JUNE	13	0.0004	0.000	0.000	0.0000	0.0000	± 0.0000
JULY	2	0.0004	0.000	0.000	0.0000	0.0000	± 0.0000
AUGUST	2	0.0004	0.000	0.000	0.0000	0.0000	± 0.0000
SEPTEMBER	1	0.0072	0.007	0.007	0.0000	0.0000	± 0.0000
OCTOBER	7	0.0046	0.008	0.007	0.0011	0.0004	± 0.0011
NOVEMBER	4	0.0067	0.051	0.019	0.0217	0.0108	± 0.0345
DECEMBER	4	0.0086	0.010	0.009	0.0005	0.0002	± 0.0004
JANUARY	10	0.0043	0.009	0.007	0.0013	0.0004	± 0.0009
FEBRUARY	11	0.0011	0.005	0.003	0.0017	0.0008	± 0.0021
MARCH	5	0.0004	0.006	0.001	0.0016	0.0005	± 0.0012
APRIL	10	0.0004	0.001	0.000	0.0002	0.0001	± 0.0002
MAY	7	0.0004	0.001	0.000	0.0005	0.0002	± 0.0003
JUNE	11	0.0005	0.002	0.001	0.0000	0.0000	± 0.0000
JULY	6	0.0005	0.001	0.000	0.0000	0.0000	± 0.0000
AUGUST	9	0.0005	0.004	0.001	0.0012	0.0004	± 0.0009
SEPTEMBER	2	0.0016	0.003	0.002	0.0009	0.0006	± 0.0078
OCTOBER	3	0.0024	0.005	0.004	0.0012	0.0007	± 0.0030
NOVEMBER	1	0.0004	0.000	0.000	0.0000	0.0000	± 0.0000
DECEMBER	2	0.0075	0.010	0.009	0.0015	0.0010	± 0.0132
JANUARY	2	0.0071	0.008	0.007	0.0003	0.0002	± 0.0029
FEBRUARY	2	0.0081	0.008	0.008	0.0009	0.0006	± 0.0077
MARCH	1	0.0046	0.006	0.005	0.0009	0.0006	± 0.0077
APRIL	2	0.0007	0.001	0.001	0.0001	0.0001	± 0.0008
MAY	1	0.0007	0.001	0.001	0.0001	0.0001	± 0.0008
JULY	2	0.0048	0.005	0.005	0.0001	0.0001	± 0.0002
AUGUST	3	0.0047	0.005	0.005	0.0001	0.0001	± 0.0002
SEPTEMBER	2	0.0046	0.006	0.005	0.0009	0.0006	± 0.0078
OCTOBER	2	0.0045	0.005	0.005	0.0001	0.0001	± 0.0005
NOVEMBER	2	0.0051	0.015	0.010	0.0069	0.0049	± 0.0621
DECEMBER	2						

STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF NITRATE PLUS NITRITE (N) / DISSOLVED SILICA
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
1980 JANUARY	1	0.0086	0.009	0.009			
FEBRUARY	1	0.0110	0.011	0.011			
MARCH	2	0.0045	0.011	0.008	0.0050	0.0035	± 0.0445
APRIL	2	0.0045	0.006	0.005	0.0008	0.0006	± 0.0075
MAY	1	0.0046	0.005	0.005			
JUNE	2	0.0046	0.005	0.005	0.0001	0.0000	± 0.0005
JULY	3	0.0046	0.005	0.005	0.0001	0.0000	± 0.0002
AUGUST	2	0.0048	0.009	0.007	0.0028	0.0019	± 0.0247
SEPTEMBER	2	0.0047	0.005	0.005	0.0000	0.0000	± 0.0002
OCTOBER	2	0.0044	0.005	0.004	0.0001	0.0000	± 0.0005
NOVEMBER	2	0.0044	0.009	0.007	0.0032	0.0023	± 0.0289
DECEMBER	2	0.0077	0.015	0.011	0.0053	0.0037	± 0.0472

STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF NITRATE PLUS NITRITE (N) / DISSOLVED SILICA
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
-78-79-80 JANUARY	7	0.0067	0.051	0.014	0.0162	0.0061	± 0.0150
1976-78-79-80 FEBRUARY	13	0.0071	0.011	0.009	0.0010	0.0003	± 0.0006
-77-78-79-80 MARCH	18	0.0043	0.011	0.007	0.0016	0.0004	± 0.0008
-77-78-79-80 APRIL	14	0.0011	0.006	0.004	0.0016	0.0004	± 0.0009
-77-78-79-80 MAY	18	0.0004	0.006	0.002	0.0019	0.0004	± 0.0009
-77-78-80 JUNE	27	0.0004	0.005	0.001	0.0016	0.0003	± 0.0006
1976-77-78-79-80 JULY	33	0.0004	0.011	0.002	0.0026	0.0005	± 0.0009
1976-77-78-79-80 AUGUST	24	0.0004	0.009	0.002	0.0022	0.0005	± 0.0009
1976-78-79-80 SEPTEMBER	17	0.0005	0.006	0.002	0.0020	0.0005	± 0.0010
-77-78-79-80 OCTOBER	8	0.0004	0.005	0.003	0.0019	0.0007	± 0.0016
-77-78-79-80 NOVEMBER	8	0.0024	0.015	0.006	0.0039	0.0014	± 0.0033
1976-77-78-79-80 DECEMBER	12	0.0004	0.015	0.007	0.0033	0.0010	± 0.0021



STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF NITRATE PLUS NITRITE (N) / DISSOLVED SILICA
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
1976 FEB JUL AUG SEP DEC	10	0.0005	0.011	0.005	0.0038	0.0012	± 0.0027
1977 MAR APR MAY JUN JUL AUG OCT NOV DEC	69	0.0004	0.008	0.002	0.0026	0.0003	± 0.0006
1978 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC	79	0.0004	0.051	0.004	0.0064	0.0007	± 0.0014
1979 JAN FEB MAR APR MAY JUN AUG SEP OCT NOV DEC	19	0.0007	0.015	0.006	0.0029	0.0007	± 0.0014
1980 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC	22	0.0044	0.015	0.006	0.0030	0.0006	± 0.0013

STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF NITRATE PLUS NITRITE (N) / DISSOLVED SILICA
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
APRIL TO SEPTEMBER							
1976	8	0.0005	0.011	0.004	0.0039	0.0014	± 0.0032
1977	55	0.0004	0.006	0.001	0.0015	0.0002	± 0.0004
1978	48	0.0004	0.006	0.001	0.0012	0.0002	± 0.0003
1979	10	0.0007	0.006	0.005	0.0014	0.0005	± 0.0010
1980	12	0.0045	0.009	0.005	0.0012	0.0003	± 0.0007
1976-80	133	0.0004	0.011	0.002	0.0022	0.0002	± 0.0004
OCTOBER TO MARCH							
1976-77	6	0.0060	0.008	0.007	0.0009	0.0003	± 0.0009
1977-78	35	0.0004	0.051	0.009	0.0077	0.0013	± 0.0026
1978-79	11	0.0004	0.010	0.005	0.0030	0.0009	± 0.0020
1979-80	8	0.0045	0.015	0.008	0.0040	0.0014	± 0.0034
1980-81	6	0.0044	0.015	0.007	0.0042	0.0017	± 0.0044
1976-80	66	0.0004	0.051	0.008	0.0061	0.0008	± 0.0015
APRIL TO MARCH							
1976-80	199	0.0004	0.051	0.004	0.0048	0.0003	± 0.0007

STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF NITRATE PLUS NITRITE (N) / DISSOLVED SILICA
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
1976 FEB JUL AUG SEP DEC	199	0.0004	0.051	0.004	0.0048	0.0003	± 0.0007
1977 MAR APR MAY JUN JUL AUG OCT NOV DEC							
1978 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC							
1979 JAN FEB MAR APR MAY JUL AUG SEP OCT NOV DEC							
1980 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC							

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OKANAGAN RIVER BELOW OKANAGAN LAKE

Statistical Characteristics of Nutrient Loads

Period of Sampling February 1976 to December 1980.

RATIO OF NITRATE PLUS NITRITE (N) TO DISSOLVED SILICA

Median loads and their statistical characteristics determined for

Individual Months	191
All Months	193
Individual Years	194
Seasons	195
April to September	
October to March	
April to March	
All Years	196

STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF NITRATE PLUS NITRITE (N) / DISSOLVED SILICA
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN	CONFIDENCE INTERVAL LOWER	CONFIDENCE INTERVAL UPPER	PROBABILITY LEVEL
1976 FEBRUARY	4	0.006			
JULY					
AUGUST	4	0.001			
SEPTEMBER	2	0.008			
DECEMBER	4	0.007			
1977 MARCH	5	0.004		0.0014	0.969
APRIL	6	0.001	0.0007	0.0055	0.969
MAY	18	0.000	0.0004	0.0019	0.969
JUNE	13	0.000	0.0004	0.0004	0.978
JULY	13	0.000	0.0004	0.0004	0.978
AUGUST	2	0.000			
OCTOBER	1	0.000			
NOVEMBER	7	0.007	0.0046	0.0077	0.984
DECEMBER	4	0.007			
1978 JANUARY	10	0.010	0.0087	0.0101	0.979
FEBRUARY	11	0.007	0.0067	0.0088	0.961
MARCH	5	0.002		0.0011	0.969
APRIL	10	0.000	0.0004	0.0011	0.979
MAY	7	0.000	0.0004	0.0009	0.984
JUNE	11	0.000	0.0005	0.0005	0.961
JULY	6	0.000	0.0005	0.0005	0.969
AUGUST	9	0.001	0.0005	0.0027	0.961
SEPTEMBER	2	0.002			
OCTOBER	3	0.004			
NOVEMBER	1	0.000			
DECEMBER	2	0.008			
1979 JANUARY	2	0.007			
FEBRUARY	1	0.008			
MARCH	2	0.005			
APRIL	1	0.001			
MAY	2	0.005			
JULY	3	0.005			
AUGUST	2	0.005			
SEPTEMBER	2	0.005			
OCTOBER	2	0.005			
NOVEMBER	2	0.005			
DECEMBER	2	0.005			

STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF NITRATE PLUS NITRITE (N) / DISSOLVED SILICA
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN	CONFIDENCE INTERVAL LOWER	CONFIDENCE INTERVAL UPPER	PROBABILITY LEVEL
1980 JANUARY	1	0.009			
FEBRUARY	1	0.011			
MARCH	2	0.004			
APRIL	2	0.005			
MAY	1	0.005			
JUNE	2	0.005			
JULY	3	0.005			
AUGUST	2	0.005			
SEPTEMBER	2	0.005			
OCTOBER	2	0.004			
NOVEMBER	2	0.004			
DECEMBER	2	0.008			

STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF NITRATE PLUS NITRITE (N) / DISSOLVED SILICA
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN	CONFIDENCE INTERVAL		PROBABILITY LEVEL
			LOWER	UPPER	
- 78-79-80 JANUARY	7	0.009	0.0067	0.0510	0.984
1976- 78-79-80 FEBRUARY	13	0.010	0.0086	0.0101	0.978
-77-78-79-80 MARCH	18	0.007	0.0067	0.0081	0.969
-77-78-79-80 APRIL	14	0.004	0.0016	0.0050	0.965
-77-78-79-80 MAY	18	0.001	0.0005	0.0016	0.969
-77-78- 80 JUNE	27	0.000	0.0004	0.0009	0.964
1976-77-78-79-80 JULY	33	0.000	0.0004	0.0005	0.965
1976-77-78-79-80 AUGUST	24	0.000	0.0004	0.0005	0.957
1976- 78-79-80 SEPTEMBER	17	0.001	0.0005	0.0036	0.951
-77-78-79-80 OCTOBER	8	0.003	0.0004	0.0046	0.961
-77-78-79-80 NOVEMBER	8	0.005	0.0043	0.0149	0.961
1976-77-78-79-80 DECEMBER	12	0.007	0.0057	0.0079	0.961

STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF NITRATE PLUS NITRITE (N) / DISSOLVED SILICA
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN	CONFIDENCE INTERVAL LOWER	CONFIDENCE INTERVAL UPPER	PROBABILITY LEVEL
1976 FEB JUL AUG SEP DEC	10	0.006	0.0006	0.0083	0.979
1977 MAR APR MAY JUN JUL AUG OCT NOV DEC	69	0.000	0.0004	0.0013	0.959
1978 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC	79	0.001	0.0005	0.0035	0.958
1979 JAN FEB MAR APR MAY JUL AUG SEP OCT NOV DEC	19	0.005	0.0047	0.0075	0.959
1980 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC	22	0.005	0.0046	0.0086	0.965

STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF NITRATE PLUS NITRITE (N) / DISSOLVED SILICA
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN	CONFIDENCE INTERVAL		PROBABILITY LEVEL
			LOWER	UPPER	
APRIL TO SEPTEMBER					
1976	8	0.001	0.0006	0.0106	0.961
1977	55	0.000	0.0004	0.0005	0.956
1978	48	0.000	0.0005	0.0005	0.956
1979	10	0.005	0.0046	0.0058	0.979
1980	12	0.005	0.0046	0.0048	0.961
1976-80	133	0.001	0.0005	0.0007	0.953
OCTOBER TO MARCH					
1976-77	6	0.007	0.0060	0.0083	0.969
1977-78	35	0.008	0.0072	0.0088	0.959
1978-79	11	0.005	0.0024	0.0081	0.961
1979-80	8	0.005	0.0045	0.0149	0.961
1980-81	6	0.005	0.0044	0.0151	0.969
1976-80	66	0.007	0.0071	0.0081	0.950
APRIL TO MARCH					
1976-80	199	0.003	0.0009	0.0045	0.953

STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF NITRATE PLUS NITRITE (N) / DISSOLVED SILICA
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	CONFIDENCE INTERVAL		PROBABILITY LEVEL
		LOWER	UPPER	
1976 FEB JUL AUG SEP DEC	199	0.0009	0.0045	0.953
1977 MAR APR MAY JUN JUL AUG OCT NOV DEC				
1978 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC				
1979 JAN FEB MAR APR MAY JUL AUG SEP OCT NOV DEC				
1980 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC				

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OKANAGAN RIVER BELOW OKANAGAN LAKE

Statistical Characteristics of Nutrient Concentrations
Period of Sampling February 1976 to December 1980.

AMMONIA (N)

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STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 AMMONIA (N)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

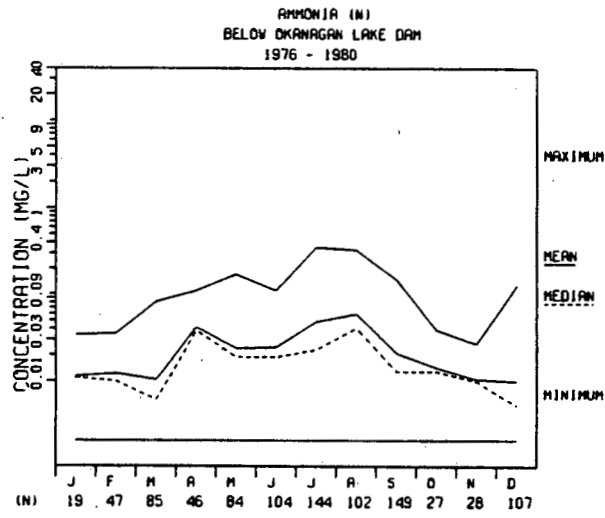
SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN (MG/L)	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
1976 FEBRUARY	6	0.0060	0.014	0.010	0.0034	0.0014	± 0.0036
JULY	36	0.0020	0.076	0.009	0.0122	0.0020	± 0.0041
AUGUST	18	0.0120	0.132	0.045	0.0339	0.0080	± 0.0168
SEPTEMBER	108	0.0020	0.031	0.011	0.0065	0.0006	± 0.0012
DECEMBER	71	0.0020	0.127	0.008	0.0156	0.0018	± 0.0037
1977 MARCH	33	0.0020	0.018	0.007	0.0035	0.0006	± 0.0012
APRIL	14	0.0020	0.109	0.058	0.0339	0.0091	± 0.0196
MAY	38	0.0050	0.046	0.016	0.0102	0.0017	± 0.0034
JUNE	73	0.0020	0.060	0.020	0.0143	0.0017	± 0.0033
JULY	48	0.0020	0.094	0.032	0.0221	0.0032	± 0.0064
AUGUST	44	0.0020	0.160	0.052	0.0482	0.0073	± 0.0147
OCTOBER	4	0.0020	0.009	0.004	0.0035	0.0018	± 0.0056
NOVEMBER	4	0.0020	0.009	0.004	0.0034	0.0017	± 0.0054
DECEMBER	22	0.0020	0.076	0.011	0.0165	0.0035	± 0.0073
1978 JANUARY	4	0.0060	0.032	0.017	0.0118	0.0059	± 0.0188
FEBRUARY	30	0.0020	0.035	0.012	0.0128	0.0023	± 0.0048
MARCH	40	0.0020	0.082	0.010	0.0160	0.0025	± 0.0051
APRIL	20	0.0060	0.100	0.045	0.0256	0.0057	± 0.0120
MAY	30	0.0110	0.170	0.038	0.0328	0.0060	± 0.0122
JUNE	24	0.0020	0.110	0.039	0.0330	0.0067	± 0.0139
JULY	40	0.0330	0.350	0.118	0.0669	0.0106	± 0.0214
AUGUST	24	0.0250	0.330	0.110	0.0799	0.0163	± 0.0337
SEPTEMBER	25	0.0070	0.150	0.063	0.0327	0.0065	± 0.0135
OCTOBER	7	0.0020	0.039	0.020	0.0170	0.0064	± 0.0157
NOVEMBER	8	0.0020	0.009	0.004	0.0027	0.0009	± 0.0022
DECEMBER	2	0.0020	0.002	0.002	0.0117	0.0044	± 0.0108
1979 JANUARY	7	0.0020	0.034	0.008	0.0086	0.0035	± 0.0090
FEBRUARY	6	0.0090	0.032	0.017	0.0015	0.0007	± 0.0024
MARCH	4	0.0020	0.005	0.003	0.0015	0.0007	± 0.0024
APRIL	4	0.0050	0.051	0.021	0.0208	0.0104	± 0.0331
MAY	4	0.0020	0.002	0.002	0.0025	0.0009	± 0.0021
JULY	4	0.0090	0.017	0.012	0.0095	0.0034	± 0.0080
AUGUST	8	0.0110	0.036	0.021	0.0095	0.0034	± 0.0080
SEPTEMBER	8	0.0110	0.045	0.025	0.0144	0.0051	± 0.0120
OCTOBER	8	0.0140	0.023	0.017	0.0028	0.0010	± 0.0023
NOVEMBER	8	0.0150	0.027	0.019	0.0040	0.0014	± 0.0033
DECEMBER	4	0.0130	0.038	0.021	0.0116	0.0058	± 0.0185

STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 AMMONIA (N)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN (MG/L)	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
1980 JANUARY	8	0.0100	0.014	0.012	0.0014	0.0005	± 0.0012
FEBRUARY	5	0.0110	0.016	0.013	0.0024	0.0011	± 0.0030
MARCH	8	0.0140	0.048	0.031	0.0146	0.0052	± 0.0122
APRIL	8	0.0140	0.027	0.017	0.0043	0.0015	± 0.0036
MAY	12	0.0130	0.039	0.022	0.0074	0.0021	± 0.0047
JUNE	7	0.0160	0.028	0.020	0.0049	0.0019	± 0.0046
JULY	12	0.0140	0.027	0.021	0.0036	0.0010	± 0.0023
AUGUST	8	0.0150	0.039	0.026	0.0080	0.0028	± 0.0067
SEPTEMBER	8	0.0090	0.042	0.020	0.0105	0.0037	± 0.0088
OCTOBER	8	0.0110	0.013	0.012	0.0008	0.0003	± 0.0006
NOVEMBER	8	0.0080	0.015	0.011	0.0021	0.0007	± 0.0017
DECEMBER	8	0.0130	0.036	0.019	0.0072	0.0026	± 0.0061

STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 AMMONIA (N)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN (MG/L)	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
-78-79-80 JANUARY	19	0.0020	0.034	0.011	0.0091	0.0021	± 0.0044
1976-78-79-80 FEBRUARY	47	0.0020	0.035	0.012	0.0108	0.0016	± 0.0032
-77-78-79-80 MARCH	85	0.0020	0.082	0.010	0.0137	0.0015	± 0.0029
-77-78-79-80 APRIL	46	0.0020	0.109	0.042	0.0295	0.0043	± 0.0088
-77-78-79-80 MAY	84	0.0020	0.170	0.024	0.0235	0.0026	± 0.0051
-77-78-80 JUNE	104	0.0020	0.110	0.025	0.0212	0.0021	± 0.0041
1976-77-78-79-80 JULY	144	0.0020	0.350	0.048	0.0581	0.0048	± 0.0096
1976-77-78-79-80 AUGUST	102	0.0020	0.330	0.060	0.0594	0.0059	± 0.0117
1976-78-79-80 SEPTEMBER	149	0.0020	0.150	0.021	0.0241	0.0020	± 0.0039
-77-78-79-80 OCTOBER	27	0.0020	0.039	0.014	0.0100	0.0019	± 0.0040
-77-78-79-80 NOVEMBER	28	0.0020	0.027	0.010	0.0068	0.0013	± 0.0026
1976-77-78-79-80 DECEMBER	107	0.0020	0.127	0.010	0.0153	0.0015	± 0.0029



STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 AMMONIA (N)

SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN (MG/L)	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
1976 FEB JUL AUG SEP DEC	239	0.0020	0.132	0.013	0.0168	0.0011	± 0.0021
1977 MAR APR MAY JUN JUL AUG OCT NOV DEC	280	0.0020	0.160	0.026	0.0290	0.0017	± 0.0034
1978 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC	254	0.0020	0.350	0.051	0.0582	0.0037	± 0.0072
1979 JAN FEB MAR APR MAY JUN AUG SEP OCT NOV DEC	69	0.0020	0.051	0.016	0.0112	0.0013	± 0.0027
1980 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC	100	0.0080	0.048	0.019	0.0085	0.0009	± 0.0017

STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 AMMONIA (N)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN (MG/L)	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
APRIL TO SEPTEMBER							
1976	162	0.0020	0.132	0.015	0.0173	0.0014	± 0.0027
1977	217	0.0020	0.160	0.031	0.0306	0.0021	± 0.0041
1978	163	0.0020	0.350	0.073	0.0615	0.0048	± 0.0095
1979	32	0.0020	0.051	0.017	0.0131	0.0023	± 0.0047
1980	55	0.0090	0.042	0.021	0.0069	0.0009	± 0.0019
1976-80	629	0.0020	0.350	0.036	0.0437	0.0017	± 0.0034
OCTOBER TO MARCH							
1976-77	104	0.0020	0.127	0.008	0.0130	0.0013	± 0.0025
1977-78	104	0.0020	0.082	0.010	0.0144	0.0014	± 0.0028
1978-79	34	0.0020	0.039	0.010	0.0118	0.0020	± 0.0041
1979-80	41	0.0100	0.048	0.019	0.0097	0.0015	± 0.0030
1980-81	24	0.0080	0.036	0.014	0.0055	0.0011	± 0.0023
1976-80	307	0.0020	0.127	0.011	0.0130	0.0007	± 0.0015
APRIL TO MARCH							
1976-80	936	0.0020	0.350	0.028	0.0384	0.0013	± 0.0025

STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 AMMONIA (N)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
1976 FEB JUL AUG SEP DEC	942	0.0020	0.350	0.028	0.0383	0.0012	± 0.0024
1977 MAR APR MAY JUN JUL AUG OCT NOV DEC							
1978 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC							
1979 JAN FEB MAR APR MAY JUL AUG SEP OCT NOV DEC							
1980 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC							

(MG/L)

HISTOGRAM

MIDPOINT	HIST%	COUNT	NH3
.2000	-2	270	XXX
.1360	-1	298	XXX
.2520	-1	111	XXX
.3680	-1	80	XXX
.4840	-1	49	XXX
.6000	-1	34	XXX
.7160	-1	16	XXXXXXXXXX
.8320	-1	15	XXXXXXXXXX
.9480	-1	16	XXXXXXXXXX
.10640		11	XXXXXX
.11800		4	XXXX
.12960		7	XXXXX
.14120		3	XXX
.15280		5	XXXX
.16440		5	XXXX
.17600		2	XX
.18760		4	XXXX
.19920		0	
.21080		0	
.22240		0	
.23400		0	
.24560		3	XXX
.25720		0	
.26880		1	XX
.28040		0	
.29200		0	
.30360		0	
.31520		0	
.32680		1	XX
.33840		0	
.35000		1	XX

FREQUENCY
 PERCENT

CONCENTRATION (mg l⁻¹)

MISSING 212
 TOTAL 1148 (INTERVAL WIDTH= .11600 -1)

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OKANAGAN RIVER BELOW OKANAGAN LAKE

Statistical Characteristics of Nutrient Concentrations
Period of Sampling February 1976 to December 1980.

AMMONIA (N)

Median concentrations and their statistical characteristics determined for

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All Months	209
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STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 AMMONIA (N)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN (MG/L)	CONFIDENCE INTERVAL LOWER	CONFIDENCE INTERVAL UPPER	PROBABILITY LEVEL
1976 FEBRUARY	6	0.008	0.0060	0.0140	0.969
JULY	36	0.006	0.0050	0.0080	0.953
AUGUST	18	0.030	0.0200	0.0500	0.969
SEPTEMBER	108	0.010	0.0080	0.0130	0.957
DECEMBER	71	0.005	0.0040	0.0060	0.956
1977 MARCH	33	0.006	0.0050	0.0090	0.965
APRIL	14	0.057	0.0380	0.0900	0.965
MAY	38	0.011	0.0090	0.0170	0.966
JUNE	73	0.017	0.0130	0.0230	0.953
JULY	48	0.028	0.0200	0.0380	0.956
AUGUST	44	0.039	0.0240	0.0640	0.951
OCTOBER	4	0.002			
NOVEMBER	4	0.002			
DECEMBER	22	0.003	0.0020	0.0100	0.965
1978 JANUARY	4	0.009			
FEBRUARY	30	0.005	0.0020	0.0110	0.957
MARCH	40	0.003	0.0020	0.0060	0.961
APRIL	20	0.045	0.0280	0.0580	0.959
MAY	30	0.031	0.0230	0.0370	0.957
JUNE	24	0.039	0.0050	0.0490	0.957
JULY	40	0.110	0.0770	0.1300	0.961
AUGUST	24	0.084	0.0590	0.1280	0.957
SEPTEMBER	25	0.053	0.0450	0.0760	0.957
OCTOBER	7	0.023	0.0020	0.0390	0.984
NOVEMBER	8	0.003	0.0020	0.0090	0.961
DECEMBER	2	0.002			
1979 JANUARY	7	0.003	0.0020	0.0340	0.984
FEBRUARY	6	0.014	0.0090	0.0320	0.969
MARCH	4	0.002			
APRIL	4	0.009			
MAY	4	0.002			
JULY	8	0.011	0.0090	0.0170	0.961
AUGUST	8	0.016	0.0110	0.0360	0.961
SEPTEMBER	8	0.019	0.0110	0.0450	0.961
OCTOBER	8	0.017	0.0150	0.0230	0.961
NOVEMBER	8	0.017	0.0160	0.0270	0.961
DECEMBER	4	0.015			

STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 AMMONIA (N)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN (MG/L)	CONFIDENCE INTERVAL LOWER	CONFIDENCE INTERVAL UPPER	PROBABILITY LEVEL
1980 JANUARY	8	0.012	0.0110	0.0140	0.961
FEBRUARY	5	0.012		0.0110	0.969
MARCH	8	0.025	0.0150	0.0480	0.961
APRIL	8	0.016	0.0140	0.0270	0.961
MAY	12	0.020	0.0160	0.0260	0.961
JUNE	7	0.018	0.0160	0.0280	0.984
JULY	12	0.020	0.0180	0.0230	0.961
AUGUST	8	0.021	0.0200	0.0390	0.961
SEPTEMBER	8	0.019	0.0100	0.0420	0.961
OCTOBER	8	0.012	0.0110	0.0130	0.961
NOVEMBER	8	0.011	0.0100	0.0150	0.961
DECEMBER	8	0.016	0.0150	0.0360	0.961

STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 AMMONIA (N)

SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN (MG/L)	CONFIDENCE INTERVAL LOWER	CONFIDENCE INTERVAL UPPER	PROBABILITY LEVEL
- 78-79-80 JANUARY	19	0.011	0.0060	0.0140	0.959
1976- 78-79-80 FEBRUARY	47	0.010	0.0060	0.0120	0.960
-77-78-79-80 MARCH	85	0.006	0.0050	0.0080	0.960
-77-78-79-80 APRIL	46	0.038	0.0200	0.0570	0.960
-77-78-79-80 MAY	84	0.019	0.0150	0.0230	0.962
-77-78- 80 JUNE	104	0.019	0.0160	0.0270	0.961
1976-77-78-79-80 JULY	144	0.023	0.0190	0.0350	0.954
1976-77-78-79-80 AUGUST	102	0.041	0.0310	0.0550	0.952
1976- 78-79-80 SEPTEMBER	149	0.013	0.0110	0.0150	0.951
-77-78-79-80 OCTOBER	27	0.013	0.0110	0.0170	0.964
-77-78-79-80 NOVEMBER	28	0.010	0.0060	0.0150	0.964
1976-77-78-79-80 DECEMBER	107	0.005	0.0040	0.0070	0.957

STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES.
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 AMMONIA (N)

SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN (MG/L)	CONFIDENCE INTERVAL LOWER	CONFIDENCE INTERVAL UPPER	PROBABILITY LEVEL
1976 FEB JUL AUG SEP DEC	239	0.008	0.0070	0.0090	0.955
1977 MAR APR MAY JUN JUL AUG OCT NOV DEC	280	0.014	0.0110	0.0180	0.952
1978 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC	254	0.035	0.0310	0.0400	0.955
1979 JAN FEB MAR APR MAY JUN AUG SEP OCT NOV DEC	69	0.014	0.0120	0.0170	0.959
1980 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC	100	0.016	0.0150	0.0190	0.954

STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
AMMONIA (N)

SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN (MG/L)	CONFIDENCE INTERVAL LOWER	CONFIDENCE INTERVAL UPPER	PROBABILITY LEVEL
APRIL TO SEPTEMBER					
1976	162	0.010	0.0080	0.0120	0.951
1977	217	0.021	0.0170	0.0270	0.951
1978	163	0.057	0.0460	0.0610	0.959
1979	32	0.012	0.0110	0.0200	0.965
1980	55	0.020	0.0180	0.0220	0.956
1976-80	629	0.020	0.0190	0.0220	0.954
OCTOBER TO MARCH					
1976-77	104	0.005	0.0050	0.0060	0.961
1977-78	104	0.003	0.0020	0.0060	0.961
1978-79	34	0.004	0.0030	0.0090	0.959
1979-80	41	0.016	0.0150	0.0180	0.956
1980-81	24	0.012	0.0120	0.0150	0.957
1976-80	307	0.007	0.0060	0.0090	0.954
APRIL TO MARCH					
1976-80	936	0.014	0.0130	0.0160	0.950

STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 AMMONIA (N)

SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN	CONFIDENCE INTERVAL LOWER	CONFIDENCE INTERVAL UPPER	PROBABILITY LEVEL
1976 FEB JUL AUG SEP DEC	942	0.014	0.0130	0.0160	0.953
1977 MAR APR MAY JUN JUL AUG OCT NOV DEC					
1978 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC					
1979 JAN FEB MAR APR MAY JUN AUG SEP OCT NOV DEC					
1980 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC					

1976 FEB JUL AUG
SEP DEC

1977 MAR APR MAY
JUN JUL AUG
OCT NOV DEC

1978 JAN FEB MAR
APR MAY JUN
JUL AUG SEP
OCT NOV DEC

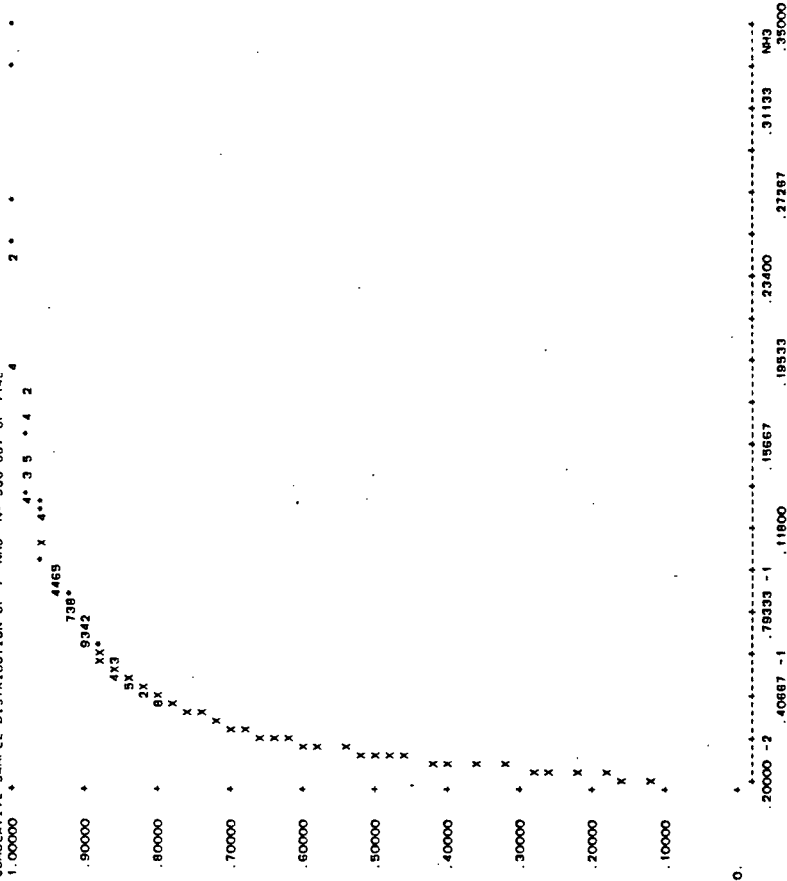
1979 JAN FEB MAR
APR MAY JUN
AUG SEP OCT
NOV DEC

1980 JAN FEB MAR
APR MAY JUN
JUL AUG SEP
OCT NOV DEC

942 0.014 0.0130 0.0160 0.953

DISTRIBUTIONAL ANALYSIS

CUMULATIVE SAMPLE DISTRIBUTION OF MHD N= 936 OUT OF 1148



PROB	QUANTILE	LEVEL	CONFIDENCE	INTERVAL	SIZE
.1000	.20000	-2	.8500	.20000	-2
.3000	.80000	-2	.9500	.70000	-2
.5000	.14000	-1	.9500	.13000	-1
.7000	.27000	-1	.9500	.24000	-1
.8000	.65000	-1	.9500	.58000	-1

OKANAGAN RIVER BELOW OKANAGAN LAKE

Statistical Characteristics of Nutrient Loads

Period of Sampling February 1976 to December 1980.

AMMONIA (N)

Arithmetic mean loads and their statistical characteristics determined for

Individual Months	215
All Months	217
Graph of monthly load ranges	218
Individual Years	219
Seasons	220
April to September	
October to March	
April to March	
All Years	221

STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 AMMONIA (N)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

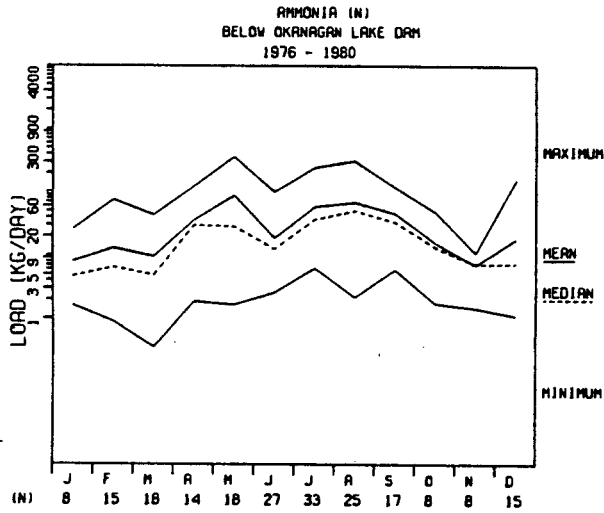
SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN (KG/DAY)	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
1976 FEBRUARY	1	25.8000	25.8000	25.800	9.7981	4.8990	± 15.5910
JULY	4	18.8000	39.7000	28.050			
AUGUST	1	101.0000	101.0000	101.000			
SEPTEMBER	4	14.8000	33.2000	25.825	7.8258	3.9129	± 12.4530
DECEMBER	4	9.9000	156.0000	51.900	69.6120	34.8060	± 110.7690
1977 MARCH	4	2.4700	4.8200	3.550	0.9687	0.4844	± 1.5415
APRIL	4	2.4000	50.8000	29.870	17.6850	7.9090	± 21.9590
MAY	5	1.8500	14.1000	9.198	3.3897	1.3838	± 3.5575
JUNE	6	4.0300	22.1000	11.627	6.0467	1.4252	± 3.0071
JULY	18	3.4400	68.4000	31.371	17.2490	4.7840	± 10.4235
AUGUST	13	6.3200	145.0000	57.307	44.7230	12.4039	± 27.0260
OCTOBER	13	2.1900	145.0000	57.307	44.7230	12.4039	± 27.0260
NOVEMBER	2	1.7200	6.1900	3.955	3.1608	2.2350	± 28.3980
DECEMBER	1	1.4600	1.4600	1.460			
1978 JANUARY	7	1.1100	12.2000	3.396	3.9921	1.5089	± 3.6920
FEBRUARY	4	1.6200	25.7000	10.772	10.5820	5.2910	± 16.8382
MARCH	10	0.8830	75.8000	14.648	22.5510	7.1313	± 16.1318
APRIL	11	0.3540	43.2000	12.967	13.4470	4.0544	± 9.0335
MAY	5	10.3000	124.0000	61.480	46.3680	20.7364	± 57.5718
JUNE	10	28.5000	359.0000	152.070	120.2200	38.0169	± 85.9990
JULY	7	2.6100	101.0000	37.497	37.2420	14.0762	± 34.4429
AUGUST	6	54.1000	242.0000	117.750	62.3490	18.7989	± 41.8855
SEPTEMBER	9	58.4000	313.0000	124.680	96.3910	39.3515	± 101.1565
OCTOBER	2	5.9700	119.0000	63.619	36.0560	12.0187	± 27.7150
NOVEMBER	2	4.0400	48.8000	26.420	31.6500	22.3799	± 284.3699
DECEMBER	3	7.2600	8.7400	8.030	0.7418	0.4283	± 1.8428
1979 JANUARY	1	2.7500	2.7500	2.750			
FEBRUARY	2	3.3700	9.4800	6.425	4.3204	3.0550	± 38.8170
MARCH	2	7.7600	7.9800	7.870	0.1556	0.1100	± 1.3977
APRIL	1	2.0000	2.0000	2.000			
MAY	2	6.0600	29.7000	17.880	16.7160	11.8200	± 150.1899
JULY	1	1.6600	1.6600	1.660			
AUGUST	2	10.6000	15.1000	12.850	3.1820	2.2500	± 28.5890
SEPTEMBER	3	12.7000	33.1000	20.567	10.9710	6.3341	± 27.2545
OCTOBER	2	13.7000	37.9000	25.800	17.1120	12.1000	± 153.7500
NOVEMBER	2	13.4000	21.3000	17.350	5.5861	3.9500	± 50.1900
DECEMBER	2	4.8900	5.2300	5.060	0.2404	0.1700	± 2.1601
	1	7.3500	7.3500	7.350			

STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 AMMONIA (N)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN (KG/DAY)	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
1980 JANUARY	2	3.9900	4.660	4.325	0.4738	0.3350	± 4.2566
FEBRUARY	2	3.4400	4.310	3.875	0.6152	0.4350	± 5.5272
MARCH	2	5.9400	8.630	7.285	1.9021	1.3450	± 17.0899
APRIL	2	3.6700	8.420	6.045	3.3588	2.3750	± 30.1770
MAY	1	4.7600	4.760	4.760			
JUNE	2	6.4100	23.500	14.955	12.0840	8.5447	± 108.5750
JULY	3	33.5000	37.500	34.967	2.2030	1.2719	± 5.4725
AUGUST	2	19.1000	44.300	31.700	17.8190	12.5999	± 160.1000
SEPTEMBER	2	20.6000	34.200	27.400	9.6167	6.8000	± 86.4010
OCTOBER	2	14.7000	15.000	14.850	0.2121	0.1500	± 1.9060
NOVEMBER	2	9.9700	11.000	10.485	0.7283	0.5150	± 6.5439
DECEMBER	2	12.6000	19.100	15.850	4.5962	3.2500	± 41.2950

STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 AMMONIA (N)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN (KG/DAY)	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
- 78-79-80 JANUARY	8	1.6200	25.700	8.074	7.7228	2.7304	± 6.4563
1976- 78-79-80 FEBRUARY	15	0.8830	75.800	13.052	18.8740	4.8732	± 10.4524
-77-78-79-80 MARCH	18	0.3540	43.200	9.634	11.2570	2.6533	± 5.5977
-77-78-79-80 APRIL	14	1.8500	124.000	36.043	35.1120	9.3841	± 20.2730
-77-78-79-80 MAY	18	1.6600	359.000	87.906	114.4900	26.9855	± 56.9330
-77-78- 80 JUNE	27	2.6100	101.000	18.580	21.9180	4.2181	± 8.6706
1976-77-78-79-80 JULY	33	6.3200	242.000	58.964	56.0310	9.7537	± 19.8675
1976-77-78-79-80 AUGUST	25	2.1900	313.000	68.768	65.2690	13.0538	± 26.9415
1976- 78-79-80 SEPTEMBER	17	5.9700	119.000	46.016	32.4990	7.8822	± 16.7100
-77-78-79-80 OCTOBER	8	1.7200	48.800	15.644	14.9070	5.2704	± 12.4624
-77-78-79-80 NOVEMBER	8	1.4600	11.000	7.080	3.1014	1.0965	± 2.5928
1976-77-78-79-80 DECEMBER	15	1.1100	156.000	18.211	38.8210	10.0235	± 21.4979



STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 AMMONIA (N)

SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN (KG/DAY)	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
1976 FEB JUL AUG SEP DEC	14	9.9000	156.000	39.279	40.0630	10.7073	± 23.1315
1977 MAR APR MAY JUN JUL AUG OCT NOV DEC	69	1.1100	145.000	23.391	28.4170	3.4210	± 6.8265
1978 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC	79	0.3540	359.000	64.789	77.3840	8.7064	± 17.3330
1979 JAN FEB MAR APR MAY JUL AUG SEP OCT NOV DEC	20	1.6600	37.900	12.959	10.2720	2.2969	± 4.8072
1980 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC	24	3.4400	44.300	15.967	12.4130	2.5338	± 5.2415

STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 AMMONIA (N)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN (KG/DAY)	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
APRIL TO SEPTEMBER							
1976	9	14.8000	101.000	35.167	25.8780	8.6260	± 19.8915
1977	55	1.8500	145.000	28.484	29.7420	4.0104	± 8.0400
1978	48	2.6100	359.000	98.051	82.9570	11.9738	± 24.0885
1979	10	1.6600	37.900	17.642	11.9410	3.7761	± 8.5422
1980	12	3.6700	44.300	22.488	14.2400	4.1107	± 9.0480
1976-80	134	1.6600	359.000	52.506	63.5460	5.4895	± 10.8585
OCTOBER TO MARCH							
1976-77	8	2.4700	156.000	27.725	52.3940	18.5241	± 43.8020
1977-78	35	0.3540	75.800	10.438	14.9380	2.5250	± 5.1314
1978-79	11	2.0000	48.800	10.025	13.1290	3.9585	± 8.8196
1979-80	11	3.4400	21.300	7.558	5.3662	1.6180	± 3.6049
1980-81	6	9.9700	19.100	13.728	3.2942	1.3449	± 3.4570
1976-80	71	0.3540	156.000	12.154	21.1150	2.5059	± 4.9979
APRIL TO MARCH							
1976-80	205	0.3540	359.000	38.531	56.1790	3.9237	± 7.7365

STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 AMMONIA (N)

SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
1976 FEB JUL AUG SEP, DEC	206	0.3540	359.000	38.469	56.0490	3.9051	± 7.6990
1977 MAR APR MAY JUN JUL AUG OCT NOV DEC							
1978 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC							
1979 JAN FEB MAR APR MAY JUN AUG SEP OCT NOV DEC							
1980 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC							

(KG/DAY)

I-4

OKANAGAN RIVER BELOW OKANAGAN LAKE

Statistical Characteristics of Nutrient Loads

Period of Sampling February 1976 to December 1980.

AMMONIA (N)

Median loads and their statistical characteristics determined for

Individual Months	223
All Months	225
Individual Years	226
Seasons	227
April to September	
October to March	
April to March	
All Years	228

STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
AMMONIA (N)

SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN (KG/DAY)	CONFIDENCE INTERVAL		PROBABILITY LEVEL
			LOWER	UPPER	
1976					
FEBRUARY	1	25.800			
JULY	4	21.200			
AUGUST	1	101.000			
SEPTEMBER	4	26.900			
DECEMBER	4	18.800			
1977					
MARCH	4	3.360			
APRIL	5	32.000	1.8500	1.8500	0.969
MAY	6	8.360	4.0300	14.1000	0.969
JUNE	18	12.100	6.0600	14.9000	0.969
JULY	13	28.300	20.4000	49.3000	0.978
AUGUST	13	48.100	14.3000	90.0000	0.978
OCTOBER	2	1.720			
NOVEMBER	1	1.460			
DECEMBER	7	1.870	1.1100	12.2000	0.984
1978					
JANUARY	4	5.370			
FEBRUARY	10	5.300	1.4300	22.5000	0.979
MARCH	11	10.400	1.7700	29.0000	0.961
APRIL	5	51.200		10.3000	0.969
MAY	10	96.400	43.4000	304.0000	0.979
JUNE	7	37.600	2.6100	101.0000	0.984
JULY	11	123.000	57.9000	209.0000	0.961
AUGUST	6	73.600	58.4000	313.0000	0.969
SEPTEMBER	9	62.400	32.1000	101.0000	0.961
OCTOBER	2	4.040			
NOVEMBER	3	8.090			
DECEMBER	1	2.750			
1979					
JANUARY	2	3.370			
FEBRUARY	2	7.760			
MARCH	1	2.000			
APRIL	2	6.060			
MAY	1	1.660			
JULY	2	10.600			
AUGUST	3	15.900			
SEPTEMBER	2	13.700			
OCTOBER	2	13.400			
NOVEMBER	2	4.890			
DECEMBER	1	7.350			

STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
AMMONIA (N)
SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN (KG/DAY)	CONFIDENCE INTERVAL LOWER	CONFIDENCE INTERVAL UPPER	PROBABILITY LEVEL
1980 JANUARY	2	3.990			
FEBRUARY	2	3.440			
MARCH	2	5.940			
APRIL	2	3.670			
MAY	1	4.760			
JUNE	2	6.410			
JULY	3	33.900			
AUGUST	2	19.100			
SEPTEMBER	2	20.600			
OCTOBER	2	14.700			
NOVEMBER	2	9.970			
DECEMBER	2	12.600			

STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 AMMONIA (N)

SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN (KG/DAY)	CONFIDENCE INTERVAL LOWER	CONFIDENCE INTERVAL UPPER	PROBABILITY LEVEL
- 78-79-80 JANUARY	8	4.660	3.3700	25.7000	0.961
1976- 78-79-80 FEBRUARY	15	6.440	3.4400	15.1000	0.965
-77-78-79-80 MARCH	18	4.820	2.4700	14.1000	0.969
-77-78-79-80 APRIL	14	29.700	8.4200	51.2000	0.965
-77-78-79-80 MAY	18	28.500	8.3600	145.0000	0.969
-77-78- 80 JUNE	27	12.600	6.4100	20.1000	0.964
1976-77-78-79-80 JULY	33	36.700	28.3000	56.8000	0.965
1976-77-78-79-80 AUGUST	25	50.700	33.1000	80.3000	0.957
1976- 78-79-80 SEPTEMBER	17	33.200	26.9000	62.4000	0.951
-77-78-79-80 OCTOBER	8	13.400	4.0400	48.8000	0.961
-77-78-79-80 NOVEMBER	8	7.260	4.8900	11.0000	0.961
1976-77-78-79-80 DECEMBER	15	7.350	1.8700	18.8000	0.965

STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 AMMONIA (N)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN (KG/DAY)	CONFIDENCE INTERVAL LOWER	CONFIDENCE INTERVAL UPPER	PROBABILITY LEVEL
1976 FEB JUL AUG SEP DEC	14	25.800	18.8000	39.7000	0.965
1977 MAR APR MAY JUN JUL AUG OCT NOV DEC	69	13.300	8.6500	21.9000	0.959
1978 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC	79	43.400	22.5000	58.4000	0.958
1979 JAN FEB MAR APR MAY JUL AUG SEP OCT NOV DEC	20	9.480	6.0600	15.1000	0.959
1980 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC	24	11.000	6.4100	20.6000	0.957

STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 AMMONIA (N)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN (KG/DAY)	CONFIDENCE INTERVAL LOWER	CONFIDENCE INTERVAL UPPER	PROBABILITY LEVEL
APRIL TO SEPTEMBER					
1976	9	28.400	18.8000	39.7000	0.961
1977	55	20.100	13.3000	28.3000	0.956
1978	48	71.100	57.9000	101.0000	0.956
1979	10	13.700	6.0600	33.1000	0.979
1980	12	20.600	6.4100	34.2000	0.961
1976-80	134	32.100	23.5000	37.5000	0.953
OCTOBER TO MARCH					
1976-77	8	4.820	3.3600	156.0000	0.961
1977-78	35	5.020	1.8700	10.4000	0.959
1978-79	11	7.760	3.3700	9.4800	0.961
1979-80	11	5.230	4.3100	13.4000	0.961
1980-81	6	12.600	9.9700	19.1000	0.969
1976-80	71	6.190	4.6600	9.4800	0.956
APRIL TO MARCH					
1976-80	205	15.900	13.7000	22.5000	0.957

STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 AMMONIA (N)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN	CONFIDENCE INTERVAL LOWER	CONFIDENCE INTERVAL UPPER	PROBABILITY LEVEL
1976 FEB JUL AUG SEP DEC	206	15.900	13.7000	22.5000	0.957
1977 MAR APR MAY JUN JUL AUG OCT NOV DEC					
1978 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC					
1979 JAN FEB MAR APR MAY JUL AUG SEP OCT NOV DEC					
1980 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC					

(KG/DAY)

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OKANAGAN RIVER BELOW OKANAGAN LAKE

Statistical Characteristics of Nutrient Concentrations

Period of Sampling February 1976 to December 1980.

RATIO OF AMMONIA (N) TO NITRATE PLUS NITRITE (N)

Arithmetic mean concentrations and their statistical characteristics
determined for:

Individual Months	230
All Months	232
Graph of monthly concentration ranges	233
Individual Years	234
Seasons	235
April to September	
October to March	
April to March	
All Years	236
Histogram of concentration distribution	237

STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF AMMONIA (N) / NITRATE PLUS NITRITE (N)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

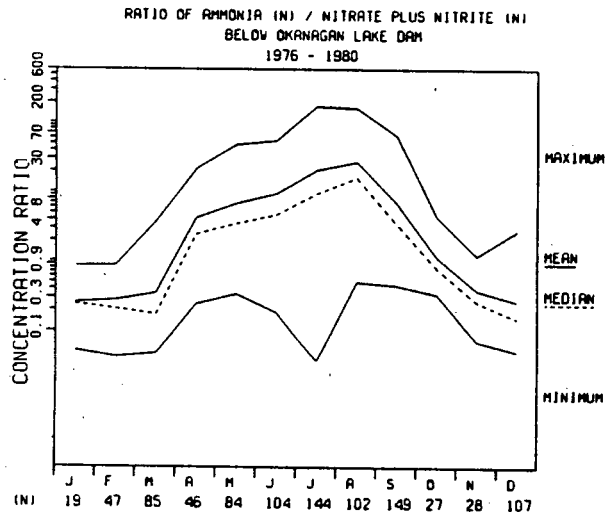
SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
1976 FEBRUARY	6	0.1395	0.326	0.224	0.0774	0.0316	± 0.0813
JULY	36	0.0357	6.000	0.763	1.1768	0.1961	± 0.3982
AUGUST	18	0.7742	66.000	16.120	16.9700	3.9999	± 8.4392
SEPTEMBER	108	0.7500	9.000	3.618	1.7092	0.1645	± 0.3260
DECEMBER	71	0.0500	2.761	0.208	0.3441	0.0408	± 0.0814
1977 MARCH	33	0.0625	0.514	0.215	0.1043	0.0182	± 0.0370
APRIL	14	0.4762	5.737	2.982	1.6620	0.4442	± 0.9596
MAY	38	0.6800	10.000	3.389	1.9572	0.3175	± 0.6433
JUNE	73	0.1818	30.000	7.456	7.3092	0.8555	± 1.7053
JULY	48	1.0000	47.000	16.125	11.0550	1.5957	± 3.2100
AUGUST	44	0.5000	80.000	25.875	24.1150	3.6355	± 7.3320
OCTOBER	4	1.0000	4.500	1.875	1.7500	0.8750	± 2.7846
NOVEMBER	4	0.0714	0.243	0.118	0.0836	0.0418	± 0.1331
DECEMBER	22	0.0500	2.235	0.318	0.4919	0.1049	± 0.2181
1978 JANUARY	4	0.1800	0.571	0.320	0.1850	0.0925	± 0.2944
FEBRUARY	30	0.0417	0.729	0.246	0.2675	0.0488	± 0.0999
MARCH	40	0.0465	3.727	0.341	0.6495	0.1027	± 0.2077
APRIL	20	0.2400	21.250	7.138	5.4957	1.2289	± 2.5721
MAY	30	0.3929	48.000	14.077	8.8479	1.6154	± 3.3040
JUNE	24	1.0000	55.000	18.204	16.4740	3.3627	± 6.9560
JULY	40	10.0000	175.000	53.254	35.6470	5.6363	± 11.4005
AUGUST	24	12.5000	165.000	54.472	40.0940	8.1842	± 16.9300
SEPTEMBER	25	1.7500	65.000	25.260	16.9790	3.3958	± 7.0085
OCTOBER	7	0.3333	3.273	1.696	1.3817	0.5222	± 1.2779
NOVEMBER	8	0.0870	1.200	0.310	0.3681	0.1302	± 0.3078
DECEMBER	2	1.0000	1.000	1.000	0.2942	0.1112	± 0.2721
1979 JANUARY	7	0.0513	0.850	0.185	0.2249	0.0918	± 0.2360
FEBRUARY	6	0.2432	0.865	0.466	0.0311	0.0155	± 0.0495
MARCH	4	0.0476	0.111	0.080	0.7652	0.3826	± 1.2175
APRIL	4	0.3125	1.962	0.855	0.3333	0.1667	± 0.5304
MAY	4	0.3333	1.000	0.833	0.1275	0.0451	± 0.1066
JULY	8	0.4500	0.850	0.587	0.4769	0.1686	± 0.3987
AUGUST	8	0.5500	1.800	1.044	0.4769	0.1686	± 0.3987
SEPTEMBER	8	0.4750	2.250	1.216	0.7687	0.2718	± 0.6427
OCTOBER	8	0.7000	1.150	0.869	0.1387	0.0490	± 0.1160
NOVEMBER	8	0.2250	1.050	0.555	0.2963	0.1048	± 0.2477
DECEMBER	4	0.2600	0.760	0.415	0.2323	0.1162	± 0.3697

STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF AMMONIA (N) / NITRATE PLUS NITRITE (N)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
1980 JANUARY	8	0.2000	0.400	0.280	0.0610	0.0216	± 0.0510
FEBRUARY	5	0.2000	0.400	0.295	0.0716	0.0320	± 0.0889
MARCH	8	0.5333	2.350	1.011	0.5644	0.1996	± 0.4719
APRIL	8	0.4667	0.900	0.765	0.1432	0.0506	± 0.1197
MAY	12	0.6500	1.950	1.100	0.3705	0.1070	± 0.2354
JUNE	7	0.8000	1.400	1.000	0.2466	0.0932	± 0.2281
JULY	12	0.7000	1.350	1.025	0.1777	0.0513	± 0.1129
AUGUST	8	0.5571	1.550	1.017	0.3411	0.1206	± 0.2852
SEPTEMBER	8	0.4500	2.100	1.019	0.5264	0.1861	± 0.4401
OCTOBER	8	0.5500	0.650	0.600	0.0378	0.0134	± 0.0316
NOVEMBER	8	0.2000	0.600	0.408	0.1687	0.0596	± 0.1410
DECEMBER	8	0.2333	0.450	0.364	0.0852	0.0301	± 0.0712

STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF AMMONIA (N) / NITRATE PLUS NITRITE (N)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
- 78-79-80 JANUARY	19	0.0513	0.850	0.254	0.1978	0.0454	± 0.0953
1976- 78-79-80 FEBRUARY	47	0.0417	0.865	0.276	0.2396	0.0349	± 0.0703
-77-78-79-80 MARCH	85	0.0465	3.727	0.343	0.5281	0.0573	± 0.1139
-77-78-79-80 APRIL	46	0.2400	21.250	4.218	4.5808	0.6754	± 1.3603
-77-78-79-80 MAY	84	0.3333	48.000	6.757	7.7435	0.8449	± 1.6804
-77-78- 80 JUNE	104	0.1818	55.000	9.502	11.1120	1.0896	± 2.1607
1976-77-78-79-80 JULY	144	0.0357	175.000	20.477	29.0800	2.4233	± 4.7905
1976-77-78-79-80 AUGUST	102	0.5000	165.000	26.985	31.1450	3.0838	± 6.1170
1976- 78-79-80 SEPTEMBER	149	0.4500	65.000	6.981	10.8310	0.8873	± 1.7534
-77-78-79-80 OCTOBER	27	0.3333	4.500	1.153	1.0383	0.1998	± 0.4108
-77-78-79-80 NOVEMBER	28	0.0714	1.200	0.380	0.2949	0.0557	± 0.1143
1976-77-78-79-80 DECEMBER	107	0.0500	2.761	0.265	0.3777	0.0365	± 0.0724



STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF AMMONIA (N) / NITRATE PLUS NITRITE (N)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
1976 FEB JUL AUG SEP DEC	239	0.0357	66.000	3.031	6.2122	0.4018	± 0.7916
1977 MAR APR MAY JUN JUL AUG OCT NOV DEC	280	0.0500	80.000	9.462	14.2050	0.8489	± 1.6712
1978 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC	254	0.0417	175.000	20.117	29.1740	1.8305	± 3.6050
1979 JAN FEB MAR APR MAY JUL AUG SEP OCT NOV DEC	69	0.0476	2.250	0.681	0.5055	0.0609	± 0.1214
1980 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC	100	0.2000	2.350	0.777	0.4169	0.0417	± 0.0827

STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF AMMONIA (N) / NITRATE PLUS NITRITE (N)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
APRIL TO SEPTEMBER							
1976	162	0.0357	66.000	4.373	7.1676	0.5631	± 1.1121
1977	217	0.1818	80.000	12.107	15.1420	1.0279	± 2.0260
1978	163	0.2400	175.000	31.110	31.4560	2.4638	± 4.8655
1979	32	0.3125	2.250	0.923	0.5589	0.0988	± 0.2015
1980	55	0.4500	2.100	0.998	0.3248	0.0438	± 0.0878
1976-80	629	0.0357	175.000	13.499	21.7190	0.8660	± 1.7005
OCTOBER TO MARCH							
1976-77	104	0.0500	2.761	0.210	0.2896	0.0284	± 0.0563
1977-78	104	0.0417	4.500	0.358	0.6445	0.0632	± 0.1253
1978-79	34	0.0476	3.273	0.611	0.8698	0.1492	± 0.3035
1979-80	41	0.2000	2.350	0.606	0.4048	0.0632	± 0.1278
1980-81	24	0.2000	0.650	0.457	0.1493	0.0305	± 0.0631
1976-80	307	0.0417	4.500	0.377	0.5440	0.0310	± 0.0611
APRIL TO MARCH							
1976-80	936	0.0357	175.000	9.195	18.8390	0.6158	± 1.2086

STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF AMMONIA (N) / NITRATE PLUS NITRITE (N)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
1976 FEB JUL AUG SEP DEC	942	0.0357	175.000	9.138	18.7930	0.6123	± 1.2017
1977 MAR APR MAY JUN JUL AUG OCT NOV DEC							
1978 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC							
1979 JAN FEB MAR APR MAY JUN AUG SEP OCT NOV DEC							
1980 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC							

HISTOGRAM NH3|NN

MIDPOINT	HIST%	COUNT	NH3 NN	
.35714 -1	58.3	546	+XX	
5.8679	17.6	165	+XX	
11.700	5.8	54	+XXXXXXXXXXXX	
17.532	4.2	39	+XXXXXXXXXXXX	
23.364	3.3	31	+XXXXXXXXXXXX	
29.196	3.2	30	+XXXXXXXXXXXX	
35.029	1.0	9	+XX	
40.861	1.2	11	+XX	
46.693	1.4	13	+XXX	
52.525	.9	8	+XX	
58.357	.3	3	+X	
64.189	.5	5	+X	
70.021	.3	3	+X	
75.854	.4	4	+X	
81.686	.1	1	+X	
87.518	.5	5	+X	
93.350	.3	3	+X	
99.182	0.	0	+	
105.01	0.	0	+	
110.85	0.	0	+	
116.68	0.	0	+	
122.51	.3	3	+X	
128.34	0.	0	+	
134.17	.1	1	+X	
140.01	0.	0	+	
145.84	0.	0	+	
151.67	0.	0	+	
157.50	0.	0	+	
163.34	.1	1	+X	
169.17	0.	0	+	
175.00	.1	1	+X	

FREQUENCY

PERCENT

CONCENTRATION RATIO

MISSING 212
TOTAL 1148 (INTERVAL WIDTH= 5.8321)

J-2

OKANAGAN RIVER BELOW OKANAGAN LAKE

Statistical Characteristics of Nutrient Concentrations
Period of Sampling February 1976 to December 1980.

RATIO OF AMMONIA (N) TO NITRATE PLUS NITRITE (N)

Median concentrations and their statistical characteristics determined for

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STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF AMONIA (N) / NITRATE PLUS NITRITE (N)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN	CONFIDENCE INTERVAL LOWER	CONFIDENCE INTERVAL UPPER	PROBABILITY LEVEL
1976 FEBRUARY	6	0.178	0.1395	0.3256	0.969
JULY	36	0.333	0.2500	0.4074	0.953
AUGUST	18	10.000	6.5000	21.5000	0.969
SEPTEMBER	108	3.500	3.0000	3.6667	0.957
DECEMBER	71	0.125	0.1026	0.1539	0.956
1977 MARCH	33	0.182	0.1515	0.2647	0.965
APRIL	14	2.591	1.7273	4.2778	0.965
MAY	38	3.000	2.3333	4.0000	0.966
JUNE	73	4.667	4.0000	7.0000	0.953
JULY	48	14.000	10.0000	19.0000	0.956
AUGUST	44	19.500	12.0000	32.0000	0.951
OCTOBER	4	1.000			
NOVEMBER	4	0.077			
DECEMBER	22	0.079	0.0571	0.3103	0.965
1978 JANUARY	4	0.182			
FEBRUARY	30	0.102	0.0455	0.2340	0.957
MARCH	40	0.068	0.0556	0.2000	0.961
APRIL	20	7.250	2.6667	8.5714	0.959
MAY	30	12.000	9.5000	17.0000	0.957
JUNE	24	17.500	2.5000	23.0000	0.957
JULY	40	43.333	30.5000	65.0000	0.961
AUGUST	24	37.333	29.5000	64.0000	0.957
SEPTEMBER	25	23.500	16.7500	37.5000	0.957
OCTOBER	7	1.353	0.3333	3.2727	0.984
NOVEMBER	8	0.182	0.1176	1.2000	0.961
DECEMBER	2	1.000			
1979 JANUARY	7	0.065	0.0513	0.8500	0.984
FEBRUARY	6	0.400	0.2432	0.8649	0.969
MARCH	4	0.061			
APRIL	4	0.375			
MAY	4	1.000			
JULY	8	0.550	0.4500	0.8500	0.961
AUGUST	8	0.800	0.5500	1.8000	0.961
SEPTEMBER	8	0.650	0.5500	2.2500	0.961
OCTOBER	8	0.850	0.7500	1.1500	0.961
NOVEMBER	8	0.360	0.3200	1.0500	0.961
DECEMBER	4	0.300			

STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF AMMONIA (N) / NITRATE PLUS NITRITE (N)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN	CONFIDENCE INTERVAL LOWER	CONFIDENCE INTERVAL UPPER	PROBABILITY LEVEL
1980 JANUARY	8	0.275	0.2400	0.4000	0.961
FEBRUARY	5	0.300		0.2000	0.969
MARCH	8	0.833	0.7000	2.3500	0.961
APRIL	8	0.800	0.7000	0.9000	0.961
MAY	12	1.000	0.8000	1.3000	0.961
JUNE	7	0.900	0.8000	1.4000	0.984
JULY	12	1.000	0.9000	1.1500	0.961
AUGUST	8	1.000	0.7500	1.5500	0.961
SEPTEMBER	8	0.950	0.5000	2.1000	0.961
OCTOBER	8	0.600	0.5500	0.6500	0.961
NOVEMBER	8	0.300	0.2500	0.6000	0.961
DECEMBER	8	0.400	0.2500	0.4500	0.961

STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF AMMONIA (N) / NITRATE PLUS NITRITE (N)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN	CONFIDENCE INTERVAL LOWER	CONFIDENCE INTERVAL UPPER	PROBABILITY LEVEL
-78-79-80 JANUARY	19	0.240	0.1277	0.3250	0.959
1976-78-79-80 FEBRUARY	47	0.204	0.1364	0.2979	0.960
-77-78-79-80 MARCH	85	0.171	0.1290	0.2353	0.960
-77-78-79-80 APRIL	46	2.421	1.0000	4.2778	0.960
-77-78-79-80 MAY	84	3.500	2.5000	5.2000	0.962
-77-78-80 JUNE	104	4.667	3.3333	7.0000	0.961
1976-77-78-79-80 JULY	144	9.500	4.5000	15.0000	0.954
1976-77-78-79-80 AUGUST	102	16.000	10.5000	27.5000	0.952
1976-78-79-80 SEPTEMBER	149	3.500	3.0000	3.7500	0.951
-77-78-79-80 OCTOBER	27	0.800	0.6000	1.0000	0.964
-77-78-79-80 NOVEMBER	28	0.260	0.2000	0.5333	0.964
1976-77-78-79-80 DECEMBER	107	0.150	0.1250	0.2051	0.957

STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF AMMONIA (N) / NITRATE PLUS NITRITE (N)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

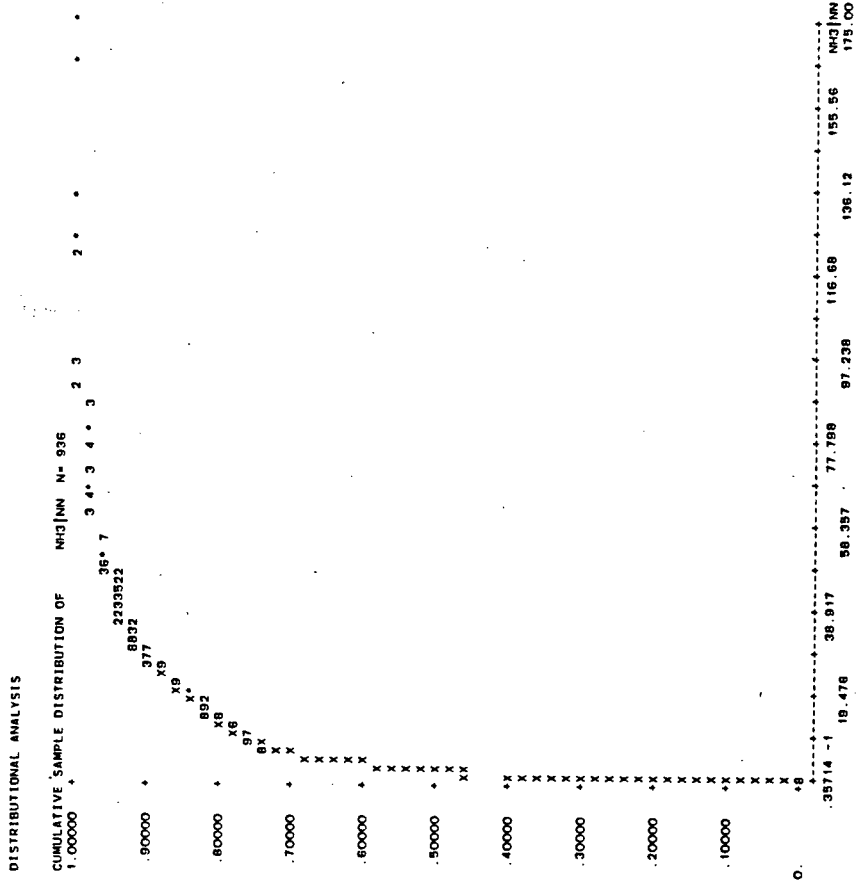
SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN	CONFIDENCE INTERVAL LOWER	CONFIDENCE INTERVAL UPPER	PROBABILITY LEVEL
1976 FEB JUL AUG SEP DEC	239	1.500	0.8000	2.3750	0.955
1977 MAR APR MAY JUN JUL AUG OCT NOV DEC	280	3.667	2.6154	4.5000	0.952
1978 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC	254	8.571	3.5000	13.0000	0.955
1979 JAN FEB MAR APR MAY JUL AUG SEP OCT NOV DEC	69	0.564	0.4750	0.7600	0.959
1980 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC	100	0.750	0.6500	0.8500	0.954

STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF AMMONIA (N) / NITRATE PLUS NITRITE (N)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN	CONFIDENCE INTERVAL LOWER	CONFIDENCE INTERVAL UPPER	PROBABILITY LEVEL
APRIL TO SEPTEMBER					
1976	162	3.000	2.6667	3.5000	0.951
1977	217	5.500	4.5000	7.4000	0.951
1978	163	22.000	17.5000	27.0000	0.959
1979	32	0.650	0.5500	1.0000	0.965
1980	55	0.950	0.8500	1.0000	0.956
1976-80	629	4.333	3.7500	5.0000	0.954
OCTOBER TO MARCH					
1976-77	104	0.152	0.1282	0.1765	0.961
1977-78	104	0.102	0.0682	0.2041	0.961
1978-79	34	0.250	0.1250	0.4286	0.959
1979-80	41	0.533	0.3250	0.7600	0.956
1980-81	24	0.450	0.4000	0.6000	0.957
1976-80	307	0.211	0.1765	0.2432	0.954
APRIL TO MARCH					
1976-80	936	1.500	1.1500	2.0000	0.950

STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF AMMONIA (N) / NITRATE PLUS NITRITE (N)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN	CONFIDENCE INTERVAL LOWER	CONFIDENCE INTERVAL UPPER	PROBABILITY LEVEL
1976 FEB JUL AUG SEP DEC					
1977 MAR APR MAY JUN JUL AUG OCT NOV DEC					
1978 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC					
1979 JAN FEB MAR APR MAY JUN AUG SEP OCT NOV DEC					
1980 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC	942	1.500	1.1000	2.0000	0.953



PROB	QUANTILE	LEVEL	CONFIDENCE	INTERVAL	SIZE
.1000	.10204	.8500	.75000	-1	.12500 .8504
.3000	.33333	.8500	.40000	.63333	.9502
.5000	1.5000	.9500	1.1500	2.0000	.9801
.7000	5.5000	.9500	4.5000	6.5000	.9502
.9000	28.5000	.9500	24.5000	31.5000	.9504

OKANAGAN RIVER BELOW OKANAGAN LAKE

Statistical Characteristics of Nutrient Loads

Period of Sampling February 1976 to December 1980.

RATIO OF AMMONIA (N) TO NITRATE PLUS NITRITE (N)

Arithmetic mean loads and their statistical characteristics determined for

Individual Months	247
All Months	249
Graph of monthly load ranges	250
Individual Years	251
Seasons	252
April to September	
October to March	
April to March	
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STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF AMMONIA (N) / NITRATE PLUS NITRITE (N)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

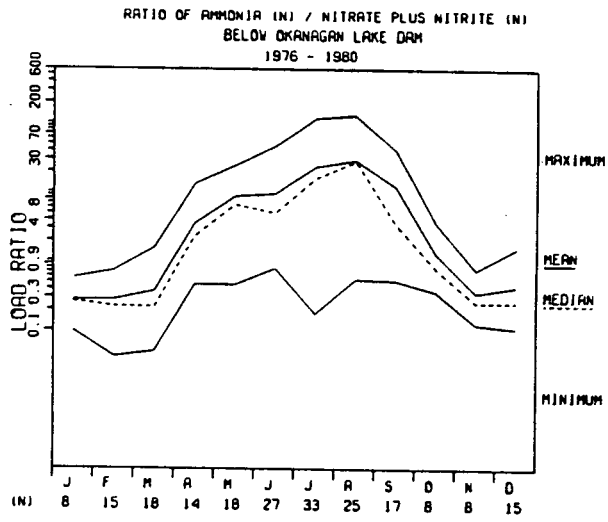
SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
1976 FEBRUARY	1	0.2224	0.222	0.222	0.0726	0.0363	± 0.1156
JULY	4	0.1774	0.348	0.249			
AUGUST	1	6.3924	6.392	6.392			
SEPTEMBER	4	2.6429	4.376	3.590	0.7273	0.3637	± 1.1573
DECEMBER	4	0.1130	1.579	0.539	0.6961	0.3481	± 1.1077
MARCH	4	0.1945	0.342	0.281	0.0702	0.0351	± 0.1117
APRIL	5	0.5854	3.938	2.554	1.2455	0.5570	± 1.5464
MAY	6	0.8194	6.714	3.241	2.1746	0.8878	± 2.2821
JUNE	18	0.7940	25.869	8.456	7.5572	1.7812	± 3.7578
JULY	13	3.6322	34.200	17.036	8.5802	2.3797	± 5.1850
AUGUST	13	1.1289	75.287	31.281	24.1300	6.6925	± 14.5820
OCTOBER	2	1.0000	3.620	2.310	1.8525	1.3099	± 16.6440
NOVEMBER	1	0.1248	0.125	0.125			
DECEMBER	7	0.1098	1.017	0.337	0.3417	0.1291	± 0.3160
JANUARY	4	0.1796	0.571	0.320	0.1850	0.0925	± 0.2943
FEBRUARY	10	0.0420	0.729	0.240	0.2662	0.0842	± 0.1904
MARCH	11	0.0501	1.570	0.319	0.4530	0.1366	± 0.3043
APRIL	5	0.9809	13.167	6.672	5.0961	2.2790	± 6.3276
MAY	10	0.4607	24.589	7.482	7.4821	2.3660	± 5.3525
JUNE	7	1.0000	46.330	14.776	16.5170	6.2428	± 15.2761
JULY	11	12.7990	118.630	50.657	31.7370	9.5691	± 21.3210
AUGUST	6	29.9490	130.960	54.480	39.1660	15.9895	± 41.1020
SEPTEMBER	9	1.9816	40.893	20.549	15.9080	5.3027	± 12.2280
OCTOBER	2	0.3673	2.542	1.455	1.5375	1.0872	± 13.8145
NOVEMBER	3	0.1661	0.468	0.272	0.1697	0.0979	± 0.4214
DECEMBER	1	1.0000	1.000	1.000			
JANUARY	2	0.0971	0.273	0.185	0.1245	0.0880	± 1.1186
FEBRUARY	2	0.4534	0.465	0.459	0.0080	0.0056	± 0.0716
MARCH	1	0.0820	0.082	0.082			
APRIL	2	0.4661	1.954	1.210	1.0520	0.7439	± 9.4520
MAY	1	0.6667	0.667	0.667			
JULY	2	0.5121	0.665	0.589	0.1083	0.0766	± 0.9728
AUGUST	3	0.5522	1.439	0.893	0.4777	0.2758	± 1.1866
SEPTEMBER	2	0.5372	1.876	1.207	0.9468	0.6695	± 8.5067
OCTOBER	2	0.7976	0.868	0.868	0.0995	0.0704	± 0.8939
NOVEMBER	2	0.2928	0.766	0.529	0.3344	0.2365	± 3.0045
DECEMBER	1	0.4153	0.415	0.415			

STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF AMMONIA (N) / NITRATE PLUS NITRITE (N)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
1980 JANUARY	2	0.2603	0.287	0.274	0.0189	0.0134	± 0.1697
FEBRUARY	2	0.2548	0.399	0.327	0.1020	0.0721	± 0.9165
MARCH	2	0.7376	1.210	0.974	0.3339	0.2361	± 2.9997
APRIL	2	0.7076	0.812	0.760	0.0738	0.0522	± 0.6632
MAY	1	0.8998	0.900	0.900			
JUNE	2	0.8103	1.139	0.974	0.2321	0.1641	± 2.0850
JULY	3	1.0000	1.050	1.025	0.0248	0.0143	± 0.0615
AUGUST	2	0.7010	1.265	0.983	0.3988	0.2820	± 3.5828
SEPTEMBER	2	1.0000	1.040	1.020	0.0279	0.0198	± 0.2510
OCTOBER	2	0.6000	0.600	0.600			
NOVEMBER	2	0.2556	0.561	0.408	0.2161	0.1528	± 1.9414
DECEMBER	2	0.3131	0.413	0.363	0.0707	0.0500	± 0.6353

STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF AMMONIA (N) / NITRATE PLUS NITRITE (N)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
-78-79-80 JANUARY	8	0.0971	0.571	0.275	0.1428	0.0505	± 0.1194
1976-78-79-80 FEBRUARY	15	0.0420	0.729	0.280	0.2293	0.0592	± 0.1270
-77-78-79-80 MARCH	18	0.0501	1.570	0.370	0.4235	0.0998	± 0.2106
-77-78-79-80 APRIL	14	0.4661	13.167	3.577	3.8373	1.0256	± 2.2156
-77-78-79-80 MAY	18	0.4607	24.589	8.870	8.0366	1.8942	± 3.9966
-77-78-80 JUNE	27	0.7940	46.330	9.540	10.6840	2.0561	± 4.2264
1976-77-78-79-80 JULY	33	0.1774	118.630	23.756	27.5780	4.8007	± 9.7790
1976-77-78-79-80 AUGUST	25	0.5522	130.960	29.783	30.9950	6.1990	± 12.7940
1976-78-79-80 SEPTEMBER	17	0.5372	40.893	11.986	14.6670	3.5573	± 7.5412
-77-78-79-80 OCTOBER	8	0.3673	3.620	1.308	1.1493	0.4063	± 0.9608
-77-78-79-80 NOVEMBER	8	0.1248	0.766	0.352	0.2256	0.0798	± 0.1886
1976-77-78-79-80 DECEMBER	15	0.1098	1.579	0.444	0.4308	0.1112	± 0.2385



STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF AMMONIA (N) / NITRATE PLUS NITRITE (N)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
1976 FEB JUL AUG SEP DEC	14	0.1130	6.392	1.723	2.0635	0.5515	± 1.1914
1977 MAR APR MAY JUN JUL AUG OCT NOV DEC	69	0.1098	75.287	11.895	15.8110	1.9034	± 3.7984
1978 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC	79	0.0420	130.960	17.170	25.8810	2.9118	± 5.7970
1979 JAN FEB MAR APR MAY JUN AUG SEP OCT NOV DEC	20	0.0820	1.954	0.697	0.5132	0.1148	± 0.2402
1980 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC	24	0.2548	1.265	0.722	0.3277	0.0669	± 0.1384

STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF AMMONIA (N) / NITRATE PLUS NITRITE (N)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
APRIL TO SEPTEMBER							
1976	9	0.1774	6.392	2.416	2.2834	0.7611	± 1.7552
1977	55	0.5854	75.287	14.774	16.5230	2.2280	± 4.4670
1978	48	0.4607	130.960	28.010	28.3820	4.0966	± 8.2415
1979	10	0.4661	1.954	0.936	0.5857	0.1852	± 0.4190
1980	12	0.7010	1.265	0.954	0.1719	0.0496	± 0.1092
1976-80	134	0.1774	130.960	16.415	22.3240	1.9285	± 3.8140
OCTOBER TO MARCH							
1976-77	8	0.1130	1.579	0.410	0.4782	0.1691	± 0.3998
1977-78	35	0.0420	3.620	0.409	0.6570	0.1110	± 0.2257
1978-79	11	0.0820	2.542	0.554	0.7078	0.2134	± 0.4755
1979-80	11	0.2548	1.210	0.578	0.3268	0.0985	± 0.2195
1980-81	6	0.2556	0.600	0.457	0.1516	0.0619	± 0.1591
1976-80	71	0.0420	3.620	0.462	0.5711	0.0678	± 0.1352
APRIL TO MARCH							
1976-80	205	0.0420	130.960	10.890	19.5680	1.3667	± 2.6945

STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF AMMONIA (N) / NITRATE PLUS NITRITE (N)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
1976 FEB JUL AUG SEP DEC	206	0.0420	130.960	10.838	19.5350	1.3611	± 2.6832
1977 MAR APR MAY JUN JUL AUG OCT NOV DEC							
1978 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC							
1979 JAN FEB MAR APR MAY JUN AUG SEP OCT NOV DEC							
1980 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC							

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OKANAGAN RIVER BELOW OKANAGAN LAKE

Statistical Characteristics of Nutrient Loads

Period of Sampling February 1976 to December 1980.

RATIO OF AMMONIA (N) TO NITRATE PLUS NITRITE (N)

Median loads and their statistical characteristics determined for

Individual Months	255
All Months	257
Individual Years	258
Seasons	259
April to September	
October to March	
April to March	
All Years	260

STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF AMMONIA (N) / NITRATE PLUS NITRITE (N)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN	CONFIDENCE INTERVAL		PROBABILITY LEVEL
			LOWER	UPPER	
1976 FEBRUARY	1	0.222			
JULY	4	0.220			
AUGUST	4	6.392			
SEPTEMBER	1	3.498			
DECEMBER	4	0.204			
1977 MARCH	4	0.255			
APRIL	5	2.857	0.5854	0.969	0.969
MAY	6	3.124	0.8194	6.7143	0.969
JUNE	18	5.039	2.2484	11.5450	0.969
JULY	13	15.871	11.6230	26.9350	0.978
AUGUST	13	28.462	7.8571	53.5710	0.978
OCTOBER	2	1.000			
NOVEMBER	1	0.125			
DECEMBER	7	0.182	0.1098	1.0167	0.984
1978 JANUARY	4	0.182			
FEBRUARY	10	0.119	0.0421	0.7260	0.979
MARCH	11	0.140	0.0537	0.6145	0.961
APRIL	5	6.667		0.9809	0.969
MAY	10	13.284	7.9832	22.8570	0.979
JUNE	7	11.494	1.0000	46.3300	0.984
JULY	11	39.951	27.5730	90.0860	0.961
AUGUST	6	32.000	29.9490	130.9600	0.969
SEPTEMBER	9	27.077	2.8394	39.1470	0.961
OCTOBER	2	0.367			
NOVEMBER	3	0.182			
DECEMBER	1	1.000			
1979 JANUARY	2	0.097			
FEBRUARY	2	0.453			
MARCH	1	0.082			
APRIL	2	0.466			
MAY	1	0.667			
JULY	2	0.512			
AUGUST	3	0.688			
SEPTEMBER	2	0.537			
OCTOBER	2	0.798			
NOVEMBER	2	0.293			
DECEMBER	1	0.415			

STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
RATIO OF AMMONIA (N) / NITRATE PLUS NITRITE (N)
SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN	CONFIDENCE INTERVAL LOWER	CONFIDENCE INTERVAL UPPER	PROBABILITY LEVEL
1980 JANUARY	2	0.260			
FEBRUARY	2	0.255			
MARCH	2	0.738			
APRIL	2	0.708			
MAY	1	0.900			
JUNE	2	0.810			
JULY	3	1.024			
AUGUST	2	0.701			
SEPTEMBER	2	1.000			
OCTOBER	2	0.600			
NOVEMBER	2	0.256			
DECEMBER	2	0.313			

STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF AMMONIA (N) / NITRATE PLUS NITRITE (N)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN	CONFIDENCE INTERVAL LOWER	CONFIDENCE INTERVAL UPPER	PROBABILITY LEVEL
- 78-79-80 JANUARY	8	0.260	0.1796	0.5713	0.961
1976- 78-79-80 FEBRUARY	15	0.222	0.0757	0.4534	0.965
-77-78-79-80 MARCH	18	0.219	0.0546	0.3761	0.969
-77-78-79-80 APRIL	14	2.319	0.8120	6.6667	0.965
-77-78-79-80 MAY	18	6.714	1.1742	15.1670	0.969
-77-78- -80 JUNE	27	5.039	1.8269	11.5450	0.964
1976-77-78-79-80 JULY	33	15.871	7.1779	27.5730	0.965
1976-77-78-79-80 AUGUST	25	28.462	6.4835	35.5880	0.957
1976- 78-79-80 SEPTEMBER	17	3.512	1.9816	27.0770	0.951
-77-78-79-80 OCTOBER	8	0.798	0.6000	3.6199	0.961
-77-78-79-80 NOVEMBER	8	0.256	0.1661	0.7657	0.961
1976-77-78-79-80 DECEMBER	15	0.259	0.1191	0.5755	0.965

STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF AMMONIA (N) / NITRATE PLUS NITRITE (N)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN	CONFIDENCE INTERVAL LOWER	CONFIDENCE INTERVAL UPPER	PROBABILITY LEVEL
1976 FEB JUL AUG SEP DEC	14	0.259	0.2199	3.8426	0.965
1977 MAR APR MAY JUN JUL AUG OCT NOV DEC	69	5.039	3.1765	11.5450	0.959
1978 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC	79	3.512	1.0000	13.1670	0.958
1979 JAN FEB MAR APR MAY JUL AUG SEP OCT NOV DEC	20	0.537	0.4534	0.7657	0.959
1980 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC	24	0.708	0.5612	1.0000	0.957

STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF AMMONIA (N) / NITRATE PLUS NITRITE (N)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN	CONFIDENCE INTERVAL		PROBABILITY LEVEL
			LOWER	UPPER	
APRIL TO SEPTEMBER					
1976	9	2.643	0.2199	4.3760	0.961
1977	55	10.853	5.0390	15.8710	0.956
1978	48	22.577	13.1670	29.9490	0.956
1979	10	0.665	0.5121	1.8762	0.979
1980	12	1.000	0.8103	1.0495	0.961
1976-80	134	7.178	4.2560	12.0330	0.953
OCTOBER TO MARCH					
1976-77	8	0.255	0.1945	1.5789	0.961
1977-78	35	0.182	0.1188	0.3282	0.959
1978-79	11	0.367	0.1661	1.0000	0.961
1979-80	11	0.415	0.2871	0.9383	0.961
1980-81	6	0.413	0.2556	0.6000	0.969
1976-80	71	0.273	0.2187	0.3761	0.956
APRIL TO MARCH					
1976-80	205	1.570	1.0000	3.1240	0.957

STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF AMMONIA (N) / NITRATE PLUS NITRITE (N)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	CONFIDENCE INTERVAL		PROBABILITY LEVEL
		LOWER	UPPER	
1976 FEB JUL AUG SEP DEC	206	1.0000	3.0708	0.957
1977 MAR APR MAY JUN JUL AUG OCT NOV DEC				
1978 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC				
1979 JAN FEB MAR APR MAY JUL AUG SEP OCT NOV DEC				
1980 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC				

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OKANAGAN RIVER BELOW OKANAGAN LAKE

Statistical Characteristics of Nutrient Concentrations

Period of Sampling February 1976 to December 1980.

RATIO OF AMMONIA (N) TO TOTAL NITROGEN (N)

Arithmetic mean concentrations and their statistical characteristics
determined for:

Individual Months	262
All Months	264
Graph of monthly concentration ranges	265
Individual Years	266
Seasons	267
April to September	
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April to March	
All Years	268
Histogram of concentration distribution	269

STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF AMMONIA (N) / TOTAL NITROGEN (N)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

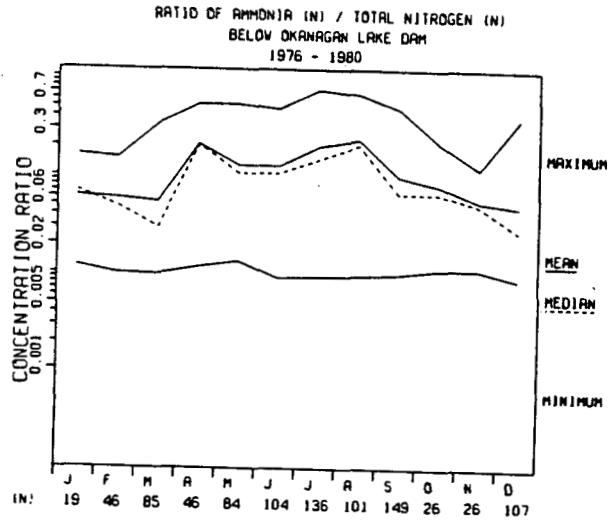
SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
1976							
FEBRUARY	6	0.0314	0.073	0.054	0.0175	0.0072	± 0.0184
JULY	36	0.0093	0.179	0.044	0.0311	0.0052	± 0.0105
AUGUST	18	0.0750	0.433	0.179	0.0969	0.0228	± 0.0482
SEPTEMBER	108	0.0100	0.135	0.055	0.0281	0.0027	± 0.0054
DECEMBER	71	0.0089	0.390	0.039	0.0499	0.0059	± 0.0118
1977							
MARCH	33	0.0098	0.078	0.036	0.0154	0.0027	± 0.0055
APRIL	14	0.0116	0.335	0.210	0.1080	0.0289	± 0.0624
MAY	38	0.0294	0.200	0.079	0.0447	0.0073	± 0.0147
JUNE	73	0.0091	0.341	0.099	0.0631	0.0074	± 0.0147
JULY	48	0.0095	0.469	0.159	0.0873	0.0126	± 0.0254
AUGUST	44	0.0095	0.056	0.202	0.1556	0.0235	± 0.0473
OCTOBER	4	0.0111	0.056	0.023	0.0221	0.0111	± 0.0352
NOVEMBER	4	0.0100	0.050	0.023	0.0184	0.0092	± 0.0293
DECEMBER	22	0.0353	0.345	0.050	0.0756	0.0161	± 0.0335
1978							
JANUARY	4	0.0100	0.152	0.071	0.0364	0.0182	± 0.0579
FEBRUARY	30	0.0105	0.328	0.055	0.0550	0.0100	± 0.0206
MARCH	40	0.0353	0.526	0.048	0.0661	0.0105	± 0.0211
APRIL	20	0.0611	0.531	0.269	0.1345	0.0301	± 0.0630
MAY	30	0.0125	0.478	0.202	0.1077	0.0197	± 0.0402
JUNE	24	0.1321	0.745	0.206	0.1544	0.0315	± 0.0652
JULY	40	0.1667	0.673	0.416	0.1318	0.0208	± 0.0422
AUGUST	24	0.0412	0.484	0.283	0.1438	0.0294	± 0.0607
SEPTEMBER	25	0.0125	0.217	0.111	0.1109	0.0222	± 0.0458
OCTOBER	7	0.0118	0.047	0.025	0.0938	0.0354	± 0.0867
NOVEMBER	8	0.0118	0.047	0.025	0.0143	0.0051	± 0.0120
DECEMBER	2	0.0118	0.012	0.012	0.0549	0.0207	± 0.0508
1979							
JANUARY	7	0.0118	0.162	0.039	0.0361	0.0147	± 0.0379
FEBRUARY	6	0.0450	0.145	0.076	0.0072	0.0036	± 0.0115
MARCH	4	0.0105	0.025	0.017	0.0920	0.0460	± 0.1464
APRIL	4	0.0278	0.232	0.101	0.0920	0.0460	± 0.1464
MAY	4	0.0133	0.013	0.013	0.0077	0.0039	± 0.0123
JULY	4	0.0529	0.069	0.059	0.0077	0.0039	± 0.0123
AUGUST	7	0.0512	0.200	0.125	0.0570	0.0215	± 0.0527
SEPTEMBER	8	0.0550	0.220	0.117	0.0645	0.0228	± 0.0539
OCTOBER	8	0.0778	0.121	0.094	0.0134	0.0047	± 0.0112
NOVEMBER	8	0.0762	0.120	0.092	0.0128	0.0045	± 0.0107
DECEMBER	4	0.0703	0.195	0.108	0.0584	0.0292	± 0.0930

STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF AMMONIA (N) / TOTAL NITROGEN (N)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
1980 JANUARY	8	0.0588	0.090	0.075	0.0102	0.0036	± 0.0085
FEBRUARY	4	0.0571	0.069	0.063	0.0048	0.0024	± 0.0076
MARCH	8	0.1000	0.336	0.182	0.0802	0.0283	± 0.0670
APRIL	8	0.0848	0.174	0.109	0.0281	0.0099	± 0.0235
MAY	12	0.0867	0.252	0.140	0.0460	0.0133	± 0.0292
JUNE	7	0.0941	0.170	0.121	0.0302	0.0114	± 0.0279
JULY	8	0.0848	0.164	0.126	0.0240	0.0085	± 0.0201
AUGUST	8	0.0882	0.270	0.174	0.0704	0.0249	± 0.0588
SEPTEMBER	8	0.0545	0.205	0.111	0.0486	0.0172	± 0.0407
OCTOBER	7	0.0600	0.068	0.064	0.0034	0.0013	± 0.0032
NOVEMBER	6	0.0457	0.083	0.069	0.0125	0.0051	± 0.0131
DECEMBER	8	0.0867	0.225	0.123	0.0444	0.0157	± 0.0372

STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF AMMONIA (N) / TOTAL NITROGEN (N)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
-78-79-80 JANUARY	19	0.0118	0.162	0.061	0.0397	0.0091	± 0.0191
1976-78-79-80 FEBRUARY	46	0.0100	0.152	0.058	0.0468	0.0069	± 0.0139
-77-78-79-80 MARCH	85	0.0098	0.336	0.054	0.0666	0.0072	± 0.0144
-77-78-79-80 APRIL	46	0.0116	0.526	0.209	0.1268	0.0187	± 0.0377
-77-78-79-80 MAY	84	0.0133	0.531	0.128	0.0946	0.0103	± 0.0205
-77-78-80 JUNE	104	0.0091	0.478	0.125	0.1008	0.0099	± 0.0196
1976-77-78-79-80 JULY	136	0.0093	0.745	0.199	0.1725	0.0148	± 0.0293
1976-77-78-79-80 AUGUST	101	0.0095	0.673	0.234	0.1578	0.0157	± 0.0312
1976-78-79-80 SEPTEMBER	149	0.0100	0.484	0.100	0.1002	0.0082	± 0.0162
-77-78-79-80 OCTOBER	26	0.0111	0.217	0.080	0.0561	0.0110	± 0.0227
-77-78-79-80 NOVEMBER	26	0.0111	0.120	0.055	0.0333	0.0065	± 0.0134
1976-77-78-79-80 DECEMBER	107	0.0089	0.390	0.049	0.0604	0.0058	± 0.0116



STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF AMMONIA (N) / TOTAL NITROGEN (N)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
1976 FEB JUL AUG SEP DEC	239	0.0089	0.433	0.058	0.0562	0.0036	± 0.0072
1977 MAR APR MAY JUN JUL AUG OCT NOV DEC	280	0.0091	0.469	0.115	0.1043	0.0062	± 0.0123
1978 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC	254	0.0100	0.745	0.213	0.1767	0.0111	± 0.0218
1979 JAN FEB MAR APR MAY JUN AUG SEP OCT NOV DEC	64	0.0105	0.232	0.082	0.0552	0.0069	± 0.0138
1980 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC	92	0.0457	0.336	0.118	0.0552	0.0058	± 0.0114

STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF AMMONIA (N) / TOTAL NITROGEN (N)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
APRIL TO SEPTEMBER							
1976	162	0.0093	0.433	0.066	0.0578	0.0045	± 0.0090
1977	217	0.0091	0.469	0.137	0.1061	0.0072	± 0.0142
1978	163	0.0125	0.745	0.303	0.1555	0.0122	± 0.0240
1979	27	0.0133	0.232	0.093	0.0669	0.0129	± 0.0265
1980	51	0.0545	0.270	0.131	0.0476	0.0067	± 0.0134
1976-80	620	0.0091	0.745	0.160	0.1400	0.0056	± 0.0110
OCTOBER TO MARCH							
1976-77	104	0.0089	0.390	0.038	0.0421	0.0041	± 0.0082
1977-78	104	0.0100	0.345	0.049	0.0618	0.0061	± 0.0120
1978-79	34	0.0105	0.217	0.053	0.0609	0.0104	± 0.0213
1979-80	40	0.0571	0.336	0.106	0.0560	0.0089	± 0.0179
1980-81	21	0.0457	0.225	0.088	0.0393	0.0086	± 0.0179
1976-80	303	0.0089	0.390	0.056	0.0579	0.0033	± 0.0065
APRIL TO MARCH							
1976-80	923	0.0089	0.745	0.126	0.1290	0.0042	± 0.0083

STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF AMMONIA (N) / TOTAL NITROGEN (N)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
1976 FEB JUL AUG SEP DEC	929	0.0089	0.745	0.125	0.1287	0.0042	± 0.0083
1977 MAR APR MAY JUN JUL AUG OCT NOV DEC							
1978 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC							
1979 JAN FEB MAR APR MAY JUN AUG SEP OCT NOV DEC							
1980 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC							

HISTOGRAM

MIDPOINT	HIST%	COUNT	NH3 TN
.88889 -2	16.7	154	+XXX
.33415 -1	15.5	143	+XXX
.57942 -1	14.3	132	+XXX
.82468 -1	11.5	106	+XXX
.10699	6.4	59	+XXX
.13152	5.0	46	+XXX
.15605	5.2	48	+XXX
.18057	3.0	28	+XXX
.20510	3.1	29	+XXX
.22963	2.7	25	+XXX
.25415	2.3	21	+XXX
.27868	2.6	24	+XXX
.30321	1.4	13	+XXX
.32773	2.2	20	+XXX
.35226	1.1	10	+XXXXX
.37678	.9	8	+XXXX
.40131	1.2	11	+XXXXXX
.42584	.9	8	+XXXX
.45036	1.1	10	+XXXXXX
.47489	.8	7	+XXXX
.49942	.2	2	+X
.52394	.9	8	+XXXX
.54847	.5	5	+XXX
.57300	.1	1	+X
.59752	.1	1	+X
.62205	.1	1	+X
.64658	.1	1	+X
.67110	.1	1	+X
.69563	0.	0	+
.72015	0.	0	+
.74468	.1	1	+X
MISSING		225	
TOTAL		1148	(INTERVAL WIDTH= .24526 -1)

PERCENT
FREQUENCY
CONCENTRATION RATIO

K-2

OKANAGAN RIVER BELOW OKANAGAN LAKE

Statistical Characteristics of Nutrient Concentrations

Period of Sampling February 1976 to December 1980.

RATIO OF AMMONIA (N) TO TOTAL NITROGEN (N)

Median concentrations and their statistical characteristics determined for

Individual Months	271
All Months	273
Individual Years	274
Seasons	275
April to September	
October to March	
April to March	
All Years	276
Cumulative distribution of concentration data	277

STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF AMMONIA (N) / TOTAL NITROGEN (N)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN	CONFIDENCE INTERVAL		PROBABILITY LEVEL
			LOWER	UPPER	
1976					
FEBRUARY	6	0.042	0.0314	0.0729	0.969
JULY	36	0.036	0.0278	0.0533	0.953
AUGUST	18	0.150	0.1053	0.2314	0.969
SEPTEMBER	108	0.053	0.0444	0.0625	0.957
DECEMBER	71	0.026	0.0225	0.0324	0.956
1977					
MARCH	33	0.032	0.0270	0.0450	0.965
APRIL	14	0.224	0.1610	0.3000	0.965
MAY	38	0.064	0.0500	0.0863	0.966
JUNE	73	0.086	0.0717	0.1189	0.953
JULY	48	0.156	0.1176	0.2032	0.956
AUGUST	44	0.186	0.1333	0.2783	0.951
OCTOBER	4	0.012			
NOVEMBER	4	0.012			
DECEMBER	22	0.013	0.0111	0.0526	0.965
1978					
JANUARY	4	0.045			
FEBRUARY	30	0.031	0.0125	0.0588	0.957
MARCH	40	0.016	0.0118	0.0333	0.961
APRIL	20	0.294	0.2067	0.3412	0.959
MAY	30	0.200	0.1500	0.2200	0.957
JUNE	24	0.229	0.0357	0.2813	0.957
JULY	40	0.400	0.3500	0.4828	0.961
AUGUST	24	0.333	0.3158	0.4828	0.957
SEPTEMBER	25	0.279	0.2091	0.3565	0.957
OCTOBER	7	0.128	0.0125	0.2167	0.984
NOVEMBER	8	0.018	0.0118	0.0474	0.961
DECEMBER	2	0.012			
1979					
JANUARY	7	0.017	0.0118	0.1619	0.984
FEBRUARY	6	0.064	0.0450	0.1454	0.969
MARCH	4	0.011			
APRIL	4	0.047			
MAY	4	0.013			
JULY	4	0.053			
AUGUST	7	0.129	0.0512	0.2000	0.984
SEPTEMBER	8	0.075	0.0564	0.2195	0.961
OCTOBER	8	0.089	0.0842	0.1211	0.961
NOVEMBER	8	0.090	0.0842	0.1200	0.961
DECEMBER	4	0.079			

STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF AMMONIA (N) / TOTAL NITROGEN (N)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN	CONFIDENCE INTERVAL LOWER	CONFIDENCE INTERVAL UPPER	PROBABILITY LEVEL
1980 JANUARY	8	0.073	0.0688	0.0903	0.961
FEBRUARY	4	0.063			
MARCH	8	0.156	0.1111	0.3357	0.961
APRIL	8	0.103	0.0903	0.1742	0.961
MAY	12	0.129	0.1000	0.1677	0.961
JUNE	7	0.106	0.0941	0.1697	0.984
JULY	8	0.121	0.1151	0.1636	0.961
AUGUST	8	0.144	0.1081	0.2696	0.961
SEPTEMBER	8	0.103	0.0588	0.2049	0.961
OCTOBER	7	0.067	0.0600	0.0684	0.984
NOVEMBER	6	0.069	0.0457	0.0833	0.969
DECEMBER	8	0.110	0.0909	0.2250	0.961

STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF AMMONIA (N) / TOTAL NITROGEN (N)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN	CONFIDENCE INTERVAL LOWER	CONFIDENCE INTERVAL UPPER	PROBABILITY LEVEL
-78-79-80 JANUARY	19	0.069	0.0333	0.0875	0.959
1976-78-79-80 FEBRUARY	46	0.048	0.0314	0.0636	0.960
-77-78-79-80 MARCH	85	0.029	0.0250	0.0417	0.960
-77-78-79-80 APRIL	46	0.207	0.1133	0.2909	0.960
-77-78-79-80 MAY	84	0.106	0.0867	0.1345	0.962
-77-78-80 JUNE	104	0.106	0.0848	0.1269	0.961
1976-77-78-79-80 JULY	136	0.148	0.1143	0.1900	0.952
1976-77-78-79-80 AUGUST	101	0.205	0.1667	0.2636	0.954
1976-78-79-80 SEPTEMBER	149	0.067	0.0564	0.0739	0.951
-77-78-79-80 OCTOBER	26	0.067	0.0600	0.0971	0.971
-77-78-79-80 NOVEMBER	26	0.050	0.0235	0.0833	0.971
1976-77-78-79-80 DECEMBER	107	0.027	0.0226	0.0343	0.957

STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF AMMONIA (N) / TOTAL NITROGEN (N)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

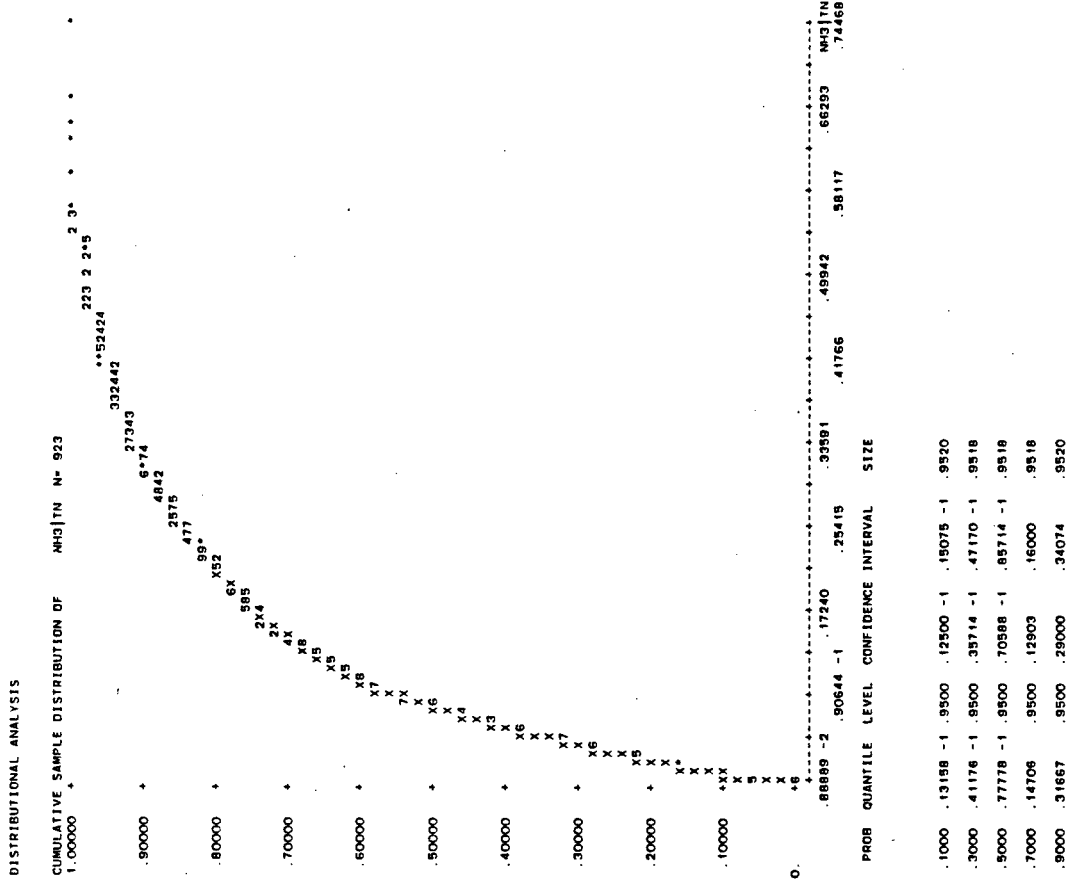
SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN	CONFIDENCE INTERVAL LOWER	CONFIDENCE INTERVAL UPPER	PROBABILITY LEVEL
1976 FEB JUL AUG SEP DEC	239	0.042	0.0364	0.0500	0.955
1977 MAR APR MAY JUN JUL AUG OCT NOV DEC	280	0.080	0.0636	0.0896	0.952
1978 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC	254	0.200	0.1533	0.2250	0.955
1979 JAN FEB MAR APR MAY JUN AUG SEP OCT NOV DEC	64	0.078	0.0636	0.0872	0.954
1980 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC	92	0.106	0.0941	0.1187	0.953

STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF AMMONIA (N) / TOTAL NITROGEN (N)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN	CONFIDENCE INTERVAL LOWER	CONFIDENCE INTERVAL UPPER	PROBABILITY LEVEL
APRIL TO SEPTEMBER					
1976	162	0.054	0.0472	0.0619	0.951
1977	217	0.117	0.0885	0.1345	0.951
1978	163	0.294	0.2688	0.3210	0.959
1979	27	0.069	0.0529	0.1294	0.964
1980	51	0.120	0.1062	0.1294	0.951
1976-80	620	0.113	0.0971	0.1238	0.951
OCTOBER TO MARCH					
1976-77	104	0.028	0.0261	0.0324	0.961
1977-78	104	0.018	0.0125	0.0333	0.961
1978-79	34	0.021	0.0167	0.0474	0.959
1979-80	40	0.087	0.0789	0.0971	0.961
1980-81	21	0.071	0.0667	0.0941	0.973
1976-80	303	0.035	0.0313	0.0450	0.956
APRIL TO MARCH					
1976-80	923	0.078	0.0706	0.0857	0.952

STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF AMMONIA (N) / TOTAL NITROGEN (N)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN	CONFIDENCE INTERVAL LOWER	CONFIDENCE INTERVAL UPPER	PROBABILITY LEVEL
1976 FEB JUL AUG SEP DEC	929	0.078	0.0706	0.0854	0.951
1977 MAR APR MAY JUN JUL AUG OCT NOV DEC					
1978 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC					
1979 JAN FEB MAR APR MAY JUL AUG SEP OCT NOV DEC					
1980 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC					



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OKANAGAN RIVER BELOW OKANAGAN LAKE

Statistical Characteristics of Nutrient Loads

Period of Sampling February 1976 to December 1980.

RATIO OF AMMONIA (N) TO TOTAL NITROGEN (N)

Arithmetic mean loads and their statistical characteristics determined for

Individual Months	279
All Months	281
Graph of monthly load ranges	282
Individual Years	283
Seasons	284
April to September	
October to March	
April to March	
All Years	285

STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF AMMONIA (N) / TOTAL NITROGEN (N)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

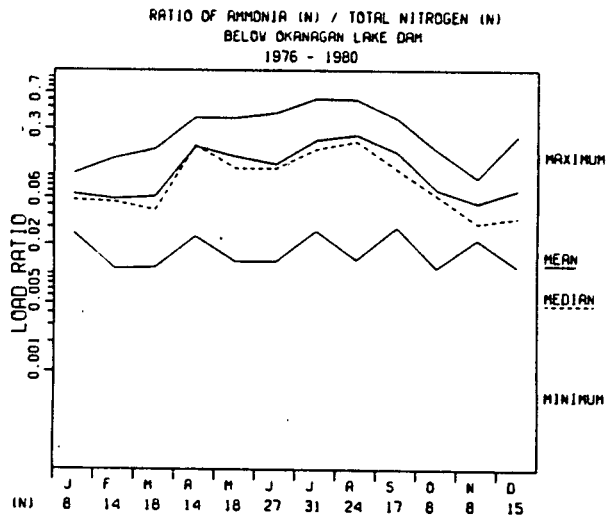
SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
1976 FEBRUARY	1	0.0536	0.054	0.054	0.0181	0.0090	± 0.0287
JULY	4	0.0274	0.062	0.046			
AUGUST	1	0.1867	0.187	0.187			
SEPTEMBER	4	0.0298	0.069	0.054	0.0171	0.0086	± 0.0272
DECEMBER	4	0.0217	0.258	0.093	0.1103	0.0552	± 0.1756
MARCH	4	0.0335	0.061	0.046	0.0114	0.0057	± 0.0181
APRIL	5	0.0241	0.290	0.188	0.0983	0.0440	± 0.1221
MAY	6	0.0536	0.161	0.112	0.0379	0.0155	± 0.0398
JUNE	18	0.0267	0.246	0.113	0.0602	0.0142	± 0.0300
JULY	13	0.0301	0.296	0.170	0.0709	0.0197	± 0.0428
AUGUST	13	0.0140	0.453	0.243	0.1426	0.0395	± 0.0862
OCTOBER	2	0.0115	0.045	0.028	0.0238	0.0169	± 0.2142
NOVEMBER	1	0.0229	0.023	0.023			
DECEMBER	7	0.0130	0.182	0.048	0.0596	0.0225	± 0.0551
JANUARY	4	0.0353	0.105	0.071	0.0363	0.0182	± 0.0578
FEBRUARY	10	0.0113	0.151	0.055	0.0545	0.0172	± 0.0390
MARCH	11	0.0116	0.165	0.048	0.0491	0.0148	± 0.0330
APRIL	5	0.1258	0.387	0.271	0.1153	0.0516	± 0.1431
MAY	10	0.0672	0.384	0.202	0.1030	0.0326	± 0.0737
JUNE	7	0.0133	0.435	0.179	0.1649	0.0523	± 0.1525
JULY	11	0.2394	0.617	0.410	0.1215	0.0366	± 0.0816
AUGUST	6	0.2257	0.607	0.394	0.1344	0.0549	± 0.1411
SEPTEMBER	9	0.0412	0.384	0.255	0.1200	0.0400	± 0.0922
OCTOBER	2	0.0159	0.183	0.100	0.1185	0.0638	± 1.0645
NOVEMBER	3	0.0223	0.033	0.026	0.0058	0.0033	± 0.0143
DECEMBER	1	0.0118	0.012	0.012			
JANUARY	2	0.0257	0.056	0.041	0.0215	0.0152	± 0.1929
FEBRUARY	2	0.0681	0.081	0.074	0.0089	0.0063	± 0.0796
MARCH	1	0.0171	0.017	0.017			
APRIL	2	0.0509	0.232	0.141	0.1281	0.0906	± 1.1506
MAY	1	0.0134	0.013	0.013			
JULY	1	0.0592	0.059	0.059			
AUGUST	2	0.0719	0.167	0.120	0.0673	0.0476	± 0.6050
SEPTEMBER	2	0.0637	0.171	0.118	0.0762	0.0539	± 0.6847
OCTOBER	2	0.0899	0.094	0.094	0.0061	0.0043	± 0.0551
NOVEMBER	2	0.0886	0.095	0.092	0.0046	0.0033	± 0.0413
DECEMBER	1	0.1087	0.109	0.109			

STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF AMMONIA (N) / TOTAL NITROGEN (N)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
1980 JANUARY	2	0.0696	0.081	0.075	0.0078	0.0055	± 0.0698
FEBRUARY	1	0.0627	0.063	0.063			
MARCH	2	0.1742	0.187	0.181	0.0092	0.0065	± 0.0826
APRIL	2	0.1031	0.115	0.109	0.0088	0.0062	± 0.0788
MAY	1	0.1161	0.116	0.116			
JUNE	2	0.0975	0.138	0.118	0.0285	0.0202	± 0.2563
JULY	2	0.1232	0.128	0.126	0.0037	0.0026	± 0.0333
AUGUST	2	0.1411	0.200	0.170	0.0414	0.0292	± 0.3716
SEPTEMBER	2	0.1102	0.117	0.114	0.0049	0.0035	± 0.0442
OCTOBER	2	0.0620	0.065	0.064	0.0024	0.0017	± 0.0213
NOVEMBER	2	0.0652	0.069	0.067	0.0028	0.0020	± 0.0255
DECEMBER	2	0.1033	0.141	0.122	0.0270	0.0191	± 0.2427

STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF AMMONIA (N) / TOTAL NITROGEN (N)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
- 78-79-80 JANUARY	8	0.0257	0.105	0.065	0.0293	0.0104	± 0.0245
1976- 78-79-80 FEBRUARY	14	0.0113	0.151	0.058	0.0460	0.0123	± 0.0266
-77-78-79-80 MARCH	18	0.0116	0.187	0.061	0.0583	0.0137	± 0.0290
-77-78-79-80 APRIL	14	0.0241	0.387	0.200	0.1102	0.0294	± 0.0636
-77-78-79-80 MAY	18	0.0134	0.384	0.156	0.0961	0.0227	± 0.0478
-77-78- 80 JUNE	27	0.0133	0.435	0.131	0.0977	0.0188	± 0.0386
1976-77-78-79-80 JULY	31	0.0274	0.617	0.233	0.1632	0.0293	± 0.0599
1976-77-78-79-80 AUGUST	24	0.0140	0.607	0.262	0.1494	0.0305	± 0.0631
1976- 78-79-80 SEPTEMBER	17	0.0298	0.384	0.175	0.1256	0.0305	± 0.0646
-77-78-79-80 OCTOBER	8	0.0115	0.183	0.071	0.0549	0.0194	± 0.0459
-77-78-79-80 NOVEMBER	8	0.0223	0.095	0.052	0.0306	0.0108	± 0.0256
1976-77-78-79-80 DECEMBER	15	0.0118	0.258	0.072	0.0729	0.0188	± 0.0404



STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF AMMONIA (N) / TOTAL NITROGEN (N)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
1976 FEB JUL AUG SEP DEC	14	0.0217	0.258	0.072	0.0666	0.0178	± 0.0385
1977 MAR APR MAY JUN JUL AUG OCT NOV DEC	69	0.0115	0.453	0.139	0.1047	0.0126	± 0.0252
1978 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC	79	0.0113	0.617	0.196	0.1671	0.0188	± 0.0374
1979 JAN FEB MAR APR MAY JUN AUG SEP OCT NOV DEC	18	0.0134	0.232	0.087	0.0561	0.0132	± 0.0279
1980 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC	22	0.0620	0.200	0.112	0.0404	0.0086	± 0.0179

STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF AMMONIA (N) / TOTAL NITROGEN (N)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
APRIL TO SEPTEMBER							
1976	9	0.0274	0.187	0.065	0.0482	0.0161	± 0.0371
1977	55	0.0140	0.453	0.164	0.1017	0.0137	± 0.0275
1978	48	0.0133	0.617	0.288	0.1505	0.0217	± 0.0437
1979	8	0.0134	0.232	0.104	0.0762	0.0269	± 0.0637
1980	11	0.0975	0.200	0.126	0.0277	0.0084	± 0.0186
1976-80	131	0.0133	0.617	0.196	0.1366	0.0119	± 0.0236
OCTOBER TO MARCH							
1976-77	8	0.0217	0.258	0.070	0.0769	0.0272	± 0.0643
1977-78	35	0.0113	0.182	0.051	0.0487	0.0082	± 0.0167
1978-79	11	0.0118	0.183	0.049	0.0501	0.0151	± 0.0337
1979-80	10	0.0627	0.187	0.106	0.0419	0.0133	± 0.0300
1980-81	6	0.0620	0.141	0.084	0.0319	0.0130	± 0.0335
1976-80	70	0.0113	0.258	0.063	0.0534	0.0064	± 0.0127
APRIL TO MARCH							
1976-80	201	0.0113	0.617	0.150	0.1308	0.0092	± 0.0182

STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF AMMONIA (N) / TOTAL NITROGEN (N)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
1976 FEB JUL AUG SEP DEC	202	0.0113	0.617	0.149	0.1306	0.0092	± 0.0181
1977 MAR APR MAY JUN JUL AUG OCT NOV DEC							
1978 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC							
1979 JAN FEB MAR APR MAY JUN AUG SEP OCT NOV DEC							
1980 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC							

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OKANAGAN RIVER BELOW OKANAGAN LAKE

Statistical Characteristics of Nutrient Loads

Period of Sampling February 1976 to December 1980.

RATIO OF AMMONIA (N) TO TOTAL NITROGEN (N)

Median loads and their statistical characteristics determined for

Individual Months	287
All Months	289
Individual Years	290
Seasons	291
April to September	
October to March	
April to March	
All Years	292

STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF AMMONIA (N) / TOTAL NITROGEN (N)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN	CONFIDENCE INTERVAL LOWER	CONFIDENCE INTERVAL UPPER	PROBABILITY LEVEL
1976 FEBRUARY	1	0.054			
JULY	4	0.033			
AUGUST	1	0.187			
SEPTEMBER	4	0.057			
DECEMBER	4	0.042			
1977 MARCH	4	0.044			
APRIL	5	0.210		0.0241	0.969
MAY	6	0.105	0.0536	0.1606	0.969
JUNE	18	0.102	0.0670	0.1419	0.969
JULY	13	0.177	0.1287	0.2414	0.978
AUGUST	13	0.264	0.0899	0.4054	0.978
OCTOBER	2	0.011			
NOVEMBER	1	0.023			
DECEMBER	7	0.024	0.0130	0.1818	0.984
1978 JANUARY	4	0.045			
FEBRUARY	10	0.026	0.0113	0.1510	0.979
MARCH	11	0.027	0.0122	0.1024	0.961
APRIL	5	0.281		0.1258	0.969
MAY	10	0.199	0.1000	0.3325	0.979
JUNE	7	0.234	0.0133	0.4353	0.984
JULY	11	0.418	0.3094	0.5500	0.961
AUGUST	6	0.320	0.2257	0.6066	0.969
SEPTEMBER	9	0.280	0.1170	0.3805	0.961
OCTOBER	2	0.016			
NOVEMBER	3	0.024			
DECEMBER	1	0.012			
1979 JANUARY	2	0.026			
FEBRUARY	2	0.068			
MARCH	1	0.017			
APRIL	2	0.051			
MAY	1	0.013			
JULY	1	0.059			
AUGUST	2	0.072			
SEPTEMBER	2	0.064			
OCTOBER	2	0.090			
NOVEMBER	2	0.089			
DECEMBER	1	0.109			

STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF AMMONIA (N) / TOTAL NITROGEN (N)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN	CONFIDENCE INTERVAL LOWER	CONFIDENCE INTERVAL UPPER	PROBABILITY LEVEL
1980 JANUARY	2	0.070			
FEBRUARY	1	0.063			
MARCH	2	0.174			
APRIL	2	0.103			
MAY	1	0.116			
JUNE	2	0.098			
JULY	2	0.123			
AUGUST	2	0.141			
SEPTEMBER	2	0.110			
OCTOBER	2	0.062			
NOVEMBER	2	0.065			
DECEMBER	2	0.103			

STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF AMMONIA (N) / TOTAL NITROGEN (N)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN	CONFIDENCE INTERVAL LOWER	CONFIDENCE INTERVAL UPPER	PROBABILITY LEVEL
-78-79-80 JANUARY	8	0.056	0.0353	0.1051	0.961
1976-78-79-80 FEBRUARY	14	0.054	0.0185	0.0806	0.965
-77-78-79-80 MARCH	18	0.044	0.0128	0.0697	0.969
-77-78-79-80 APRIL	14	0.205	0.1155	0.2903	0.965
-77-78-79-80 MAY	18	0.118	0.1000	0.2173	0.969
-77-78-80 JUNE	27	0.117	0.0675	0.1768	0.964
1976-77-78-79-80 JULY	31	0.187	0.1287	0.2961	0.971
1976-77-78-79-80 AUGUST	24	0.226	0.1672	0.3476	0.957
1976-78-79-80 SEPTEMBER	17	0.117	0.0637	0.2796	0.951
-77-78-79-80 OCTOBER	8	0.062	0.0159	0.1835	0.961
-77-78-79-80 NOVEMBER	8	0.033	0.0229	0.0951	0.961
1976-77-78-79-80 DECEMBER	15	0.037	0.0223	0.1087	0.965

STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF AMMONIA (N) / TOTAL NITROGEN (N)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN	CONFIDENCE INTERVAL LOWER	CONFIDENCE INTERVAL UPPER	PROBABILITY LEVEL
1976 FEB JUL AUG SEP DEC	14	0.054	0.0332	0.0695	0.965
1977 MAR APR MAY JUN JUL AUG OCT NOV DEC	69	0.129	0.0899	0.1595	0.959
1978 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC	79	0.165	0.1000	0.2339	0.958
1979 JAN FEB MAR APR MAY JUL AUG SEP OCT NOV DEC	18	0.072	0.0561	0.0986	0.969
1980 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC	22	0.110	0.0806	0.1378	0.965

STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF AMMONIA (N) / TOTAL NITROGEN (N)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN	CONFIDENCE INTERVAL LOWER	CONFIDENCE INTERVAL UPPER	PROBABILITY LEVEL
APRIL TO SEPTEMBER					
1976	9	0.060	0.0298	0.0695	0.961
1977	55	0.142	0.1266	0.1797	0.956
1978	48	0.281	0.2339	0.3473	0.956
1979	8	0.064	0.0509	0.2320	0.961
1980	11	0.117	0.1102	0.1411	0.961
1976-80	131	0.167	0.1306	0.2005	0.955
OCTOBER TO MARCH					
1976-77	8	0.044	0.0335	0.2578	0.961
1977-78	35	0.029	0.0223	0.0494	0.959
1978-79	11	0.026	0.0171	0.0806	0.961
1979-80	10	0.090	0.0696	0.1742	0.979
1980-81	6	0.065	0.0620	0.1415	0.969
1976-80	70	0.046	0.0335	0.0652	0.959
APRIL TO MARCH					
1976-80	201	0.109	0.0951	0.1287	0.952

STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF AMMONIA (N) / TOTAL NITROGEN (N)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN	CONFIDENCE INTERVAL LOWER	CONFIDENCE INTERVAL UPPER	PROBABILITY LEVEL
1976 FEB JUL AUG SEP DEC	202	0.108	0.0951	0.1287	0.951
1977 MAR APR MAY JUN JUL AUG OCT NOV DEC					
1978 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC					
1979 JAN FEB MAR APR MAY JUL AUG SEP OCT NOV DEC					
1980 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC					

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OKANAGAN RIVER BELOW OKANAGAN LAKE

Statistical Characteristics of Nutrient Concentrations

Period of Sampling February 1976 to December 1980.

ORGANIC NITROGEN (N)

Arithmetic mean concentrations and their statistical characteristics
determined for:

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Graph of monthly concentration ranges	297
Individual Years	298
Seasons	299
April to September	
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Histogram of concentration distribution	301

STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 ORGANIC NITROGEN (N)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

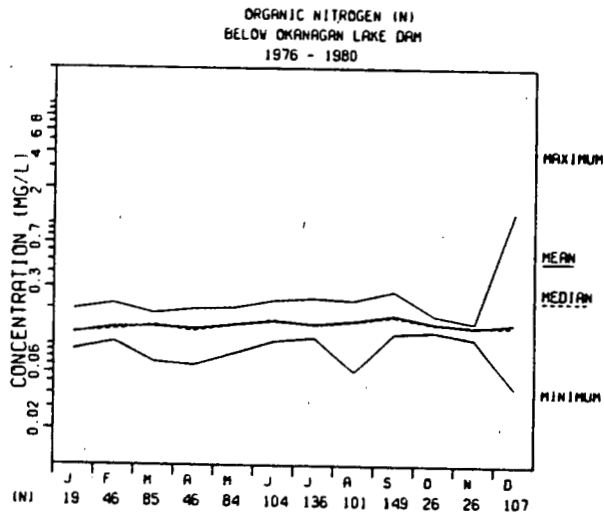
SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN (MG/L)	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
1976 FEBRUARY	6	0.1310	0.142	0.136	0.0038	0.0016	± 0.0040
JULY	36	0.1150	0.184	0.142	0.0156	0.0026	± 0.0053
AUGUST	18	0.1460	0.231	0.178	0.0231	0.0054	± 0.0115
SEPTEMBER	108	0.1470	0.278	0.185	0.0225	0.0022	± 0.0043
DECEMBER	71	0.1140	0.190	0.148	0.0149	0.0018	± 0.0035
1977 MARCH	33	0.1370	0.182	0.157	0.0123	0.0021	± 0.0044
APRIL	14	0.1390	0.197	0.178	0.0157	0.0042	± 0.0090
MAY	38	0.0860	0.201	0.168	0.0187	0.0030	± 0.0062
JUNE	73	0.1390	0.231	0.170	0.0188	0.0022	± 0.0044
JULY	48	0.1290	0.239	0.157	0.0202	0.0029	± 0.0059
AUGUST	44	0.1260	0.213	0.165	0.0209	0.0031	± 0.0064
OCTOBER	4	0.1490	0.176	0.159	0.0116	0.0058	± 0.0185
NOVEMBER	4	0.1330	0.150	0.139	0.0078	0.0039	± 0.0124
DECEMBER	22	0.1100	1.263	0.191	0.2397	0.0511	± 0.1063
1978 JANUARY	4	0.1310	0.196	0.151	0.0304	0.0152	± 0.0484
FEBRUARY	30	0.1060	0.172	0.135	0.0200	0.0037	± 0.0075
MARCH	40	0.1220	0.167	0.137	0.0092	0.0015	± 0.0029
APRIL	20	0.0690	0.147	0.109	0.0216	0.0048	± 0.0101
MAY	30	0.1080	0.155	0.132	0.0120	0.0022	± 0.0045
JUNE	24	0.1070	0.186	0.129	0.0167	0.0034	± 0.0071
JULY	40	0.1180	0.241	0.144	0.0218	0.0034	± 0.0070
AUGUST	24	0.1100	0.233	0.150	0.0341	0.0070	± 0.0144
SEPTEMBER	25	0.1240	0.167	0.146	0.0120	0.0024	± 0.0049
OCTOBER	7	0.1290	0.168	0.145	0.0151	0.0057	± 0.0139
NOVEMBER	8	0.1440	0.152	0.149	0.0151	0.0057	± 0.0139
DECEMBER	2	0.1660	0.166	0.166	0.0034	0.0012	± 0.0029
1979 JANUARY	7	0.1190	0.137	0.131	0.0066	0.0025	± 0.0061
FEBRUARY	6	0.1410	0.219	0.167	0.0278	0.0114	± 0.0292
MARCH	4	0.1450	0.150	0.147	0.0022	0.0011	± 0.0034
APRIL	4	0.1430	0.164	0.156	0.0090	0.0045	± 0.0143
MAY	4	0.1420	0.146	0.145	0.0020	0.0010	± 0.0032
JULY	4	0.1410	0.144	0.142	0.0015	0.0007	± 0.0024
AUGUST	7	0.1180	0.184	0.140	0.0234	0.0088	± 0.0216
SEPTEMBER	8	0.1400	0.196	0.167	0.0153	0.0054	± 0.0128
OCTOBER	8	0.1380	0.154	0.146	0.0060	0.0021	± 0.0050
NOVEMBER	8	0.1320	0.148	0.141	0.0055	0.0019	± 0.0046
DECEMBER	4	0.1070	0.128	0.121	0.0093	0.0047	± 0.0148

STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 ORGANIC NITROGEN (N)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN (MG/L)	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
1980 JANUARY	8	0.0910	0.123	0.106	0.0103	0.0036	± 0.0086
FEBRUARY	4	0.1230	0.184	0.141	0.0290	0.0145	± 0.0462
MARCH	8	0.0730	0.152	0.103	0.0238	0.0084	± 0.0199
APRIL	8	0.0980	0.131	0.116	0.0103	0.0036	± 0.0086
MAY	12	0.0960	0.124	0.115	0.0074	0.0021	± 0.0047
JUNE	7	0.1170	0.134	0.125	0.0067	0.0025	± 0.0062
JULY	8	0.1180	0.131	0.124	0.0045	0.0016	± 0.0038
AUGUST	8	0.0610	0.145	0.102	0.0389	0.0137	± 0.0325
SEPTEMBER	8	0.1340	0.146	0.139	0.0040	0.0014	± 0.0034
OCTOBER	7	0.1480	0.168	0.156	0.0082	0.0031	± 0.0076
NOVEMBER	6	0.1120	0.138	0.125	0.0097	0.0040	± 0.0102
DECEMBER	8	0.0440	0.114	0.081	0.0249	0.0088	± 0.0208

STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 ORGANIC NITROGEN (N)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN (MG/L)	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
- 78-79-80 JANUARY	19	0.0910	0.196	0.125	0.0231	0.0053	± 0.0111
1976- 78-79-80 FEBRUARY	46	0.1060	0.219	0.140	0.0226	0.0033	± 0.0067
-77-78-79-80 MARCH	85	0.0730	0.182	0.142	0.0198	0.0021	± 0.0043
-77-78-79-80 APRIL	46	0.0690	0.197	0.135	0.0357	0.0053	± 0.0106
-77-78-79-80 MAY	84	0.0860	0.201	0.146	0.0255	0.0028	± 0.0055
-77-78- 80 JUNE	104	0.1070	0.231	0.157	0.0260	0.0025	± 0.0050
1976-77-78-79-80 JULY	136	0.1150	0.241	0.147	0.0205	0.0018	± 0.0035
1976-77-78-79-80 AUGUST	101	0.0610	0.233	0.157	0.0326	0.0032	± 0.0064
1976- 78-79-80 SEPTEMBER	149	0.1240	0.278	0.175	0.0264	0.0022	± 0.0043
-77-78-79-80 OCTOBER	26	0.1290	0.176	0.151	0.0115	0.0023	± 0.0046
-77-78-79-80 NOVEMBER	26	0.1120	0.152	0.139	0.0108	0.0021	± 0.0044
1976-77-78-79-80 DECEMBER	107	0.0440	1.263	0.151	0.1110	0.0107	± 0.0213



STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 ORGANIC NITROGEN (N)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN (MG/L)	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
1976 FEB JUL AUG SEP DEC	239	0.1140	0.278	0.166	0.0275	0.0018	± 0.0035
1977 MAR APR MAY JUN JUL AUG OCT NOV DEC	280	0.0860	1.263	0.167	0.0687	0.0041	± 0.0081
1978 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC	254	0.0690	0.241	0.138	0.0216	0.0014	± 0.0027
1979 JAN FEB MAR APR MAY JUL AUG SEP OCT NOV DEC	64	0.1070	0.219	0.146	0.0184	0.0023	± 0.0046
1980 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC	92	0.0440	0.184	0.118	0.0253	0.0026	± 0.0052

STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 ORGANIC NITROGEN (N)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARTITHMETIC MEAN (MG/L)	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
APRIL TO SEPTEMBER							
1976	162	0.1150	0.278	0.175	0.0277	0.0022	± 0.0043
1977	217	0.0860	0.239	0.166	0.0200	0.0014	± 0.0027
1978	163	0.0690	0.241	0.137	0.0242	0.0019	± 0.0037
1979	27	0.1180	0.196	0.151	0.0182	0.0035	± 0.0072
1980	51	0.0610	0.146	0.120	0.0193	0.0027	± 0.0054
1976-80	620	0.0610	0.278	0.156	0.0296	0.0012	± 0.0023
OCTOBER TO MARCH							
1976-77	104	0.1140	0.190	0.151	0.0146	0.0014	± 0.0028
1977-78	104	0.1060	1.263	0.149	0.1113	0.0109	± 0.0216
1978-79	34	0.1190	0.219	0.148	0.0178	0.0030	± 0.0062
1979-80	40	0.0730	0.184	0.125	0.0236	0.0037	± 0.0076
1980-81	21	0.0440	0.168	0.119	0.0366	0.0080	± 0.0167
1976-80	303	0.0440	1.263	0.144	0.0679	0.0039	± 0.0077
APRIL TO MARCH							
1976-80	923	0.0440	1.263	0.152	0.0461	0.0015	± 0.0030

STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 ORGANIC NITROGEN (N)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
1976 FEB JUL AUG SEP DEC	929	0.0440	1.263	0.152	0.0460	0.0015	± 0.0030
1977 MAR APR MAY JUN JUL AUG OCT NOV DEC							
1978 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC							
1979 JAN FEB MAR APR MAY JUL AUG SEP OCT NOV DEC							
1980 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC							

(MG/L.)

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OKANAGAN RIVER BELOW OKANAGAN LAKE

Statistical Characteristics of Nutrient Concentrations

Period of Sampling February 1976 to December 1980.

ORGANIC NITROGEN (N)

Median concentrations and their statistical characteristics determined for

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STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 ORGANIC NITROGEN (N)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN (MG/L)	CONFIDENCE INTERVAL LOWER	CONFIDENCE INTERVAL UPPER	PROBABILITY LEVEL
1976 FEBRUARY	6	0.134	0.1310	0.1420	0.969
JULY	36	0.142	0.1360	0.1470	0.953
AUGUST	18	0.171	0.1590	0.1960	0.969
SEPTEMBER	108	0.184	0.1770	0.1900	0.957
DECEMBER	71	0.145	0.1420	0.1500	0.956
1977 MARCH	33	0.155	0.1490	0.1590	0.965
APRIL	14	0.176	0.1730	0.1950	0.965
MAY	38	0.169	0.1610	0.1790	0.966
JUNE	73	0.166	0.1610	0.1700	0.953
JULY	48	0.153	0.1500	0.1580	0.956
AUGUST	44	0.163	0.1560	0.1720	0.951
OCTOBER	4	0.156			
NOVEMBER	4	0.134			
DECEMBER	22	0.142	0.1350	0.1470	0.965
1978 JANUARY	4	0.135			
FEBRUARY	30	0.130	0.1210	0.1470	0.957
MARCH	40	0.135	0.1320	0.1420	0.961
APRIL	20	0.104	0.0970	0.1240	0.959
MAY	30	0.133	0.1260	0.1390	0.957
JUNE	24	0.124	0.1190	0.1360	0.957
JULY	40	0.144	0.1330	0.1480	0.961
AUGUST	24	0.136	0.1320	0.1580	0.957
SEPTEMBER	25	0.146	0.1390	0.1530	0.957
OCTOBER	7	0.140	0.1290	0.1680	0.984
NOVEMBER	8	0.149	0.1450	0.1520	0.961
DECEMBER	2	0.166			
1979 JANUARY	7	0.131	0.1190	0.1370	0.984
FEBRUARY	6	0.154	0.1410	0.2190	0.969
MARCH	4	0.146			
APRIL	4	0.157			
MAY	4	0.146			
JULY	4	0.141			
AUGUST	7	0.128	0.1180	0.1840	0.984
SEPTEMBER	8	0.164	0.1620	0.1960	0.961
OCTOBER	8	0.146	0.1400	0.1540	0.961
NOVEMBER	8	0.143	0.1340	0.1480	0.961
DECEMBER	4	0.122			

STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 ORGANIC NITROGEN (N)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN (MG/L)	CONFIDENCE INTERVAL LOWER	CONFIDENCE INTERVAL UPPER	PROBABILITY LEVEL
1980 JANUARY	8	0.108	0.0960	0.1230	0.961
FEBRUARY	4	0.124			
MARCH	8	0.100	0.0780	0.1520	0.961
APRIL	8	0.119	0.1060	0.1310	0.961
MAY	12	0.115	0.1100	0.1200	0.961
JUNE	7	0.123	0.1170	0.1340	0.984
JULY	8	0.125	0.1200	0.1310	0.961
AUGUST	8	0.075	0.0640	0.1450	0.961
SEPTEMBER	8	0.137	0.1360	0.1460	0.961
OCTOBER	7	0.157	0.1480	0.1680	0.984
NOVEMBER	6	0.127	0.1120	0.1380	0.969
DECEMBER	8	0.078	0.0490	0.1140	0.961

STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 ORGANIC NITROGEN (N)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN (MG/L)	CONFIDENCE INTERVAL LOWER	CONFIDENCE INTERVAL UPPER	PROBABILITY LEVEL
- 78-79-80 JANUARY	19	0.127	0.1100	0.1360	0.959
1976- 78-79-80 FEBRUARY	46	0.134	0.1300	0.1470	0.960
-77-78-79-80 MARCH	85	0.145	0.1410	0.1470	0.960
-77-78-79-80 APRIL	46	0.131	0.1140	0.1570	0.960
-77-78-79-80 MAY	84	0.146	0.1380	0.1550	0.962
-77-78- 80 JUNE	104	0.160	0.1560	0.1640	0.961
1976-77-78-79-80 JULY	136	0.146	0.1420	0.1480	0.952
1976-77-78-79-80 AUGUST	101	0.156	0.1480	0.1640	0.954
1976- 78-79-80 SEPTEMBER	149	0.171	0.1670	0.1780	0.951
-77-78-79-80 OCTOBER	26	0.149	0.1460	0.1560	0.971
-77-78-79-80 NOVEMBER	26	0.143	0.1340	0.1450	0.971
1976-77-78-79-80 DECEMBER	107	0.142	0.1400	0.1450	0.957

STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 ORGANIC NITROGEN (N)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN (MG/L)	CONFIDENCE INTERVAL LOWER	CONFIDENCE INTERVAL UPPER	PROBABILITY LEVEL
1976 FEB JUL AUG SEP DEC	239	0.163	0.1560	0.1680	0.955
1977 MAR APR MAY JUN JUL AUG OCT NOV DEC	280	0.160	0.1570	0.1630	0.952
1978 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC	254	0.135	0.1340	0.1390	0.955
1979 JAN FEB MAR APR MAY JUN AUG SEP OCT NOV DEC	64	0.144	0.1420	0.1470	0.954
1980 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC	92	0.120	0.1150	0.1240	0.953

STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 ORGANIC NITROGEN (N)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN (MG/L)	CONFIDENCE INTERVAL LOWER	CONFIDENCE INTERVAL UPPER	PROBABILITY LEVEL
APRIL TO SEPTEMBER					
1976	162	0.172	0.1680	0.1810	0.951
1977	217	0.164	0.1600	0.1680	0.951
1978	163	0.135	0.1330	0.1390	0.959
1979	27	0.146	0.1430	0.1640	0.964
1980	51	0.121	0.1190	0.1260	0.951
1976-80	620	0.156	0.1530	0.1580	0.951
OCTOBER TO MARCH					
1976-77	104	0.148	0.1450	0.1520	0.961
1977-78	104	0.137	0.1330	0.1420	0.961
1978-79	34	0.146	0.1410	0.1520	0.959
1979-80	40	0.125	0.1100	0.1400	0.961
1980-81	21	0.127	0.0900	0.1480	0.973
1976-80	303	0.143	0.1410	0.1450	0.956
APRIL TO MARCH					
1976-80	923	0.148	0.1470	0.1500	0.952

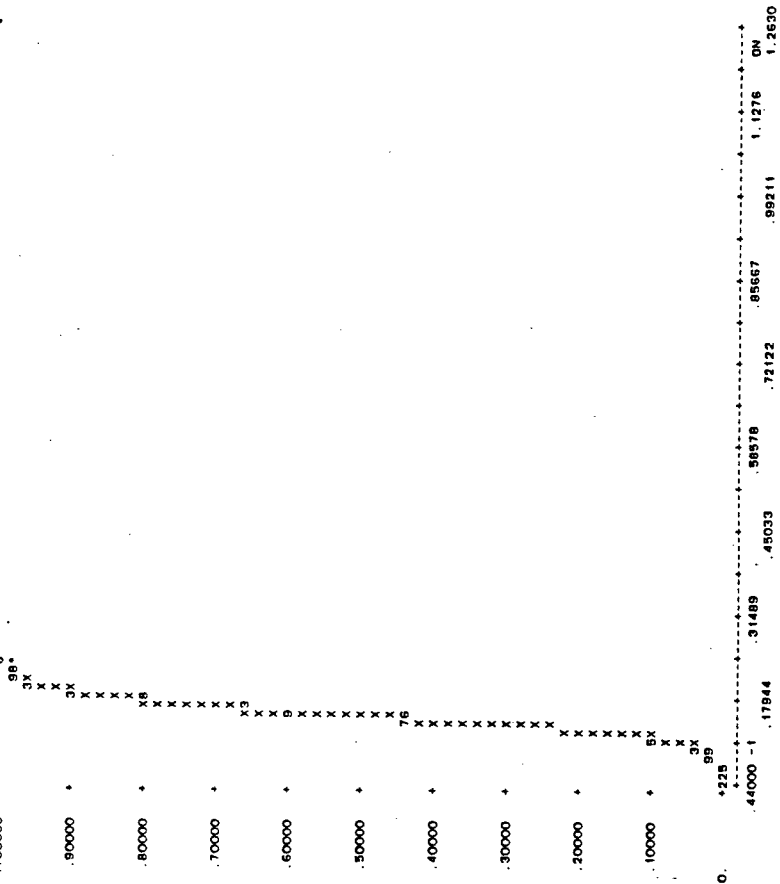
STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 ORGANIC NITROGEN (N)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN	CONFIDENCE INTERVAL LOWER	CONFIDENCE INTERVAL UPPER	PROBABILITY LEVEL
1976 FEB JUL AUG SEP DEC	929	0.148	0.1470	0.1500	0.951
1977 MAR APR MAY JUN JUL AUG OCT NOV DEC					
1978 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC					
1979 JAN FEB MAR APR MAY JUN AUG SEP OCT NOV DEC					
1980 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC					

(MG/L)

DISTRIBUTIONAL ANALYSIS

CUMULATIVE SAMPLE DISTRIBUTION OF ON N= 923
 1.00000 + 6***



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OKANAGAN RIVER BELOW OKANAGAN LAKE

Statistical Characteristics of Nutrient Loads

Period of Sampling February 1976 to December 1980.

ORGANIC NITROGEN (N)

Arithmetic mean loads and their statistical characteristics determined for

Individual Months	311
All Months	313
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Seasons	316
April to September	
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STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 ORGANIC NITROGEN (N)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

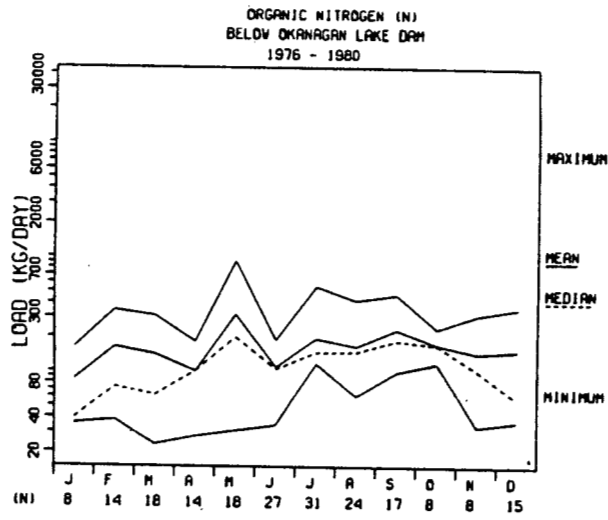
SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN (KG/DAY)	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
1976 FEBRUARY	1	339.0000	339.0000	339.0000	79.1750	39.5875	± 125.9800
JULY	4	376.0000	560.0000	485.0000			
AUGUST	1	424.0000	424.0000	424.0000			
SEPTEMBER	4	431.0000	475.0000	445.0000	20.2160	10.1080	± 32.1699
DECEMBER	4	327.0000	360.0000	343.5000	14.4800	7.2400	± 23.0400
1977 MARCH	4	58.7000	62.6000	60.1750	1.6919	0.8460	± 2.6920
APRIL	4	71.8000	118.0000	102.7600	18.2290	8.1523	± 22.6320
MAY	6	64.1000	73.2000	67.9170	4.1687	1.7019	± 4.3745
JUNE	18	57.8000	124.0000	91.1110	22.2900	5.2538	± 11.0865
JULY	13	118.0000	202.0000	146.3800	22.0740	6.1222	± 13.3350
AUGUST	13	119.0000	210.0000	152.2300	25.1240	6.9681	± 15.1800
OCTOBER	2	129.0000	147.0000	138.0000	12.7280	9.0001	± 114.3580
NOVEMBER	1	50.5000	50.5000	50.5000			
DECEMBER	7	37.5000	271.0000	75.5860	86.4320	32.6682	± 79.9355
1978 JANUARY	4	35.3000	163.0000	163.1500	72.0260	36.0130	± 114.6095
FEBRUARY	10	49.7000	345.0000	176.2300	126.6800	40.0597	± 90.6190
MARCH	11	23.8000	309.0000	196.6500	114.1300	34.4115	± 76.6750
APRIL	5	61.1000	184.0000	126.2200	44.9050	20.0821	± 55.7585
MAY	10	201.0000	928.0000	515.6000	212.4100	67.1699	± 151.9501
JUNE	7	121.0000	190.0000	157.7100	26.6320	10.0660	± 24.6300
JULY	11	126.0000	169.0000	150.7300	15.5570	4.6906	± 10.4500
AUGUST	6	115.0000	242.0000	166.8300	48.3300	19.7306	± 50.7200
SEPTEMBER	9	100.0000	227.0000	169.7800	44.4490	14.8163	± 34.1650
OCTOBER	2	198.0000	239.0000	218.5000	28.9910	20.4997	± 260.4783
NOVEMBER	3	221.0000	314.0000	269.6700	46.6510	26.9340	± 115.8850
DECEMBER	1	228.0000	228.0000	228.0000			
1979 JANUARY	2	93.1000	125.0000	109.0500	22.5570	15.9502	± 202.6619
FEBRUARY	2	73.4000	89.5000	81.4500	11.3840	8.0497	± 102.2875
MARCH	1	90.4000	90.4000	90.4000			
APRIL	2	83.3000	100.0000	91.6500			
MAY	1	120.0000	120.0000	120.0000	11.8090	8.3502	± 106.0985
JULY	1	147.0000	147.0000	147.0000			
AUGUST	2	142.0000	182.0000	162.0000	28.2840	19.9998	± 254.1219
SEPTEMBER	2	163.0000	176.0000	169.5000	9.1924	6.5000	± 82.5900
OCTOBER	2	119.0000	172.0000	145.5000	37.4770	26.5002	± 336.7100
NOVEMBER	2	33.6000	43.0000	38.3000	6.6468	4.7000	± 59.7190
DECEMBER	1	42.6000	42.6000	42.6000			

STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 ORGANIC NITROGEN (N)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN (KG/DAY)	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
1980 JANUARY	2	35.2000	39.400	37.300	2.9698	2.1000	± 26.6830
FEBRUARY	1	38.0000	38.000	38.000			
MARCH	2	23.2000	25.800	24.500	1.8385	1.3000	± 16.5181
APRIL	2	27.4000	52.700	40.050	17.8900	12.6501	± 160.7300
MAY	1	30.9000	30.900	30.900			
JUNE	2	34.4000	188.000	111.200	108.6100	76.7989	± 975.8198
JULY	2	198.0000	206.000	202.000	5.6569	4.0000	± 50.8200
AUGUST	2	61.5000	207.000	134.250	102.8800	72.7472	± 924.3650
SEPTEMBER	2	146.0000	225.000	185.500	55.8610	39.4997	± 501.8999
OCTOBER	2	186.0000	202.000	194.000	11.3140	8.0002	± 101.6499
NOVEMBER	2	104.0000	128.000	116.000	16.9710	12.0003	± 152.4724
DECEMBER	2	54.5000	78.800	66.650	17.1830	12.1502	± 154.3799

STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 ORGANIC NITROGEN (N)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN (KG/DAY)	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
- 78-79-80 JANUARY	8	35.2000	163.000	85.662	56.6650	20.0341	± 47.3750
1976- 78-79-80 FEBRUARY	14	38.0000	345.000	164.440	125.9300	33.6562	± 72.7145
-77-78-79-80 MARCH	18	23.2000	309.000	141.290	113.8000	26.8229	± 56.5915
-77-78-79-80 APRIL	14	27.4000	184.000	100.590	39.8580	10.6525	± 23.0150
-77-78-79-80 MAY	18	30.9000	928.000	317.470	275.8401	65.0161	± 137.1699
-77-78- 80 JUNE	27	34.4000	190.000	109.870	42.4530	8.1701	± 16.7935
1976-77-78-79-80 JULY	31	118.0000	560.000	195.230	118.0700	21.2060	± 43.3050
1976-77-78-79-80 AUGUST	24	61.5000	424.000	166.520	66.5000	13.5743	± 28.0800
1976- 78-79-80 SEPTEMBER	17	100.0000	475.000	236.350	124.5900	30.2175	± 64.0600
-77-78-79-80 OCTOBER	8	119.0000	239.000	174.000	40.5530	14.3376	± 33.9000
-77-78-79-80 NOVEMBER	8	33.6000	314.000	146.010	109.9900	38.8873	± 91.9555
1976-77-78-79-80 DECEMBER	15	37.5000	360.000	153.800	137.7300	35.5617	± 76.2715



STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 ORGANIC NITROGEN (N)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN (KG/DAY)	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
1976 FEB JUL AUG SEP DEC	14	327.0000	560.000	418.360	73.3850	19.6130	± 42.3700
1977 MAR APR MAY JUN JUL AUG OCT NOV DEC	69	37.5000	271.000	109.270	46.8530	5.6404	± 11.2530
1978 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC	79	23.8000	928.000	213.550	154.8300	17.4197	± 34.6800
1979 JAN FEB MAR APR MAY JUN AUG SEP OCT NOV DEC	18	33.6000	182.000	110.830	46.7100	11.0097	± 23.2305
1980 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC	22	23.2000	225.000	104.170	75.4980	16.0962	± 33.4755

STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 ORGANIC NITROGEN (N)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN (KG/DAY)	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
APRIL TO SEPTEMBER							
1976	9	376.0000	560.000	460.440	55.5950	18.5317	± 42.7350
1977	55	57.8000	210.000	117.150	38.0490	5.1305	± 10.2900
1978	48	61.1000	928.000	230.790	177.4600	25.6141	± 51.5250
1979	8	83.3000	182.000	139.160	35.5590	12.5720	± 29.7300
1980	11	27.4000	225.000	125.170	82.9890	25.0221	± 55.7550
1976-80	131	27.4000	928.000	184.390	145.5400	12.7159	± 25.1550
OCTOBER TO MARCH							
1976-77	8	58.7000	360.000	201.840	151.7400	53.6482	± 126.8620
1977-78	35	23.8000	345.000	147.820	111.8800	18.9112	± 38.4300
1978-79	11	73.4000	314.000	176.850	85.2240	25.6960	± 57.2550
1979-80	10	23.2000	172.000	57.180	48.6270	15.3772	± 34.7860
1980-81	6	54.5000	202.000	125.550	58.6560	23.9462	± 61.5580
1976-80	70	23.2000	360.000	143.700	108.6400	12.9850	± 25.9050
APRIL TO MARCH							
1976-80	201	23.2000	928.000	170.220	134.9700	9.5200	± 18.7700

STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 ORGANIC NITROGEN (N)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
1976 FEB JUL AUG SEP DEC	202	23.2000	928.000	171.060	135.1600	9.5098	± 18.7550
1977 MAR APR MAY JUN JUL AUG OCT NOV DEC							
1978 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC							
1979 JAN FEB MAR APR MAY JUL AUG SEP OCT NOV DEC							
1980 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC							

(KG/DAY)

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OKANAGAN RIVER BELOW OKANAGAN LAKE

Statistical Characteristics of Nutrient Loads

Period of Sampling February 1976 to December 1980.

ORGANIC NITROGEN (N)

Median loads and their statistical characteristics determined for

Individual Months	319
All Months	321
Individual Years	322
Seasons	323
April to September	
October to March	
April to March	
All Years	324

STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 ORGANIC NITROGEN (N)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN (KG/DAY)	CONFIDENCE INTERVAL LOWER	CONFIDENCE INTERVAL UPPER	PROBABILITY LEVEL
1976 FEBRUARY	1	339.000			
JULY	4	483.000			
AUGUST	1	424.000			
SEPTEMBER	4	436.000			
DECEMBER	4	337.000			
1977 MARCH	4	59.500			
APRIL	5	110.000		71.8000	0.969
MAY	6	64.300	64.1000	73.2000	0.969
JUNE	18	86.900	72.4000	108.0000	0.969
JULY	13	144.000	123.0000	160.0000	0.978
AUGUST	13	145.000	131.0000	173.0000	0.978
OCTOBER	2	129.000			
NOVEMBER	1	50.500			
DECEMBER	7	40.600		271.0000	0.984
1978 JANUARY	4	36.300	37.5000		
FEBRUARY	10	67.200	56.1000	322.0000	0.979
MARCH	11	221.000	62.3000	308.0000	0.961
APRIL	5	123.000		61.1000	0.969
MAY	10	524.000	253.0000	709.0000	0.979
JUNE	7	156.000	121.0000	190.0000	0.984
JULY	11	148.000	140.0000	169.0000	0.961
AUGUST	6	154.000	115.0000	242.0000	0.969
SEPTEMBER	9	178.000	111.0000	215.0000	0.961
OCTOBER	2	198.000			
NOVEMBER	3	274.000			
DECEMBER	1	228.000			
1979 JANUARY	2	93.100			
FEBRUARY	2	73.400			
MARCH	1	90.400			
APRIL	2	83.300			
MAY	1	120.000			
JULY	1	147.000			
AUGUST	2	142.000			
SEPTEMBER	2	163.000			
OCTOBER	2	119.000			
NOVEMBER	2	33.600			
DECEMBER	1	42.600			

STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 ORGANIC NITROGEN (N)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN (KG/DAY)	CONFIDENCE INTERVAL		PROBABILITY LEVEL
			LOWER	UPPER	
1980 JANUARY	2	35.200			
FEBRUARY	1	38.000			
MARCH	2	23.200			
APRIL	2	27.400			
MAY	1	30.900			
JUNE	2	34.400			
JULY	2	198.000			
AUGUST	2	61.500			
SEPTEMBER	2	146.000			
OCTOBER	2	186.000			
NOVEMBER	2	104.000			
DECEMBER	2	54.500			

STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 ORGANIC NITROGEN (N)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN (KG/DAY)	CONFIDENCE INTERVAL LOWER	CONFIDENCE INTERVAL UPPER	PROBABILITY LEVEL
-78-79-80 JANUARY	8	39.400	35.3000	163.0000	0.961
1976-78-79-80 FEBRUARY	14	73.400	56.9000	322.0000	0.965
-77-78-79-80 MARCH	18	62.600	58.7000	285.0000	0.969
-77-78-79-80 APRIL	14	102.000	71.8000	123.0000	0.965
-77-78-79-80 MAY	18	201.000	69.9000	538.0000	0.969
-77-78-80 JUNE	27	106.000	83.3000	124.0000	0.964
1976-77-78-79-80 JULY	31	148.000	143.0000	168.0000	0.971
1976-77-78-79-80 AUGUST	24	149.000	141.0000	182.0000	0.957
1976-78-79-80 SEPTEMBER	17	188.000	163.0000	227.0000	0.951
-77-78-79-80 OCTOBER	8	172.000	129.0000	239.0000	0.961
-77-78-79-80 NOVEMBER	8	104.000	43.0000	314.0000	0.961
1976-77-78-79-80 DECEMBER	15	57.600	40.6000	327.0000	0.965

STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 ORGANIC NITROGEN (N)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN (KG/DAY)	CONFIDENCE INTERVAL LOWER	CONFIDENCE INTERVAL UPPER	PROBABILITY LEVEL
1976 FEB JUL AUG SEP DEC	14	424.000	350.0000	483.0000	0.965
1977 MAR APR MAY JUN JUL AUG OCT NOV DEC	69	110.000	86.9000	124.0000	0.959
1978 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC	79	177.000	154.0000	198.0000	0.958
1979 JAN FEB MAR APR MAY JUL AUG SEP OCT NOV DEC	18	100.000	83.3000	147.0000	0.969
1980 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC	22	61.500	38.0000	188.0000	0.965

STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 ORGANIC NITROGEN (N)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN (KG/DAY)	CONFIDENCE INTERVAL LOWER	CONFIDENCE INTERVAL UPPER	PROBABILITY LEVEL
APRIL TO SEPTEMBER					
1976	9	438.000	424.0000	521.0000	0.961
1977	55	119.000	106.0000	137.0000	0.956
1978	48	168.000	149.0000	188.0000	0.956
1979	8	142.000	100.0000	182.0000	0.961
1980	11	146.000	34.4000	207.0000	0.961
1976-80	131	144.000	137.0000	154.0000	0.955
OCTOBER TO MARCH					
1976-77	8	62.600	59.5000	360.0000	0.961
1977-78	35	118.000	56.1000	221.0000	0.959
1978-79	11	198.000	90.4000	274.0000	0.961
1979-80	10	38.000	25.8000	119.0000	0.979
1980-81	6	104.000	54.5000	202.0000	0.969
1976-80	70	93.100	62.3000	163.0000	0.959
APRIL TO MARCH					
1976-80	201	141.000	124.0000	148.0000	0.952

STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 ORGANIC NITROGEN (N)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN	CONFIDENCE INTERVAL LOWER	CONFIDENCE INTERVAL UPPER	PROBABILITY LEVEL
1976 FEB JUL AUG SEP DEC					
1977 MAR APR MAY JUN JUL AUG OCT NOV DEC					
1978 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC					
1979 JAN FEB MAR APR MAY JUN AUG SEP OCT NOV DEC					
1980 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC					
	202	141.000	125.0000	149.0000	0.951

(KG/DAY)

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OKANAGAN RIVER BELOW OKANAGAN LAKE

Statistical Characteristics of Nutrient Concentrations

Period of Sampling February 1976 to December 1980.

RATIO OF ORGANIC NITROGEN (N) TO TOTAL NITROGEN (N)

Arithmetic mean concentrations and their statistical characteristics determined for:

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All Months	328
Graph of monthly concentration ranges	329
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STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF ORGANIC NITROGEN (N) / TOTAL NITROGEN (N)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

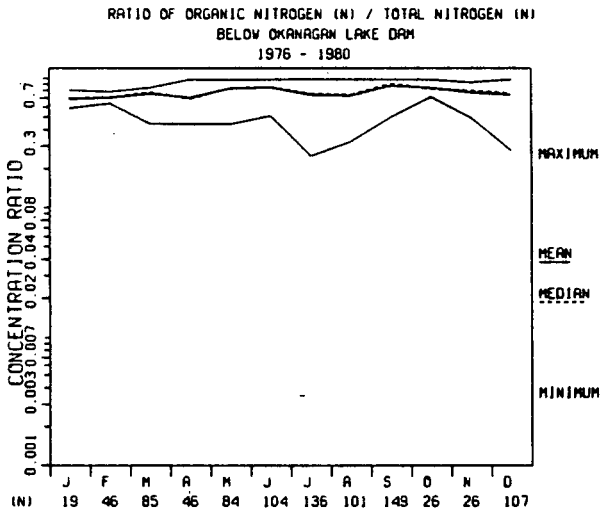
SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
1976 FEBRUARY	6	0.6823	0.743	0.706	0.0232	0.0095	± 0.0243
JULY	36	0.3035	0.968	0.794	0.1456	0.0243	± 0.0492
AUGUST	18	0.5607	0.913	0.793	0.1099	0.0259	± 0.0547
SEPTEMBER	108	0.8461	0.980	0.929	0.0314	0.0030	± 0.0060
DECEMBER	71	0.4693	0.813	0.758	0.0436	0.0052	± 0.0103
1977 MARCH	33	0.7581	0.843	0.795	0.0219	0.0038	± 0.0078
APRIL	14	0.6061	0.977	0.716	0.1111	0.0297	± 0.0641
MAY	38	0.7348	0.953	0.889	0.0638	0.0103	± 0.0210
JUNE	73	0.7342	0.977	0.876	0.0694	0.0081	± 0.0162
JULY	48	0.6518	0.981	0.830	0.0862	0.0124	± 0.0250
AUGUST	44	0.5250	0.981	0.788	0.1533	0.0231	± 0.0466
OCTOBER	4	0.9312	0.978	0.965	0.0224	0.0112	± 0.0356
NOVEMBER	4	0.7444	0.833	0.794	0.0452	0.0226	± 0.0720
DECEMBER	22	0.5000	0.972	0.767	0.0822	0.0175	± 0.0364
1978 JANUARY	4	0.6125	0.771	0.700	0.0653	0.0326	± 0.1038
FEBRUARY	30	0.6391	0.773	0.699	0.0461	0.0084	± 0.0172
MARCH	40	0.5840	0.813	0.755	0.0465	0.0073	± 0.0149
APRIL	20	0.4421	0.940	0.670	0.1154	0.0258	± 0.0540
MAY	30	0.4406	0.912	0.775	0.1036	0.0189	± 0.0387
JUNE	24	0.5130	0.975	0.781	0.1532	0.0313	± 0.0647
JULY	40	0.2511	0.861	0.573	0.1314	0.0208	± 0.0420
AUGUST	24	0.3224	0.822	0.606	0.1423	0.0290	± 0.0601
SEPTEMBER	25	0.5032	0.947	0.697	0.1027	0.0205	± 0.0424
OCTOBER	7	0.7167	0.956	0.830	0.1081	0.0409	± 0.1000
NOVEMBER	8	0.7632	0.931	0.864	0.0501	0.0177	± 0.0419
DECEMBER	2	0.9765	0.976	0.976	0.0000	0.0000	± 0.0000
1979 JANUARY	7	0.6476	0.806	0.730	0.0514	0.0194	± 0.0475
FEBRUARY	6	0.6864	0.786	0.756	0.0376	0.0154	± 0.0395
MARCH	4	0.7500	0.806	0.774	0.0231	0.0116	± 0.0368
APRIL	4	0.6500	0.883	0.785	0.0994	0.0497	± 0.1581
MAY	4	0.9467	0.973	0.967	0.0133	0.0067	± 0.0212
JULY	4	0.8171	0.829	0.825	0.0059	0.0030	± 0.0094
AUGUST	7	0.6889	0.856	0.764	0.0636	0.0240	± 0.0588
SEPTEMBER	8	0.6829	0.845	0.779	0.0582	0.0206	± 0.0486
OCTOBER	8	0.7737	0.811	0.797	0.0128	0.0045	± 0.0107
NOVEMBER	8	0.4931	0.800	0.700	0.1041	0.0368	± 0.0870
DECEMBER	4	0.5487	0.659	0.631	0.0546	0.0273	± 0.0869

STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF ORGANIC NITROGEN (N) / TOTAL NITROGEN (N)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
1980 JANUARY	8	0.5871	0.745	0.648	0.0521	0.0184	± 0.0435
FEBRUARY	4	0.6571	0.719	0.697	0.0273	0.0137	± 0.0435
MARCH	8	0.4457	0.757	0.625	0.1148	0.0406	± 0.0959
APRIL	8	0.6323	0.794	0.746	0.0524	0.0185	± 0.0438
MAY	12	0.6194	0.780	0.732	0.0450	0.0130	± 0.0286
JUNE	7	0.7091	0.788	0.757	0.0308	0.0116	± 0.0285
JULY	8	0.7151	0.794	0.753	0.0240	0.0085	± 0.0200
AUGUST	8	0.3771	0.794	0.643	0.1429	0.0505	± 0.1194
SEPTEMBER	8	0.6976	0.824	0.777	0.0417	0.0147	± 0.0349
OCTOBER	7	0.8222	0.840	0.829	0.0067	0.0025	± 0.0062
NOVEMBER	6	0.6389	0.812	0.738	0.0829	0.0338	± 0.0870
DECEMBER	8	0.2750	0.713	0.524	0.1600	0.0566	± 0.1338

STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF ORGANIC NITROGEN (N) / TOTAL NITROGEN (N)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
-78-79-80 JANUARY	19	0.5871	0.806	0.689	0.0636	0.0146	± 0.0306
1976-78-79-80 FEBRUARY	46	0.6391	0.786	0.707	0.0449	0.0066	± 0.0133
-77-78-79-80 MARCH	85	0.4457	0.843	0.759	0.0674	0.0073	± 0.0145
-77-78-79-80 APRIL	46	0.4421	0.977	0.707	0.1083	0.0160	± 0.0321
-77-78-79-80 MAY	84	0.4406	0.973	0.830	0.1039	0.0113	± 0.0225
-77-78-80 JUNE	104	0.5130	0.977	0.846	0.1041	0.0102	± 0.0202
1976-77-78-79-80 JULY	136	0.2511	0.981	0.740	0.1587	0.0136	± 0.0269
1976-77-78-79-80 AUGUST	101	0.3224	0.981	0.732	0.1582	0.0157	± 0.0312
1976-78-79-80 SEPTEMBER	149	0.5032	0.980	0.874	0.1058	0.0087	± 0.0171
-77-78-79-80 OCTOBER	26	0.7167	0.978	0.840	0.0780	0.0153	± 0.0315
-77-78-79-80 NOVEMBER	26	0.4931	0.931	0.774	0.1002	0.0197	± 0.0405
1976-77-78-79-80 DECEMBER	107	0.2750	0.976	0.742	0.0988	0.0096	± 0.0189



STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF ORGANIC NITROGEN (N) / TOTAL NITROGEN (N)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
1976 FEB JUL AUG SEP DEC	239	0.3035	0.980	0.842	0.1075	0.0070	± 0.0137
1977 MAR APR MAY JUN JUL AUG OCT NOV DEC	280	0.5000	0.981	0.830	0.1026	0.0061	± 0.0121
1978 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC	254	0.2511	0.976	0.704	0.1340	0.0084	± 0.0166
1979 JAN FEB MAR APR MAY JUN AUG SEP OCT NOV DEC	64	0.4931	0.973	0.768	0.0883	0.0110	± 0.0221
1980 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC	92	0.2750	0.840	0.705	0.1109	0.0116	± 0.0230

STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF ORGANIC NITROGEN (N) / TOTAL NITROGEN (N)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
APRIL TO SEPTEMBER							
1976	162	0.3035	0.980	0.884	0.1034	0.0081	± 0.0160
1977	217	0.5250	0.981	0.840	0.1085	0.0074	± 0.0145
1978	163	0.2511	0.975	0.677	0.1492	0.0117	± 0.0231
1979	27	0.6500	0.973	0.811	0.0882	0.0170	± 0.0349
1980	51	0.3771	0.824	0.734	0.0768	0.0108	± 0.0216
1976-80	620	0.2511	0.981	0.799	0.1424	0.0057	± 0.0112
OCTOBER TO MARCH							
1976-77	104	0.4693	0.843	0.770	0.0417	0.0041	± 0.0081
1977-78	104	0.5000	0.978	0.749	0.0760	0.0075	± 0.0148
1978-79	34	0.6476	0.976	0.806	0.0889	0.0152	± 0.0310
1979-80	40	0.4457	0.811	0.687	0.0951	0.0150	± 0.0304
1980-81	21	0.2750	0.840	0.687	0.1708	0.0373	± 0.0778
1976-80	303	0.2750	0.978	0.750	0.0885	0.0051	± 0.0100
APRIL TO MARCH							
1976-80	923	0.2511	0.981	0.783	0.1292	0.0043	± 0.0083

STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF ORGANIC NITROGEN (N) / TOTAL NITROGEN (N)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
1976 FEB JUL AUG SEP DEC	929	0.2511	0.981	0.782	0.1290	0.0042	± 0.0083
1977 MAR APR MAY JUN JUL AUG OCT NOV DEC							
1978 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC							
1979 JAN FEB MAR APR MAY JUN AUG SEP OCT NOV DEC							
1980 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC							

HISTOGRAM

MIDPOINT	HIST%	COUNT	ON TN
.25106	.1	1	+X
.27540	.1	1	+X
.29973	.2	2	+X
.32406	.1	1	+X
.34839	.1	1	+X
.37273	.2	2	+X
.39706	.1	1	+X
.42139	.2	2	+X
.44572	.8	7	+XXXX
.47006	.8	7	+XXXX
.49439	1.0	9	+XXXXX
.51872	.8	7	+XXXX
.54306	1.4	13	+XXXXXXXX
.56739	1.4	13	+XXXXXXXX
.59172	1.5	14	+XXXXXXXX
.61605	1.8	17	+XXXXXXXXXX
.64039	3.4	31	+XXXXXXXXXXXX
.66472	4.1	38	+XXXXXXXXXXXXX
.68905	2.5	23	+XXXXXXXXXXXX
.71338	6.1	56	+XXXXXXXXXXXXXX
.73772	6.7	62	+XXXXXXXXXXXXXX
.76205	13.1	121	+XXXXXXXXXXXXXXXX
.78638	10.3	95	+XXXXXXXXXXXXXXXX
.81071	7.0	65	+XXXXXXXXXXXXXXXX
.83505	5.9	54	+XXXXXXXXXXXXXXXX
.85938	2.7	25	+XXXXXXXXXXXXXX
.88371	4.0	37	+XXXXXXXXXXXXXX
.90804	5.9	54	+XXXXXXXXXXXXXX
.93238	6.8	63	+XXXXXXXXXXXXXX
.95671	5.9	54	+XXXXXXXXXXXXXX
.98104	5.1	47	+XXXXXXXXXXXXXX

CONCENTRATION RATIO

PERCENT
FREQUENCY

MISSING TOTAL 225
1148 (INTERVAL WIDTH= .24333 -1)

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OKANAGAN RIVER BELOW OKANAGAN LAKE

Statistical Characteristics of Nutrient Concentrations

Period of Sampling February 1976 to December 1980.

RATIO OF ORGANIC NITROGEN (N) TO TOTAL NITROGEN (N)

Median concentrations and their statistical characteristics determined for

Individual Months	335
All Months	337
Individual Years	338
Seasons	339
April to September	
October to March	
April to March	
All Years	340
Cumulative distribution of concentration data	341

STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF ORGANIC NITROGEN (N) / TOTAL NITROGEN (N)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN	CONFIDENCE INTERVAL		PROBABILITY LEVEL
			LOWER	UPPER	
1976					
FEBRUARY	6	0.694	0.6823	0.7435	0.969
JULY	36	0.790	0.7290	0.8875	0.953
AUGUST	18	0.824	0.6970	0.8842	0.969
SEPTEMBER	108	0.929	0.9209	0.9429	0.957
DECEMBER	71	0.764	0.7573	0.7676	0.956
1977					
MARCH	33	0.795	0.7846	0.8057	0.965
APRIL	14	0.672	0.6346	0.8177	0.965
MAY	38	0.917	0.8757	0.9333	0.966
JUNE	73	0.896	0.8520	0.9150	0.953
JULY	48	0.832	0.7989	0.8743	0.956
AUGUST	44	0.784	0.7130	0.8583	0.951
OCTOBER	4	0.975			
NOVEMBER	4	0.767			
DECEMBER	22	0.778	0.7579	0.7944	0.965
1978					
JANUARY	4	0.705			
FEBRUARY	30	0.712	0.6529	0.7222	0.957
MARCH	40	0.763	0.7500	0.7765	0.961
APRIL	20	0.653	0.6059	0.7200	0.959
MAY	30	0.780	0.7667	0.8313	0.957
JUNE	24	0.729	0.7125	0.9714	0.957
JULY	40	0.568	0.4933	0.6318	0.961
AUGUST	24	0.609	0.5400	0.6950	0.957
SEPTEMBER	25	0.700	0.6348	0.7421	0.957
OCTOBER	7	0.778	0.7167	0.9563	0.984
NOVEMBER	8	0.853	0.8444	0.9312	0.961
DECEMBER	2	0.978			
1979					
JANUARY	7	0.728	0.6476	0.8059	0.984
FEBRUARY	6	0.770	0.6864	0.7864	0.969
MARCH	4	0.768			
APRIL	4	0.781			
MAY	4	0.973			
JULY	4	0.823			
AUGUST	7	0.753	0.6889	0.8558	0.984
SEPTEMBER	8	0.769	0.7234	0.8450	0.961
OCTOBER	8	0.795	0.7886	0.8111	0.961
NOVEMBER	8	0.686	0.6400	0.8000	0.961
DECEMBER	4	0.656			

STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF ORGANIC NITROGEN (N) / TOTAL NITROGEN (N)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN	CONFIDENCE INTERVAL LOWER	CONFIDENCE INTERVAL UPPER	PROBABILITY LEVEL
1980 JANUARY	8	0.635	0.6000	0.7455	0.961
FEBRUARY	4	0.703			
MARCH	8	0.648	0.5214	0.7571	0.961
APRIL	8	0.762	0.7067	0.7939	0.961
MAY	12	0.733	0.7032	0.7688	0.961
JUNE	7	0.769	0.7091	0.7882	0.984
JULY	8	0.753	0.7273	0.7939	0.961
AUGUST	8	0.652	0.5545	0.7941	0.961
SEPTEMBER	8	0.766	0.7568	0.8242	0.961
OCTOBER	7	0.828	0.8222	0.8400	0.984
NOVEMBER	6	0.726	0.6389	0.8118	0.969
DECEMBER	8	0.545	0.3062	0.7133	0.961

STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF ORGANIC NITROGEN (N) / TOTAL NITROGEN (N)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN	CONFIDENCE INTERVAL LOWER	CONFIDENCE INTERVAL UPPER	PROBABILITY LEVEL
-78-79-80 JANUARY	19	0.700	0.6471	0.7455	0.959
1976-78-79-80 FEBRUARY	46	0.712	0.6943	0.7222	0.960
-77-78-79-80 MARCH	85	0.776	0.7659	0.7861	0.960
-77-78-79-80 APRIL	46	0.689	0.6526	0.7533	0.960
-77-78-79-80 MAY	84	0.833	0.7882	0.8757	0.962
-77-78--80 JUNE	104	0.852	0.8137	0.9030	0.961
1976-77-78-79-80 JULY	136	0.758	0.7300	0.7901	0.952
1976-77-78-79-80 AUGUST	101	0.741	0.6941	0.7915	0.954
1976--78-79-80 SEPTEMBER	149	0.912	0.9034	0.9228	0.951
-77-78-79-80 OCTOBER	26	0.822	0.7947	0.8400	0.971
-77-78-79-80 NOVEMBER	26	0.800	0.7444	0.8333	0.971
1976-77-78-79-80 DECEMBER	107	0.761	0.7568	0.7676	0.957

STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF ORGANIC NITROGEN (N) / TOTAL NITROGEN (N)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

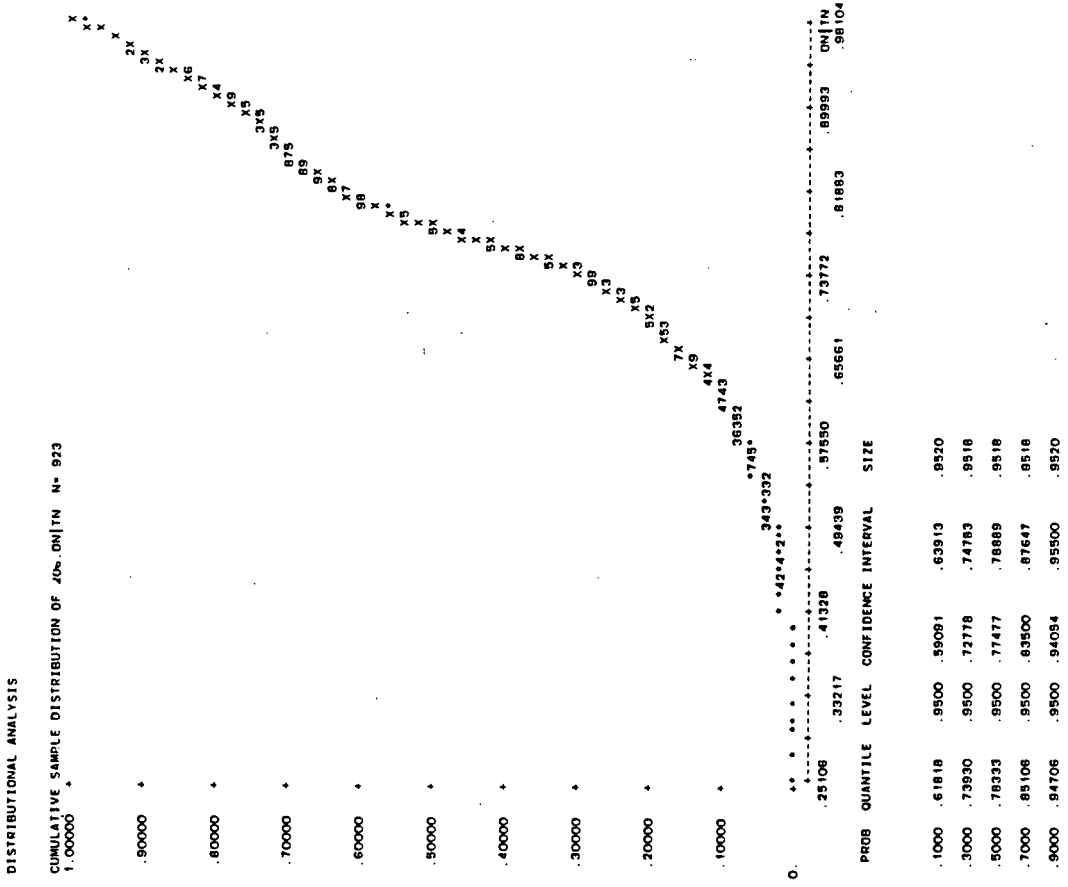
SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN	CONFIDENCE INTERVAL LOWER	CONFIDENCE INTERVAL UPPER	PROBABILITY LEVEL
1976 FEB JUL AUG SEP DEC	239	0.879	0.8300	0.8953	0.955
1977 MAR APR MAY JUN JUL AUG OCT NOV DEC	280	0.825	0.8111	0.8432	0.952
1978 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC	254	0.720	0.7105	0.7409	0.955
1979 JAN FEB MAR APR MAY JUL AUG SEP OCT NOV DEC	64	0.774	0.7600	0.8000	0.954
1980 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC	92	0.733	0.7091	0.7571	0.953

STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF ORGANIC NITROGEN (N) / TOTAL NITROGEN (N)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN	CONFIDENCE INTERVAL LOWER	CONFIDENCE INTERVAL UPPER	PROBABILITY LEVEL
APRIL TO SEPTEMBER					
1976	162	0.913	0.9067	0.9235	0.951
1977	217	0.854	0.8353	0.8884	0.951
1978	163	0.689	0.6600	0.7154	0.959
1979	27	0.817	0.7686	0.8410	0.964
1980	51	0.758	0.7419	0.7667	0.951
1976-80	620	0.818	0.8000	0.8333	0.951
OCTOBER TO MARCH					
1976-77	104	0.770	0.7656	0.7800	0.961
1977-78	104	0.753	0.7389	0.7700	0.961
1978-79	34	0.774	0.7611	0.8471	0.959
1979-80	40	0.681	0.6564	0.7455	0.961
1980-81	21	0.726	0.6138	0.8222	0.973
1976-80	303	0.765	0.7579	0.7700	0.956
APRIL TO MARCH					
1976-80	923	0.783	0.7748	0.7889	0.952

STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF ORGANIC NITROGEN (N) / TOTAL NITROGEN (N)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN	CONFIDENCE INTERVAL LOWER	CONFIDENCE INTERVAL UPPER	PROBABILITY LEVEL
1976 FEB JUL AUG SEP DEC	929	0.783	0.7742	0.7882	0.951
1977 MAR APR MAY JUN JUL AUG OCT NOV DEC					
1978 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC					
1979 JAN FEB MAR APR MAY JUN AUG SEP OCT NOV DEC					
1980 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC					



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OKANAGAN RIVER BELOW OKANAGAN LAKE

Statistical Characteristics of Nutrient Loads

Period of Sampling February 1976 to December 1980.

RATIO OF ORGANIC NITROGEN (N) TO TOTAL NITROGEN (N)

Arithmetic mean loads and their statistical characteristics determined for

Individual Months	343
All Months	345
Graph of monthly load ranges	346
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Seasons	348
April to September	
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STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF ORGANIC NITROGEN (N) / TOTAL NITROGEN (N)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

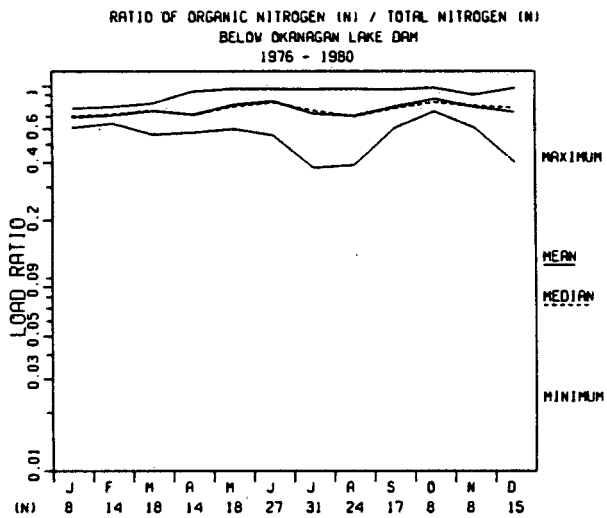
SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
1976 FEBRUARY	1	0.7048	0.705	0.705	0.0571	0.0286	± 0.0909
JULY	4	0.6976	0.818	0.772			
AUGUST	1	0.7837	0.784	0.784			
SEPTEMBER	4	0.9121	0.958	0.930	0.0194	0.0097	± 0.0308
DECEMBER	4	0.5785	0.788	0.716	0.0936	0.0468	± 0.1490
1977 MARCH	4	0.7602	0.816	0.789	0.0234	0.0117	± 0.0373
APRIL	5	0.6400	0.935	0.743	0.1121	0.0502	± 0.1392
MAY	6	0.7813	0.930	0.835	0.0524	0.0214	± 0.0550
JUNE	18	0.7457	0.961	0.860	0.0647	0.0152	± 0.0322
JULY	13	0.6926	0.962	0.820	0.0713	0.0198	± 0.0431
AUGUST	13	0.5433	0.968	0.748	0.1399	0.0388	± 0.0846
OCTOBER	2	0.9416	0.980	0.961	0.0271	0.0192	± 0.0249
NOVEMBER	1	0.7928	0.793	0.793			
DECEMBER	7	0.6408	0.964	0.788	0.0948	0.0358	± 0.0877
1978 JANUARY	4	0.6148	0.769	0.699	0.0636	0.0318	± 0.1012
FEBRUARY	10	0.6414	0.755	0.701	0.0461	0.0146	± 0.0330
MARCH	11	0.7252	0.783	0.751	0.0207	0.0062	± 0.0139
APRIL	5	0.5750	0.746	0.666	0.0784	0.0351	± 0.0973
MAY	10	0.5986	0.888	0.771	0.0941	0.0298	± 0.0673
JUNE	7	0.5560	0.969	0.805	0.1631	0.0617	± 0.1509
JULY	11	0.3776	0.748	0.579	0.1204	0.0363	± 0.0809
AUGUST	6	0.3895	0.768	0.597	0.1327	0.0542	± 0.1392
SEPTEMBER	9	0.6065	0.945	0.721	0.1101	0.0367	± 0.0846
OCTOBER	2	0.7444	0.941	0.843	0.1390	0.0983	± 1.2489
NOVEMBER	3	0.8431	0.898	0.863	0.0310	0.0179	± 0.0771
DECEMBER	1	0.9785	0.979	0.979			
1979 JANUARY	2	0.7107	0.740	0.725	0.0205	0.0145	± 0.1840
FEBRUARY	2	0.7414	0.785	0.763	0.0309	0.0218	± 0.2775
MARCH	1	0.7727	0.773	0.773			
APRIL	2	0.6508	0.840	0.746	0.1340	0.0948	± 1.2042
MAY	1	0.9677	0.968	0.968			
JULY	1	0.8212	0.821	0.821			
AUGUST	2	0.7172	0.824	0.770	0.0752	0.0532	± 0.6757
SEPTEMBER	2	0.7376	0.819	0.778	0.0573	0.0405	± 0.5149
OCTOBER	2	0.7963	0.799	0.797	0.0017	0.0012	± 0.0150
NOVEMBER	2	0.6087	0.782	0.695	0.1224	0.0866	± 1.0999
DECEMBER	1	0.6302	0.630	0.630			

STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF ORGANIC NITROGEN (N) / TOTAL NITROGEN (N)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
1980 JANUARY	2	0.6090	0.688	0.648	0.0556	0.0393	± 0.4994
FEBRUARY	1	0.6922	0.692	0.692			
MARCH	2	0.5597	0.680	0.620	0.0853	0.0603	± 0.7668
APRIL	2	0.7239	0.770	0.746	0.0331	0.0234	± 0.2970
MAY	1	0.7537	0.754	0.754			
JUNE	2	0.7398	0.780	0.760	0.0285	0.0201	± 0.2560
JULY	2	0.7500	0.757	0.754	0.0052	0.0037	± 0.0467
AUGUST	2	0.6426	0.659	0.651	0.0117	0.0083	± 0.1055
SEPTEMBER	2	0.7706	0.781	0.776	0.0072	0.0051	± 0.0648
OCTOBER	2	0.8267	0.835	0.831	0.0057	0.0040	± 0.0511
NOVEMBER	2	0.6797	0.805	0.742	0.0886	0.0626	± 0.7960
DECEMBER	2	0.4037	0.646	0.525	0.1713	0.1211	± 1.5387

STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF ORGANIC NITROGEN (N) / TOTAL NITROGEN (N)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
-78-79-80 JANUARY	8	0.6090	0.769	0.693	0.0559	0.0198	± 0.0467
1976-78-79-80 FEBRUARY	14	0.6414	0.785	0.709	0.0455	0.0122	± 0.0263
-77-78-79-80 MARCH	18	0.5597	0.816	0.746	0.0560	0.0132	± 0.0278
-77-78-79-80 APRIL	14	0.5750	0.935	0.716	0.0935	0.0250	± 0.0540
-77-78-79-80 MAY	18	0.5996	0.968	0.802	0.0906	0.0214	± 0.0451
-77-78-80 JUNE	27	0.5560	0.969	0.838	0.1000	0.0192	± 0.0396
1976-77-78-79-80 JULY	31	0.3776	0.962	0.724	0.1402	0.0252	± 0.0514
1976-77-78-79-80 AUGUST	24	0.3895	0.968	0.705	0.1388	0.0283	± 0.0586
1976-78-79-80 SEPTEMBER	17	0.6065	0.958	0.783	0.1180	0.0286	± 0.0607
-77-78-79-80 OCTOBER	8	0.7444	0.980	0.858	0.0850	0.0300	± 0.0710
-77-78-79-80 NOVEMBER	8	0.6087	0.898	0.782	0.0945	0.0334	± 0.0790
1976-77-78-79-80 DECEMBER	15	0.4037	0.979	0.736	0.1438	0.0371	± 0.0796



STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF ORGANIC NITROGEN (N) / TOTAL NITROGEN (N)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
1976 FEB JUL AUG SEP DEC	14	0.5785	0.958	0.797	0.1057	0.0283	± 0.0610
1977 MAR APR MAY JUN JUL AUG OCT NOV DEC	69	0.5433	0.980	0.811	0.0986	0.0119	± 0.0237
1978 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC	79	0.3776	0.979	0.714	0.1253	0.0141	± 0.0281
1979 JAN FEB MAR APR MAY JUN AUG SEP OCT NOV DEC	18	0.6087	0.968	0.763	0.0847	0.0200	± 0.0421
1980 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC	22	0.4037	0.835	0.707	0.0982	0.0209	± 0.0435

STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF ORGANIC NITROGEN (N) / TOTAL NITROGEN (N)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
APRIL TO SEPTEMBER							
1976	9	0.6976	0.958	0.844	0.0899	0.0300	± 0.0691
1977	55	0.5433	0.968	0.811	0.1013	0.0137	± 0.0274
1978	48	0.3776	0.969	0.690	0.1423	0.0205	± 0.0413
1979	8	0.6508	0.968	0.797	0.0957	0.0338	± 0.0800
1980	11	0.6426	0.781	0.739	0.0468	0.0141	± 0.0315
1976-80	131	0.3776	0.969	0.762	0.1275	0.0111	± 0.0220
OCTOBER TO MARCH							
1976-77	8	0.5785	0.816	0.752	0.0741	0.0262	± 0.0619
1977-78	35	0.6148	0.980	0.751	0.0814	0.0138	± 0.0280
1978-79	11	0.7107	0.979	0.818	0.0899	0.0271	± 0.0604
1979-80	10	0.5597	0.799	0.684	0.0850	0.0269	± 0.0608
1980-81	6	0.4037	0.835	0.699	0.1651	0.0674	± 0.1733
1976-80	70	0.4037	0.980	0.748	0.0975	0.0117	± 0.0232
APRIL TO MARCH							
1976-80	201	0.3776	0.980	0.757	0.1179	0.0083	± 0.0164

STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF ORGANIC NITROGEN (N) / TOTAL NITROGEN (N)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
1976 FEB JUL AUG SEP DEC	202	0.3776	0.980	0.757	0.1176	0.0083	± 0.0163
1977 MAR APR MAY JUN JUL AUG OCT NOV DEC							
1978 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC							
1979 JAN FEB MAR APR MAY JUL AUG SEP OCT NOV DEC							
1980 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC							

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OKANAGAN RIVER BELOW OKANAGAN LAKE

Statistical Characteristics of Nutrient Loads

Period of Sampling February 1976 to December 1980.

RATIO OF ORGANIC NITROGEN (N) TO TOTAL NITROGEN (N)

Median loads and their statistical characteristics determined for

Individual Months	351
All Months	353
Individual Years	354
Seasons	355
April to September	
October to March	
April to March	
All Years	356

STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF ORGANIC NITROGEN (N) / TOTAL NITROGEN (N)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN	CONFIDENCE INTERVAL LOWER	CONFIDENCE INTERVAL UPPER	PROBABILITY LEVEL
1976 FEBRUARY	1	0.705			
JULY	4	0.758			
AUGUST	1	0.784			
SEPTEMBER	4	0.925			
DECEMBER	4	0.747			
1977 MARCH	4	0.783			
APRIL	5	0.713	0.6400	0.6400	0.969
MAY	6	0.817	0.7813	0.9295	0.969
JUNE	18	0.859	0.8122	0.9215	0.969
JULY	13	0.812	0.7477	0.8652	0.978
AUGUST	13	0.729	0.5901	0.8994	0.978
OCTOBER	2	0.942			
NOVEMBER	1	0.793			
DECEMBER	7	0.775	0.6408	0.9644	0.984
1978 JANUARY	4	0.703			
FEBRUARY	10	0.719	0.6440	0.7467	0.979
MARCH	11	0.744	0.7304	0.7778	0.961
APRIL	5	0.676		0.5750	0.969
MAY	10	0.773	0.6429	0.8678	0.979
JUNE	7	0.752	0.5560	0.9694	0.984
JULY	11	0.571	0.4801	0.7065	0.961
AUGUST	6	0.545	0.3895	0.7682	0.969
SEPTEMBER	9	0.712	0.6098	0.8225	0.961
OCTOBER	2	0.744			
NOVEMBER	3	0.846			
DECEMBER	1	0.979			
1979 JANUARY	2	0.711			
FEBRUARY	2	0.741			
MARCH	1	0.773			
APRIL	2	0.651			
MAY	1	0.968			
JULY	1	0.821			
AUGUST	2	0.717			
SEPTEMBER	2	0.738			
OCTOBER	2	0.796			
NOVEMBER	2	0.609			
DECEMBER	1	0.630			

STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
RATIO OF ORGANIC NITROGEN (N) / TOTAL NITROGEN (N)
SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN	CONFIDENCE INTERVAL		PROBABILITY LEVEL
			LOWER	UPPER	
1980					
JANUARY	2	0.609			
FEBRUARY	1	0.692			
MARCH	2	0.560			
APRIL	2	0.723			
MAY	1	0.754			
JUNE	2	0.740			
JULY	2	0.750			
AUGUST	2	0.643			
SEPTEMBER	2	0.771			
OCTOBER	2	0.827			
NOVEMBER	2	0.680			
DECEMBER	2	0.404			

STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF ORGANIC NITROGEN (N) / TOTAL NITROGEN (N)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN	CONFIDENCE INTERVAL LOWER	CONFIDENCE INTERVAL UPPER	PROBABILITY LEVEL
-78-79-80 JANUARY	8	0.703	0.6148	0.7691	0.961
1976-78-79-80 FEBRUARY	14	0.719	0.6550	0.7467	0.965
-77-78-79-80 MARCH	18	0.752	0.7304	0.7778	0.969
-77-78-79-80 APRIL	14	0.713	0.6508	0.7697	0.965
-77-78-79-80 MAY	18	0.789	0.7537	0.8672	0.969
-77-78-80 JUNE	27	0.828	0.7905	0.9215	0.964
1976-77-78-79-80 JULY	31	0.750	0.6926	0.8122	0.971
1976-77-78-79-80 AUGUST	24	0.698	0.6450	0.7880	0.957
1976-78-79-80 SEPTEMBER	17	0.771	0.7120	0.9121	0.951
-77-78-79-80 OCTOBER	8	0.827	0.7963	0.9800	0.961
-77-78-79-80 NOVEMBER	8	0.793	0.6797	0.8984	0.961
1976-77-78-79-80 DECEMBER	15	0.775	0.6408	0.7878	0.965

STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF ORGANIC NITROGEN (N) / TOTAL NITROGEN (N)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN	CONFIDENCE INTERVAL LOWER	CONFIDENCE INTERVAL UPPER	PROBABILITY LEVEL
1976 FEB JUL AUG SEP DEC	14	0.784	0.7466	0.9249	0.965
1977 MAR APR MAY JUN JUL AUG OCT NOV DEC	69	0.812	0.7905	0.8405	0.959
1978 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC	79	0.730	0.7065	0.7444	0.958
1979 JAN FEB MAR APR MAY JUL AUG SEP OCT NOV DEC	18	0.773	0.7172	0.8186	0.969
1980 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC	22	0.723	0.6797	0.7706	0.965

STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF ORGANIC NITROGEN (N) / TOTAL NITROGEN (N)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN	CONFIDENCE INTERVAL		PROBABILITY LEVEL
			LOWER	UPPER	
APRIL TO SEPTEMBER					
1976	9	0.818	0.7582	0.9260	0.961
1977	55	0.816	0.7909	0.8582	0.956
1978	48	0.682	0.6456	0.7460	0.956
1979	8	0.819	0.7172	0.9677	0.961
1980	11	0.754	0.7229	0.7801	0.961
1976-80	131	0.771	0.7477	0.7909	0.955
OCTOBER TO MARCH					
1976-77	8	0.760	0.7466	0.8162	0.961
1977-78	35	0.744	0.7299	0.7748	0.959
1978-79	11	0.785	0.7414	0.9409	0.961
1979-80	10	0.680	0.6087	0.7963	0.979
1980-81	6	0.680	0.4037	0.8347	0.969
1976-80	70	0.747	0.7370	0.7749	0.959
APRIL TO MARCH					
1976-80	201	0.760	0.7460	0.7778	0.952

STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF ORGANIC NITROGEN (N) / TOTAL NITROGEN (N)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN	CONFIDENCE INTERVAL LOWER	CONFIDENCE INTERVAL UPPER	PROBABILITY LEVEL
1976 FEB JUL AUG SEP DEC	202	0.758	0.7460	0.7778	0.951
1977 MAR APR MAY JUN JUL AUG OCT NOV DEC					
1978 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC					
1979 JAN FEB MAR APR MAY JUL AUG SEP OCT NOV DEC					
1980 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC					

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OKANAGAN RIVER BELOW OKANAGAN LAKE

Statistical Characteristics of Nutrient Concentrations

Period of Sampling February 1976 to December 1980.

TOTAL NITROGEN (N)

Arithmetic mean concentrations and their statistical characteristics
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Graph of monthly concentration ranges	361
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STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 TOTAL NITROGEN (N)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

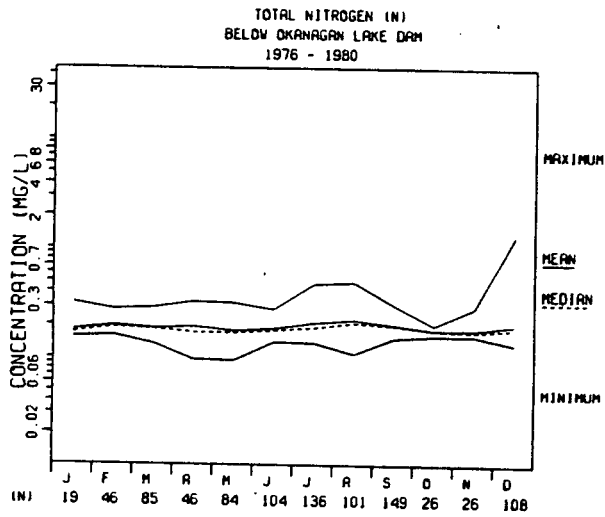
SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN (MG/L)	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
1976 FEBRUARY	6	0.1900	0.195	0.193	0.0021	0.0008	± 0.0022
JULY	36	0.1380	0.425	0.187	0.0553	0.0092	± 0.0187
AUGUST	18	0.1600	0.350	0.231	0.0560	0.0132	± 0.0278
SEPTEMBER	108	0.1520	0.305	0.200	0.0263	0.0025	± 0.0050
DECEMBER	71	0.1700	0.326	0.196	0.0235	0.0028	± 0.0056
1977 MARCH	33	0.1740	0.230	0.197	0.0146	0.0025	± 0.0052
APRIL	14	0.1700	0.325	0.255	0.0453	0.0121	± 0.0262
MAY	38	0.0950	0.230	0.190	0.0249	0.0040	± 0.0082
JUNE	73	0.1450	0.280	0.195	0.0303	0.0035	± 0.0071
JULY	48	0.1400	0.280	0.191	0.0313	0.0045	± 0.0091
AUGUST	44	0.1300	0.360	0.219	0.0567	0.0085	± 0.0172
OCTOBER	4	0.1600	0.180	0.165	0.0100	0.0050	± 0.0159
NOVEMBER	4	0.1600	0.180	0.175	0.0100	0.0050	± 0.0159
DECEMBER	22	0.1600	1.300	0.236	0.2380	0.0507	± 0.1055
1978 JANUARY	4	0.1700	0.320	0.220	0.0678	0.0339	± 0.1079
FEBRUARY	30	0.1600	0.230	0.194	0.0270	0.0049	± 0.0101
MARCH	40	0.1600	0.250	0.182	0.0198	0.0031	± 0.0063
APRIL	20	0.0970	0.220	0.164	0.0260	0.0058	± 0.0122
MAY	30	0.1500	0.320	0.173	0.0353	0.0064	± 0.0132
JUNE	24	0.1400	0.260	0.170	0.0326	0.0066	± 0.0137
JULY	40	0.1600	0.470	0.265	0.0685	0.0108	± 0.0219
AUGUST	24	0.1500	0.490	0.263	0.0921	0.0188	± 0.0389
SEPTEMBER	25	0.1700	0.310	0.212	0.0307	0.0061	± 0.0127
OCTOBER	7	0.1600	0.180	0.176	0.0079	0.0030	± 0.0073
NOVEMBER	8	0.1600	0.190	0.173	0.0089	0.0031	± 0.0074
DECEMBER	2	0.1700	0.170	0.170			
1979 JANUARY	7	0.1700	0.210	0.180	0.0141	0.0053	± 0.0131
FEBRUARY	6	0.1900	0.280	0.220	0.0316	0.0129	± 0.0332
MARCH	4	0.1800	0.200	0.190	0.0082	0.0041	± 0.0130
APRIL	4	0.1800	0.220	0.200	0.0183	0.0091	± 0.0290
MAY	4	0.1500	0.150	0.150			
JULY	4	0.1700	0.175	0.173	0.0029	0.0014	± 0.0046
AUGUST	7	0.1700	0.215	0.182	0.0163	0.0062	± 0.0151
SEPTEMBER	8	0.1950	0.255	0.215	0.0215	0.0076	± 0.0180
OCTOBER	8	0.1750	0.190	0.184	0.0069	0.0025	± 0.0058
NOVEMBER	8	0.1750	0.290	0.206	0.0380	0.0134	± 0.0317
DECEMBER	5	0.1850	0.325	0.218	0.0600	0.0268	± 0.0745

STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 TOTAL NITROGEN (N)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN (MG/L)	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
1980 JANUARY	8	0.1550	0.170	0.163	0.0053	0.0019	± 0.0044
FEBRUARY	4	0.1750	0.280	0.204	0.0511	0.0255	± 0.0812
MARCH	8	0.1350	0.290	0.168	0.0513	0.0181	± 0.0429
APRIL	8	0.1500	0.165	0.156	0.0050	0.0018	± 0.0041
MAY	12	0.1500	0.165	0.157	0.0054	0.0015	± 0.0034
JUNE	7	0.1600	0.170	0.165	0.0041	0.0015	± 0.0038
JULY	8	0.1600	0.170	0.165	0.0027	0.0009	± 0.0022
AUGUST	8	0.1100	0.215	0.157	0.0388	0.0137	± 0.0325
SEPTEMBER	8	0.1650	0.205	0.179	0.0127	0.0045	± 0.0106
OCTOBER	7	0.1800	0.200	0.189	0.0085	0.0032	± 0.0079
NOVEMBER	6	0.1600	0.180	0.170	0.0084	0.0034	± 0.0088
DECEMBER	8	0.1350	0.170	0.155	0.0113	0.0040	± 0.0095

STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 TOTAL NITROGEN (N)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN (MG/L)	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
- 78-79-80 JANUARY	19	0.1550	0.320	0.181	0.0364	0.0083	± 0.0175
1976- 78-79-80 FEBRUARY	46	0.1600	0.280	0.198	0.0289	0.0043	± 0.0086
-77-78-79-80 MARCH	85	0.1350	0.290	0.187	0.0239	0.0026	± 0.0052
-77-78-79-80 APRIL	46	0.0970	0.325	0.193	0.0521	0.0077	± 0.0155
-77-78-79-80 MAY	84	0.0950	0.320	0.177	0.0298	0.0033	± 0.0065
-77-78- 80 JUNE	104	0.1400	0.280	0.187	0.0320	0.0031	± 0.0062
1976-77-78-79-80 JULY	136	0.1380	0.470	0.210	0.0618	0.0053	± 0.0105
1976-77-78-79-80 AUGUST	101	0.1100	0.490	0.224	0.0696	0.0069	± 0.0137
1976- 78-79-80 SEPTEMBER	149	0.1520	0.310	0.202	0.0272	0.0022	± 0.0044
-77-78-79-80 OCTOBER	26	0.1600	0.200	0.180	0.0111	0.0022	± 0.0045
-77-78-79-80 NOVEMBER	26	0.1600	0.290	0.183	0.0267	0.0052	± 0.0108
1976-77-78-79-80 DECEMBER	108	0.1350	1.300	0.202	0.1099	0.0106	± 0.0210



STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 TOTAL NITROGEN (N)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
		(MG/L)					
1976 FEB JUL AUG SEP DEC	239	0.1380	0.425	0.199	0.0354	0.0023	± 0.0045
1977 MAR APR MAY JUN JUL AUG OCT NOV DEC	280	0.0950	1.300	0.203	0.0757	0.0045	± 0.0089
1978 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC	254	0.0970	0.490	0.204	0.0592	0.0037	± 0.0073
1979 JAN FEB MAR APR MAY JUN AUG SEP OCT NOV DEC	65	0.1500	0.325	0.194	0.0311	0.0039	± 0.0077
1980 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC	92	0.1100	0.290	0.167	0.0246	0.0026	± 0.0051

STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 TOTAL NITROGEN (N)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN (MG/L)	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
APRIL TO SEPTEMBER							
1976	162	0.1380	0.425	0.200	0.0400	0.0031	± 0.0062
1977	217	0.0950	0.360	0.202	0.0412	0.0028	± 0.0055
1978	163	0.0970	0.490	0.213	0.0695	0.0054	± 0.0107
1979	27	0.1500	0.255	0.188	0.0272	0.0052	± 0.0108
1980	51	0.1100	0.215	0.163	0.0177	0.0025	± 0.0050
1976-80	620	0.0950	0.490	0.201	0.0500	0.0020	± 0.0039
OCTOBER TO MARCH							
1976-77	104	0.1700	0.326	0.196	0.0210	0.0021	± 0.0041
1977-78	104	0.1600	1.300	0.198	0.1120	0.0110	± 0.0218
1978-79	34	0.1600	0.280	0.185	0.0229	0.0039	± 0.0080
1979-80	41	0.1350	0.325	0.187	0.0411	0.0064	± 0.0130
1980-81	21	0.1350	0.200	0.170	0.0172	0.0037	± 0.0078
1976-80	304	0.1350	1.300	0.192	0.0691	0.0040	± 0.0078
APRIL TO MARCH							
1976-80	924	0.0950	1.300	0.198	0.0571	0.0019	± 0.0037

STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 TOTAL NITROGEN (N)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
1976 FEB JUL AUG SEP DEC	930	0.0950	1.300	0.198	0.0569	0.0019	± 0.0037
1977 MAR APR MAY JUN JUL AUG OCT NOV DEC							
1978 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC							
1979 JAN FEB MAR APR MAY JUN AUG SEP OCT NOV DEC							
1980 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC							

(MG/L)

HISTOGRAM

MIDPOINT	HIST%	COUNT	TN
.95000	.5	5	+X
.13517	8.2	76	+XXXXXXXXXXXXXXXXXXXX
.17533	53.5	494	+XXXXXXXXXXXXXXXXXXXX
.21550	25.5	236	+XXXXXXXXXXXXXXXXXXXX
.25567	5.8	54	+XXXXXXXXXXXX
.29583	3.2	30	+XXXXXX
.33600	2.2	20	+XXXX
.37617	.3	3	+X
.41633	.1	1	+X
.45650	.3	3	+X
.49667	.1	1	+X
.53683	0.	0	
.57700	0.	0	
.61717	0.	0	
.65733	0.	0	
.69750	0.	0	
.73767	0.	0	
.77783	0.	0	
.81800	0.	0	
.85817	0.	0	
.89833	0.	0	
.93850	0.	0	
.97867	0.	0	
1.0188	0.	0	
1.0590	0.	0	
1.0992	0.	0	
1.1393	0.	0	
1.1795	0.	0	
1.2197	0.	0	
1.2598	0.	0	
1.3000	.1	1	+X

FREQUENCY

PERCENT

CONCENTRATION (mg l-1)

MISSING 224
 TOTAL 1148 (INTERVAL WIDTH= .40167 -1)

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OKANAGAN RIVER BELOW OKANAGAN LAKE

Statistical Characteristics of Nutrient Concentrations
Period of Sampling February 1976 to December 1980.

TOTAL NITROGEN (N)

Median concentrations and their statistical characteristics determined for

Individual Months	367
All Months	369
Individual Years	370
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April to September	
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April to March	
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STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 TOTAL NITROGEN (N)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN (MG/L)	CONFIDENCE INTERVAL LOWER	CONFIDENCE INTERVAL UPPER	PROBABILITY LEVEL
1976 FEBRUARY	6	0.192	0.1900	0.1950	0.969
JULY	36	0.170	0.1600	0.1810	0.953
AUGUST	18	0.210	0.1860	0.2880	0.969
SEPTEMBER	108	0.200	0.1900	0.2040	0.957
DECEMBER	71	0.190	0.1850	0.1950	0.956
1977 MARCH	33	0.195	0.1860	0.2040	0.965
APRIL	14	0.256	0.2360	0.2900	0.965
MAY	38	0.192	0.1800	0.1970	0.966
JUNE	73	0.188	0.1800	0.2010	0.953
JULY	48	0.190	0.1800	0.2000	0.956
AUGUST	44	0.210	0.1800	0.2400	0.951
OCTOBER	4	0.160			
NOVEMBER	4	0.180			
DECEMBER	22	0.180	0.1800	0.2000	0.965
1978 JANUARY	4	0.190			
FEBRUARY	30	0.180	0.1700	0.2200	0.957
MARCH	40	0.180	0.1700	0.1800	0.961
APRIL	20	0.170	0.1500	0.1800	0.959
MAY	30	0.160	0.1600	0.1700	0.957
JUNE	24	0.160	0.1500	0.1700	0.957
JULY	40	0.260	0.2200	0.2900	0.961
AUGUST	24	0.230	0.2000	0.2900	0.957
SEPTEMBER	25	0.210	0.2000	0.2200	0.957
OCTOBER	7	0.180	0.1600	0.1800	0.984
NOVEMBER	8	0.170	0.1700	0.1900	0.961
DECEMBER	2	0.170			
1979 JANUARY	7	0.180	0.1700	0.2100	0.984
FEBRUARY	6	0.210	0.1900	0.2800	0.969
MARCH	4	0.190			
APRIL	4	0.190			
MAY	4	0.150			
JULY	4	0.170			
AUGUST	7	0.180	0.1700	0.2150	0.984
SEPTEMBER	8	0.205	0.1950	0.2550	0.961
OCTOBER	8	0.180	0.1750	0.1900	0.961
NOVEMBER	8	0.190	0.1750	0.2900	0.961
DECEMBER	5	0.195		0.1850	0.969

STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 TOTAL NITROGEN (N)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN (MG/L)	CONFIDENCE INTERVAL LOWER	CONFIDENCE INTERVAL UPPER	PROBABILITY LEVEL
1980 JANUARY	8	0.160	0.1600	0.1700	0.961
FEBRUARY	4	0.175			
MARCH	8	0.140	0.1400	0.2900	0.961
APRIL	8	0.155	0.1500	0.1650	0.961
MAY	12	0.155	0.1500	0.1600	0.961
JUNE	7	0.165	0.1600	0.1700	0.984
JULY	8	0.165	0.1650	0.1700	0.961
AUGUST	8	0.170	0.1150	0.2150	0.961
SEPTEMBER	8	0.175	0.1700	0.2050	0.961
OCTOBER	7	0.190	0.1800	0.2000	0.984
NOVEMBER	6	0.170	0.1600	0.1800	0.969
DECEMBER	8	0.155	0.1450	0.1700	0.961

STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 TOTAL NITROGEN (N)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN (MG/L)	CONFIDENCE INTERVAL LOWER	CONFIDENCE INTERVAL UPPER	PROBABILITY LEVEL
-78-79-80 JANUARY	19	0.170	0.1650	0.1800	0.959
1976-78-79-80 FEBRUARY	46	0.192	0.1800	0.2000	0.960
-77-78-79-80 MARCH	85	0.185	0.1800	0.1900	0.960
-77-78-79-80 APRIL	46	0.170	0.1650	0.1900	0.960
-77-78-79-80 MAY	84	0.170	0.1600	0.1800	0.962
-77-78-80 JUNE	104	0.179	0.1720	0.1880	0.961
1976-77-78-79-80 JULY	136	0.190	0.1800	0.2000	0.952
1976-77-78-79-80 AUGUST	101	0.210	0.1900	0.2200	0.954
1976-78-79-80 SEPTEMBER	149	0.200	0.1950	0.2040	0.951
-77-78-79-80 OCTOBER	26	0.180	0.1800	0.1900	0.971
-77-78-79-80 NOVEMBER	26	0.175	0.1700	0.1800	0.971
1976-77-78-79-80 DECEMBER	108	0.186	0.1850	0.1910	0.957

STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 TOTAL NITROGEN (N)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN (MG/L)	CONFIDENCE INTERVAL LOWER	CONFIDENCE INTERVAL UPPER	PROBABILITY LEVEL
1976 FEB JUL AUG SEP DEC	239	0.192	0.1900	0.1950	0.955
1977 MAR APR MAY JUN JUL AUG OCT NOV DEC	280	0.192	0.1870	0.1970	0.952
1978 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC	254	0.180	0.1800	0.1900	0.955
1979 JAN FEB MAR APR MAY JUL AUG SEP OCT NOV DEC	65	0.190	0.1800	0.1950	0.954
1980 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC	92	0.165	0.1600	0.1650	0.953

STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 TOTAL NITROGEN (N)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN (MG/L)	CONFIDENCE INTERVAL LOWER	CONFIDENCE INTERVAL UPPER	PROBABILITY LEVEL
APRIL TO SEPTEMBER					
1976	162	0.195	0.1860	0.2000	0.951
1977	217	0.195	0.1900	0.2000	0.951
1978	163	0.190	0.1800	0.2000	0.959
1979	27	0.180	0.1700	0.2050	0.964
1980	51	0.165	0.1600	0.1650	0.951
1976-80	620	0.190	0.1850	0.1930	0.951
OCTOBER TO MARCH					
1976-77	104	0.191	0.1860	0.1950	0.961
1977-78	104	0.180	0.1800	0.1800	0.961
1978-79	34	0.180	0.1700	0.1900	0.959
1979-80	41	0.175	0.1750	0.1900	0.956
1980-81	21	0.170	0.1600	0.1800	0.973
1976-80	304	0.182	0.1800	0.1850	0.956
APRIL TO MARCH					
1976-80	924	0.185	0.1820	0.1900	0.951

STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 TOTAL NITROGEN (N)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN	CONFIDENCE INTERVAL LOWER	CONFIDENCE INTERVAL UPPER	PROBABILITY LEVEL
1976 FEB JUL AUG SEP DEC	930	0.186	0.1840	0.1900	0.951
1977 MAR APR MAY JUN JUL AUG OCT NOV DEC					
1978 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC					
1979 JAN FEB MAR APR MAY JUL AUG SEP OCT NOV DEC					
1980 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC					

(MG/L)

DISTRIBUTIONAL ANALYSIS

CUMULATIVE SAMPLE DISTRIBUTION OF TN N= 924

PROB	QUANTILE	LEVEL	CONFIDENCE	INTERVAL	SIZE
0.	.95000	-1	.22889	.36278	.49667
	.90000		.63056	.89833	.76444
	.85000		1.0322	1.1681	1.3000
	.80000				
	.75000				
	.70000				
	.65000				
	.60000				
	.55000				
	.50000				
	.45000				
	.40000				
	.35000				
	.30000				
	.25000				
	.20000				
	.15000				
	.10000				
	.05000				
	0.				

PROB QUANTILE LEVEL CONFIDENCE INTERVAL SIZE

.1000	.16000	.9500	.18500	.16000	.9519
.3000	.17400	.9500	.17000	.17500	.9517
.5000	.18500	.9500	.18200	.19000	.9515
.7000	.20200	.9500	.20000	.21000	.9517
.9000	.25000	.9500	.23800	.26000	.9519

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OKANAGAN RIVER BELOW OKANAGAN LAKE

Statistical Characteristics of Nutrient Loads

Period of Sampling February 1976 to December 1980.

TOTAL NITROGEN (N)

Arithmetic mean loads and their statistical characteristics determined for

Individual Months	375
All Months	377
Graph of monthly load ranges	378
Individual Years	379
Seasons	380
April to September	
October to March	
April to March	
All Years	381

STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 TOTAL NITROGEN (N)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN (KG/DAY)	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
1976 FEBRUARY	1	481.0000	481.000	481.000	61.3970	30.6985	± 97.7000
JULY	4	539.0000	685.000	624.750			
AUGUST	1	541.0000	541.000	541.000			
SEPTEMBER	4	466.0000	496.000	478.250	12.8160	6.4080	± 20.3899
DECEMBER	4	438.0000	605.000	487.000	79.0490	39.5245	± 125.7800
1977 MARCH	4	73.8000	78.800	76.325	2.0614	1.0307	± 3.2800
APRIL	4	76.8000	175.000	142.960	38.7830	17.3443	± 48.1575
MAY	6	75.2000	87.800	81.417	4.6662	1.9050	± 4.8970
JUNE	18	67.3000	139.000	105.360	21.6110	5.0938	± 10.7460
JULY	13	131.0000	231.000	179.540	29.3730	8.1466	± 17.7500
AUGUST	13	154.0000	337.000	211.380	58.0930	16.1121	± 35.1050
OCTOBER	2	137.0000	150.000	143.500	9.1924	6.5000	± 82.5900
NOVEMBER	1	63.7000	63.700	63.700			
DECEMBER	7	48.4000	281.000	89.043	85.2270	32.2128	± 78.8195
1978 JANUARY	4	45.9000	257.000	146.500	113.6400	56.8200	± 180.8280
FEBRUARY	10	75.9000	502.000	251.810	180.9300	57.2151	± 129.4299
MARCH	11	30.6000	422.000	263.010	154.0000	46.4327	± 103.4600
APRIL	5	81.9000	320.000	197.580	89.9280	40.2170	± 111.6605
MAY	10	260.0000	1250.000	686.400	304.3899	96.2565	± 217.7500
JUNE	7	161.0000	232.000	198.290	23.5920	8.9169	± 21.8150
JULY	11	186.0000	392.000	271.450	65.5960	19.7779	± 44.0650
AUGUST	6	183.0000	516.000	293.670	121.0000	49.3980	± 126.9749
SEPTEMBER	9	145.0000	310.000	239.560	68.1250	22.7083	± 52.3650
OCTOBER	2	254.0000	266.000	260.000	8.4853	6.0000	± 76.2400
NOVEMBER	3	246.0000	371.000	314.000	63.2220	36.5012	± 157.0499
DECEMBER	1	233.0000	233.000	233.000			
1979 JANUARY	2	131.0000	169.000	150.000	26.8700	19.0000	± 241.4189
FEBRUARY	2	99.0000	114.000	106.500	10.6070	7.5003	± 95.2985
MARCH	1	117.0000	117.000	117.000			
APRIL	2	119.0000	128.000	123.500	6.3640	4.5000	± 57.1790
MAY	1	124.0000	124.000	124.000			
JULY	1	179.0000	179.000	179.000			
AUGUST	2	198.0000	221.000	209.500	16.2630	11.4997	± 146.1205
SEPTEMBER	2	215.0000	221.000	218.000	4.2426	3.0000	± 38.1201
OCTOBER	2	149.0000	216.000	182.500	47.3760	33.4999	± 425.6599
NOVEMBER	2	55.0000	55.200	55.100	0.1414	0.1000	± 1.2710
DECEMBER	2	67.6000	99.300	83.450	22.4150	15.8498	± 201.3900

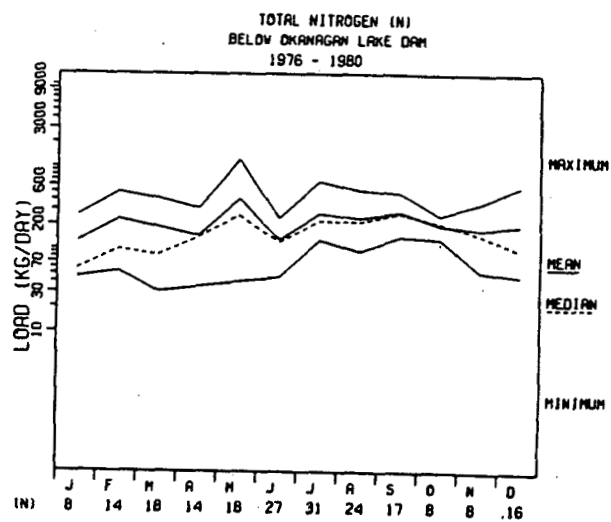
STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
OKANAGAN RIVER BELOW OKANAGAN LAKE DAM

TOTAL NITROGEN (N)
SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN (KG/DAY)	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
1980 JANUARY	2	57.3000	57.800	57.550	0.3536	0.2500	± 3.1770
FEBRUARY	1	54.9000	54.900	54.900			
MARCH	2	34.1000	46.100	40.100	8.4853	6.0000	± 76.2385
APRIL	2	35.6000	72.900	54.250	26.3750	18.6499	± 236.9700
MAY	1	41.0000	41.000	41.000			
JUNE	2	46.5000	241.000	143.750	137.5300	97.2484	± 1235.6499
JULY	2	264.0000	272.000	268.000	5.6569	4.0000	± 50.8200
AUGUST	2	95.7000	314.000	204.850	154.3600	109.1490	± 1386.8499
SEPTEMBER	2	187.0000	292.000	239.500	74.2460	52.4999	± 667.0801
OCTOBER	2	225.0000	242.000	233.500	12.0210	8.5001	± 108.0000
NOVEMBER	2	153.0000	159.000	156.000	4.2426	3.0000	± 38.1200
DECEMBER	2	122.0000	135.000	128.500	9.1924	6.5000	± 82.5900

STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 TOTAL NITROGEN (N)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN (KG/DAY)	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
-78-79-80 JANUARY	8	45.9000	257.000	125.140	85.9090	30.3734	± 71.8220
1976-78-79-80 FEBRUARY	14	54.9000	502.000	233.360	180.4900	48.2380	± 104.2100
-77-78-79-80 MARCH	18	30.6000	422.000	188.640	152.9700	36.0554	± 76.0750
-77-78-79-80 APRIL	14	35.6000	320.000	147.010	73.5290	19.6514	± 42.4550
-77-78-79-80 MAY	18	41.0000	1250.000	417.640	380.6101	89.7107	± 189.2699
-77-78-80 JUNE	27	46.5000	241.000	132.290	53.3510	10.2674	± 21.1050
1976-77-78-79-80 JULY	31	131.0000	685.000	275.290	150.7700	27.0791	± 55.3000
1976-77-78-79-80 AUGUST	24	95.7000	541.000	244.990	106.3300	21.7045	± 44.8999
1976-78-79-80 SEPTEMBER	17	145.0000	496.000	293.180	118.0800	28.6386	± 60.7149
-77-78-79-80 OCTOBER	8	137.0000	266.000	204.880	51.8200	18.3211	± 43.3250
-77-78-79-80 NOVEMBER	8	55.0000	371.000	178.490	124.0600	43.8618	± 103.7205
1976-77-78-79-80 DECEMBER	16	48.4000	605.000	201.760	185.6500	46.4125	± 98.9250



STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 TOTAL NITROGEN (N)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN (KG/DAY)	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
1976 FEB JUL AUG SEP DEC	14	438.0000	685.000	527.290	81.7990	21.8617	± 47.2300
1977 MAR APR MAY JUN JUL AUG OCT NOV DEC	69	48.4000	337.000	137.120	63.8320	7.6845	± 15.3350
1978 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC	79	30.6000	1250.000	301.720	208.8500	23.4975	± 46.7800
1979 JAN FEB MAR APR MAY JUN AUG SEP OCT NOV DEC	19	55.0000	221.000	140.900	55.4960	12.7317	± 26.7500
1980 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC	22	34.1000	314.000	143.090	96.0320	20.4741	± 42.5750

STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 TOTAL NITROGEN (N)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN (KG/DAY)	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
APRIL TO SEPTEMBER							
1976	9	466.0000	685.000	550.330	82.7830	27.5943	± 63.6350
1977	55	67.3000	337.000	148.760	59.2400	7.9879	± 16.0150
1978	48	81.9000	1250.000	336.330	236.0800	34.0752	± 68.5499
1979	8	119.0000	221.000	175.630	45.2290	15.9909	± 37.8150
1980	11	35.6000	314.000	169.250	111.8400	33.7210	± 75.1360
1976-80	131	35.6000	1250.000	248.440	193.2000	16.8800	± 33.3950
OCTOBER TO MARCH							
1976-77	8	73.8000	605.000	281.660	225.5400	79.7404	± 188.5554
1977-78	35	30.6000	502.000	199.180	154.0900	26.0460	± 52.9300
1978-79	11	99.0000	371.000	211.360	91.7230	27.6555	± 61.6200
1979-80	11	34.1000	216.000	81.118	54.6840	16.4878	± 36.7395
1980-81	6	122.0000	242.000	172.670	49.2040	20.0874	± 51.6350
1976-80	71	30.6000	605.000	189.830	146.2300	17.3543	± 34.6100
APRIL TO MARCH							
1976-80	202	30.6000	1250.000	227.840	179.9300	12.6598	± 24.9650

STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 TOTAL NITROGEN (N)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
1976 FEB JUL AUG SEP DEC	203	30.6000	1250.000	229.080	180.3600	12.6588	± 24.9600
1977 MAR APR MAY JUN JUL AUG OCT NOV DEC							
1978 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC							
1979 JAN FEB MAR APR MAY JUL AUG SEP OCT NOV DEC							
1980 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC							

(KG/DAY)

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OKANAGAN RIVER BELOW OKANAGAN LAKE

Statistical Characteristics of Nutrient Loads

Period of Sampling February 1976 to December 1980.

TOTAL NITROGEN (N)

Median loads and their statistical characteristics determined for

Individual Months	383
All Months	385
Individual Years	386
Seasons	387
April to September	
October to March	
April to March	
All Years	388

STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 TOTAL NITROGEN (N)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN (KG/DAY)	CONFIDENCE INTERVAL		PROBABILITY LEVEL
			LOWER	UPPER	
1976 FEBRUARY	1	481.000			
JULY	4	637.000			
AUGUST	1	541.000			
SEPTEMBER	4	473.000			
DECEMBER	4	448.000			
1977 MARCH	4	76.000			
APRIL	5	156.000			
MAY	6	79.800	75.2000	76.8000	0.969
JUNE	18	103.000	87.0000	87.8000	0.969
JULY	13	178.000	151.0000	125.0000	0.969
AUGUST	13	192.000	156.0000	210.0000	0.978
OCTOBER	2	137.000		252.0000	0.978
NOVEMBER	1	63.700			
DECEMBER	7	52.300	48.4000	281.0000	0.984
1978 JANUARY	4	51.100			
FEBRUARY	10	100.000	77.2000	457.0000	0.979
MARCH	11	297.000	85.3000	416.0000	0.961
APRIL	5	182.000		81.9000	0.969
MAY	10	714.000	285.0000	934.0000	0.979
JUNE	7	196.000	161.0000	232.0000	0.984
JULY	11	273.000	226.0000	380.0000	0.961
AUGUST	6	230.000	183.0000	516.0000	0.969
SEPTEMBER	9	276.000	146.0000	299.0000	0.961
OCTOBER	2	254.000			
NOVEMBER	3	325.000			
DECEMBER	1	233.000			
1979 JANUARY	2	131.000			
FEBRUARY	2	99.000			
MARCH	1	117.000			
APRIL	2	119.000			
MAY	1	124.000			
JULY	1	179.000			
AUGUST	2	198.000			
SEPTEMBER	2	215.000			
OCTOBER	2	149.000			
NOVEMBER	2	55.000			
DECEMBER	2	67.600			

STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 TOTAL NITROGEN (N)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN (KG/DAY)	CONFIDENCE INTERVAL LOWER	CONFIDENCE INTERVAL UPPER	PROBABILITY LEVEL
1980 JANUARY	2	57.300			
FEBRUARY	1	54.900			
MARCH	2	34.100			
APRIL	2	35.600			
MAY	1	41.000			
JUNE	2	46.500			
JULY	2	264.000			
AUGUST	2	95.700			
SEPTEMBER	2	187.000			
OCTOBER	2	225.000			
NOVEMBER	2	153.000			
DECEMBER	2	122.000			

STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 TOTAL NITROGEN (N)

SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN (KG/DAY)	CONFIDENCE INTERVAL LOWER	CONFIDENCE INTERVAL UPPER	PROBABILITY LEVEL
- 78-79-80 JANUARY	8	57.800	51.1000	257.0000	0.961
1976- 78-79-80 FEBRUARY	14	100.000	78.0000	457.0000	0.965
- 77-78-79-80 MARCH	18	85.300	73.8000	387.0000	0.969
- 77-78-79-80 APRIL	14	143.000	81.9000	182.0000	0.965
- 77-78-79-80 MAY	18	260.000	82.3000	729.0000	0.969
- 77-78- 80 JUNE	27	123.000	98.5000	161.0000	0.964
1976-77-78-79-80 JULY	31	226.000	181.0000	273.0000	0.971
1976-77-78-79-80 AUGUST	24	221.000	184.0000	289.0000	0.957
1976- 78-79-80 SEPTEMBER	17	280.000	215.0000	310.0000	0.951
- 77-78-79-80 OCTOBER	8	216.000	149.0000	266.0000	0.961
- 77-78-79-80 NOVEMBER	8	153.000	55.2000	371.0000	0.961
1976-77-78-79-80 DECEMBER	16	99.300	67.1000	438.0000	0.951

STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 TOTAL NITROGEN (N)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN (KG/DAY)	CONFIDENCE INTERVAL LOWER	CONFIDENCE INTERVAL UPPER	PROBABILITY LEVEL
1976 FEB JUL AUG SEP DEC	14	481.000	466.0000	637.0000	0.965
1977 MAR APR MAY JUN JUL AUG OCT NOV DEC	69	130.000	103.0000	155.0000	0.959
1978 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC	79	258.000	232.0000	286.0000	0.958
1979 JAN FEB MAR APR MAY JUL AUG SEP OCT NOV DEC	19	128.000	114.0000	198.0000	0.959
1980 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC	22	122.000	57.3000	241.0000	0.965

STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 TOTAL NITROGEN (N)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN (KG/DAY)	CONFIDENCE INTERVAL		PROBABILITY LEVEL
			LOWER	UPPER	
APRIL TO SEPTEMBER					
1976	9	539.000	473.0000	638.0000	0.961
1977	55	145.000	125.0000	164.0000	0.956
1978	48	260.000	230.0000	294.0000	0.956
1979	8	179.000	124.0000	221.0000	0.961
1980	11	187.000	46.5000	292.0000	0.961
1976-80	131	192.000	178.0000	222.0000	0.955
OCTOBER TO MARCH					
1976-77	8	78.800	76.0000	605.0000	0.961
1977-78	35	137.000	75.9000	281.0000	0.959
1978-79	11	233.000	117.0000	325.0000	0.961
1979-80	11	57.300	54.9000	149.0000	0.961
1980-81	6	153.000	122.0000	242.0000	0.969
1976-80	71	135.000	90.0000	225.0000	0.956
APRIL TO MARCH					
1976-80	202	181.000	159.0000	211.0000	0.951

STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 TOTAL NITROGEN (N)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN	CONFIDENCE INTERVAL LOWER	CONFIDENCE INTERVAL UPPER	PROBABILITY LEVEL
1976 FEB JUL AUG SEP DEC					
1977 MAR APR MAY JUN JUL AUG OCT NOV DEC					
1978 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC					
1979 JAN FEB MAR APR MAY JUL AUG SEP OCT NOV DEC					
1980 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC	203	182.000	159.0000	211.0000	0.951

(KG/DAY)

OKANAGAN RIVER BELOW OKANAGAN LAKE

Statistical Characteristics of Nutrient Concentrations

Period of Sampling February 1976 to December 1980.

RATIO OF TOTAL NITROGEN (N) TO TOTAL PHOSPHORUS (P)

Arithmetic mean concentrations and their statistical characteristics determined for:

Individual Months	390
All Months	392
Graph of monthly concentration ranges	393
Individual Years	394
Seasons	395
April to September	
October to March	
April to March	
All Years	396
Histogram of concentration distribution	397

STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF TOTAL NITROGEN (N) / TOTAL PHOSPHORUS (P)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
1976 FEBRUARY	6	19.5000	27.286	23.960	3.1042	1.2673	± 3.2575
JULY	36	9.1176	60.714	24.442	9.3664	1.5611	± 3.1690
AUGUST	18	10.8570	43.571	29.909	8.2761	1.9507	± 4.1155
SEPTEMBER	54	4.7500	46.400	26.653	8.8732	1.2075	± 2.4220
DECEMBER	33	10.5260	39.167	25.593	5.9542	1.0365	± 2.1115
1977 MARCH	21	5.7812	28.571	18.606	5.4252	1.1839	± 2.4695
APRIL	14	11.3330	28.000	21.320	5.6628	1.5134	± 3.2695
MAY	26	3.8200	39.400	27.152	8.5705	1.6808	± 3.4615
JUNE	61	7.5000	44.667	24.090	6.2585	0.8013	± 1.6030
JULY	48	11.7220	40.000	27.173	6.3609	0.9181	± 1.8470
AUGUST	44	15.8330	72.000	40.908	12.0770	1.8207	± 3.6720
OCTOBER	4	13.3330	17.778	15.239	2.0491	1.0245	± 3.2605
NOVEMBER	4	10.6670	22.500	17.131	6.2638	3.1319	± 9.9671
DECEMBER	22	12.5000	72.222	25.216	11.9520	2.5482	± 5.2990
1978 JANUARY	4	11.8520	28.333	21.539	6.9608	3.4804	± 11.0765
FEBRUARY	30	13.5290	32.857	22.378	6.2356	1.1385	± 2.3285
MARCH	40	13.8460	31.667	23.001	5.0842	0.8039	± 1.6260
APRIL	20	12.5000	38.000	25.126	6.5903	1.4736	± 3.0845
MAY	30	12.5000	35.556	20.519	6.2021	1.1323	± 2.3160
JUNE	24	10.0000	32.500	20.897	6.4501	1.3166	± 2.7235
JULY	40	24.2860	85.000	44.282	14.3370	2.2669	± 4.5850
AUGUST	24	3.0000	122.500	52.073	29.8090	6.0847	± 12.5870
SEPTEMBER	25	19.0910	57.500	33.686	11.2520	2.2504	± 4.6445
OCTOBER	7	10.0000	25.714	16.293	5.1728	1.9551	± 4.7845
NOVEMBER	8	12.8570	19.000	16.178	2.4593	0.8695	± 2.0560
DECEMBER	2	6.5385	7.727	7.133	0.8406	0.5944	± 7.5529
1979 JANUARY	7	17.0000	30.000	24.019	4.4153	1.6688	± 4.0835
FEBRUARY	6	15.8330	33.333	24.071	7.7372	3.1587	± 8.1195
MARCH	4	10.5560	17.273	13.485	3.2072	1.6036	± 5.1033
APRIL	4	7.9167	22.000	14.146	5.9824	2.9912	± 9.5192
MAY	4	8.3333	13.636	10.198	2.3964	1.1982	± 3.8129
JULY	4	15.4550	17.500	16.477	1.1809	0.5904	± 1.8790
AUGUST	7	13.5710	36.000	23.986	7.4959	2.8332	± 6.9325
SEPTEMBER	8	21.0000	28.125	23.682	2.4076	0.8512	± 2.0125
OCTOBER	8	13.8460	23.750	19.913	3.6133	1.2775	± 3.0205
NOVEMBER	8	15.9090	26.250	20.794	2.9547	1.0446	± 2.4700
DECEMBER	4	9.2857	19.500	15.719	4.4462	2.2231	± 7.0749

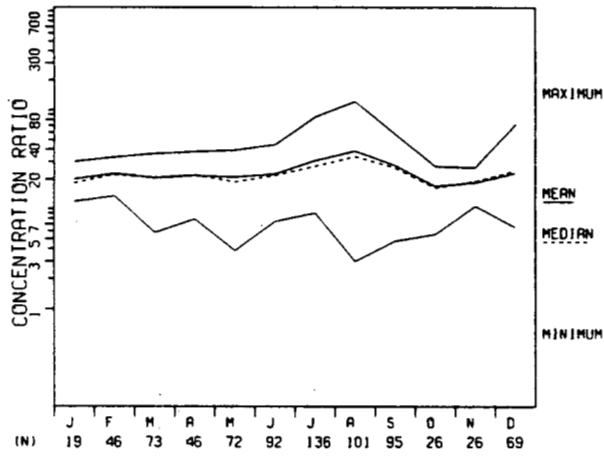
STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF TOTAL NITROGEN (N) / TOTAL PHOSPHORUS (P)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
1980 JANUARY	8	12.6920	18.333	15.946	1.9474	0.6885	± 1.6280
FEBRUARY	4	19.4440	28.000	23.937	3.9645	1.9823	± 6.3080
MARCH	8	9.0000	36.250	17.876	8.7460	3.0922	± 7.3120
APRIL	8	16.6670	22.143	18.791	2.2531	0.7966	± 1.8840
MAY	12	3.9744	18.333	13.046	4.4064	1.2720	± 2.7995
JUNE	7	14.5450	21.250	17.322	2.7971	1.0572	± 2.5870
JULY	8	15.0000	23.571	21.089	3.0228	1.0687	± 2.5270
AUGUST	8	7.3333	26.875	16.501	7.6929	2.7199	± 6.4315
SEPTEMBER	8	12.8570	24.286	18.721	4.3120	1.5245	± 3.6050
OCTOBER	7	5.5714	27.143	15.315	7.3912	2.7936	± 6.8355
NOVEMBER	6	17.7780	21.875	19.664	1.3654	0.5574	± 1.4330
DECEMBER	8	11.7860	18.750	14.154	2.3101	0.8167	± 1.9315

STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF TOTAL NITROGEN (N) / TOTAL PHOSPHORUS (P)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
- 78-79-80 JANUARY	19	11.8520	30.000	20.098	5.4908	1.2597	± 2.6465
1976- 78-79-80 FEBRUARY	46	13.5290	33.333	22.941	5.8683	0.8652	± 1.7425
-77-78-79-80 MARCH	73	5.7812	36.250	20.653	6.1675	0.7219	± 1.4390
-77-78-79-80 APRIL	46	7.9167	38.000	21.911	6.5245	0.9620	± 1.9375
-77-78-79-80 MAY	72	3.8200	39.400	21.096	8.7203	1.0277	± 2.0495
-77-78- 80 JUNE	92	7.5000	44.667	22.742	6.4213	0.6695	± 1.3300
1976-77-78-79-80 JULY	136	9.1176	85.000	30.810	13.3300	1.1430	± 2.2605
1976-77-78-79-80 AUGUST	101	3.0000	122.500	38.495	19.9940	1.9895	± 3.9470
1976- 78-79-80 SEPTEMBER	95	4.7500	57.500	27.586	9.8446	1.0100	± 2.0055
-77-78-79-80 OCTOBER	26	5.5714	27.143	16.981	5.2763	1.0348	± 2.1310
-77-78-79-80 NOVEMBER	26	10.6670	26.250	18.549	3.6402	0.7139	± 1.4705
1976-77-78-79-80 DECEMBER	69	6.5385	72.222	23.039	9.3174	1.1217	± 2.2385

RATIO OF TOTAL NITROGEN (N) / TOTAL PHOSPHORUS (P)
BELOW OKANAGAN LAKE DAM
1976 - 1980



STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF TOTAL NITROGEN (N) / TOTAL PHOSPHORUS (P)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

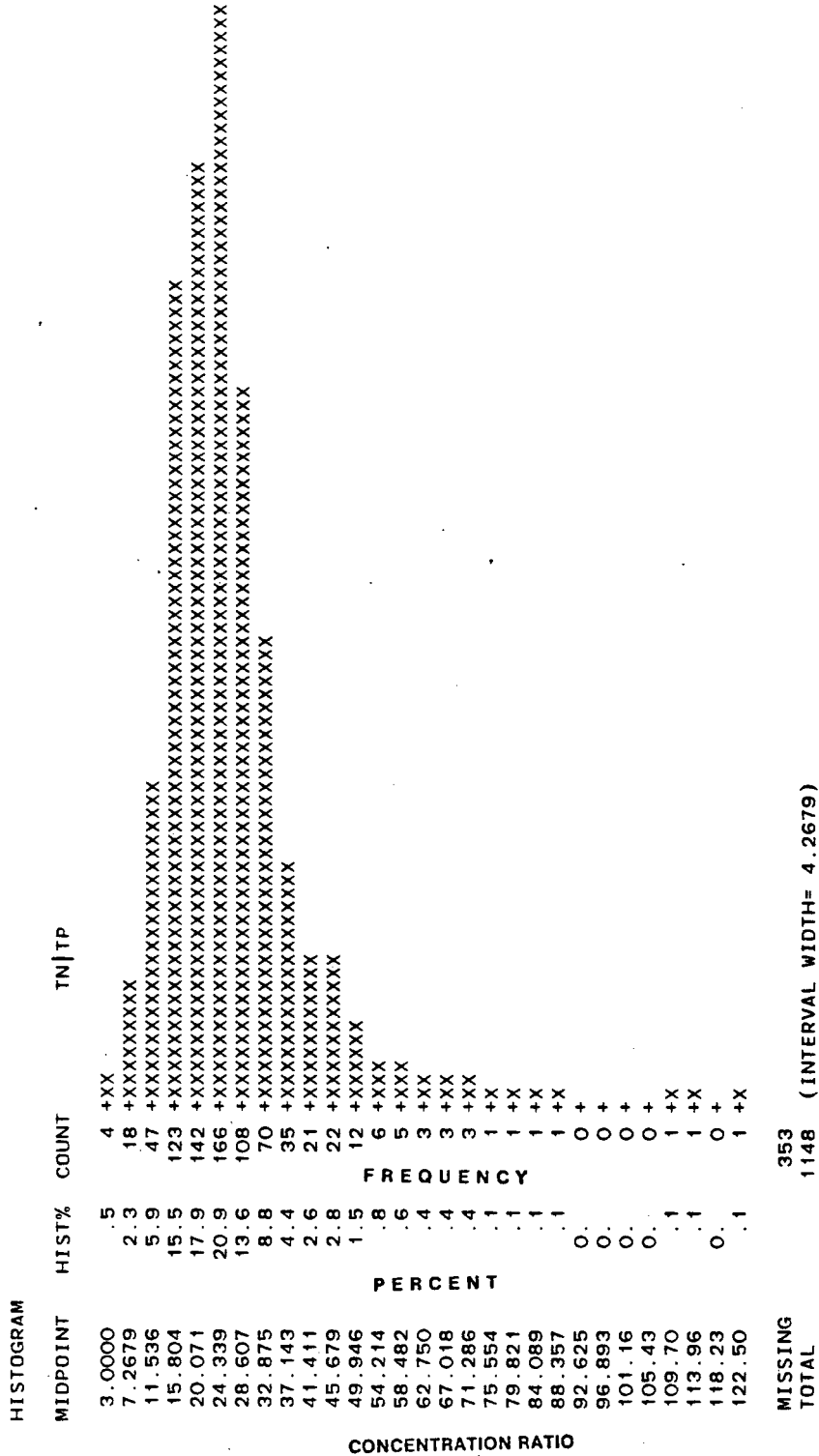
SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
1976 FEB JUL AUG SEP DEC	147	4.7500	60.714	26.162	8.2771	0.6827	± 1.3495
1977 MAR APR MAY JUN JUL AUG OCT NOV DEC	214	3.8200	72.222	27.267	10.8210	0.6927	± 1.3645
1978 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC	254	3.0000	122.500	29.205	16.6270	1.0433	± 2.0550
1979 JAN FEB MAR APR MAY JUL AUG SEP OCT NOV DEC	64	7.9167	36.000	19.933	6.1934	0.7742	± 1.5475
1980 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC	92	3.9744	36.250	17.210	5.3372	0.5564	± 1.1055

STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF TOTAL NITROGEN (N) / TOTAL PHOSPHORUS (P)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
APRIL TO SEPTEMBER							
1976	108	4.7500	60.714	26.459	9.0536	0.8712	± 1.7270
1977	193	3.8200	72.000	28.903	10.5970	0.7628	± 1.5045
1978	163	3.0000	122.500	33.637	18.8540	1.4768	± 2.9160
1979	27	7.9167	36.000	19.283	7.0256	1.3521	± 2.7795
1980	51	3.9744	26.875	17.228	5.0502	0.7072	± 1.4205
1976-80	542	3.0000	122.500	28.262	13.8650	0.5956	± 1.1700
OCTOBER TO MARCH							
1976-77	54	5.7812	39.167	22.876	6.6585	0.9061	± 1.8170
1977-78	104	10.6670	72.222	22.709	7.5745	0.7427	± 1.4730
1978-79	34	6.5385	33.333	18.360	6.7100	1.1508	± 2.3410
1979-80	40	9.0000	36.250	18.872	5.2574	0.8313	± 1.6815
1980-81	21	5.5714	27.143	16.115	4.9260	1.0749	± 2.2420
1976-80	253	5.5714	72.222	21.006	7.1050	0.4467	± 0.8800
APRIL TO MARCH							
1976-80	795	3.0000	122.500	25.953	12.5870	0.4464	± 0.8765

STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF TOTAL NITROGEN (N) / TOTAL PHOSPHORUS (P)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
1976 FEB JUL AUG SEP DEC	801	3.0000	122.500	25.938	12.5440	0.4432	± 0.8700
1977 MAR APR MAY JUN JUL AUG OCT NOV DEC							
1978 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC							
1979 JAN FEB MAR APR MAY JUN AUG SEP OCT NOV DEC							
1980 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC							



OKANAGAN RIVER BELOW OKANAGAN LAKE

Statistical Characteristics of Nutrient Concentrations

Period of Sampling February 1976 to December 1980.

RATIO OF TOTAL NITROGEN (N) TO TOTAL PHOSPHORUS (P)

Median concentrations and their statistical characteristics determined for

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Cumulative distribution of concentration data	405

STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF TOTAL NITROGEN (N) / TOTAL PHOSPHORUS (P)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN	CONFIDENCE INTERVAL LOWER	CONFIDENCE INTERVAL UPPER	PROBABILITY LEVEL
1976 FEBRUARY	6	24.125	19.5000	27.2860	0.969
JULY	36	23.571	20.5710	25.8330	0.953
AUGUST	18	27.143	25.0000	34.0000	0.969
SEPTEMBER	54	25.714	22.5000	29.3330	0.960
DECEMBER	33	25.714	24.3750	28.3330	0.965
1977 MARCH	21	18.500	17.5000	21.5000	0.973
APRIL	14	21.667	19.6670	26.3640	0.965
MAY	26	26.875	21.9000	34.6670	0.971
JUNE	61	23.750	21.7500	25.2860	0.960
JULY	48	28.000	25.0000	29.4290	0.956
AUGUST	44	40.000	34.0000	44.0000	0.951
OCTOBER	4	13.846			
NOVEMBER	4	12.857			
DECEMBER	22	24.286	22.0000	25.7140	0.965
1978 JANUARY	4	22.222			
FEBRUARY	30	22.222	18.1820	24.2860	0.957
MARCH	40	22.857	21.2500	25.7140	0.961
APRIL	20	23.750	21.4290	28.3330	0.959
MAY	30	17.778	16.3640	22.8570	0.957
JUNE	24	21.250	16.6670	26.6670	0.957
JULY	40	43.333	36.0000	46.6670	0.961
AUGUST	24	40.000	36.0000	60.0000	0.957
SEPTEMBER	25	30.000	27.1430	34.0000	0.957
OCTOBER	7	16.000	10.0000	25.7140	0.984
NOVEMBER	8	15.455	14.1670	19.0000	0.961
DECEMBER	2	6.538			
1979 JANUARY	7	23.333	17.0000	30.0000	0.984
FEBRUARY	6	18.333	15.8330	33.3330	0.969
MARCH	4	11.111			
APRIL	4	11.667			
MAY	4	8.823			
JULY	4	15.455			
AUGUST	7	22.500	13.5710	36.0000	0.984
SEPTEMBER	8	22.778	21.6670	28.1250	0.961
OCTOBER	8	21.111	16.3640	23.7500	0.961
NOVEMBER	8	20.455	19.0000	26.2500	0.961
DECEMBER	4	16.818			

STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF TOTAL NITROGEN (N) / TOTAL PHOSPHORUS (P)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN	CONFIDENCE INTERVAL		PROBABILITY LEVEL
			LOWER	UPPER	
1980 JANUARY	8	15.455	14.5450	18.3330	0.961
FEBRUARY	4	21.875			
MARCH	8	12.727	11.6670	36.2500	0.961
APRIL	8	17.778	16.6670	22.1430	0.961
MAY	12	14.545	9.1667	17.2220	0.961
JUNE	7	16.500	14.5450	21.2500	0.984
JULY	8	20.625	18.8890	23.5710	0.961
AUGUST	8	17.000	7.6667	26.8750	0.961
SEPTEMBER	8	17.000	14.2310	24.2860	0.961
OCTOBER	7	16.364	5.5714	27.1430	0.984
NOVEMBER	6	19.444	17.7780	21.8750	0.969
DECEMBER	8	13.077	12.3080	18.7500	0.961

STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF TOTAL NITROGEN (N) / TOTAL PHOSPHORUS (P)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN	CONFIDENCE INTERVAL		PROBABILITY LEVEL
			LOWER	UPPER	
-78-79-80 JANUARY	19	18.333	17.0000	23.7500	0.959
1976-78-79-80 FEBRUARY	46	22.222	19.5000	24.3750	0.960
-77-78-79-80 MARCH	73	20.833	18.8890	22.8570	0.953
-77-78-79-80 APRIL	46	22.000	19.6920	25.0000	0.960
-77-78-79-80 MAY	72	18.889	16.8180	22.6250	0.956
-77-78-80 JUNE	92	21.818	20.8890	24.1670	0.953
1976-77-78-79-80 JULY	136	27.143	25.7140	29.1670	0.952
1976-77-78-79-80 AUGUST	101	34.000	32.0000	38.3330	0.954
1976-78-79-80 SEPTEMBER	95	26.000	24.2860	28.5710	0.960
-77-78-79-80 OCTOBER	26	16.364	13.8460	20.0000	0.971
-77-78-79-80 NOVEMBER	26	19.000	16.0000	20.4550	0.971
1976-77-78-79-80 DECEMBER	69	24.375	22.0000	25.7140	0.959

STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF TOTAL NITROGEN (N) / TOTAL PHOSPHORUS (P)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

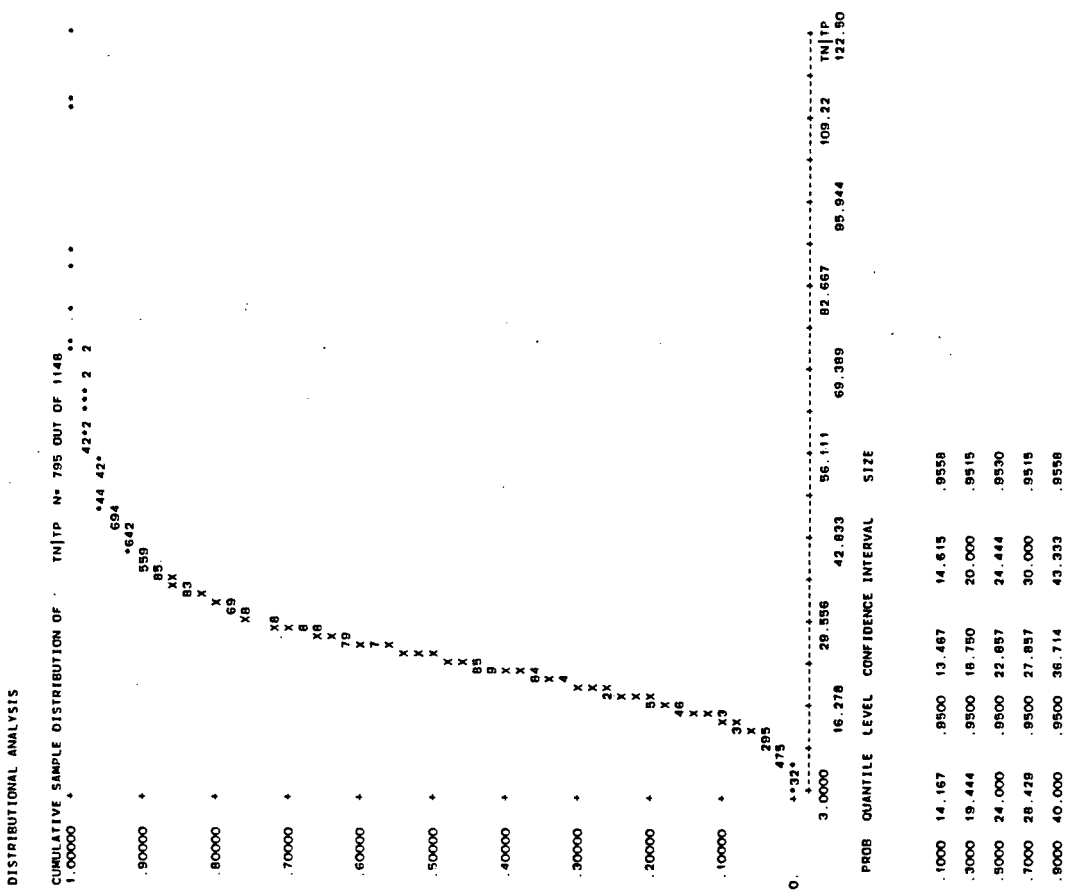
SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN	CONFIDENCE INTERVAL LOWER	CONFIDENCE INTERVAL UPPER	PROBABILITY LEVEL
1976 FEB JUL AUG SEP DEC	147	25.429	24.5710	26.4290	0.953
1977 MAR APR MAY JUN JUL AUG OCT NOV DEC	244	25.556	24.2860	26.8570	0.953
1978 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC	254	25.000	24.2860	27.1430	0.955
1979 JAN FEB MAR APR MAY JUL AUG SEP OCT NOV DEC	64	20.455	17.5000	21.8750	0.954
1980 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC	92	17.222	15.7690	18.3330	0.953

STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF TOTAL NITROGEN (N) / TOTAL PHOSPHORUS (P)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN	CONFIDENCE INTERVAL LOWER	CONFIDENCE INTERVAL UPPER	PROBABILITY LEVEL
APRIL TO SEPTEMBER					
1976	108	25.429	24.0000	27.0000	0.957
1977	193	27.500	25.5000	28.5710	0.956
1978	163	30.000	26.6670	32.0000	0.959
1979	27	21.000	15.4550	22.7780	0.964
1980	51	17.222	15.7690	19.3750	0.951
1976-80	542	25.417	24.5710	26.6670	0.952
OCTOBER TO MARCH					
1976-77	54	24.000	20.5560	25.4290	0.960
1977-78	104	22.500	21.2500	24.2860	0.961
1978-79	34	17.273	15.4550	19.0000	0.959
1979-80	40	18.333	17.0000	20.5560	0.961
1980-81	21	16.364	12.3080	19.4440	0.973
1976-80	253	20.556	19.4440	22.0000	0.956
APRIL TO MARCH					
1976-80	795	24.000	22.8570	24.4440	0.953

STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF TOTAL NITROGEN (N) / TOTAL PHOSPHORUS (P)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN	CONFIDENCE INTERVAL LOWER	CONFIDENCE INTERVAL UPPER	PROBABILITY LEVEL
1976 FEB JUL AUG SEP DEC					
1977 MAR APR MAY JUN JUL AUG OCT NOV DEC					
1978 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC					
1979 JAN FEB MAR APR MAY JUL AUG SEP OCT NOV DEC					
1980 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC	801	24.000	22.8570	24.4440	0.952



OKANAGAN RIVER BELOW OKANAGAN LAKE

Statistical Characteristics of Nutrient Loads

Period of Sampling February 1976 to December 1980.

RATIO OF TOTAL NITROGEN (N) TO TOTAL PHOSPHORUS (P)

Arithmetic mean loads and their statistical characteristics determined for

Individual Months	407
All Months	409
Graph of monthly load ranges	410
Individual Years	411
Seasons	412
April to September	
October to March	
April to March	
All Years	413

STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF TOTAL NITROGEN (N) / TOTAL PHOSPHORUS (P)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

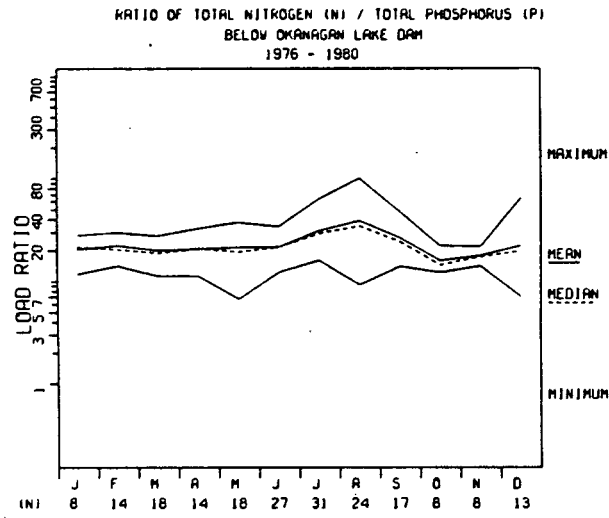
SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
1976 FEBRUARY	1	23.5780	23.578	23.578		1.3271	± 4.2235
JULY	4	20.3510	26.683	23.077	2.6543		
AUGUST	1	24.7030	24.703	24.703		3.3401	± 10.6295
SEPTEMBER	4	14.0110	29.494	23.625	6.6803	1.3499	± 17.1519
DECEMBER	2	22.9740	25.674	24.324	1.9090	1.3611	± 4.3315
1977 MARCH	4	13.0680	18.953	17.032	2.7222	1.9843	± 5.5090
APRIL	5	12.7150	24.823	19.904	4.4370	3.2208	± 8.2795
MAY	6	16.1720	37.752	28.612	7.8894	1.3565	± 2.8615
JUNE	18	13.5420	34.561	22.992	5.7550	1.6917	± 3.6860
JULY	13	16.0310	36.901	27.307	6.0996	3.3404	± 7.2780
AUGUST	13	24.2140	62.873	42.413	12.0440	1.8417	± 23.4017
OCTOBER	2	13.6360	17.320	15.478	2.6046		
NOVEMBER	1	15.5750	15.575	15.575		6.4103	± 15.6855
DECEMBER	7	16.5680	65.501	27.756	16.9600	3.4847	± 11.0900
1978 JANUARY	4	11.8430	28.333	21.563	6.9695	1.9396	± 4.3880
FEBRUARY	10	14.1410	30.066	22.322	6.1334	1.3687	± 3.0495
MARCH	11	15.3000	27.952	22.264	4.5394	2.4010	± 6.6660
APRIL	5	18.6180	33.058	24.469	5.3687	1.6319	± 3.6920
MAY	10	15.0600	30.472	20.047	5.1606	2.1174	± 5.1810
JUNE	7	12.3530	26.923	20.051	5.6021	3.2807	± 7.3100
JULY	11	28.0120	64.157	42.689	10.8810	12.9999	± 33.4175
AUGUST	6	9.2920	101.780	46.827	31.8430	2.8000	± 6.4565
SEPTEMBER	9	22.0730	47.913	30.981	8.4000	1.6919	± 21.4978
OCTOBER	2	14.3780	17.762	16.070	2.3927	1.0125	± 4.3565
NOVEMBER	3	14.1600	17.473	15.484	1.7537		
DECEMBER	1	7.1037	7.104	7.104		1.8033	± 22.9137
1979 JANUARY	2	21.6170	25.224	23.421	2.5503	0.8836	± 11.2275
FEBRUARY	2	20.4300	22.197	21.314	1.2496		
MARCH	1	12.8710	12.871	12.871		5.3110	± 67.4835
APRIL	2	11.3330	21.955	16.644	7.5109		
MAY	1	9.8413	9.841	9.841		4.6369	± 58.9175
JULY	1	16.4220	16.422	16.422		0.7055	± 8.9645
AUGUST	2	18.2640	27.538	22.901	6.5576	2.7736	± 35.2425
SEPTEMBER	2	22.8480	24.259	23.554	0.9977	1.4474	± 18.3912
OCTOBER	2	16.8360	22.383	19.610	3.9225		
NOVEMBER	2	19.0970	21.992	20.545	2.0469		
DECEMBER	1	14.4140	14.414	14.414			

STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF TOTAL NITROGEN (N) / TOTAL PHOSPHORUS (P)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
1980 JANUARY	2	15.0000	16.514	15.757	1.0708	0.7572	± 9.6207
FEBRUARY	1	23.9740	23.974	23.974			
MARCH	2	11.3290	24.010	17.670	8.9672	6.3408	± 80.5670
APRIL	2	17.9800	19.235	18.607	0.8874	0.6275	± 7.9735
MAY	1	6.7434	6.743	6.743			
JUNE	2	16.0900	18.976	17.533	2.0410	1.4432	± 18.3378
JULY	2	18.5030	23.363	20.933	3.4361	2.4297	± 30.8727
AUGUST	2	9.5700	22.590	16.080	9.2065	6.5100	± 82.7170
SEPTEMBER	2	15.7840	20.151	17.967	3.0880	2.1835	± 27.7446
OCTOBER	2	12.2280	12.941	12.585	0.5041	0.3565	± 4.5292
NOVEMBER	2	19.2260	20.760	19.993	1.0845	0.7669	± 9.7440
DECEMBER	2	12.8570	15.006	13.932	1.5196	1.0745	± 13.6531

STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF TOTAL NITROGEN (N) / TOTAL PHOSPHORUS (P)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
-78-79-80 JANUARY	8	11.8430	28.333	20.576	5.6048	1.9816	± 4.6860
1976-78-79-80 FEBRUARY	14	14.1410	30.066	22.386	5.1621	1.3796	± 2.9805
-77-78-79-80 MARCH	18	11.3290	27.952	20.069	5.2125	1.2286	± 2.5920
-77-78-79-80 APRIL	14	11.3330	33.058	20.883	5.3104	1.4193	± 3.0660
-77-78-79-80 MAY	18	6.7434	37.752	21.596	8.5025	2.0041	± 4.2280
-77-78-80 JUNE	27	12.3530	34.561	21.825	5.6802	1.0932	± 2.2470
1976-77-78-79-80 JULY	31	16.0310	64.157	31.457	11.5520	2.0748	± 4.2370
1976-77-78-79-80 AUGUST	24	9.2920	101.780	38.958	20.0330	4.0892	± 8.4590
1976-78-79-80 SEPTEMBER	17	14.0110	47.913	26.845	8.2297	1.9960	± 4.2315
-77-78-79-80 OCTOBER	8	12.2280	22.383	15.936	3.3394	1.1807	± 2.7920
-77-78-79-80 NOVEMBER	8	14.1600	21.992	17.888	2.8581	1.0105	± 2.3895
1976-77-78-79-80 DECEMBER	13	7.1037	65.501	22.486	14.0860	3.9068	± 8.5120



STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF TOTAL NITROGEN (N) / TOTAL PHOSPHORUS (P)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
1976 FEB JUL AUG SEP DEC	12	14.0110	29.494	23.645	3.8376	1.1078	± 2.4385
1977 MAR APR MAY JUN JUL AUG OCT NOV DEC	69	12.7150	65.501	27.541	11.7060	1.4092	± 2.8120
1978 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC	79	7.1037	101.780	26.995	14.2070	1.5984	± 3.1820
1979 JAN FEB MAR APR MAY JUN AUG SEP OCT NOV DEC	18	9.8413	27.538	19.418	4.9250	1.1608	± 2.4490
1980 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC	22	6.7434	24.010	16.947	4.7313	1.0087	± 2.0980

STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF TOTAL NITROGEN (N) / TOTAL PHOSPHORUS (P)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
APRIL TO SEPTEMBER							
1976	9	14.0110	29.494	23.501	4.4334	1.4778	± 3.4080
1977	55	12.7150	62.873	28.934	11.0390	1.4885	± 2.9845
1978	48	9.2920	101.780	31.095	16.3860	2.3651	± 4.7575
1979	8	9.8413	27.538	19.058	6.2555	2.2117	± 5.2295
1980	11	6.7434	23.363	17.180	5.0610	1.5259	± 3.4000
1976-80	131	6.7434	101.780	27.762	13.1550	1.1494	± 2.2735
OCTOBER TO MARCH							
1976-77	6	13.0680	25.674	19.463	4.3994	1.7960	± 4.6170
1977-78	35	11.8430	65.501	22.720	9.0191	1.5245	± 3.0980
1978-79	11	7.1037	25.224	17.094	5.1294	1.5466	± 3.4460
1979-80	10	11.3290	24.010	18.555	4.4098	1.3945	± 3.1550
1980-81	6	12.2280	20.760	15.503	3.6340	1.4836	± 3.8140
1976-80	68	7.1037	65.501	20.273	7.5876	0.9201	± 1.8365
APRIL TO MARCH							
1976-80	199	6.7434	101.780	25.203	12.0740	0.8559	± 1.6880

STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF TOTAL NITROGEN (N) / TOTAL PHOSPHORUS (P)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
1976 FEB JUL AUG SEP DEC	200	6.7434	101.780	25.195	12.0440	0.8516	± 1.6795
1977 MAR APR MAY JUN JUL AUG OCT NOV DEC							
1978 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC							
1979 JAN FEB MAR APR MAY JUL AUG SEP OCT NOV DEC							
1980 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC							

OKANAGAN RIVER BELOW OKANAGAN LAKE

Statistical Characteristics of Nutrient Loads

Period of Sampling February 1976 to December 1980.

RATIO OF TOTAL NITROGEN (N) TO TOTAL PHOSPHORUS (P)

Median loads and their statistical characteristics determined for

Individual Months	415
All Months	417
Individual Years	418
Seasons	419
April to September	
October to March	
April to March	
All Years	420

STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF TOTAL NITROGEN (N) / TOTAL PHOSPHORUS (P)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN	CONFIDENCE INTERVAL LOWER	CONFIDENCE INTERVAL UPPER	PROBABILITY LEVEL
1976 FEBRUARY	1	23.578			
JULY	4	22.240			
AUGUST	1	24.703			
SEPTEMBER	4	25.426			
DECEMBER	2	22.974			
1977 MARCH	4	17.447			
APRIL	5	21.060		12.7150	0.969
MAY	6	29.516	16.1720	37.7520	0.969
JUNE	18	22.528	19.3970	26.0480	0.969
JULY	13	28.193	22.5040	31.9150	0.978
AUGUST	13	42.177	30.4090	52.8570	0.978
OCTOBER	2	13.636			
NOVEMBER	1	15.575			
DECEMBER	7	22.511	16.5680	65.5010	0.984
1978 JANUARY	4	22.308			
FEBRUARY	10	20.273	14.3270	29.5080	0.979
MARCH	11	22.626	17.7390	26.9660	0.961
APRIL	5	24.257		18.6180	0.969
MAY	10	16.985	15.6440	26.0000	0.979
JUNE	7	20.641	12.3530	26.9230	0.984
JULY	11	38.679	35.9680	52.3420	0.961
AUGUST	6	34.761	9.2920	101.7800	0.969
SEPTEMBER	9	31.172	23.1930	36.1760	0.961
OCTOBER	2	14.378			
NOVEMBER	3	14.819			
DECEMBER	1	7.104			
1979 JANUARY	2	21.617			
FEBRUARY	2	20.430			
MARCH	1	12.871			
APRIL	2	11.333			
MAY	1	9.841			
JULY	1	16.422			
AUGUST	2	18.264			
SEPTEMBER	2	22.848			
OCTOBER	2	16.836			
NOVEMBER	2	19.097			
DECEMBER	1	14.414			

STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF TOTAL NITROGEN (N) / TOTAL PHOSPHORUS (P)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN	CONFIDENCE INTERVAL LOWER	CONFIDENCE INTERVAL UPPER	PROBABILITY LEVEL
1980 JANUARY	2	15.000			
FEBRUARY	1	23.974			
MARCH	2	11.329			
APRIL	2	17.980			
MAY	1	6.743			
JUNE	2	16.090			
JULY	2	18.503			
AUGUST	2	9.570			
SEPTEMBER	2	15.784			
OCTOBER	2	12.228			
NOVEMBER	2	19.226			
DECEMBER	2	12.857			

STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF TOTAL NITROGEN (N) / TOTAL PHOSPHORUS (P)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN	CONFIDENCE INTERVAL LOWER	CONFIDENCE INTERVAL UPPER	PROBABILITY LEVEL
-78-79-80 JANUARY	8	21.617	15.0000	28.3330	0.961
1976-78-79-80 FEBRUARY	14	20.430	19.3000	28.4060	0.965
-77-78-79-80 MARCH	18	18.917	16.3090	24.4940	0.969
-77-78-79-80 APRIL	14	21.060	18.6180	24.6280	0.965
-77-78-79-80 MAY	18	19.455	16.0110	29.5160	0.969
-77-78-80 JUNE	27	21.799	18.9760	24.5730	0.964
1976-77-78-79-80 JULY	31	29.679	23.3630	35.9680	0.971
1976-77-78-79-80 AUGUST	24	34.761	27.5380	46.4790	0.957
1976-78-79-80 SEPTEMBER	17	24.538	22.8480	31.1720	0.951
-77-78-79-80 OCTOBER	8	14.378	12.9410	22.3830	0.961
-77-78-79-80 NOVEMBER	8	17.473	14.8190	21.9920	0.961
1976-77-78-79-80 DECEMBER	13	19.761	14.4140	25.6740	0.978

STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF TOTAL NITROGEN (N) / TOTAL PHOSPHORUS (P)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN	CONFIDENCE INTERVAL LOWER	CONFIDENCE INTERVAL UPPER	PROBABILITY LEVEL
1976 FEB JUL AUG SEP DEC	12	23.578	22.2400	25.6740	0.961
1977 MAR APR MAY JUN JUL AUG OCT NOV DEC	69	24.573	22.5110	28.1930	0.959
1978 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC	79	24.257	21.7820	26.9230	0.958
1979 JAN FEB MAR APR MAY JUN AUG SEP OCT NOV DEC	18	20.430	16.4220	22.3830	0.969
1980 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC	22	16.514	15.0000	20.1510	0.965

STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF TOTAL NITROGEN (N) / TOTAL PHOSPHORUS (P)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN	CONFIDENCE INTERVAL		PROBABILITY LEVEL
			LOWER	UPPER	
APRIL TO SEPTEMBER					
1976	9	24.703	20.3510	26.6830	0.961
1977	55	26.302	23.8810	31.0760	0.956
1978	48	26.575	23.4090	34.1420	0.956
1979	8	18.264	11.3330	27.5380	0.961
1980	11	18.503	15.7840	22.5900	0.961
1976-80	131	24.538	23.0320	26.6830	0.955
OCTOBER TO MARCH					
1976-77	6	18.662	13.0680	25.6740	0.969
1977-78	35	22.308	18.9390	24.9480	0.959
1978-79	11	17.473	14.1600	22.1970	0.961
1979-80	10	16.836	14.4140	23.9740	0.979
1980-81	6	12.941	12.2280	20.7600	0.969
1976-80	68	19.226	17.4730	21.9920	0.961
APRIL TO MARCH					
1976-80	199	22.590	21.7990	24.2140	0.953

STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF TOTAL NITROGEN (N) / TOTAL PHOSPHORUS (P)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN	CONFIDENCE INTERVAL LOWER	CONFIDENCE INTERVAL UPPER	PROBABILITY LEVEL
1976 FEB JUL AUG SEP DEC	200	22.590	21.9550	24.2140	0.952
1977 MAR APR MAY JUN JUL AUG OCT NOV DEC					
1978 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC					
1979 JAN FEB MAR APR MAY JUN AUG SEP OCT NOV DEC					
1980 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC					

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OKANAGAN RIVER BELOW OKANAGAN LAKE

Statistical Characteristics of Nutrient Concentrations

Period of Sampling February 1976 to December 1980.

RATIO OF TOTAL NITROGEN (N) TO TOTAL DISSOLVED PHOSPHORUS (P)

Arithmetic mean concentrations and their statistical characteristics determined for:

Individual Months	422
All Months	424
Graph of monthly concentration ranges	425
Individual Years	426
Seasons	427
April to September	
October to March	
April to March	
All Years	428
Histogram of concentration distribution	429

STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF TOTAL NITROGEN (N) / TOTAL DISSOLVED PHOSPHORUS (P)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
1976 FEBRUARY	18	21.7140	70.833	37.104	15.5770	3.6715	± 7.7465
JULY							
AUGUST							
SEPTEMBER	18	25.0000	52.000	39.964	6.6736	1.5730	± 3.3185
DECEMBER	24	25.7140	48.750	38.812	6.4420	1.3150	± 2.7200
1977 MARCH	12	43.7500	57.500	48.146	4.4778	1.2926	± 2.8450
APRIL							
MAY	26	27.8570	64.667	47.202	10.0260	1.9663	± 4.0500
JUNE	61	15.0000	89.333	49.423	15.6750	2.0070	± 4.0145
JULY	48	25.0000	93.333	58.614	13.7170	1.9799	± 3.9830
AUGUST	44	43.3330	165.000	72.023	25.9440	3.9112	± 7.8875
OCTOBER	4	22.5000	40.000	33.625	8.3204	4.1602	± 13.2400
NOVEMBER	4	22.8570	60.000	50.714	18.5710	9.2855	± 29.5515
DECEMBER	22	45.0000	144.440	65.316	22.1660	4.7258	± 9.8280
1978 JANUARY	4	16.0000	66.667	47.125	23.3430	11.6715	± 37.1448
FEBRUARY	30	28.7500	66.667	47.750	12.3400	2.2530	± 4.6080
MARCH	40	27.1430	100.000	63.045	19.5720	3.0946	± 6.2595
APRIL	20	32.3330	95.000	67.033	17.3310	3.8753	± 8.1110
MAY	30	36.0000	105.000	68.922	16.5860	3.0282	± 6.1935
JUNE	24	28.0000	80.000	47.486	14.8430	3.0298	± 6.2675
JULY	40	42.5000	170.000	89.267	31.8890	5.0421	± 10.1985
AUGUST	24	41.6670	225.000	87.882	45.7750	9.3438	± 19.3285
SEPTEMBER	25	30.0000	115.000	58.313	23.3900	4.6780	± 9.6550
OCTOBER	7	13.8460	60.000	39.145	16.8520	6.3695	± 15.5855
NOVEMBER	8	32.0000	47.500	36.750	5.3719	1.8993	± 4.4910
DECEMBER	2	21.2500	21.250	21.250			
1979 JANUARY	7	28.3330	60.000	46.381	11.9140	4.5031	± 11.0190
FEBRUARY	6	35.0000	55.000	42.361	7.5354	3.0763	± 7.9080
MARCH	3	45.0000	63.333	52.778	9.4771	5.4716	± 23.5425
APRIL	4	60.0000	110.000	92.500	22.5460	11.2730	± 35.8780
MAY	4	30.0000	50.000	38.750	8.2916	4.1458	± 13.1940
JULY	4	28.3330	42.500	35.208	5.7885	2.8942	± 9.2105
AUGUST	7	42.5000	71.667	50.119	10.6660	4.0314	± 9.8640
SEPTEMBER	8	27.8570	35.000	31.975	2.7334	0.9664	± 2.2855
OCTOBER	8	22.5000	43.750	29.690	7.5774	2.6790	± 6.3345
NOVEMBER	8	25.0000	48.333	31.715	7.3904	2.6129	± 6.1785
DECEMBER	4	26.4290	32.500	29.643	3.3120	1.6560	± 5.2700

STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF TOTAL NITROGEN (N) / TOTAL DISSOLVED PHOSPHORUS (P)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

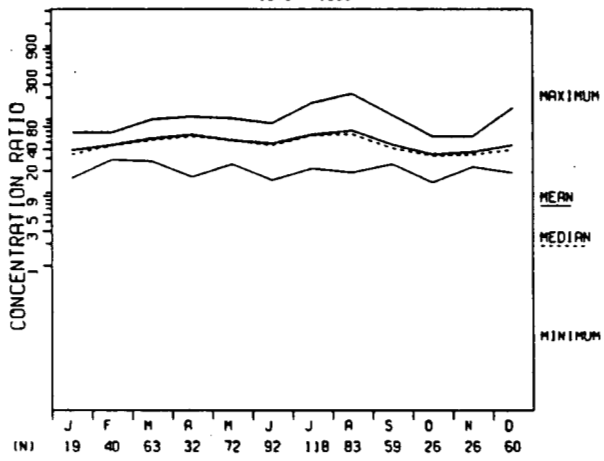
SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
1980 JANUARY	8	25.8330	34.000	28.583	3.1320	1.1073	± 2.6185
FEBRUARY	4	29.1670	46.667	35.500	8.3100	4.1550	± 13.2230
MARCH	8	28.0000	48.333	35.813	7.8697	2.7824	± 6.5795
APRIL	8	16.6670	51.667	38.146	12.6800	4.4831	± 10.6010
MAY	12	25.0000	33.000	28.722	2.9149	0.8415	± 1.8520
JUNE	7	32.0000	42.500	38.893	4.1303	1.5611	± 3.8200
JULY	8	28.3330	41.250	34.354	4.5392	1.6048	± 3.7950
AUGUST	8	19.1670	53.750	34.396	12.2480	4.3303	± 10.2400
SEPTEMBER	8	29.1670	46.250	36.792	6.1052	2.1585	± 5.1040
OCTOBER	7	30.0000	40.000	34.143	3.9234	1.4829	± 3.6285
NOVEMBER	6	32.0000	36.000	34.000	1.6733	0.6831	± 1.7560
DECEMBER	8	18.8890	32.000	25.965	4.3238	1.5287	± 3.6145

STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES

OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF TOTAL NITROGEN (N) / TOTAL DISSOLVED PHOSPHORUS (P)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
-78-79-80 JANUARY	19	16.0000	66.667	39.044	15.0340	3.4490	± 7.2460
1976-78-79-80 FEBRUARY	40	28.7500	66.667	45.717	11.8930	1.8804	± 3.8035
-77-78-79-80 MARCH	63	27.1430	100.000	56.260	18.7450	2.3616	± 4.7210
-77-78-79-80 APRIL	32	16.6670	110.000	62.995	23.4900	4.1525	± 8.4690
-77-78-79-80 MAY	72	25.0000	105.000	52.703	19.5550	2.3046	± 4.5950
-77-78-80 JUNE	92	15.0000	89.333	48.117	15.0540	1.5695	± 3.1175
1976-77-78-79-80 JULY	118	21.7140	170.000	63.285	29.6860	2.7328	± 5.4125
1976-77-78-79-80 AUGUST	83	19.1670	225.000	71.135	34.8380	3.8240	± 7.6075
1976-78-79-80 SEPTEMBER	59	25.0000	115.000	46.226	18.9810	2.4711	± 4.9465
-77-78-79-80 OCTOBER	26	13.8460	60.000	34.040	10.4700	2.0533	± 4.2290
-77-78-79-80 NOVEMBER	26	22.8570	60.000	36.715	10.3170	2.0233	± 4.1675
1976-77-78-79-80 DECEMBER	60	18.8890	144.440	45.620	21.1460	2.7299	± 5.4625

RATIO OF TOTAL NITROGEN (N) / TOTAL DISSOLVED PHOSPHORUS (P)
BELOW OKANAGAN LAKE DAM
1976 - 1980



STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF TOTAL NITROGEN (N) / TOTAL DISSOLVED PHOSPHORUS (P)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

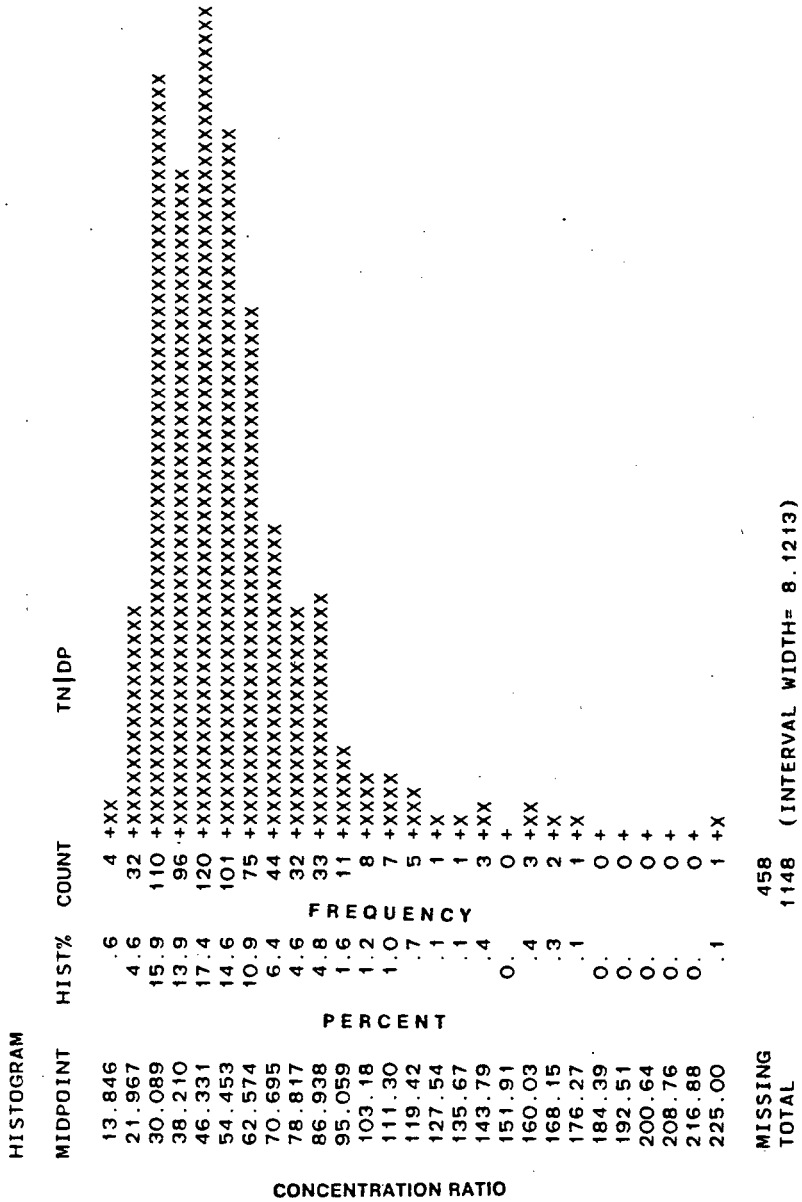
SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
1976 FEB JUL AUG SEP DEC	60	21.7140	70.833	38.645	10.0100	1.2923	± 2.5855
1977 MAR APR MAY JUN JUL AUG OCT NOV DEC	221	15.0000	165.000	56.908	19.9640	1.3429	± 2.6465
1978 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC	254	13.8460	225.000	64.720	29.0160	1.8206	± 3.5855
1979 JAN FEB MAR APR MAY JUL AUG SEP OCT NOV DEC	63	22.5000	110.000	41.579	17.7500	2.2363	± 4.4705
1980 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC	92	16.6670	53.750	33.416	7.5465	0.7868	± 1.5625

STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF TOTAL NITROGEN (N) / TOTAL DISSOLVED PHOSPHORUS (P)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
APRIL TO SEPTEMBER							
1976	36	21.7140	70.833	38.534	11.8990	1.9832	± 4.0265
1977	179	15.0000	165.000	57.120	19.9850	1.4937	± 2.9475
1978	163	28.0000	225.000	71.691	31.1880	2.4428	± 4.8240
1979	27	27.8570	110.000	47.129	22.8280	4.3933	± 9.0305
1980	51	16.6670	53.750	34.636	8.3186	1.1648	± 2.3395
1976-80	456	15.0000	225.000	57.755	26.7660	1.2534	± 2.4630
OCTOBER TO MARCH							
1976-77	36	25.7140	57.500	41.923	7.3134	1.2189	± 2.4745
1977-78	104	16.0000	144.440	56.895	19.9110	1.9524	± 3.8720
1978-79	33	13.8460	63.333	40.839	12.2460	2.1318	± 4.3420
1979-80	40	22.5000	48.333	31.675	6.8808	1.0879	± 2.2005
1980-81	21	18.8890	40.000	30.987	5.3064	1.1580	± 2.4155
1976-80	234	13.8460	144.440	45.691	18.1380	1.1857	± 2.3360
APRIL TO MARCH							
1976-80	690	13.8460	225.000	53.664	24.8400	0.9456	± 1.8570

STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF TOTAL NITROGEN (N) / TOTAL DISSOLVED PHOSPHORUS (P)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
1976 FEB JUL AUG SEP DEC	690	13.8460	225.000	53.654	24.8400	0.9456	± 1.8570
1977 MAR APR MAY JUN JUL AUG OCT NOV DEC							
1978 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC							
1979 JAN FEB MAR APR MAY JUN AUG SEP OCT NOV DEC							
1980 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC							



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OKANAGAN RIVER BELOW OKANAGAN LAKE

Statistical Characteristics of Nutrient Concentrations
Period of Sampling February 1976 to December 1980.

RATIO OF TOTAL NITROGEN (N) TO TOTAL DISSOLVED PHOSPHORUS (P)

Median concentrations and their statistical characteristics determined for

Individual Months	431
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Individual Years	434
Seasons	435
April to September	
October to March	
April to March	
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Cumulative distribution of concentration data	437

STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF TOTAL NITROGEN (N) / TOTAL DISSOLVED PHOSPHORUS (P)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN	CONFIDENCE INTERVAL		PROBABILITY LEVEL
			LOWER	UPPER	
1976 FEBRUARY	18	30.000	25.8330	42.8000	0.969
JULY	18	40.000	37.8330	43.0000	0.969
AUGUST	24	38.200	35.6000	45.0000	0.957
SEPTEMBER	12	46.250	46.2500	53.7500	0.961
DECEMBER	26	48.750	42.4000	54.5000	0.971
1977 JANUARY	61	50.500	44.0000	55.2500	0.960
FEBRUARY	48	60.000	56.6670	63.3330	0.956
MARCH	44	63.333	56.6670	75.0000	0.951
APRIL	4	32.000			
MAY	4	60.000			
JUNE	22	60.000	55.0000	66.6670	0.965
JULY	4	42.500			
AUGUST	30	50.000	40.0000	56.6670	0.957
SEPTEMBER	40	60.000	56.6670	62.5000	0.961
OCTOBER	20	63.333	56.6670	80.0000	0.959
NOVEMBER	30	75.000	56.6670	80.0000	0.957
DECEMBER	24	42.500	37.5000	56.6670	0.957
1978 JANUARY	40	86.667	66.6670	96.6670	0.961
FEBRUARY	24	70.000	63.3330	85.0000	0.957
MARCH	25	50.000	45.0000	63.3330	0.957
APRIL	7	40.000	13.8460	60.0000	0.984
MAY	8	34.000	34.0000	47.5000	0.961
JUNE	2	21.250			
JULY	7	45.000	28.3330	60.0000	0.984
AUGUST	6	40.000	35.0000	55.0000	0.969
SEPTEMBER	3	50.000			
OCTOBER	4	95.000			
NOVEMBER	4	37.500			
DECEMBER	4	35.000			
1979 JANUARY	7	45.000	42.5000	71.6670	0.984
FEBRUARY	8	32.143	27.8570	35.0000	0.961
MARCH	8	25.714	23.7500	43.7500	0.961
APRIL	8	29.167	26.4290	48.3330	0.961
MAY	4	27.143			
JUNE					
JULY					
AUGUST					
SEPTEMBER					
OCTOBER					
NOVEMBER					
DECEMBER					

STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF TOTAL NITROGEN (N) / TOTAL DISSOLVED PHOSPHORUS (P)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN	CONFIDENCE INTERVAL LOWER	CONFIDENCE INTERVAL UPPER	PROBABILITY LEVEL
1980 JANUARY	8	26.667	26.6670	34.0000	0.961
FEBRUARY	4	29.167			
MARCH	8	33.000	28.0000	48.3330	0.961
APRIL	8	33.000	31.0000	51.6670	0.961
MAY	12	26.667	25.8330	31.0000	0.961
JUNE	7	41.250	32.0000	42.5000	0.984
JULY	8	33.000	32.0000	41.2500	0.961
AUGUST	8	34.000	22.0000	53.7500	0.961
SEPTEMBER	8	34.167	30.0000	46.2500	0.961
OCTOBER	7	32.500	30.0000	40.0000	0.984
NOVEMBER	6	34.000	32.0000	36.0000	0.969
DECEMBER	8	25.000	22.5000	32.0000	0.961

STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF TOTAL NITROGEN (N) / TOTAL DISSOLVED PHOSPHORUS (P)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN	CONFIDENCE INTERVAL LOWER	CONFIDENCE INTERVAL UPPER	PROBABILITY LEVEL
-78-79-80 JANUARY	19	34.000	27.5000	56.6670	0.959
1976-78-79-80 FEBRUARY	40	45.000	40.0000	55.0000	0.961
-77-78-79-80 MARCH	63	53.333	46.2500	57.5000	0.957
-77-78-79-80 APRIL	32	60.000	51.6670	75.0000	0.965
-77-78-79-80 MAY	72	53.250	43.7500	54.7500	0.956
-77-78-80 JUNE	92	45.000	42.5000	53.3330	0.953
1976-77-78-79-80 JULY	118	61.000	56.6670	63.8000	0.957
1976-77-78-79-80 AUGUST	83	63.333	56.6670	70.0000	0.952
1976-78-79-80 SEPTEMBER	59	41.250	37.8330	45.0000	0.964
-77-78-79-80 OCTOBER	26	32.500	27.1430	40.0000	0.971
-77-78-79-80 NOVEMBER	26	34.000	32.0000	36.0000	0.971
1976-77-78-79-80 DECEMBER	60	40.000	36.0000	47.5000	0.960

STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF TOTAL NITROGEN (N) / TOTAL DISSOLVED PHOSPHORUS (P)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

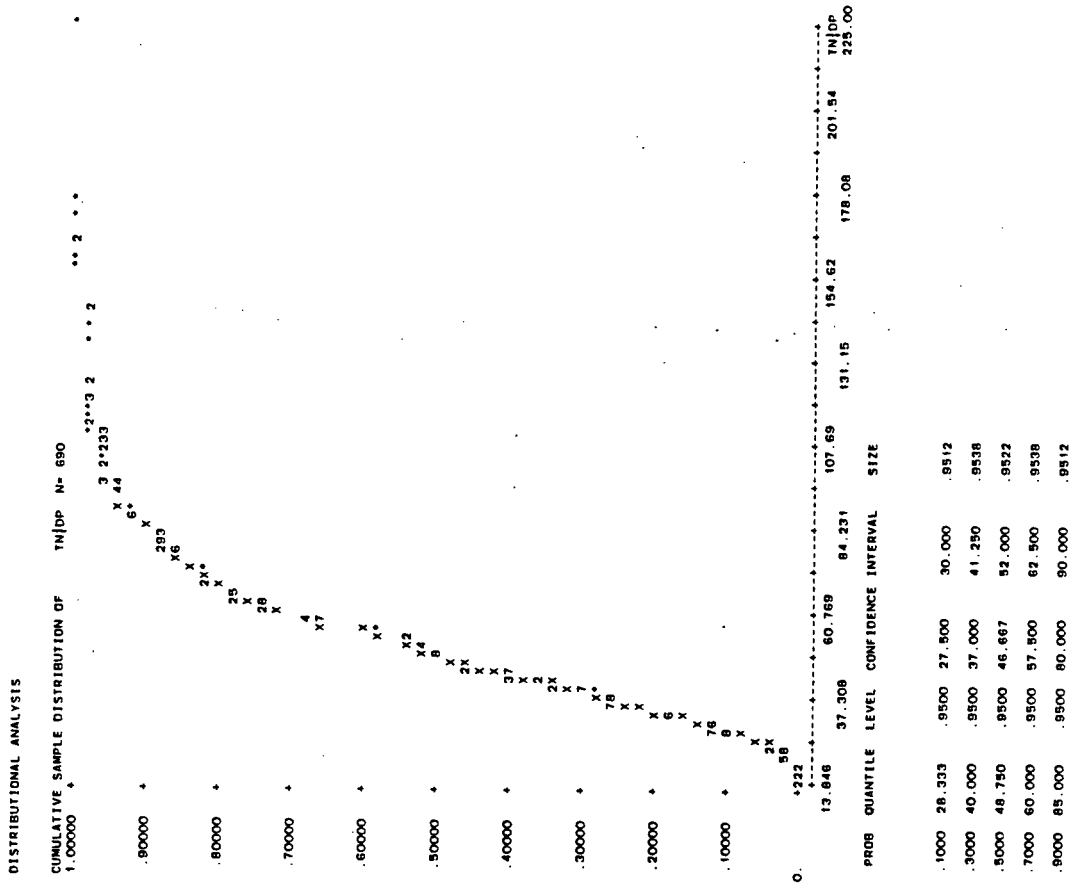
SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN	CONFIDENCE INTERVAL LOWER	CONFIDENCE INTERVAL UPPER	PROBABILITY LEVEL
1976 FEB JUL AUG SEP DEC	60	38.200	35.6000	40.4000	0.960
1977 MAR APR MAY JUN JUL AUG OCT NOV DEC	221	55.667	53.3330	56.6670	0.957
1978 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC	254	60.000	56.6670	62.5000	0.955
1979 JAN FEB MAR APR MAY JUL AUG SEP OCT NOV DEC	63	36.000	33.3330	42.5000	0.957
1980 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC	92	32.500	31.0000	34.0000	0.953

STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF TOTAL NITROGEN (N) / TOTAL DISSOLVED PHOSPHORUS (P)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN	CONFIDENCE INTERVAL		PROBABILITY LEVEL
			LOWER	UPPER	
APRIL TO SEPTEMBER					
1976	36	38.000	34.5000	42.2500	0.953
1977	179	55.750	53.5000	56.6670	0.956
1978	163	65.000	60.0000	72.5000	0.959
1979	27	37.500	34.1670	47.5000	0.964
1980	51	33.000	32.0000	37.0000	0.951
1976-80	456	53.333	51.6670	56.0000	0.951
OCTOBER TO MARCH					
1976-77	36	43.750	40.0000	46.2500	0.953
1977-78	104	56.667	53.3330	60.0000	0.961
1978-79	33	40.000	35.0000	45.0000	0.965
1979-80	40	29.167	27.5000	32.5000	0.961
1980-81	21	32.000	27.5000	35.0000	0.973
1976-80	234	42.500	40.0000	45.0000	0.957
APRIL TO MARCH					
1976-80	690	48.750	46.6670	52.0000	0.952

STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF TOTAL NITROGEN (N) / TOTAL DISSOLVED PHOSPHORUS (P)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	CONFIDENCE INTERVAL		PROBABILITY LEVEL
		LOWER	UPPER	
1976 FEB JUL AUG SEP DEC	690	46.6670	52.0000	0.952
1977 MAR APR MAY JUN JUL AUG OCT NOV DEC				
1978 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC				
1979 JAN FEB MAR APR MAY JUN AUG SEP OCT NOV DEC				
1980 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC				



OKANAGAN RIVER BELOW OKANAGAN LAKE

Statistical Characteristics of Nutrient Loads

Period of Sampling February 1976 to December 1980.

RATIO OF TOTAL NITROGEN (N) TO TOTAL DISSOLVED PHOSPHORUS (P)

Arithmetic mean loads and their statistical characteristics determined for

Individual Months	439
All Months	441
Graph of monthly load ranges	442
Individual Years	443
Seasons	444
April to September	
October to March	
April to March	
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STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF TOTAL NITROGEN (N) / TOTAL DISSOLVED PHOSPHORUS (P)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

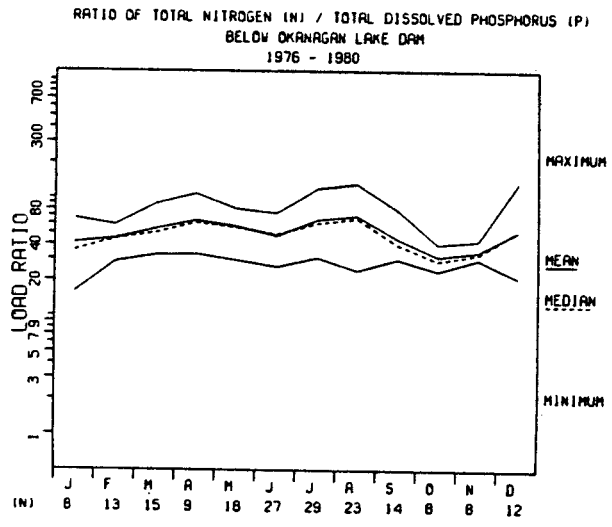
SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
1976 FEBRUARY	2	31.2790	39.058	35.168	5.5009	3.8897	± 49.4235
JULY							
AUGUST	1	37.6380	37.638	37.638			
SEPTEMBER	1	38.6210	38.621	38.621			
DECEMBER	1	48.5530	48.553	48.553			
1977 MARCH	1						
APRIL							
MAY	6	40.2140	54.875	47.502	5.7374	2.3423	± 6.0210
JUNE	18	26.1040	74.688	49.696	12.9160	3.0443	± 6.4225
JULY	13	43.8130	74.247	59.484	8.8633	2.4582	± 5.3560
AUGUST	13	46.4650	119.920	73.793	22.4200	6.2182	± 13.5485
OCTOBER	2	24.0770	40.058	32.068	11.3010	7.9910	± 101.5320
NOVEMBER	1	43.6300	43.630	43.630			
DECEMBER	1	53.8380	135.750	70.556	29.2710	11.0634	± 27.0715
1978 JANUARY	4	15.9630	66.859	47.180	23.4290	11.7145	± 37.2807
FEBRUARY	10	28.6530	59.215	47.084	10.9410	3.4598	± 7.8260
MARCH	11	36.6470	88.966	59.229	16.2400	4.8965	± 10.9105
APRIL	5	57.2430	88.398	65.495	12.9750	5.8026	± 16.1110
MAY	10	56.2070	80.997	67.890	9.2201	2.9157	± 6.5955
JUNE	7	32.9730	70.948	45.359	12.7230	4.8088	± 11.7665
JULY	11	55.8330	120.960	85.852	25.3360	7.6391	± 17.0195
AUGUST	6	51.0900	132.990	84.201	33.3050	13.5967	± 34.9505
SEPTEMBER	9	34.0380	79.897	51.195	15.8850	5.2950	± 12.2100
OCTOBER	2	25.8250	40.640	33.233	10.4760	7.4077	± 94.1185
NOVEMBER	3	33.4240	38.737	35.399	2.9066	1.6781	± 7.2200
DECEMBER	1	21.1820	21.182	21.182			
1979 JANUARY	2	35.5980	52.160	43.879	11.7120	8.2816	± 105.2225
FEBRUARY	2	37.6240	43.231	40.428	3.9652	2.8038	± 35.6263
MARCH	1	50.6490	50.649	50.649			
APRIL	2	75.7960	109.400	92.599	23.7630	16.8030	± 213.5000
MAY	1	37.4620	37.462	37.462			
JULY	1	34.5560	34.556	34.556			
AUGUST	2	45.9400	51.157	48.549	3.6895	2.6089	± 33.1485
SEPTEMBER	2	30.1970	33.587	31.892	2.3971	1.6950	± 21.5370
OCTOBER	2	27.1400	29.308	28.224	1.5328	1.0839	± 13.7720
NOVEMBER	2	30.2200	31.908	31.064	1.1934	0.8439	± 10.7225
DECEMBER	1	29.3910	29.391	29.391			

STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF TOTAL NITROGEN (N) / TOTAL DISSOLVED PHOSPHORUS (P)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
1980 JANUARY	2	26.8840	30.000	28.442	2.2035	1.5581	± 19.7981
FEBRUARY	1	35.4190	35.419	35.419			
MARCH	2	32.7880	37.787	35.288	3.5344	2.4992	± 31.7554
APRIL	2	33.2710	34.225	33.748	0.6748	0.4772	± 6.0630
MAY	1	29.4960	29.496	29.496			
JUNE	2	38.7500	39.123	38.937	0.2640	0.1867	± 2.3720
JULY	2	32.7140	35.006	33.860	1.6212	1.1464	± 14.5660
AUGUST	2	24.2280	43.794	34.011	13.8350	9.7828	± 124.3010
SEPTEMBER	2	32.2650	40.302	36.283	5.6827	4.0183	± 51.0565
OCTOBER	2	31.9600	36.890	34.425	3.4860	2.4650	± 31.3208
NOVEMBER	2	30.8740	37.136	34.005	4.4280	3.1311	± 39.7841
DECEMBER	2	22.2220	29.158	25.690	4.9041	3.4677	± 44.0620

STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF TOTAL NITROGEN (N) / TOTAL DISSOLVED PHOSPHORUS (P)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
-78-79-80 JANUARY	8	15.9630	66.859	41.670	18.0080	6.3668	± 15.0545
1976-78-79-80 FEBRUARY	13	28.6530	59.215	45.163	10.2860	2.8528	± 6.2155
-77-78-79-80 MARCH	15	32.7880	88.966	54.753	16.2210	4.1882	± 8.9830
-77-78-79-80 APRIL	9	33.2710	109.400	64.463	24.2740	8.0913	± 18.6590
-77-78-79-80 MAY	18	29.4960	80.997	57.271	14.9390	3.5212	± 7.4290
-77-78-80 JUNE	27	26.1040	74.688	47.774	12.5120	2.4079	± 4.9495
1976-77-78-79-80 JULY	29	31.2790	120.960	65.182	24.7980	4.6049	± 9.4330
1976-77-78-79-80 AUGUST	23	24.2280	132.990	70.853	27.5300	5.7404	± 11.9050
1976-78-79-80 SEPTEMBER	14	30.1970	79.897	45.339	15.0640	4.0260	± 8.6980
-77-78-79-80 OCTOBER	8	24.0770	40.640	31.987	6.4947	2.2962	± 5.4295
-77-78-79-80 NOVEMBER	8	30.2200	43.630	34.996	4.5647	1.6139	± 3.8165
1976-77-78-79-80 DECEMBER	12	21.1820	135.750	52.872	31.0290	8.9573	± 19.7145



STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF TOTAL NITROGEN (N) / TOTAL DISSOLVED PHOSPHORUS (P)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
1976 FEB JUL AUG SEP DEC	4	31.2790	39.058	36.649	3.6291	1.8145	± 5.7745
1977 MAR APR MAY JUN JUL AUG OCT NOV DEC	61	24.0770	135.750	58.399	19.6430	2.5150	± 5.0310
1978 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC	79	15.9630	132.990	59.989	23.4270	2.6357	± 5.2470
1979 JAN FEB MAR APR MAY JUL AUG SEP OCT NOV DEC	18	27.1400	109.400	43.629	20.3560	4.7980	± 10.1225
1980 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC	22	22.2220	43.794	33.377	5.2403	1.1172	± 2.3230

STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF TOTAL NITROGEN (N) / TOTAL DISSOLVED PHOSPHORUS (P)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
APRIL TO SEPTEMBER							
1976	3	31.2790	39.058	35.991	4.1428	2.3918	± 10.2915
1977	50	26.1040	119.920	58.243	17.5810	2.4863	± 4.9965
1978	48	32.9730	132.990	67.380	24.2400	3.4987	± 7.0385
1979	8	30.1970	109.400	52.262	27.3290	9.6623	± 22.8480
1980	11	24.2280	43.794	34.834	5.4665	1.6482	± 3.6720
1976-80	120	24.2280	132.990	58.797	22.4720	2.0514	± 4.0620
OCTOBER TO MARCH							
1976-77	2	38.6210	48.553	43.587	7.0229	4.9659	± 63.1010
1977-78	35	15.9630	135.750	54.650	20.7000	3.4989	± 7.1105
1978-79	11	21.1820	52.160	37.555	9.3106	2.8073	± 6.2550
1979-80	10	26.8840	37.787	31.085	3.4712	1.0977	± 2.4835
1980-81	6	22.2220	37.136	31.373	5.5297	2.2575	± 5.8030
1976-80	64	15.9630	135.750	45.502	18.9630	2.3704	± 4.7365
APRIL TO MARCH							
1976-80	184	15.9630	135.750	54.172	22.1920	1.6360	± 3.2280

STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF TOTAL NITROGEN (N) / TOTAL DISSOLVED PHOSPHORUS (P)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
1976 FEB JUL AUG SEP DEC	184	15.9630	135.750	54.172	22.1920	1.6360	± 3.2280
1977 MAR APR MAY JUN JUL AUG OCT NOV DEC							
1978 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC							
1979 JAN FEB MAR APR MAY JUN AUG SEP OCT NOV DEC							
1980 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC							

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OKANAGAN RIVER BELOW OKANAGAN LAKE

Statistical Characteristics of Nutrient Loads

Period of Sampling February 1976 to December 1980.

RATIO OF TOTAL NITROGEN (N) TO TOTAL DISSOLVED PHOSPHORUS (P)

Median loads and their statistical characteristics determined for

Individual Months	447
All Months	449
Individual Years	450
Seasons	451
April to September	
October to March	
April to March	
All Years	452

STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF TOTAL NITROGEN (N) / TOTAL DISSOLVED PHOSPHORUS (P)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN	CONFIDENCE INTERVAL		PROBABILITY LEVEL
			LOWER	UPPER	
1976 FEBRUARY	2	31.279			
JULY					
AUGUST	1	37.638			
SEPTEMBER	1	38.621			
DECEMBER	1	48.553			
1977 MARCH	1				
APRIL					
MAY	6	47.389	40.2140	54.8750	0.969
JUNE	18	52.171	39.9310	55.4140	0.969
JULY	13	60.172	47.4860	65.8120	0.978
AUGUST	13	68.327	55.9140	96.1040	0.978
OCTOBER	2	24.077			
NOVEMBER	1	43.630			
DECEMBER	7	62.485			
1978 JANUARY	4	42.500	53.8380	135.7500	0.984
FEBRUARY	10	49.335	28.6860	59.0910	0.979
MARCH	11	63.415	45.5090	71.0090	0.961
APRIL	5	61.579		57.2430	0.969
MAY	10	66.967	56.6060	79.8320	0.979
JUNE	7	43.989	32.9730	70.9480	0.984
JULY	11	76.452	60.7840	118.4300	0.961
AUGUST	6	66.667	51.0900	132.9900	0.969
SEPTEMBER	9	44.086	36.8490	72.3510	0.961
OCTOBER	2	25.825			
NOVEMBER	3	34.037			
DECEMBER	1	21.182			
1979 JANUARY	2	35.598			
FEBRUARY	2	37.624			
MARCH	1	50.649			
APRIL	2	75.796			
MAY	1	37.462			
JULY	1	34.556			
AUGUST	2	45.940			
SEPTEMBER	2	30.197			
OCTOBER	2	27.140			
NOVEMBER	2	30.220			
DECEMBER	1	29.391			

STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF TOTAL NITROGEN (N) / TOTAL DISSOLVED PHOSPHORUS (P)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN	CONFIDENCE INTERVAL LOWER	CONFIDENCE INTERVAL UPPER	PROBABILITY LEVEL
1980 JANUARY	2	26.884			
FEBRUARY	1	35.419			
MARCH	2	32.788			
APRIL	2	33.271			
MAY	1	29.496			
JUNE	2	38.750			
JULY	2	32.714			
AUGUST	2	24.228			
SEPTEMBER	2	32.265			
OCTOBER	2	31.960			
NOVEMBER	2	30.874			
DECEMBER	2	22.222			

STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF TOTAL NITROGEN (N) / TOTAL DISSOLVED PHOSPHORUS (P)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN	CONFIDENCE INTERVAL LOWER	CONFIDENCE INTERVAL UPPER	PROBABILITY LEVEL
- 78-79-80 JANUARY	8	35.598	26.8840	66.8590	0.961
1976- -78-79-80 FEBRUARY	13	44.884	35.4190	53.0770	0.978
-77-78-79-80 MARCH	15	50.649	38.1750	70.9240	0.965
-77-78-79-80 APRIL	9	61.579	34.2250	88.3980	0.961
-77-78-79-80 MAY	18	56.207	47.3890	67.5000	0.969
-77-78- -80 JUNE	27	49.180	39.1230	53.5710	0.964
1976-77-78-79-80 JULY	29	60.784	56.6820	68.9050	0.957
1976-77-78-79-80 AUGUST	23	66.667	51.1570	82.6230	0.965
1976- -78-79-80 SEPTEMBER	14	40.302	34.0380	58.7270	0.965
-77-78-79-80 OCTOBER	8	29.308	25.8250	40.6400	0.961
-77-78-79-80 NOVEMBER	8	33.424	30.8740	43.6300	0.961
1976-77-78-79-80 DECEMBER	12	53.838	29.1580	65.4500	0.961

STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF TOTAL NITROGEN (N) / TOTAL DISSOLVED PHOSPHORUS (P)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN	CONFIDENCE INTERVAL LOWER	CONFIDENCE INTERVAL UPPER	PROBABILITY LEVEL
1976 FEB JUL AUG SEP DEC	4	37.638			
1977 MAR APR MAY JUN JUL AUG OCT NOV DEC	61	55.414	52.1710	59.1360	0.960
1978 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC	79	58.147	51.7240	63.4000	0.958
1979 JAN FEB MAR APR MAY JUN AUG SEP OCT NOV DEC	18	35.598	30.2200	50.6490	0.969
1980 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC	22	32.788	30.8740	37.1360	0.965

STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF TOTAL NITROGEN (N) / TOTAL DISSOLVED PHOSPHORUS (P)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

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SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN	CONFIDENCE INTERVAL LOWER	CONFIDENCE INTERVAL UPPER	PROBABILITY LEVEL
APRIL TO SEPTEMBER					
1976	3	37.638			
1977	50	55.414	52.1710	60.1720	0.951
1978	48	62.109	57.2430	70.9480	0.956
1979	8	37.462	33.5870	109.4000	0.961
1980	11	34.225	32.2650	40.3020	0.961
1976-80	120	55.914	51.4640	58.7270	0.955
OCTOBER TO MARCH					
1976-77	2	38.621			
1977-78	35	53.838	45.5090	62.4850	0.959
1978-79	11	37.624	33.4240	50.6490	0.961
1979-80	10	30.000	27.1400	35.4190	0.979
1980-81	6	30.874	22.2220	37.1360	0.969
1976-80	64	40.640	37.1360	49.3350	0.954
APRIL TO MARCH					
1976-80	184	51.464	47.3890	55.0320	0.954

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STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF TOTAL NITROGEN (N) / TOTAL DISSOLVED PHOSPHORUS (P)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN	CONFIDENCE INTERVAL LOWER	CONFIDENCE INTERVAL UPPER	PROBABILITY LEVEL
1976 FEB JUL AUG SEP DEC					
1977 MAR APR MAY JUN JUL AUG OCT NOV DEC					
1978 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC					
1979 JAN FEB MAR APR MAY JUL AUG SEP OCT NOV DEC					
1980 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC	184	51.464	47.3890	55.0320	0.954

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OKANAGAN RIVER BELOW OKANAGAN LAKE

Statistical Characteristics of Nutrient Concentrations

Period of Sampling February 1976 to December 1980.

RATIO OF TOTAL NITROGEN (N) TO DISSOLVED SILICA

Arithmetic mean concentrations and their statistical characteristics
determined for:

Individual Months	454
All Months	456
Graph of monthly concentration ranges	457
Individual Years	458
Seasons	459
April to September	
October to March	
April to March	
All Years	460
Histogram of concentration distribution	461

STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF TOTAL NITROGEN (N) / DISSOLVED SILICA
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN	CONFIDENCE INTERVAL LOWER	CONFIDENCE INTERVAL UPPER	PROBABILITY LEVEL
1976 FEBRUARY	36	0.038	0.0348	0.0402	0.953
JULY					
AUGUST					
1976 SEPTEMBER	108	0.043	0.0408	0.0436	0.957
DECEMBER	66	0.040	0.0385	0.0406	0.950
1977 MARCH	33	0.041	0.0388	0.0425	0.965
APRIL	14	0.054	0.0471	0.0598	0.965
MAY	38	0.041	0.0391	0.0424	0.966
JUNE	73	0.042	0.0396	0.0447	0.953
JULY	48	0.042	0.0393	0.0435	0.956
AUGUST	44	0.045	0.0375	0.0511	0.951
OCTOBER	4	0.033			
NOVEMBER	4	0.037			
1977 DECEMBER	22	0.037	0.0360	0.0400	0.965
JANUARY	4	0.037			
1978 FEBRUARY	30	0.036	0.0340	0.0440	0.957
MARCH	40	0.037	0.0353	0.0367	0.961
APRIL	20	0.037	0.0356	0.0419	0.959
MAY	30	0.036	0.0349	0.0372	0.957
JUNE	24	0.035	0.0319	0.0362	0.957
JULY	40	0.060	0.0512	0.0674	0.961
AUGUST	24	0.055	0.0465	0.0674	0.957
1978 SEPTEMBER	25	0.048	0.0455	0.0500	0.957
OCTOBER	7	0.039	0.0356	0.0400	0.984
NOVEMBER	8	0.033	0.0333	0.0365	0.961
1979 DECEMBER	2	0.034			
JANUARY	7	0.036	0.0340	0.0420	0.984
FEBRUARY	6	0.044	0.0396	0.0571	0.969
MARCH	4	0.039			
APRIL	4	0.042			
MAY	4	0.033			
JULY	4	0.040			
1979 AUGUST	7	0.043	0.0415	0.0500	0.984
SEPTEMBER	8	0.048	0.0453	0.0593	0.961
OCTOBER	8	0.042	0.0407	0.0432	0.961
NOVEMBER	8	0.043	0.0407	0.0617	0.961
DECEMBER					

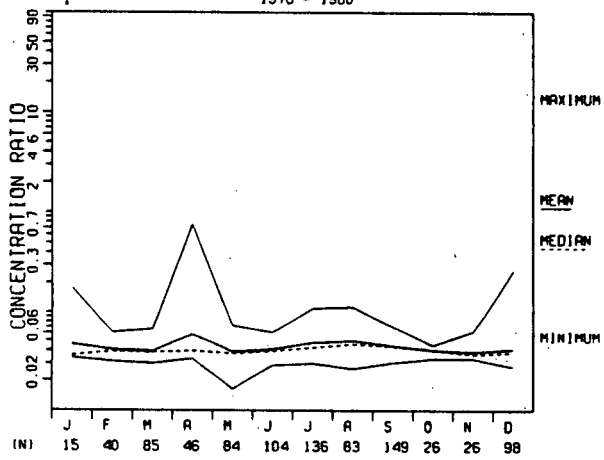
STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF TOTAL NITROGEN (N) / DISSOLVED SILICA
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN	CONFIDENCE INTERVAL		PROBABILITY LEVEL
			LOWER	UPPER	
1980 JANUARY	4	0.035			
FEBRUARY	4	0.038			
MARCH	8	0.032	0.0311	0.0659	0.961
APRIL	8	0.035	0.0341	0.0375	0.961
MAY	12	0.035	0.0344	0.0384	0.961
JUNE	7	0.038	0.0372	0.0395	0.984
JULY	8	0.038	0.0381	0.0395	0.961
AUGUST	8	0.040	0.0274	0.0500	0.961
SEPTEMBER	8	0.041	0.0395	0.0488	0.961
OCTOBER	7	0.042	0.0400	0.0444	0.984
NOVEMBER	6	0.035	0.0343	0.0370	0.969
DECEMBER	8	0.032	0.0296	0.0347	0.961

STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF TOTAL NITROGEN (N) / DISSOLVED SILICA
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN	CONFIDENCE INTERVAL LOWER	CONFIDENCE INTERVAL UPPER	PROBABILITY LEVEL
- 78-79-80 JANUARY	15	0.036	0.0347	0.0373	0.965
1976- 78-79-80 FEBRUARY	40	0.039	0.0360	0.0440	0.961
-77-78-79-80 MARCH	85	0.039	0.0367	0.0388	0.960
-77-78-79-80 APRIL	46	0.040	0.0364	0.0442	0.960
-77-78-79-80 MAY	84	0.037	0.0364	0.0391	0.962
-77-78- 80 JUNE	104	0.039	0.0383	0.0422	0.961
1976-77-78-79-80 JULY	136	0.042	0.0407	0.0442	0.952
1976-77-78-79-80 AUGUST	83	0.046	0.0432	0.0500	0.952
1976- 78-79-80 SEPTEMBER	149	0.043	0.0426	0.0446	0.951
-77-78-79-80 OCTOBER	26	0.041	0.0391	0.0422	0.971
-77-78-79-80 NOVEMBER	26	0.037	0.0348	0.0407	0.971
1976-77-78-79-80 DECEMBER	98	0.039	0.0377	0.0396	0.956

RATIO OF TOTAL NITROGEN (NI) / DISSOLVED SILICA
BELOW OKANAGAN LAKE DAM
1976 - 1980



STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF TOTAL NITROGEN (N) / DISSOLVED SILICA
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN	CONFIDENCE INTERVAL LOWER	CONFIDENCE INTERVAL UPPER	PROBABILITY LEVEL
1976 FEB JUL AUG SEP DEC	210	0.040	0.0396	0.0413	0.955
1977 MAR APR MAY JUN JUL AUG OCT NOV DEC	280	0.041	0.0400	0.0424	0.952
1978 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC	254	0.039	0.0381	0.0419	0.955
1979 JAN FEB MAR APR MAY JUL AUG SEP OCT NOV DEC	60	0.042	0.0409	0.0432	0.960
1980 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC	88	0.037	0.0360	0.0384	0.958

STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF TOTAL NITROGEN (N) / DISSOLVED SILICA
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN	CONFIDENCE INTERVAL LOWER	CONFIDENCE INTERVAL UPPER	PROBABILITY LEVEL
APRIL TO SEPTEMBER					
1976	144	0.041	0.0400	0.0426	0.954
1977	217	0.042	0.0410	0.0435	0.951
1978	163	0.044	0.0419	0.0468	0.959
1979	27	0.043	0.0415	0.0467	0.964
1980	51	0.038	0.0372	0.0390	0.951
1976-80	602	0.042	0.0408	0.0426	0.954
OCTOBER TO MARCH					
1976-77	99	0.040	0.0388	0.0406	0.956
1977-78	104	0.037	0.0360	0.0373	0.961
1978-79	34	0.037	0.0356	0.0396	0.959
1979-80	32	0.041	0.0380	0.0430	0.965
1980-81	21	0.035	0.0333	0.0409	0.973
1976-80	290	0.039	0.0377	0.0388	0.954
APRIL TO MARCH					
1976-80	892	0.040	0.0396	0.0406	0.952

STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF TOTAL NITROGEN (N) / DISSOLVED SILICA
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN	CONFIDENCE INTERVAL LOWER	CONFIDENCE INTERVAL UPPER	PROBABILITY LEVEL
1976 FEB JUL AUG SEP DEC					
1977 MAR APR MAY JUN JUL AUG OCT NOV DEC					
1978 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC					
1979 JAN FEB MAR APR MAY JUL AUG SEP OCT NOV DEC					
1980 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC	892	0.040	0.0396	0.0406	0.952

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OKANAGAN RIVER BELOW OKANAGAN LAKE

Statistical Characteristics of Nutrient Concentrations

Period of Sampling February 1976 to December 1980.

RATIO OF TOTAL NITROGEN (N) TO DISSOLVED SILICA

Median concentrations and their statistical characteristics determined for

Individual Months	463
All Months	464
Individual Years	466
Seasons	467
April to September	
October to March	
April to March	
All Years	468
Cumulative distribution of concentration data	469

STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF TOTAL NITROGEN (N) / DISSOLVED SILICA
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
1976 FEBRUARY	36	0.0307	0.092	0.041	0.0121	0.0020	± 0.0041
JULY							
AUGUST							
1976 SEPTEMBER	108	0.0304	0.065	0.043	0.0059	0.0006	± 0.0011
DECEMBER	66	0.0354	0.052	0.040	0.0036	0.0004	± 0.0009
1977 MARCH	33	0.0362	0.048	0.041	0.0032	0.0005	± 0.0011
APRIL	14	0.0346	0.063	0.051	0.0088	0.0024	± 0.0051
MAY	38	0.0161	0.049	0.041	0.0059	0.0010	± 0.0019
JUNE	73	0.0322	0.061	0.043	0.0062	0.0007	± 0.0014
JULY	48	0.0298	0.061	0.042	0.0072	0.0010	± 0.0021
AUGUST	44	0.0271	0.077	0.047	0.0126	0.0019	± 0.0038
OCTOBER	4	0.0333	0.038	0.034	0.0021	0.0010	± 0.0033
NOVEMBER	4	0.0367	0.052	0.040	0.0074	0.0037	± 0.0118
DECEMBER	22	0.0320	0.260	0.048	0.0175	0.0101	± 0.0211
1978 JANUARY	4	0.0347	0.178	0.072	0.0704	0.0352	± 0.1120
FEBRUARY	30	0.0314	0.049	0.039	0.0064	0.0012	± 0.0024
MARCH	40	0.0327	0.053	0.037	0.0043	0.0007	± 0.0014
APRIL	20	0.0333	0.750	0.074	0.1592	0.0356	± 0.0745
MAY	30	0.0291	0.073	0.038	0.0083	0.0015	± 0.0033
JUNE	24	0.0286	0.059	0.037	0.0078	0.0016	± 0.0033
JULY	40	0.0372	0.109	0.062	0.0157	0.0025	± 0.0050
AUGUST	24	0.0357	0.114	0.062	0.0213	0.0044	± 0.0090
SEPTEMBER	25	0.0395	0.070	0.049	0.0068	0.0014	± 0.0028
OCTOBER	7	0.0356	0.040	0.039	0.0016	0.0006	± 0.0015
NOVEMBER	8	0.0333	0.037	0.034	0.0013	0.0005	± 0.0011
DECEMBER	2	0.0340	0.035	0.034	0.0005	0.0003	± 0.0044
1979 JANUARY	7	0.0340	0.042	0.036	0.0028	0.0010	± 0.0026
FEBRUARY	6	0.0396	0.057	0.046	0.0061	0.0025	± 0.0064
MARCH	4	0.0367	0.041	0.039	0.0017	0.0008	± 0.0027
APRIL	4	0.0400	0.041	0.044	0.0041	0.0020	± 0.0065
MAY	4	0.0306	0.034	0.033	0.0015	0.0007	± 0.0024
JULY	4	0.0405	0.042	0.041	0.0007	0.0003	± 0.0011
AUGUST	7	0.0415	0.050	0.044	0.0030	0.0012	± 0.0028
SEPTEMBER	8	0.0453	0.059	0.050	0.0051	0.0018	± 0.0042
OCTOBER	8	0.0407	0.043	0.042	0.0012	0.0004	± 0.0010
NOVEMBER	8	0.0398	0.062	0.045	0.0071	0.0025	± 0.0059
DECEMBER							

STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF TOTAL NITROGEN (N) / DISSOLVED SILICA
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
1980 JANUARY	4	0.0340	0.037	0.035	0.0012	0.0006	± 0.0020
FEBRUARY	4	0.0380	0.061	0.045	0.0110	0.0055	± 0.0175
MARCH	8	0.0300	0.066	0.038	0.0118	0.0042	± 0.0099
APRIL	8	0.0341	0.038	0.035	0.0011	0.0004	± 0.0010
MAY	12	0.0333	0.039	0.036	0.0020	0.0006	± 0.0013
JUNE	7	0.0372	0.040	0.038	0.0009	0.0003	± 0.0008
JULY	8	0.0375	0.040	0.039	0.0007	0.0002	± 0.0006
AUGUST	8	0.0262	0.050	0.037	0.0087	0.0031	± 0.0073
SEPTEMBER	8	0.0393	0.049	0.042	0.0031	0.0011	± 0.0026
OCTOBER	7	0.0400	0.044	0.042	0.0018	0.0007	± 0.0016
NOVEMBER	6	0.0343	0.037	0.035	0.0009	0.0004	± 0.0010
DECEMBER	8	0.0276	0.035	0.032	0.0025	0.0009	± 0.0021

STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF TOTAL NITROGEN (N) / DISSOLVED SILICA
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
- 78-79-80 JANUARY	15	0.0340	0.178	0.046	0.0366	0.0095	± 0.0203
1976- 78-79-80 FEBRUARY	40	0.0314	0.061	0.041	0.0072	0.0011	± 0.0023
-77-78-79-80 MARCH	85	0.0300	0.066	0.039	0.0052	0.0006	± 0.0011
-77-78-79-80 APRIL	46	0.0333	0.750	0.058	0.1047	0.0154	± 0.0311
-77-78-79-80 MAY	84	0.0161	0.073	0.039	0.0067	0.0007	± 0.0015
-77-78- 80 JUNE	104	0.0286	0.061	0.041	0.0069	0.0007	± 0.0013
1976-77-78-79-80 JULY	136	0.0298	0.109	0.047	0.0147	0.0013	± 0.0025
1976-77-78-79-80 AUGUST	83	0.0262	0.114	0.050	0.0169	0.0019	± 0.0037
1976- 78-79-80 SEPTEMBER	149	0.0304	0.070	0.044	0.0065	0.0005	± 0.0010
-77-78-79-80 OCTOBER	26	0.0333	0.044	0.040	0.0033	0.0006	± 0.0013
-77-78-79-80 NOVEMBER	26	0.0333	0.062	0.039	0.0067	0.0013	± 0.0027
1976-77-78-79-80 DECEMBER	98	0.0276	0.260	0.041	0.0227	0.0023	± 0.0046

STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF TOTAL NITROGEN (N) / DISSOLVED SILICA
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

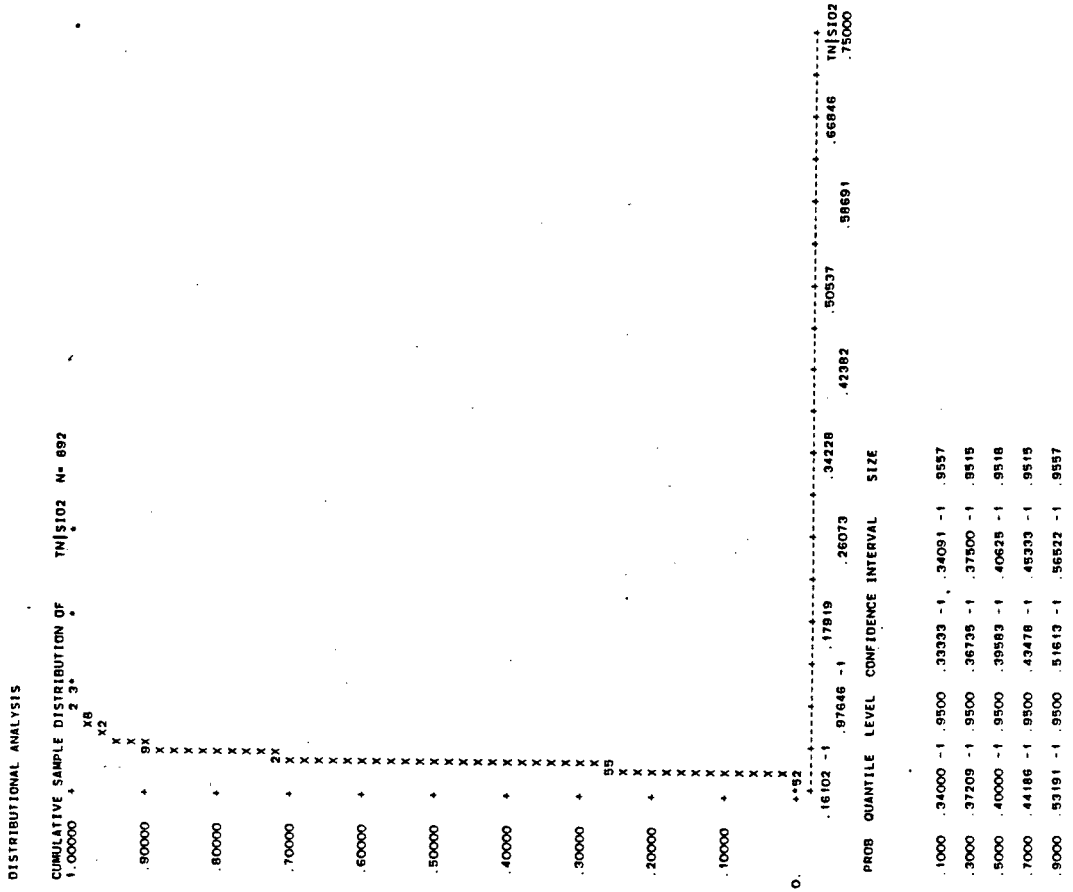
SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
1976 FEB JUL AUG SEP DEC	210	0.0304	0.092	0.042	0.0069	0.0005	± 0.0009
1977 MAR APR MAY JUN JUL AUG OCT NOV DEC	280	0.0161	0.260	0.043	0.0153	0.0009	± 0.0018
1978 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC	254	0.0286	0.750	0.048	0.0473	0.0030	± 0.0058
1979 JAN FEB MAR APR MAY JUN AUG SEP OCT NOV DEC	60	0.0306	0.062	0.043	0.0061	0.0008	± 0.0016
1980 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC	88	0.0262	0.066	0.038	0.0059	0.0006	± 0.0012

STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF TOTAL NITROGEN (N) / DISSOLVED SILICA
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
APRIL TO SEPTEMBER							
1976	144	0.0304	0.092	0.042	0.0079	0.0007	± 0.0013
1977	217	0.0161	0.077	0.044	0.0086	0.0006	± 0.0012
1978	163	0.0286	0.750	0.053	0.0574	0.0045	± 0.0089
1979	27	0.0306	0.059	0.044	0.0065	0.0013	± 0.0026
1980	51	0.0262	0.050	0.038	0.0043	0.0006	± 0.0012
1976-80	602	0.0161	0.750	0.045	0.0309	0.0013	± 0.0025
OCTOBER TO MARCH							
1976-77	99	0.0354	0.052	0.041	0.0035	0.0004	± 0.0007
1977-78	104	0.0314	0.260	0.041	0.0261	0.0026	± 0.0051
1978-79	34	0.0333	0.057	0.038	0.0049	0.0008	± 0.0017
1979-80	32	0.0300	0.066	0.041	0.0082	0.0015	± 0.0030
1980-81	21	0.0276	0.044	0.036	0.0049	0.0011	± 0.0022
1976-80	290	0.0276	0.260	0.040	0.0161	0.0009	± 0.0019
APRIL TO MARCH							
1976-80	892	0.0161	0.750	0.044	0.0271	0.0009	± 0.0018

STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF TOTAL NITROGEN (N) / DISSOLVED SILICA
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
1976 FEB JUL AUG SEP DEC	892	0.0161	0.750	0.044	0.0271	0.0009	± 0.0018
1977 MAR APR MAY JUN JUL AUG OCT NOV DEC							
1978 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC							
1979 JAN FEB MAR APR MAY JUN AUG SEP OCT NOV DEC							
1980 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC							



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OKANAGAN RIVER BELOW OKANAGAN LAKE

Statistical Characteristics of Nutrient Loads

Period of Sampling February 1976 to December 1980.

RATIO OF TOTAL NITROGEN (N) TO DISSOLVED SILICA

Arithmetic mean loads and their statistical characteristics determined for

Individual Months	471
All Months	473
Graph of monthly load ranges	474
Individual Years	475
Seasons	476
April to September	
October to March	
April to March	
All Years	477

STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF TOTAL NITROGEN (N) / DISSOLVED SILICA
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

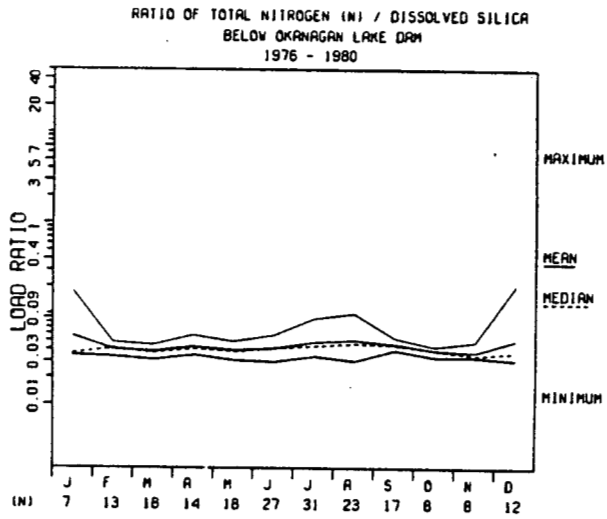
SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
1976 FEBRUARY	4	0.0381	0.044	0.040	0.0027	0.0013	± 0.0043
JULY							
AUGUST							
SEPTEMBER	4	0.0412	0.044	0.043	0.0011	0.0006	± 0.0018
DECEMBER	2	0.0404	0.041	0.041	0.0006	0.0004	± 0.0052
1977 MARCH	4	0.0405	0.045	0.043	0.0019	0.0009	± 0.0029
APRIL	5	0.0351	0.058	0.049	0.0085	0.0038	± 0.0105
MAY	6	0.0386	0.049	0.044	0.0038	0.0016	± 0.0040
JUNE	18	0.0360	0.058	0.044	0.0061	0.0014	± 0.0030
JULY	13	0.0341	0.055	0.044	0.0058	0.0016	± 0.0035
AUGUST	13	0.0353	0.072	0.049	0.0128	0.0036	± 0.0077
OCTOBER	2	0.0334	0.036	0.035	0.0021	0.0015	± 0.0185
NOVEMBER	1	0.0393	0.039	0.039			
DECEMBER	7	0.0356	0.204	0.062	0.0627	0.0237	± 0.0580
1978 JANUARY	4	0.0348	0.177	0.072	0.0701	0.0350	± 0.1115
FEBRUARY	10	0.0337	0.049	0.039	0.0059	0.0019	± 0.0042
MARCH	11	0.0346	0.041	0.037	0.0022	0.0007	± 0.0015
APRIL	5	0.0358	0.047	0.040	0.0041	0.0018	± 0.0051
MAY	10	0.0309	0.049	0.038	0.0060	0.0019	± 0.0043
JUNE	7	0.0295	0.047	0.036	0.0064	0.0024	± 0.0059
JULY	11	0.0424	0.088	0.060	0.0137	0.0041	± 0.0092
AUGUST	6	0.0447	0.101	0.062	0.0208	0.0085	± 0.0218
SEPTEMBER	9	0.0395	0.054	0.048	0.0043	0.0014	± 0.0033
OCTOBER	2	0.0380	0.040	0.039	0.0013	0.0009	± 0.0114
NOVEMBER	3	0.0334	0.034	0.034	0.0004	0.0002	± 0.0011
DECEMBER	1	0.0343	0.034	0.034			
1979 JANUARY	2	0.0362	0.037	0.036	0.0003	0.0002	± 0.0025
FEBRUARY	2	0.0427	0.049	0.046	0.0043	0.0030	± 0.0384
MARCH	1	0.0389	0.039	0.039			
APRIL	2	0.0420	0.049	0.045	0.0048	0.0034	± 0.0432
MAY	1	0.0325	0.033	0.033			
JULY	1	0.0411	0.041	0.041			
AUGUST	2	0.0419	0.045	0.044	0.0022	0.0016	± 0.0200
SEPTEMBER	2	0.0492	0.050	0.050	0.0009	0.0006	± 0.0080
OCTOBER	2	0.0410	0.043	0.042	0.0016	0.0011	± 0.0142
NOVEMBER	2	0.0414	0.049	0.045	0.0056	0.0040	± 0.0504
DECEMBER							

STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF TOTAL NITROGEN (N) / DISSOLVED SILICA
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
1980 JANUARY	1	0.0354	0.035	0.035			
FEBRUARY	1	0.0446	0.045	0.045			
MARCH	2	0.0310	0.045	0.038	0.0100	0.0071	± 0.0902
APRIL	2	0.0350	0.036	0.035	0.0005	0.0004	± 0.0049
MAY	1	0.0360	0.036	0.036			
JUNE	2	0.0380	0.038	0.038	0.0003	0.0002	± 0.0027
JULY	2	0.0385	0.039	0.039	0.0002	0.0001	± 0.0015
AUGUST	2	0.0303	0.043	0.037	0.0090	0.0064	± 0.0812
SEPTEMBER	2	0.0418	0.043	0.042	0.0009	0.0006	± 0.0077
OCTOBER	2	0.0415	0.043	0.042	0.0011	0.0008	± 0.0098
NOVEMBER	2	0.0349	0.035	0.035	0.0003	0.0002	± 0.0026
DECEMBER	2	0.0307	0.033	0.032	0.0020	0.0014	± 0.0176

STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF TOTAL NITROGEN (N) / DISSOLVED SILICA
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
- 78-79-80 JANUARY	7	0.0348	0.177	0.057	0.0532	0.0201	± 0.0492
1976- 78-79-80 FEBRUARY	13	0.0337	0.049	0.040	0.0059	0.0016	± 0.0036
- 77-78-79-80 MARCH	18	0.0310	0.045	0.039	0.0039	0.0009	± 0.0019
- 77-78-79-80 APRIL	14	0.0350	0.058	0.044	0.0075	0.0020	± 0.0044
- 77-78-79-80 MAY	18	0.0309	0.049	0.040	0.0058	0.0014	± 0.0029
- 77-78- 80 JUNE	27	0.0295	0.058	0.042	0.0070	0.0013	± 0.0028
1976-77-78-79-80 JULY	31	0.0341	0.088	0.049	0.0125	0.0023	± 0.0046
1976-77-78-79-80 AUGUST	23	0.0303	0.101	0.051	0.0158	0.0033	± 0.0068
1976- 78-79-80 SEPTEMBER	17	0.0395	0.054	0.046	0.0041	0.0010	± 0.0021
- 77-78-79-80 OCTOBER	8	0.0334	0.043	0.040	0.0034	0.0012	± 0.0029
- 77-78-79-80 NOVEMBER	8	0.0334	0.049	0.038	0.0054	0.0019	± 0.0045
1976-77-78-79-80 DECEMBER	12	0.0307	0.204	0.051	0.0482	0.0139	± 0.0306



STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF TOTAL NITROGEN (N) / DISSOLVED SILICA
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
1976 FEB JUL AUG SEP DEC	10	0.0381	0.044	0.041	0.0020	0.0006	± 0.0014
1977 MAR APR MAY JUN JUL AUG OCT NOV DEC	69	0.0334	0.204	0.047	0.0208	0.0025	± 0.0050
1978 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC	79	0.0295	0.177	0.046	0.0196	0.0022	± 0.0044
1979 JAN FEB MAR APR MAY JUN AUG SEP OCT NOV DEC	17	0.0325	0.050	0.043	0.0052	0.0013	± 0.0027
1980 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC	21	0.0303	0.045	0.038	0.0046	0.0010	± 0.0021

STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF TOTAL NITROGEN (N) / DISSOLVED SILICA
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
APRIL TO SEPTEMBER							
1976	8	0.0381	0.044	0.042	0.0022	0.0008	± 0.0019
1977	55	0.0341	0.072	0.046	0.0083	0.0011	± 0.0022
1978	48	0.0295	0.101	0.048	0.0146	0.0021	± 0.0042
1979	8	0.0325	0.050	0.044	0.0059	0.0021	± 0.0049
1980	11	0.0303	0.043	0.038	0.0038	0.0011	± 0.0025
1976-80	130	0.0295	0.101	0.045	0.0109	0.0010	± 0.0019
OCTOBER TO MARCH							
1976-77	6	0.0404	0.045	0.042	0.0018	0.0007	± 0.0019
1977-78	35	0.0334	0.204	0.046	0.0363	0.0061	± 0.0125
1978-79	11	0.0334	0.049	0.038	0.0046	0.0014	± 0.0031
1979-80	8	0.0310	0.049	0.041	0.0058	0.0020	± 0.0048
1980-81	6	0.0307	0.043	0.036	0.0048	0.0020	± 0.0050
1976-80	66	0.0307	0.204	0.043	0.0267	0.0033	± 0.0066
APRIL TO MARCH							
1976-80	196	0.0295	0.204	0.045	0.0178	0.0013	± 0.0025

STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF TOTAL NITROGEN (N) / DISSOLVED SILICA
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
1976 FEB JUL AUG SEP DEC	196	0.0295	0.204	0.045	0.0178	0.0013	± 0.0025
1977 MAR APR MAY JUN JUL AUG OCT NOV DEC							
1978 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC							
1979 JAN FEB MAR APR MAY JUL AUG SEP OCT NOV DEC							
1980 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC							

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OKANAGAN RIVER BELOW OKANAGAN LAKE

Statistical Characteristics of Nutrient Loads

Period of Sampling February 1976 to December 1980.

RATIO OF TOTAL NITROGEN (N) TO DISSOLVED SILICA

Median loads and their statistical characteristics determined for

Individual Months	479
All Months	481
Individual Years	482
Seasons	483
April to September	
October to March	
April to March	
All Years	484

STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF TOTAL NITROGEN (N) / DISSOLVED SILICA
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN	CONFIDENCE INTERVAL LOWER	CONFIDENCE INTERVAL UPPER	PROBABILITY LEVEL
1976 FEBRUARY	4	0.038			
JULY					
AUGUST	4	0.042			
SEPTEMBER	2	0.040			
DECEMBER	4	0.043			
1977 MARCH	5	0.052		0.0351	0.969
APRIL	6	0.042	0.0386	0.0485	0.969
MAY	18	0.044	0.0385	0.0478	0.969
JUNE	13	0.041	0.0392	0.0494	0.978
JULY	13	0.047	0.0360	0.0569	0.978
AUGUST	2	0.033			
OCTOBER	1	0.039			
NOVEMBER	7	0.038		0.2036	0.984
DECEMBER	4	0.037			
1978 JANUARY	10	0.035	0.0356		
FEBRUARY	11	0.036	0.0344	0.0487	0.979
MARCH	5	0.039	0.0353	0.0402	0.961
APRIL	10	0.035	0.0330	0.0358	0.969
MAY	7	0.035	0.0295	0.0453	0.979
JUNE	11	0.061	0.0494	0.0467	0.984
JULY	6	0.052	0.0447	0.0769	0.961
AUGUST	9	0.049	0.0442	0.1010	0.969
SEPTEMBER	2	0.038		0.0506	0.961
OCTOBER	3	0.034			
NOVEMBER	1	0.034			
DECEMBER	2	0.036			
1979 JANUARY	2	0.043			
FEBRUARY	1	0.039			
MARCH	2	0.042			
APRIL	1	0.033			
MAY	1	0.041			
JULY	2	0.042			
AUGUST	2	0.049			
SEPTEMBER	2	0.041			
OCTOBER	2	0.041			
NOVEMBER	2	0.041			
DECEMBER	2	0.041			

STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF TOTAL NITROGEN (N) / DISSOLVED SILICA
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN	CONFIDENCE INTERVAL LOWER	CONFIDENCE INTERVAL UPPER	PROBABILITY LEVEL
1980 JANUARY	1	0.035			
FEBRUARY	1	0.045			
MARCH	2	0.031			
APRIL	2	0.035			
MAY	1	0.036			
JUNE	2	0.038			
JULY	2	0.038			
AUGUST	2	0.030			
SEPTEMBER	2	0.042			
OCTOBER	2	0.042			
NOVEMBER	2	0.035			
DECEMBER	2	0.031			

STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF TOTAL NITROGEN (N) / DISSOLVED SILICA
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN	CONFIDENCE INTERVAL		PROBABILITY LEVEL
			LOWER	UPPER	
- 78-79-80 JANUARY	7	0.037	0.0348	0.1772	0.984
1976- 78-79-80 FEBRUARY	13	0.041	0.0347	0.0487	0.978
- 77-78-79-80 MARCH	18	0.037	0.0354	0.0412	0.969
- 77-78-79-80 APRIL	14	0.041	0.0358	0.0516	0.965
- 77-78-79-80 MAY	18	0.039	0.0350	0.0453	0.969
- 77-78- -80 JUNE	27	0.042	0.0377	0.0458	0.964
1976-77-78-79-80 JULY	31	0.044	0.0411	0.0501	0.971
1976-77-78-79-80 AUGUST	23	0.047	0.0419	0.0566	0.965
1976- -78-79-80 SEPTEMBER	17	0.045	0.0430	0.0494	0.951
- 77-78-79-80 OCTOBER	8	0.040	0.0363	0.0433	0.961
- 77-78-79-80 NOVEMBER	8	0.035	0.0341	0.0493	0.961
1976-77-78-79-80 DECEMBER	12	0.038	0.0343	0.0408	0.961

STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF TOTAL NITROGEN (N) / DISSOLVED SILICA
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN	CONFIDENCE INTERVAL LOWER	CONFIDENCE INTERVAL UPPER	PROBABILITY LEVEL
1976 FEB JUL AUG SEP DEC	10	0.041	0.0384	0.0438	0.979
1977 MAR APR MAY JUN JUL AUG OCT NOV DEC	69	0.043	0.0407	0.0458	0.959
1978 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC	79	0.040	0.0373	0.0442	0.958
1979 JAN FEB MAR APR MAY JUL AUG SEP OCT NOV DEC	17	0.042	0.0410	0.0487	0.951
1980 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC	21	0.038	0.0350	0.0418	0.973

STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF TOTAL NITROGEN (N) / DISSOLVED SILICA
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN	CONFIDENCE INTERVAL LOWER	CONFIDENCE INTERVAL UPPER	PROBABILITY LEVEL
APRIL TO SEPTEMBER					
1976	8	0.041	0.0384	0.0439	0.961
1977	55	0.045	0.0418	0.0478	0.956
1978	48	0.045	0.0419	0.0494	0.956
1979	8	0.042	0.0411	0.0505	0.961
1980	11	0.038	0.0358	0.0430	0.961
1976-80	130	0.043	0.0419	0.0455	0.957
OCTOBER TO MARCH					
1976-77	6	0.041	0.0404	0.0450	0.969
1977-78	35	0.037	0.0356	0.0393	0.959
1978-79	11	0.037	0.0342	0.0427	0.961
1979-80	8	0.041	0.0354	0.0493	0.961
1980-81	6	0.035	0.0307	0.0431	0.969
1976-80	66	0.038	0.0362	0.0402	0.950
APRIL TO MARCH					
1976-80	196	0.041	0.0402	0.0426	0.954

STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF TOTAL NITROGEN (N) / DISSOLVED SILICA
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN	CONFIDENCE INTERVAL LOWER	CONFIDENCE INTERVAL UPPER	PROBABILITY LEVEL
1976 FEB JUL AUG SEP DEC					
1977 MAR APR MAY JUN JUL AUG OCT NOV DEC					
1978 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC					
1979 JAN FEB MAR APR MAY JUN AUG SEP OCT NOV DEC					
1980 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC	196	0.041	0.0402	0.0426	0.954

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OKANAGAN RIVER BELOW OKANAGAN LAKE

Statistical Characteristics of Nutrient Concentrations

Period of Sampling February 1976 to December 1980.

SILICA

Arithmetic mean concentrations and their statistical characteristics determined for:

Individual Months	486
All Months	488
Graph of monthly concentration ranges	489
Individual Years	490
Seasons	491
April to September	
October to March	
April to March	
All Years	492
Histogram of concentration distribution	493

STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 DISSOLVED SILICA
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

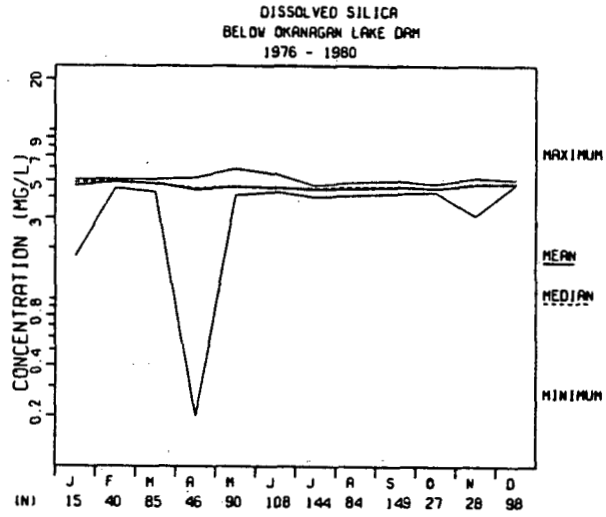
SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN (MG/L)	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
1976 FEBRUARY	36	4.5000	4.600	4.525	0.0439	0.0073	± 0.0149
JULY							
AUGUST							
1977 SEPTEMBER	108	4.6000	5.000	4.700	0.1421	0.0137	± 0.0271
DECEMBER	66	4.8000	4.900	4.818	0.0389	0.0048	± 0.0095
MARCH	33	4.7000	4.800	4.788	0.0331	0.0058	± 0.0117
APRIL	14	4.7000	5.200	4.943	0.1989	0.0532	± 0.1149
MAY	44	4.5000	5.900	4.668	0.2020	0.0305	± 0.0614
JUNE	77	4.4000	5.500	4.562	0.1582	0.0180	± 0.0359
JULY	48	4.2000	4.700	4.563	0.0996	0.0144	± 0.0289
AUGUST	44	4.6000	4.900	4.720	0.0851	0.0128	± 0.0258
OCTOBER	4	4.8000	4.800	4.800			
NOVEMBER	4	3.1000	4.900	4.450	0.9000	0.4500	± 1.4321
DECEMBER	22	4.8000	5.100	4.964	0.0790	0.0168	± 0.0350
1978 JANUARY	4	1.8000	5.100	4.225	1.6194	0.8097	± 2.5768
FEBRUARY	30	4.7000	5.100	4.980	0.1495	0.0273	± 0.0558
MARCH	40	4.6000	5.100	4.892	0.1095	0.0173	± 0.0350
APRIL	20	0.2000	4.700	4.095	1.0272	0.2297	± 0.4808
MAY	30	4.2000	5.500	4.627	0.3383	0.0618	± 0.1263
JUNE	24	4.4000	5.000	4.671	0.1517	0.0310	± 0.0641
JULY	40	4.2000	4.500	4.290	0.0810	0.0128	± 0.0259
AUGUST	24	4.1000	4.400	4.246	0.0779	0.0159	± 0.0329
SEPTEMBER	25	4.3000	4.500	4.364	0.0638	0.0128	± 0.0263
OCTOBER	7	4.5000	4.600	4.529	0.0488	0.0184	± 0.0451
NOVEMBER	8	4.8000	5.200	5.050	0.1195	0.0423	± 0.0999
DECEMBER	2	4.9000	5.000	4.950	0.0707	0.0500	± 0.6353
1979 JANUARY	7	4.9000	5.000	4.957	0.0535	0.0202	± 0.0495
FEBRUARY	6	4.8000	4.900	4.817	0.0408	0.0167	± 0.0429
MARCH	4	4.9000	4.900	4.900			
APRIL	4	4.5000	4.500	4.500			
MAY	4	4.4000	4.900	4.600	0.2160	0.1080	± 0.3437
JULY	8	4.0000	4.200	4.150	0.0756	0.0267	± 0.0632
AUGUST	8	4.1000	4.300	4.175	0.0886	0.0313	± 0.0741
SEPTEMBER	8	4.3000	4.400	4.313	0.0354	0.0125	± 0.0296
OCTOBER	8	4.3000	4.400	4.363	0.0518	0.0183	± 0.0433
NOVEMBER	8	4.3000	4.700	4.538	0.1847	0.0653	± 0.1544
DECEMBER							

STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 DISSOLVED SILICA
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN (MG/L)	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
1980 JANUARY	4	4.6000	4.700	4.650	0.0577	0.0289	± 0.0919
FEBRUARY	4	4.5000	4.600	4.575	0.0500	0.0250	± 0.0796
MARCH	8	4.3000	4.500	4.425	0.0707	0.0250	± 0.0591
APRIL	8	4.3000	4.400	4.387	0.0354	0.0125	± 0.0296
MAY	12	4.1000	4.500	4.350	0.1314	0.0379	± 0.0835
JUNE	7	4.3000	4.400	4.329	0.0488	0.0184	± 0.0452
JULY	12	4.2000	4.400	4.250	0.0674	0.0195	± 0.0428
AUGUST	8	4.2000	4.400	4.262	0.0744	0.0263	± 0.0622
SEPTEMBER	8	4.2000	4.300	4.238	0.0518	0.0183	± 0.0433
OCTOBER	8	4.4000	4.500	4.462	0.0518	0.0183	± 0.0433
NOVEMBER	8	4.6000	5.100	4.825	0.2435	0.0861	± 0.2036
DECEMBER	8	4.8000	4.900	4.850	0.0535	0.0189	± 0.0447

STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 DISSOLVED SILICA
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN (MG/L)	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
- 78-79-80 JANUARY	15	1.8000	5.100	4.680	0.8135	0.2100	± 0.4505
1976- 78-79-80 FEBRUARY	40	4.5000	5.100	4.915	0.1833	0.0290	± 0.0586
-77-78-79-80 MARCH	85	4.3000	5.100	4.808	0.1560	0.0169	± 0.0336
-77-78-79-80 APRIL	46	0.2000	5.200	4.439	0.7678	0.1132	± 0.2280
-77-78-79-80 MAY	90	4.1000	5.900	4.609	0.2676	0.0282	± 0.0560
-77-78- 80 JUNE	108	4.3000	5.500	4.571	0.1702	0.0164	± 0.0325
1976-77-78-79-80 JULY	144	4.0000	4.700	4.435	0.1699	0.0142	± 0.0280
1976-77-78-79-80 AUGUST	84	4.1000	4.900	4.489	0.2579	0.0281	± 0.0560
1976- 78-79-80 SEPTEMBER	149	4.2000	5.000	4.598	0.2091	0.0171	± 0.0338
-77-78-79-80 OCTOBER	27	4.3000	4.800	4.500	0.1494	0.0287	± 0.0591
-77-78-79-80 NOVEMBER	28	3.1000	5.200	4.754	0.4159	0.0786	± 0.1612
1976-77-78-79-80 DECEMBER	98	4.8000	5.100	4.856	0.0800	0.0081	± 0.0160



STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 DISSOLVED SILICA
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN (MG/L)	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
1976 FEB JUL AUG SEP DEC	210	4.5000	5.000	4.707	0.1441	0.0099	± 0.0196
1977 MAR APR MAY JUN JUL AUG OCT NOV DEC	290	3.1000	5.900	4.682	0.2082	0.0122	± 0.0241
1978 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC	254	0.2000	5.500	4.565	0.4742	0.0298	± 0.0586
1979 JAN FEB MAR APR MAY JUN AUG SEP OCT NOV DEC	65	4.0000	5.000	4.491	0.2941	0.0365	± 0.0728
1980 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC	95	4.1000	5.100	4.442	0.2267	0.0233	± 0.0462

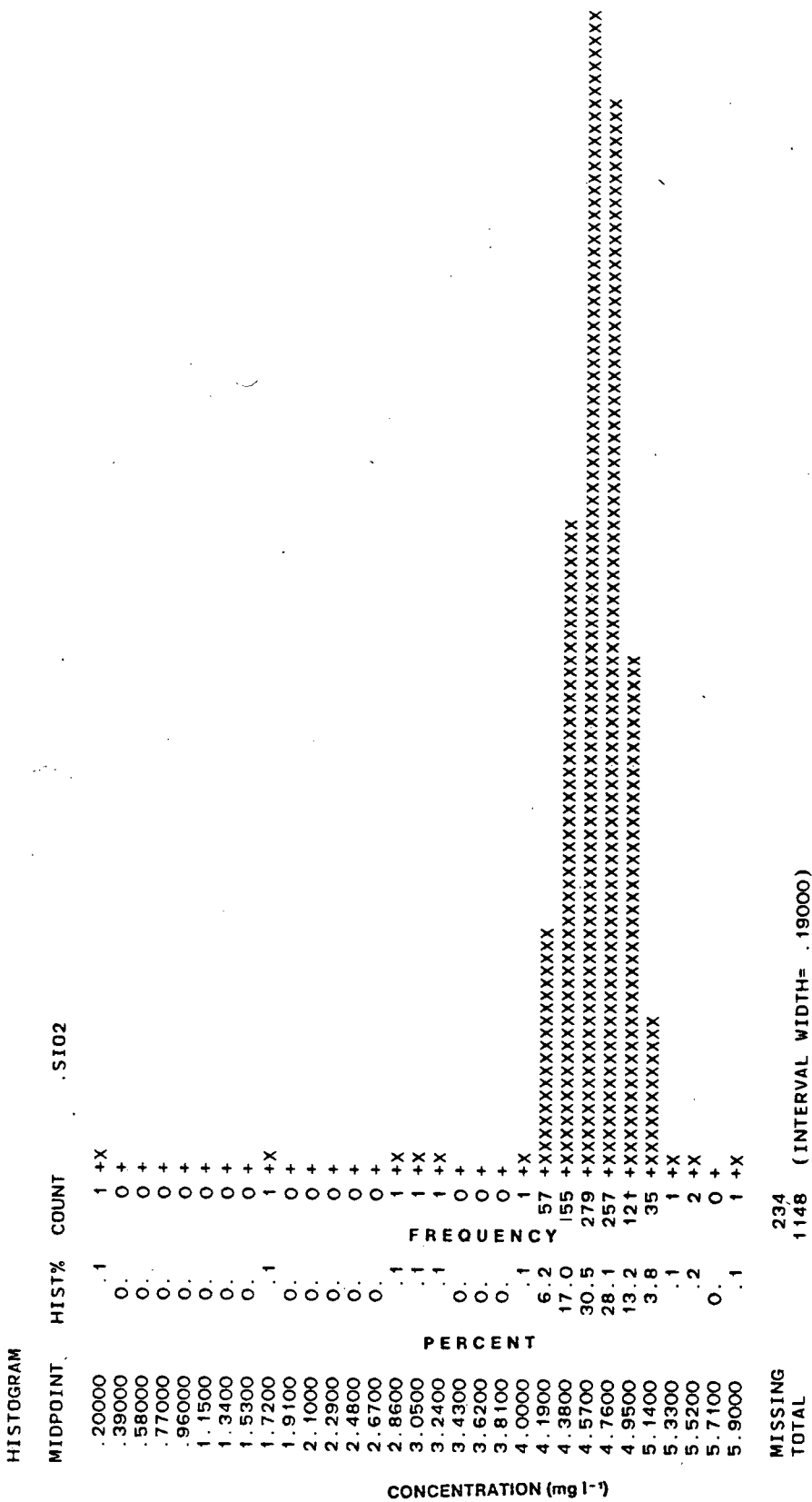
STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 DISSOLVED SILICA
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN (MG/L)	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
APRIL TO SEPTEMBER							
1976	144	4.5000	5.000	4.656	0.1461	0.0122	± 0.0240
1977	227	4.2000	5.900	4.641	0.1781	0.0118	± 0.0233
1978	163	0.2000	5.500	4.389	0.4348	0.0341	± 0.0672
1979	32	4.0000	4.900	4.297	0.1858	0.0328	± 0.0669
1980	55	4.1000	4.500	4.302	0.0952	0.0128	± 0.0257
1976-80	621	0.2000	5.900	4.531	0.2988	0.0120	± 0.0236
OCTOBER TO MARCH							
1976-77	99	4.7000	4.900	4.808	0.0396	0.0040	± 0.0079
1977-78	104	1.8000	5.100	4.887	0.3750	0.0368	± 0.0730
1978-79	34	4.5000	5.200	4.859	0.1987	0.0341	± 0.0693
1979-80	32	4.3000	4.700	4.484	0.1417	0.0250	± 0.0511
1980-81	24	4.4000	5.100	4.712	0.2290	0.0467	± 0.0967
1976-80	293	1.8000	5.200	4.799	0.2747	0.0160	± 0.0316
APRIL TO MARCH							
1976-80	914	0.2000	5.900	4.617	0.3169	0.0105	± 0.0206

STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 DISSOLVED SILICA
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
1976 FEB JUL AUG SEP DEC	914	0.2000	5.900	4.617	0.3169	0.0105	± 0.0206
1977 MAR APR MAY JUN JUL AUG OCT NOV DEC							
1978 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC							
1979 JAN FEB MAR APR MAY JUL AUG SEP OCT NOV DEC							
1980 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC							

(MG/L)



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OKANAGAN RIVER BELOW OKANAGAN LAKE

Statistical Characteristics of Nutrient Concentrations
Period of Sampling February 1976 to December 1980.

SILICA

Median concentrations and their statistical characteristics determined for

Individual Months	495
All Months	497
Individual Years	498
Seasons	499
April to September	
October to March	
April to March	
All Years	500
Cumulative distribution of concentration data	501

STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 DISSOLVED SILICA
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN (MG/L)	CONFIDENCE INTERVAL LOWER	CONFIDENCE INTERVAL UPPER	PROBABILITY LEVEL
1976 FEBRUARY	36	4.500	4.5000	4.5000	0.953
JULY					
AUGUST	108	4.600	4.6000	4.7000	0.957
SEPTEMBER	66	4.800	4.8000	4.8000	0.950
DECEMBER	33	4.800	4.8000	4.8000	0.965
1977 MARCH	14	5.000	4.7000	5.1000	0.965
APRIL	44	4.600	4.6000	4.7000	0.951
MAY	77	4.500	4.5000	4.6000	0.961
JUNE	48	4.600	4.6000	4.6000	0.956
JULY	44	4.700	4.7000	4.8000	0.951
AUGUST	4	4.800			
OCTOBER	4	4.900			
NOVEMBER	22	5.000	5.0000	5.0000	0.965
DECEMBER	4	4.900			
1978 FEBRUARY	30	5.000	5.0000	5.1000	0.957
MARCH	40	4.900	4.9000	4.9000	0.961
APRIL	20	4.300	4.3000	4.5000	0.959
MAY	30	4.500	4.4000	4.8000	0.957
JUNE	24	4.700	4.6000	4.8000	0.957
JULY	40	4.300	4.3000	4.3000	0.961
AUGUST	24	4.200	4.2000	4.3000	0.957
SEPTEMBER	25	4.400	4.3000	4.4000	0.957
OCTOBER	7	4.500	4.5000	4.6000	0.984
NOVEMBER	8	5.100	5.0000	5.2000	0.961
DECEMBER	2	4.900			
1979 JANUARY	7	5.000	4.9000	5.0000	0.984
FEBRUARY	6	4.800	4.8000	4.9000	0.969
MARCH	4	4.900			
APRIL	4	4.500			
MAY	4	4.500			
JULY	8	4.200	4.1000	4.2000	0.961
AUGUST	8	4.100	4.1000	4.3000	0.961
SEPTEMBER	8	4.300	4.3000	4.4000	0.961
OCTOBER	8	4.400	4.3000	4.4000	0.961
NOVEMBER	8	4.500	4.3000	4.7000	0.961
DECEMBER					

STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 DISSOLVED SILICA
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN (MG/L)	CONFIDENCE INTERVAL LOWER	CONFIDENCE INTERVAL UPPER	PROBABILITY LEVEL
1980 JANUARY	4	4.600			
FEBRUARY	4	4.600			
MARCH	8	4.400	4.4000	4.5000	0.961
APRIL	8	4.400	4.4000	4.4000	0.961
MAY	12	4.300	4.3000	4.5000	0.961
JUNE	7	4.300	4.3000	4.4000	0.984
JULY	12	4.200	4.2000	4.3000	0.961
AUGUST	8	4.200	4.2000	4.4000	0.961
SEPTEMBER	8	4.200	4.2000	4.3000	0.961
OCTOBER	8	4.500	4.4000	4.5000	0.961
NOVEMBER	8	4.600	4.6000	5.1000	0.961
DECEMBER	8	4.800	4.8000	4.9000	0.961

STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 DISSOLVED SILICA
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN (MG/L)	CONFIDENCE INTERVAL LOWER	CONFIDENCE INTERVAL UPPER	PROBABILITY LEVEL
- 78-79-80 JANUARY	15	4.900	4.7000	5.0000	0.965
1976- 78-79-80 FEBRUARY	40	5.000	4.8000	5.0000	0.961
-77-78-79-80 MARCH	85	4.800	4.8000	4.9000	0.960
-77-78-79-80 APRIL	46	4.500	4.4000	4.7000	0.960
-77-78-79-80 MAY	90	4.600	4.6000	4.6000	0.955
-77-78- 80 JUNE	108	4.500	4.5000	4.6000	0.957
1976-77-78-79-80 JULY	144	4.500	4.5000	4.5000	0.954
1976-77-78-79-80 AUGUST	84	4.600	4.3000	4.7000	0.962
1976- 78-79-80 SEPTEMBER	149	4.600	4.6000	4.6000	0.951
-77-78-79-80 OCTOBER	27	4.500	4.4000	4.5000	0.964
-77-78-79-80 NOVEMBER	28	4.800	4.6000	5.0000	0.964
1976-77-78-79-80 DECEMBER	98	4.800	4.8000	4.8000	0.956

STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 DISSOLVED SILICA
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN (MG/L)	CONFIDENCE INTERVAL LOWER	CONFIDENCE INTERVAL UPPER	PROBABILITY LEVEL
1976 FEB JUL AUG SEP DEC	210	4.700	4.7000	4.7000	0.955
1977 MAR APR MAY JUN JUL AUG OCT NOV DEC	290	4.700	4.6000	4.7000	0.954
1978 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC	254	4.500	4.5000	4.6000	0.955
1979 JAN FEB MAR APR MAY JUL AUG SEP OCT NOV DEC	65	4.400	4.3000	4.5000	0.954
1980 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC	95	4.400	4.3000	4.4000	0.960

STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 DISSOLVED SILICA
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN (MG/L)	CONFIDENCE INTERVAL		PROBABILITY LEVEL
			LOWER	UPPER	
APRIL TO SEPTEMBER					
1976	144	4.600	4.6000	4.6000	0.954
1977	227	4.600	4.6000	4.6000	0.954
1978	163	4.300	4.3000	4.4000	0.959
1979	32	4.300	4.2000	4.3000	0.965
1980	55	4.300	4.3000	4.3000	0.956
1976-80	621	4.600	4.5000	4.6000	0.951
OCTOBER TO MARCH					
1976-77	99	4.800	4.8000	4.8000	0.956
1977-78	104	4.900	4.9000	5.0000	0.961
1978-79	34	4.900	4.8000	5.0000	0.959
1979-80	32	4.400	4.4000	4.6000	0.965
1980-81	24	4.600	4.5000	4.9000	0.957
1976-80	293	4.800	4.8000	4.8000	0.953
APRIL TO MARCH					
1976-80	914	4.600	4.6000	4.6000	0.953

STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 DISSOLVED SILICA
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN	CONFIDENCE INTERVAL		PROBABILITY LEVEL
			LOWER	UPPER	
1976 FEB JUL AUG SEP DEC					
1977 MAR APR MAY JUN JUL AUG OCT NOV DEC					
1978 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC					
1979 JAN FEB MAR APR MAY JUN AUG SEP OCT NOV DEC					
1980 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC					
	914	4.600	4.6000	4.6000	0.953

(MG/L)

DISTRIBUTIONAL ANALYSIS

CUMULATIVE SAMPLE DISTRIBUTION OF S102 N= 914

X 3 * 2 *

X

X

X

X

X

X

X

X

X

X

.90000 +

.80000 +

.70000 +

.60000 +

.50000 +

.40000 +

.30000 +

.20000 +

.10000 +

0.

20000 4.3000 1.4667 2.7333 3.3667 4.0000 4.6333 5.2667 5.9000

PROB	QUANTILE	LEVEL	CONFIDENCE	INTERVAL	SIZE
.1000	4.3000	.9500	4.3000	4.3000	.9531
.3000	4.5000	.9500	4.5000	4.5000	.9529
.5000	4.6000	.9500	4.6000	4.6000	.9528
.7000	4.8000	.9500	4.7000	4.8000	.9528
.9000	5.0000	.9500	4.9000	5.0000	.9531

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OKANAGAN RIVER BELOW OKANAGAN LAKE

Statistical Characteristics of Nutrient Loads

Period of Sampling February 1976 to December 1980.

SILICA

Arithmetic mean loads and their statistical characteristics determined for

Individual Months	503
All Months	505
Graph of monthly load ranges	506
Individual Years	507
Seasons	508
April to September	
October to March	
April to March	
All Years	509

STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 DISSOLVED SILICA
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

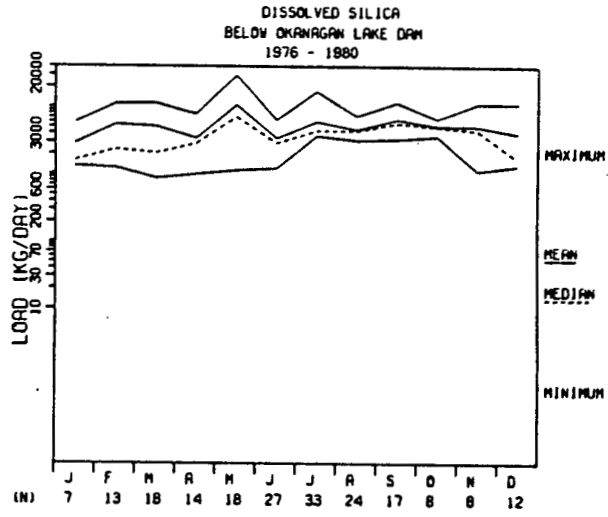
SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN (KG/DAY)	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
1976 FEBRUARY	4	12300.0000	16700.0000	15550.0000	2167.2000	1083.5999	± 3448.0000
JULY							
AUGUST							
SEPTEMBER	4	11000.0000	11600.0000	11225.0000	287.2300	143.6150	± 457.0000
DECEMBER	2	11100.0000	11100.0000	11100.0000			
1977 MARCH	4	1750.0000	1820.0000	1780.0000	29.4390	14.7195	± 46.8000
APRIL	5	2190.0000	3210.0000	2842.0000	396.8201	177.4633	± 492.7000
MAY	6	1800.0000	1950.0000	1870.0000	61.9680	25.2983	± 65.0000
JUNE	18	1700.0000	3520.0000	2430.0000	626.4800	147.6628	± 311.5000
JULY	13	3660.0000	4610.0000	4116.898	338.8301	93.9745	± 204.7496
AUGUST	13	3920.0000	4700.0000	4306.898	273.2300	75.7803	± 165.0996
OCTOBER	2	4100.0000	4130.0000	4115.0000	21.2130	14.9999	± 190.6008
NOVEMBER	1	1620.0000	1620.0000	1620.0000			
DECEMBER	7	1330.0000	1820.0000	1481.400	191.9600	72.5541	± 177.5500
1978 JANUARY	4	1320.0000	5910.0000	2512.500	2265.6001	1132.8000	± 3605.0996
FEBRUARY	10	2050.0000	11000.0000	6492.000	4566.6016	1444.0862	± 3266.6992
MARCH	11	866.0000	11300.0000	7126.000	4170.6016	1257.4836	± 2801.8008
APRIL	5	2080.0000	7790.0000	4924.000	2263.6001	1012.3127	± 2810.5996
MAY	10	7010.0000	29200.0000	17737.000	6745.6016	2133.1467	± 4825.0000
JUNE	7	4610.0000	6390.0000	5630.000	697.7300	263.7170	± 645.3008
JULY	11	4270.0000	4980.0000	4481.801	245.9200	74.1477	± 165.1992
AUGUST	6	4080.0000	5110.0000	4661.699	455.4299	185.9285	± 477.9512
SEPTEMBER	9	3300.0000	5990.0000	4986.699	1166.3000	388.7666	± 896.4995
OCTOBER	2	6690.0000	6690.0000	6690.000			
NOVEMBER	3	7210.0000	11100.0000	9270.000	1955.2000	1128.8350	± 4856.9492
DECEMBER	1	6800.0000	6800.0000	6800.000			
1979 JANUARY	2	3620.0000	4620.0000	4120.000	707.1101	500.0024	± 6353.0469
FEBRUARY	2	2320.0000	2340.0000	2330.000	14.1420	9.9999	± 127.1001
MARCH	1	3010.0000	3010.0000	3010.000			
APRIL	2	2620.0000	2830.0000	2725.000	148.4900	104.9983	± 1334.2000
MAY	1	3810.0000	3810.0000	3810.000			
JULY	2	4350.0000	4640.0000	4495.000	205.0600	144.9993	± 1842.3992
AUGUST	3	4720.0000	4900.0000	4816.699	90.7380	52.3876	± 229.4004
SEPTEMBER	2	4370.0000	4380.0000	4375.000	7.0711	5.0000	± 63.5000
OCTOBER	2	3630.0000	4990.0000	4310.000	961.6699	680.0034	± 8640.0977
NOVEMBER	2	1120.0000	1330.0000	1225.000	148.4900	104.9983	± 1334.1748
DECEMBER							

STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 DISSOLVED SILICA
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN (KG/DAY)	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
1980 JANUARY	1	1620.0000	1620.000	1620.000			
FEBRUARY	1	1230.0000	1230.000	1230.000			
MARCH	2	1020.0000	1100.000	1060.000	56.5690	40.0003	± 508.2249
APRIL	2	994.0000	2080.000	1537.000	767.9199	543.0015	± 6899.5000
MAY	1	1140.0000	1140.000	1140.000			
JUNE	2	1210.0000	6340.000	3775.000	3627.5000	2565.0305	± *****
JULY	3	6820.0000	7890.000	7260.000	559.7300	323.1602	± 1390.5000
AUGUST	2	3160.0000	7290.000	5225.000	2920.3999	2065.0349	± *****
SEPTEMBER	2	4350.0000	6990.000	5670.000	1866.8000	1320.0271	± *****
OCTOBER	2	5420.0000	5620.000	5520.000	141.4200	99.9991	± 1270.6016
NOVEMBER	2	4380.0000	4500.000	4440.000	84.8530	60.0001	± 762.3992
DECEMBER	2	3980.0000	4040.000	4010.000	42.4260	29.9997	± 381.1995

STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 DISSOLVED SILICA
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN (KG/DAY)	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
- 78-79-80 JANUARY	7	1320.0000	5910.000	2844.300	1875.0000	708.6833	± 1734.0991
1976- 78-79-80 FEBRUARY	13	1230.0000	11000.000	5446.898	4433.0000	1229.4927	± 2678.7988
- 77-78-79-80 MARCH	18	866.0000	11300.000	5035.301	4201.6992	990.3499	± 2089.4492
- 77-78-79-80 APRIL	14	994.0000	7790.000	3382.400	1813.5000	484.6782	± 1047.0999
- 77-78-79-80 MAY	18	1140.0000	29200.000	10752.000	9428.8984	2222.4126	± 4688.8477
- 77-78- 80 JUNE	27	1210.0000	6390.000	3359.300	1695.3999	326.2798	± 670.6499
1976-77-78-79-80 JULY	33	3660.0000	16700.000	5933.000	3800.3000	661.5471	± 1347.5000
1976-77-78-79-80 AUGUST	24	3160.0000	7290.000	4535.801	735.4600	150.1251	± 310.5488
1976- 78-79-80 SEPTEMBER	17	3300.0000	11600.000	6462.898	2903.8000	704.2747	± 1493.0000
- 77-78-79-80 OCTOBER	8	3630.0000	6690.000	5158.801	1165.8999	412.2078	± 974.7500
- 77-78-79-80 NOVEMBER	8	1120.0000	11100.000	5095.000	3833.2000	1355.2407	± 3204.5996
1976-77-78-79-80 DECEMBER	12	1330.0000	11100.000	3849.200	3732.6001	1077.5085	± 2371.5488



STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 DISSOLVED SILICA
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN (KG/DAY)	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
1976 FEB JUL AUG SEP DEC	10	11000.0000	16700.000	12930.000	2584.6001	817.3223	± 1849.0000
1977 MAR-APR MAY JUN JUL AUG OCT NOV DEC	69	1330.0000	4700.000	2985.800	1139.8000	137.2158	± 273.8000
1978 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC	79	866.0000	29200.000	7150.602	5375.5000	604.7910	± 1204.0508
1979 JAN FEB MAR APR MAY JUL AUG SEP OCT NOV DEC	19	1120.0000	4990.000	3601.600	1219.1001	279.6807	± 587.5996
1980 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC	22	994.0000	7890.000	4011.100	2419.3999	515.8176	± 1072.7004

STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 DISSOLVED SILICA
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN (KG/DAY)	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
APRIL TO SEPTEMBER							
1976	8	11000.0000	16700.000	13388.000	2718.8999	961.2761	± 2273.5000
1977	55	1700.0000	4700.000	3248.700	1038.6001	140.0448	± 280.7500
1978	48	2080.0000	29200.000	7574.000	6112.8008	882.3066	± 1774.9492
1979	10	2620.0000	4900.000	4145.000	811.7100	256.6851	± 580.6995
1980	12	994.0000	7890.000	4611.199	2743.3000	791.9224	± 1742.9995
1976-80	133	994.0000	29200.000	5609.898	4738.6992	410.8972	± 812.7988
OCTOBER TO MARCH							
1976-77	6	1750.0000	11100.000	4886.699	4812.8984	1964.8577	± 5050.8164
1977-78	35	866.0000	11300.000	4959.301	4107.3008	694.2605	± 1410.8997
1978-79	11	2320.0000	11100.000	5809.102	2904.5000	875.7395	± 1951.2991
1979-80	8	1020.0000	4990.000	2005.000	1479.8000	523.1882	± 1237.1050
1980-81	6	3980.0000	5620.000	4656.699	699.9900	285.7695	± 734.6003
1976-80	66	866.0000	11300.000	4708.699	3649.5000	449.2222	± 897.1492
APRIL TO MARCH							
1976-80	199	866.0000	29200.000	5311.000	4418.5000	313.2190	± 617.6992

STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 DISSOLVED SILICA
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
1976 FEB JUL AUG SEP DEC	199	866.0000	29200.000	5311.000	4418.5000	313.2190	± 617.6992
1977 MAR APR MAY JUN JUL AUG OCT NOV DEC							
1978 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC							
1979 JAN FEB MAR APR MAY JUN AUG SEP OCT NOV DEC							
1980 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC							

(KG/DAY)

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OKANAGAN RIVER BELOW OKANAGAN LAKE

Statistical Characteristics of Nutrient Loads

Period of Sampling February 1976 to December 1980.

SILICA

Median loads and their statistical characteristics determined for

Individual Months	511
All Months	513
Individual Years	514
Seasons	515
April to September	
October to March	
April to March	
All Years	516

STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 DISSOLVED SILICA
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN (KG/DAY)	CONFIDENCE INTERVAL LOWER	CONFIDENCE INTERVAL UPPER	PROBABILITY LEVEL
1976 FEBRUARY	4	16600.000			
JULY					
AUGUST	4	11000.000			
SEPTEMBER	2	11100.000			
DECEMBER	4	1770.000			
1977 MARCH	5	3000.000		2190.0000	0.969
APRIL	6	1840.000	1800.0000	1950.0000	0.969
MAY	18	2470.000	1810.0000	2880.0000	0.969
JUNE	13	4020.000	3790.0000	4540.0000	0.978
JULY	13	4360.000	4050.0000	4680.0000	0.978
AUGUST	2	4100.000			
OCTOBER	1	1620.000			
NOVEMBER	7	1390.000	1330.0000	1820.0000	0.984
DECEMBER	4	1370.000			
1978 JANUARY	10	2210.000	2180.0000	11000.0000	0.979
FEBRUARY	11	8180.000	2070.0000	11100.0000	0.961
MARCH	5	5090.000		2080.0000	0.969
APRIL	10	18000.000	8560.0000	23300.0000	0.979
MAY	7	5930.000	4610.0000	6390.0000	0.984
JUNE	11	4390.000	4330.0000	4940.0000	0.961
JULY	6	4840.000	4080.0000	5110.0000	0.969
AUGUST	9	5650.000	3380.0000	5980.0000	0.961
SEPTEMBER	2	6690.000			
OCTOBER	3	9500.000			
NOVEMBER	1	6800.000			
DECEMBER	2	3620.000			
1979 JANUARY	2	2320.000			
FEBRUARY	1	3010.000			
MARCH	2	2620.000			
APRIL	1	3810.000			
MAY	2	4350.000			
JULY	3	4830.000			
AUGUST	2	4370.000			
SEPTEMBER	2	3630.000			
OCTOBER	2	1120.000			
NOVEMBER					
DECEMBER					

STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 DISSOLVED SILICA
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN (KG/DAY)	CONFIDENCE INTERVAL LOWER	CONFIDENCE INTERVAL UPPER	PROBABILITY LEVEL
1980 JANUARY	1	1620.000			
FEBRUARY	1	1230.000			
MARCH	2	1020.000			
APRIL	2	994.000			
MAY	1	1140.000			
JUNE	2	1210.000			
JULY	3	7070.000			
AUGUST	2	3160.000			
SEPTEMBER	2	4350.000			
OCTOBER	2	5420.000			
NOVEMBER	2	4380.000			
DECEMBER	2	3980.000			

STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 DISSOLVED SILICA
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN (KG/DAY)	CONFIDENCE INTERVAL LOWER	CONFIDENCE INTERVAL UPPER	PROBABILITY LEVEL
-78-79-80 JANUARY	7	1620.000	1320.0000	5910.0000	0.984
1976-78-79-80 FEBRUARY	13	2320.000	2180.0000	10900.0000	0.978
-77-78-79-80 MARCH	18	2070.000	1750.0000	10500.0000	0.969
-77-78-79-80 APRIL	14	2830.000	2190.0000	5090.0000	0.965
-77-78-79-80 MAY	18	7010.000	1900.0000	18900.0000	0.969
-77-78-80 JUNE	27	2860.000	1970.0000	4610.0000	0.964
1976-77-78-79-80 JULY	33	4390.000	4300.0000	4610.0000	0.965
1976-77-78-79-80 AUGUST	24	4390.000	4100.0000	4830.0000	0.957
1976-78-79-80 SEPTEMBER	17	5670.000	4370.0000	6990.0000	0.951
-77-78-79-80 OCTOBER	8	4990.000	4100.0000	6690.0000	0.961
-77-78-79-80 NOVEMBER	8	4380.000	1330.0000	11100.0000	0.961
1976-77-78-79-80 DECEMBER	12	1690.000	1380.0000	6800.0000	0.961

STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 DISSOLVED SILICA
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN (KG/DAY)	CONFIDENCE INTERVAL LOWER	CONFIDENCE INTERVAL UPPER	PROBABILITY LEVEL
1976 FEB JUL AUG SEP DEC	10	11300.000	11000.0000	16600.0000	0.979
1977 MAR APR MAY JUN JUL AUG OCT NOV DEC	69	2900.000	2190.0000	3790.0000	0.959
1978 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC	79	5650.000	4910.0000	6270.0000	0.958
1979 JAN FEB MAR APR MAY JUN AUG SEP OCT NOV DEC	19	3810.000	2830.0000	4640.0000	0.959
1980 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC	22	4040.000	1620.0000	6340.0000	0.965

STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 DISSOLVED SILICA
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN (KG/DAY)	CONFIDENCE INTERVAL		PROBABILITY LEVEL
			LOWER	UPPER	
APRIL TO SEPTEMBER					
1976	8	11600.000	11000.0000	16700.0000	0.961
1977	55	3450.000	2860.0000	3950.0000	0.956
1978	48	5090.000	4840.0000	5980.0000	0.956
1979	10	4370.000	2830.0000	4830.0000	0.979
1980	12	4350.000	1210.0000	7070.0000	0.961
1976-80	133	4370.000	4100.0000	4590.0000	0.953
OCTOBER TO MARCH					
1976-77	6	1780.000	1750.0000	11100.0000	0.969
1977-78	35	2190.000	1690.0000	7000.0000	0.959
1978-79	11	6690.000	3010.0000	9500.0000	0.961
1979-80	8	1230.000	1100.0000	4990.0000	0.961
1980-81	6	4380.000	3980.0000	5620.0000	0.969
1976-80	66	3620.000	2180.0000	4620.0000	0.950
APRIL TO MARCH					
1976-80	199	4330.000	4020.0000	4400.0000	0.953

STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 DISSOLVED SILICA
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN	CONFIDENCE INTERVAL LOWER	CONFIDENCE INTERVAL UPPER	PROBABILITY LEVEL
		(KG/DAY)			
1976 FEB JUL AUG SEP DEC					
1977 MAR APR MAY JUN JUL AUG OCT NOV DEC					
1978 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC					
1979 JAN FEB MAR APR MAY JUN AUG SEP OCT NOV DEC					
1980 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC	199	4330.000	4020.0000	4400.0000	0.953

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OKANAGAN RIVER BELOW OKANAGAN LAKE

Statistical Characteristics of Nutrient Concentrations

Period of Sampling February 1976 to December 1980.

RATIO OF DISSOLVED SILICA TO TOTAL PHOSPHORUS (P)

Arithmetic mean concentrations and their statistical characteristics
determined for:

Individual Months	518
All Months	520
Graph of monthly concentration ranges	521
Individual Years	522
Seasons	523
April to September	
October to March	
April to March	
All Years	524
Histogram of concentration distribution	525

STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
RATIO OF DISSOLVED SILICA / TOTAL PHOSPHORUS (P)
SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
1976 FEBRUARY	36	270.5901	766.670	586.920	115.1800	19.1967	± 38.9750
JULY							
AUGUST							
SEPTEMBER	54	117.5000	1000.000	621.210	201.6600	27.4424	± 55.0450
DECEMBER	33	252.6300	800.000	643.180	146.6900	25.5354	± 52.0150
1977 MARCH	21	150.0000	685.710	449.420	127.2900	27.7769	± 57.9401
APRIL	14	283.3301	480.000	407.890	54.8630	14.6628	± 31.6750
MAY	26	94.0000	960.000	638.880	200.4400	39.3095	± 80.9601
JUNE	61	191.6700	900.000	556.960	119.4200	15.2902	± 30.5851
JULY	48	233.3300	940.000	662.440	158.6200	22.8948	± 46.0551
AUGUST	44	400.0000	1175.000	879.850	127.1300	19.1656	± 38.6550
OCTOBER	4	369.2300	533.330	445.640	74.8160	37.4080	± 119.0499
NOVEMBER	4	206.6700	612.500	445.420	201.6100	100.8050	± 320.8049
DECEMBER	22	277.7800	980.000	604.590	184.0200	39.2332	± 81.5850
1978 JANUARY	4	66.6670	816.670	521.880	321.1899	160.5950	± 511.1064
FEBRUARY	30	276.4700	833.330	589.730	179.0600	32.6917	± 66.8650
MARCH	40	376.9199	850.000	623.180	148.4200	23.4673	± 47.4700
APRIL	20	16.6670	900.000	641.960	198.9400	44.4843	± 93.1050
MAY	30	338.4600	880.000	548.750	141.4700	25.8288	± 52.8251
JUNE	24	306.6699	766.670	570.040	127.4400	26.0136	± 53.8151
JULY	40	477.7800	1050.000	712.510	105.8900	16.7427	± 33.8651
AUGUST	24	42.0000	1075.000	815.670	237.0800	48.3938	± 100.1100
SEPTEMBER	25	400.0000	1100.000	688.090	181.7700	36.3540	± 75.0300
OCTOBER	7	250.0000	657.140	420.310	132.2600	49.9896	± 122.3250
NOVEMBER	8	357.1399	566.670	474.380	73.8350	26.1046	± 61.7301
DECEMBER	2	192.3100	222.730	207.520	21.5100	15.2099	± 193.2605
1979 JANUARY	7	490.0000	833.330	664.250	132.1900	49.9631	± 122.2600
FEBRUARY	6	400.0000	800.000	529.290	172.8800	70.5780	± 181.4299
MARCH	4	272.2200	445.450	349.560	90.5770	45.2885	± 144.1299
APRIL	4	187.5000	450.000	315.630	118.7500	59.3750	± 188.9550
MAY	4	244.4400	418.180	312.720	74.2630	37.1315	± 118.1649
JULY	8	266.6699	420.000	362.950	50.0940	17.7109	± 41.8750
AUGUST	8	307.1399	820.000	538.710	178.1200	62.9749	± 148.9100
SEPTEMBER	8	390.9099	537.500	477.130	47.9630	16.9575	± 40.1000
OCTOBER	8	330.7700	550.000	472.010	79.2130	28.0060	± 66.2250
NOVEMBER	8	361.5400	587.500	464.370	75.8370	26.8124	± 63.4050
DECEMBER							

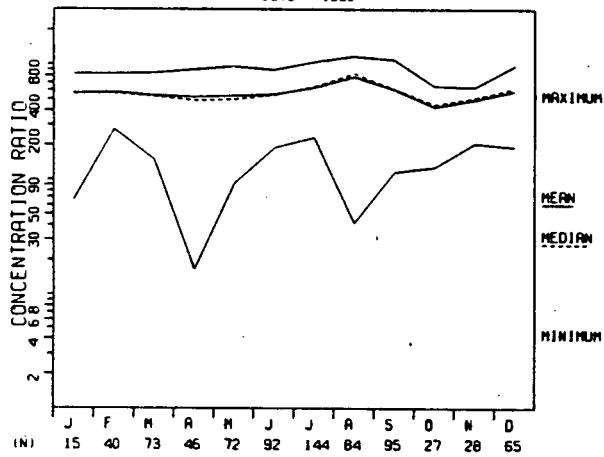
STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF DISSOLVED SILICA / TOTAL PHOSPHORUS (P)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
1980 JANUARY	4	353.8501	522.220	430.380	69.4040	34.7020	± 110.4401
FEBRUARY	4	460.0000	642.860	547.240	79.2240	39.6120	± 126.0651
MARCH	8	300.0000	614.290	453.270	101.5800	35.9139	± 84.9199
APRIL	8	488.8899	628.570	529.660	60.5570	21.4101	± 50.6250
MAY	12	110.2600	500.000	362.540	123.4600	35.6398	± 78.4399
JUNE	7	390.9099	550.000	454.360	72.4730	27.3922	± 67.0249
JULY	12	390.9099	840.000	600.870	113.9600	32.8974	± 72.4050
AUGUST	8	280.0000	614.290	427.690	124.0700	43.8654	± 103.7300
SEPTEMBER	8	300.0000	600.000	447.020	118.6100	41.9350	± 99.1599
OCTOBER	8	128.5700	642.860	388.710	177.5000	62.7557	± 148.3900
NOVEMBER	8	511.1101	637.500	569.620	45.9590	16.2489	± 38.4200
DECEMBER	8	342.8601	612.500	448.150	98.3190	34.7610	± 82.1951

STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF DISSOLVED SILICA / TOTAL PHOSPHORUS (P)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
- 78-79-80 JANUARY	15	66.6670	833.330	563.920	203.1300	52.4479	± 112.4850
1976- 78-79-80 FEBRUARY	40	276.4700	833.330	576.420	169.4800	26.7971	± 54.2001
-77-78-79-80 MARCH	73	150.0000	850.000	539.580	163.9000	19.1830	± 38.2400
-77-78-79-80 APRIL	46	16.6670	900.000	522.820	182.5700	26.9185	± 54.2150
-77-78-79-80 MAY	72	94.0000	960.000	537.150	191.7100	22.5932	± 45.0499
-77-78- 80 JUNE	92	191.6700	900.000	552.570	121.2000	12.6360	± 25.1000
1976-77-78-79-80 JULY	144	233.3300	1050.000	635.700	149.8300	12.4858	± 24.6799
1976-77-78-79-80 AUGUST	84	42.0000	1175.000	785.960	226.0900	24.6684	± 49.0601
1976- 78-79-80 SEPTEMBER	95	117.5000	1100.000	612.010	195.0300	20.0096	± 39.7300
-77-78-79-80 OCTOBER	27	128.5700	657.140	430.020	126.4300	24.3315	± 50.0150
-77-78-79-80 NOVEMBER	28	206.6700	637.500	494.590	101.9100	19.2592	± 39.5150
1976-77-78-79-80 DECEMBER	65	192.3100	980.000	592.710	177.6100	22.0298	± 44.0100

RATIO OF DISSOLVED SILICA / TOTAL PHOSPHORUS (P)
BELOW OKANAGAN LAKE DAM
1976 - 1980



STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF DISSOLVED SILICA / TOTAL PHOSPHORUS (P)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
1976 FEB JUL AUG SEP DEC	123	117.5000	1000.000	617.070	166.0700	14.9740	± 29.6400
1977 MAR APR MAY JUN JUL AUG OCT NOV DEC	244	94.0000	1175.000	627.500	200.1600	12.8139	± 25.2400
1978 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC	254	16.6670	1100.000	630.400	187.5400	11.7673	± 23.1750
1979 JAN FEB MAR APR MAY JUL AUG SEP OCT NOV DEC	65	187.5000	833.330	465.510	144.9100	17.9739	± 35.9049
1980 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC	95	110.2600	840.000	471.210	128.1500	13.1479	± 26.1050

STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF DISSOLVED SILICA / TOTAL PHOSPHORUS (P)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
APRIL TO SEPTEMBER							
1976	90	117.5000	1000.000	607.490	172.4000	18.1725	± 36.1051
1977	193	94.0000	1175.000	657.030	197.0000	14.1804	± 27.9700
1978	163	16.6670	1100.000	664.180	184.4200	14.4449	± 28.5250
1979	32	187.5000	820.000	423.240	135.4500	23.9444	± 48.8351
1980	55	110.2600	840.000	472.300	133.7800	18.0389	± 36.1700
1976-80	533	16.6670	1175.000	617.750	194.7300	8.4347	± 16.5701
OCTOBER TO MARCH							
1976-77	54	150.0000	800.000	567.830	167.9200	22.8510	± 45.8300
1977-78	104	66.6670	980.000	592.040	175.7700	17.2357	± 34.1799
1978-79	34	192.3100	833.330	481.640	166.6400	28.5785	± 58.1450
1979-80	32	300.0000	642.860	469.620	84.6920	14.9716	± 30.5349
1980-81	24	128.5700	642.860	468.830	138.1600	28.2018	± 58.3400
1976-80	248	66.6670	980.000	543.910	167.9800	10.6667	± 21.0100
APRIL TO MARCH							
1976-80	781	16.6670	1175.000	594.310	189.6900	6.7876	± 13.3250

STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF DISSOLVED SILICA / TOTAL PHOSPHORUS (P)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
1976 FEB JUL AUG SEP DEC	781	16.6670	1175.000	594.310	189.6900	6.7876	± 13.3250
1977 MAR APR MAY JUN JUL AUG OCT NOV DEC							
1978 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC							
1979 JAN FEB MAR APR MAY JUN AUG SEP OCT NOV DEC							
1980 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC							

HISTOGRAM	MIDPOINT	HIST%	COUNT	SI02 TP
	16.667	.1	1 +X	
	59.568	.3	2 +XX	
	102.47	.4	3 +XXX	
	145.37	.4	3 +XXX	
	188.27	.8	6 +XXXXXX	
	231.17	.9	7 +XXXXXXX	
	274.07	2.2	17 +XXXXXXXXXX	
	316.98	3.1	24 +XXXXXXXXXX	
	359.88	3.8	30 +XXXXXXXXXX	
	402.78	7.0	55 +XXXXXXXXXX	
	445.68	6.5	51 +XXXXXXXXXX	
	488.58	8.3	65 +XXXXXXXXXX	
	531.48	9.2	72 +XXXXXXXXXX	
	574.38	7.7	60 +XXXXXXXXXX	
	617.28	8.6	67 +XXXXXXXXXX	
	660.19	6.9	54 +XXXXXXXXXX	
	703.09	10.2	80 +XXXXXXXXXX	
	745.99	7.4	58 +XXXXXXXXXX	
	788.89	3.8	30 +XXXXXXXXXX	
	831.79	3.1	24 +XXXXXXXXXX	
	874.69	1.9	15 +XXXXXXXXXX	
	917.59	1.9	15 +XXXXXXXXXX	
	960.49	3.8	30 +XXXXXXXXXX	
	1003.4	.1	1 +X	
	1046.3	.4	3 +XX	
	1089.2	.9	7 +XXXXXXX	
	1132.1	0.	0 +	
	1175.0	.1	1 +X	
	MISSING		367	
	TOTAL		1148	(INTERVAL WIDTH= 42.901)

CONCENTRATION RATIO

S-2

OKANAGAN RIVER BELOW OKANAGAN LAKE

Statistical Characteristics of Nutrient Concentrations
Period of Sampling February 1976 to December 1980.

RATIO OF DISSOLVED SILICA TO TOTAL PHOSPHORUS (P)

Median concentrations and their statistical characteristics determined for

Individual Months	527
All Months	529
Individual Years	530
Seasons	531
April to September	
October to March	
April to March	
All Years	532
Cumulative distribution of concentration data	533

STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF DISSOLVED SILICA / TOTAL PHOSPHORUS (P)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN	CONFIDENCE INTERVAL LOWER	CONFIDENCE INTERVAL UPPER	PROBABILITY LEVEL
1976 FEBRUARY	36	562.500	562.5000	642.8601	0.953
JULY					
AUGUST	54	657.140	522.2200	714.2900	0.960
SEPTEMBER	33	685.710	600.0000	700.0000	0.965
DECEMBER	21	480.000	391.6699	533.3301	0.973
1977 MARCH	14	425.000	391.6699	454.5500	0.965
APRIL	26	587.500	511.1101	783.3301	0.971
MAY	61	562.500	511.1101	575.0000	0.960
JUNE	48	657.140	657.1399	766.6699	0.956
JULY	44	940.000	920.0000	940.0000	0.951
AUGUST	4	400.000			
OCTOBER	4	350.000			
NOVEMBER	4	625.000	500.0000	714.2900	0.965
DECEMBER	22	625.000			
1978 JANUARY	4	566.670			
FEBRUARY	30	637.500	566.6699	714.2900	0.957
MARCH	40	612.500	612.5000	700.0000	0.961
APRIL	20	628.570	587.5000	750.0000	0.959
MAY	30	500.000	463.6399	614.2900	0.957
JUNE	24	550.000	522.2200	625.0000	0.957
JULY	40	716.670	700.0000	716.6699	0.961
AUGUST	24	840.000	716.6699	1050.0000	0.957
SEPTEMBER	25	716.670	550.0000	733.3301	0.957
OCTOBER	7	450.000	250.0000	657.1399	0.984
NOVEMBER	8	454.550	425.0000	566.6699	0.961
DECEMBER	2	192.310			
1979 JANUARY	7	625.000	490.0000	833.3301	0.984
FEBRUARY	6	400.000	400.0000	800.0000	0.969
MARCH	4	272.220			
APRIL	4	250.000			
MAY	4	288.240			
JULY	8	350.000	341.6699	420.0000	0.961
AUGUST	8	512.500	358.3301	820.0000	0.961
SEPTEMBER	8	477.780	440.0000	537.5000	0.961
OCTOBER	8	488.890	400.0000	550.0000	0.961
NOVEMBER	8	450.000	390.9099	587.5000	0.961
DECEMBER	8				

STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF DISSOLVED SILICA / TOTAL PHOSPHORUS (P)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN	CONFIDENCE INTERVAL LOWER	CONFIDENCE INTERVAL UPPER	PROBABILITY LEVEL
1980 JANUARY	4	418.180			
FEBRUARY	4	511.110			
MARCH	8	409.090	375.0000	614.2900	0.961
APRIL	8	488.890	488.8899	628.5701	0.961
MAY	12	390.910	238.8900	466.6699	0.961
JUNE	7	430.000	390.9099	550.0000	0.984
JULY	12	600.000	537.5000	700.0000	0.961
AUGUST	8	420.000	280.0000	614.2900	0.961
SEPTEMBER	8	430.000	323.0801	600.0000	0.961
OCTOBER	8	409.090	183.3300	642.8601	0.961
NOVEMBER	8	566.670	511.1101	637.5000	0.961
DECEMBER	8	376.920	369.2300	612.5000	0.961

STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF DISSOLVED SILICA / TOTAL PHOSPHORUS (P)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN	CONFIDENCE INTERVAL LOWER	CONFIDENCE INTERVAL UPPER	PROBABILITY LEVEL
-78-79-80 JANUARY	15	566.670	427.2700	700.0000	0.965
1976-78-79-80 FEBRUARY	40	566.670	511.1101	685.7100	0.961
-77-78-79-80 MARCH	73	533.330	480.0000	612.5000	0.953
-77-78-79-80 APRIL	46	488.890	454.5500	587.5000	0.960
-77-78-79-80 MAY	72	500.000	463.6399	575.0000	0.956
-77-78-80 JUNE	92	550.000	511.1101	575.0000	0.953
1976-77-78-79-80 JULY	144	642.860	642.8601	657.1399	0.954
1976-77-78-79-80 AUGUST	84	840.000	766.6699	940.0000	0.962
1976-78-79-80 SEPTEMBER	95	614.290	537.5000	714.2900	0.960
-77-78-79-80 OCTOBER	27	450.000	400.0000	488.8899	0.964
-77-78-79-80 NOVEMBER	28	511.110	450.0000	566.6699	0.964
1976-77-78-79-80 DECEMBER	65	625.000	600.0000	685.7100	0.954

STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF DISSOLVED SILICA / TOTAL PHOSPHORUS (P)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

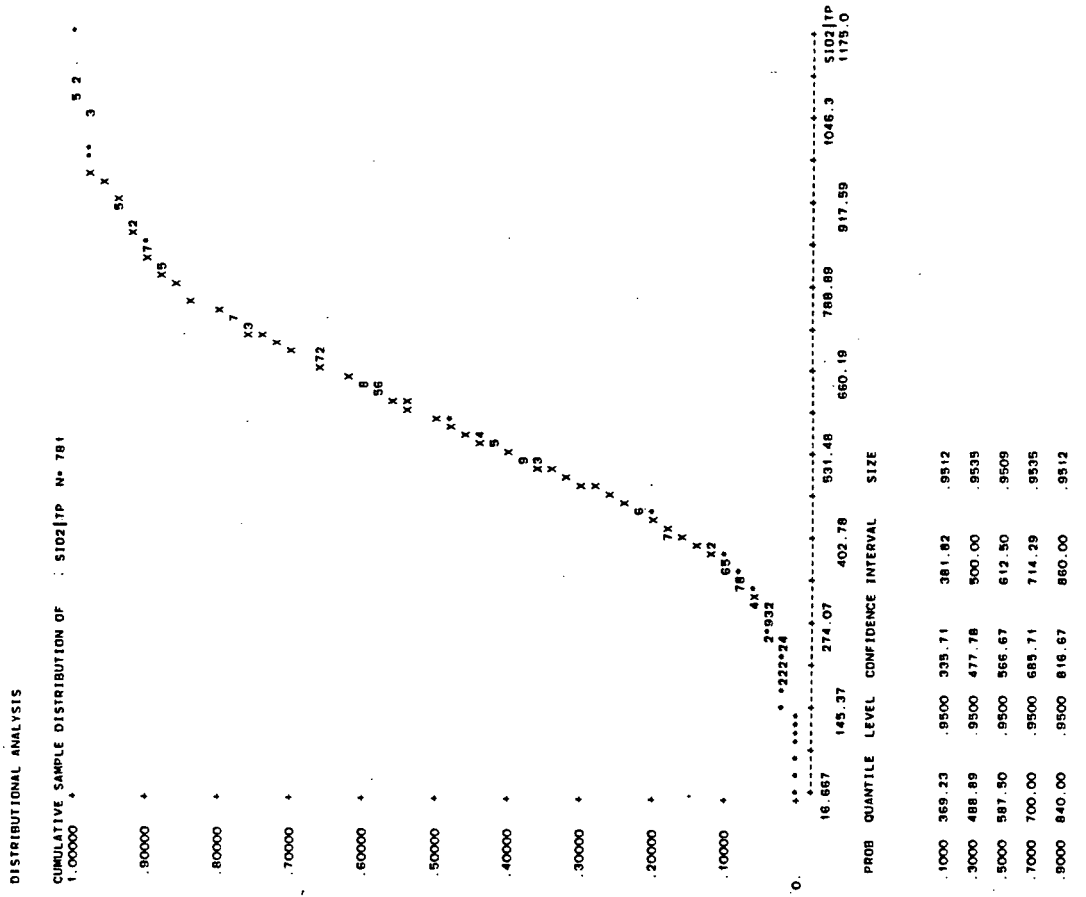
SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN	CONFIDENCE INTERVAL LOWER	CONFIDENCE INTERVAL UPPER	PROBABILITY LEVEL
1976 FEB JUL AUG SEP DEC	123	642.860	600.0000	671.4299	0.953
1977 MAR APR MAY JUN JUL AUG OCT NOV DEC	244	625.000	575.0000	657.1399	0.953
1978 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC	254	625.000	612.5000	685.7100	0.955
1979 JAN FEB MAR APR MAY JUL AUG SEP OCT NOV DEC	65	445.450	408.3301	477.7800	0.954
1980 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC	95	488.890	450.0000	511.1101	0.960

STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF DISSOLVED SILICA / TOTAL PHOSPHORUS (P)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN	CONFIDENCE INTERVAL		PROBABILITY LEVEL
			LOWER	UPPER	
APRIL TO SEPTEMBER					
1976	90	642.860	562.5000	657.1399	0.955
1977	193	642.860	600.0000	671.4299	0.956
1978	163	700.000	614.2900	716.6699	0.959
1979	32	418.180	358.3301	477.7800	0.965
1980	55	488.890	430.0000	537.5000	0.956
1976-80	533	614.290	587.5000	642.8601	0.954
OCTOBER TO MARCH					
1976-77	54	600.000	533.3301	685.7100	0.960
1977-78	104	612.500	566.6699	671.4299	0.961
1978-79	34	450.000	408.3301	555.5601	0.959
1979-80	32	470.000	427.2700	522.2200	0.965
1980-81	24	490.000	409.0901	566.6699	0.957
1976-80	248	550.000	520.0000	566.6699	0.951
APRIL TO MARCH					
1976-80	781	587.500	566.6699	612.5000	0.951

STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF DISSOLVED SILICA / TOTAL PHOSPHORUS (P)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN	CONFIDENCE INTERVAL LOWER	CONFIDENCE INTERVAL UPPER	PROBABILITY LEVEL
1976 FEB JUL AUG SEP DEC					
1977 MAR APR MAY JUN JUL AUG OCT NOV DEC					
1978 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC					
1979 JAN FEB MAR APR MAY JUL AUG SEP OCT NOV DEC					
1980 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC					
	781	587.500	566.6699	612.5000	0.951



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OKANAGAN RIVER BELOW OKANAGAN LAKE

Statistical Characteristics of Nutrient Loads

Period of Sampling February 1976 to December 1980.

RATIO OF DISSOLVED SILICA TO TOTAL PHOSPHORUS (P)

Arithmetic mean loads and their statistical characteristics determined for

Individual Months	535
All Months	537
Graph of monthly load ranges	538
Individual Years	539
Seasons	540
April to September	
October to March	
April to March	
All Years	541

STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF DISSOLVED SILICA / TOTAL PHOSPHORUS (P)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

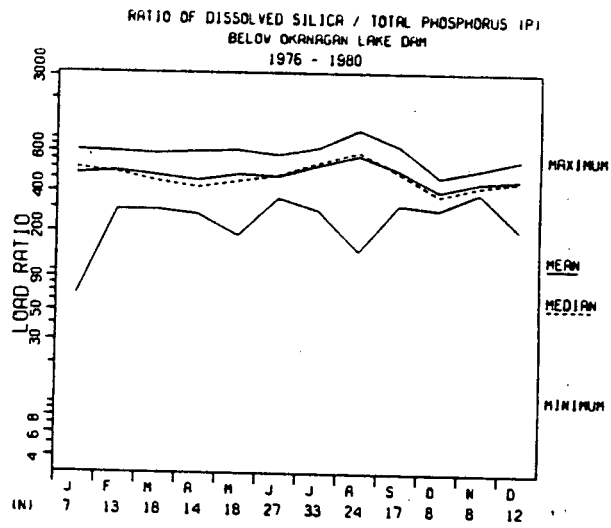
SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
1976 FEBRUARY	4	533.5500	608.910	570.170	39.4270	19.7135	± 62.7350
JULY	4	319.2100	696.200	556.760	164.2500	82.1250	± 261.3650
AUGUST	2	569.2300	623.600	596.410	38.4420	27.1826	± 345.3850
DECEMBER	4	290.2200	443.890	398.760	72.6370	36.3185	± 115.5851
1977 MARCH	5	362.5801	431.210	399.090	25.6840	11.4862	± 31.8900
APRIL	6	419.3501	825.690	655.970	179.0800	73.1091	± 187.9299
MAY	18	359.3799	691.230	515.960	87.1090	20.5318	± 43.3151
JUNE	13	289.3101	861.480	638.080	155.4700	43.1196	± 93.9551
JULY	13	685.5300	1174.600	864.010	120.1800	33.3319	± 72.6250
AUGUST	2	375.4500	518.330	446.890	101.0300	71.4390	± 907.7100
OCTOBER	1	396.0901	396.090	396.090			
NOVEMBER	7	321.6799	701.030	535.490	142.2300	53.7579	± 131.5400
1978 DECEMBER	4	66.8200	814.810	521.780	320.5901	160.2950	± 510.1294
JANUARY	10	290.1399	797.100	588.990	181.2000	57.3005	± 129.6300
FEBRUARY	14	433.0000	779.310	601.650	123.5300	37.2457	± 82.9900
MARCH	5	396.9600	804.750	612.890	152.3300	68.1241	± 189.1500
APRIL	10	351.8101	778.300	529.590	124.0300	39.2217	± 88.7250
MAY	7	400.6499	760.260	557.800	108.1700	40.8844	± 100.0400
JUNE	11	590.2500	783.020	703.200	56.2420	16.9576	± 37.7850
JULY	6	142.7700	1012.300	735.180	320.2800	130.7538	± 336.1150
AUGUST	9	454.9099	884.080	651.700	159.7200	53.2400	± 122.7700
SEPTEMBER	2	361.6201	467.830	414.730	75.1020	53.1051	± 674.7700
OCTOBER	3	423.6599	510.750	456.250	47.5000	27.4241	± 118.0000
NOVEMBER	1	207.3200	207.320	207.320			
DECEMBER	2	597.3601	689.550	643.460	65.1900	46.0963	± 585.7263
1979 JANUARY	2	419.3501	520.180	469.770	71.2940	50.4125	± 640.5398
FEBRUARY	2	331.1299	331.130	331.130			
MARCH	2	269.5200	449.400	359.460	127.1900	89.9369	± 1142.7549
APRIL	1	302.3799	302.380	302.380			
MAY	2	322.2200	399.080	360.650	54.3480	38.4298	± 488.2998
JULY	3	404.9600	656.470	493.810	141.0700	81.4468	± 350.4299
AUGUST	2	464.3999	480.790	472.590	11.5900	8.1954	± 104.1350
SEPTEMBER	2	410.1699	517.100	463.630	75.6100	53.4644	± 679.3499
OCTOBER	2	446.2200	461.810	454.010	11.0240	7.7951	± 99.0500
NOVEMBER							
DECEMBER							

STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF DISSOLVED SILICA / TOTAL PHOSPHORUS (P)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
1980 JANUARY	1	424.0801	424.080	424.080			
FEBRUARY	1	537.1201	537.120	537.120			
MARCH	2	365.4500	531.250	448.350	117.2400	82.9012	± 1053.3550
APRIL	2	502.0200	548.810	525.420	33.0870	23.3960	± 297.2749
MAY	1	187.5000	187.500	187.500			
JUNE	2	418.6899	499.210	458.950	56.9420	40.2641	± 511.6003
JULY	3	480.9500	698.230	594.240	108.9400	62.8965	± 270.6150
AUGUST	2	316.0000	524.460	420.230	147.4000	104.2276	± 1324.3699
SEPTEMBER	2	377.8401	468.750	423.290	64.2850	45.4564	± 577.5898
OCTOBER	2	294.5701	300.530	297.550	4.2211	2.9848	± 37.9299
NOVEMBER	2	544.1399	594.300	569.220	35.4730	25.0832	± 318.7100
DECEMBER	2	384.7600	489.540	437.150	74.0930	52.3917	± 665.7197

STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF DISSOLVED SILICA / TOTAL PHOSPHORUS (P)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
- 78-79-80 JANUARY	7	66.8200	814.810	542.590	241.0800	91.1197	± 222.9601
1976- -78-79-80 FEBRUARY	13	290.1399	797.100	566.660	164.6300	45.6601	± 99.4850
-77-78-79-80 MARCH	18	290.2200	779.310	524.500	145.5000	34.2947	± 72.3501
-77-78-79-80 APRIL	14	269.5200	804.750	487.830	143.0700	38.2371	± 82.6050
-77-78-79-80 MAY	18	187.5000	825.690	540.090	181.7100	42.8295	± 90.3600
-77-78- -80 JUNE	27	359.3799	760.260	522.590	91.9890	17.7033	± 36.3900
1976-77-78-79-80 JULY	33	289.3101	861.480	630.760	134.1700	23.3560	± 47.5801
1976-77-78-79-80 AUGUST	24	142.7700	1174.600	748.540	240.6900	49.1306	± 101.6350
1976- -78-79-80 SEPTEMBER	17	319.2100	884.080	581.420	160.0500	38.8178	± 82.2900
-77-78-79-80 OCTOBER	8	294.5701	518.330	405.700	88.8370	31.4086	± 74.2700
-77-78-79-80 NOVEMBER	8	396.0901	594.300	476.410	67.3940	23.8274	± 56.3400
1976-77-78-79-80 DECEMBER	12	207.3200	701.030	501.910	150.5400	43.4571	± 95.6450



STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF DISSOLVED SILICA / TOTAL PHOSPHORUS (P)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
1976 FEB JUL AUG SEP DEC	10	319.2100	696.200	570.050	99.5410	31.4776	± 71.2050
1977 MAR APR MAY JUN JUL AUG OCT NOV DEC	69	289.3101	1174.600	599.700	190.0100	22.8745	± 45.6450
1978 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC	79	66.8200	1012.300	598.450	176.9000	19.9028	± 39.6250
1979 JAN FEB MAR APR MAY JUN AUG SEP OCT NOV DEC	19	269.5200	689.550	450.640	111.8800	25.6670	± 53.9250
1980 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC	22	187.5000	698.230	458.720	119.9900	25.5820	± 53.1949

STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF DISSOLVED SILICA / TOTAL PHOSPHORUS (P)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
APRIL TO SEPTEMBER							
1976	8	319.2100	696.200	563.470	110.8200	39.1808	± 92.6450
1977	55	289.3101	1174.600	631.740	191.1300	25.7720	± 51.6699
1978	48	142.7700	1012.300	630.760	167.4900	24.1751	± 48.6300
1979	10	269.5200	656.470	416.920	110.0800	34.8103	± 78.7450
1980	12	187.5000	698.230	468.830	133.3900	38.5064	± 84.7550
1976-80	133	142.7700	1174.600	596.430	181.1800	15.7103	± 31.0800
OCTOBER TO MARCH							
1976-77	6	290.2200	623.600	464.640	117.8100	48.0957	± 123.6350
1977-78	35	66.8200	814.810	560.960	169.6000	28.6676	± 58.2600
1978-79	11	207.3200	689.550	451.190	130.6600	39.3955	± 87.7800
1979-80	8	365.4500	537.120	461.650	62.2990	22.0260	± 52.0850
1980-81	6	294.5701	594.300	434.640	126.9600	51.8312	± 133.2301
1976-80	66	66.8200	814.810	510.390	152.9200	18.8231	± 37.5950
APRIL TO MARCH							
1976-80	199	66.8200	1174.600	567.890	176.6700	12.5238	± 24.6951

STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF DISSOLVED SILICA / TOTAL PHOSPHORUS (P)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
1976 FEB JUL AUG SEP DEC	199	66.8200	1174.600	567.890	176.6700	12.5238	± 24.6951
1977 MAR APR MAY JUN JUL AUG OCT NOV DEC							
1978 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC							
1979 JAN FEB MAR APR MAY JUN AUG SEP OCT NOV DEC							
1980 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC							

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OKANAGAN RIVER BELOW OKANAGAN LAKE

Statistical Characteristics of Nutrient Loads

Period of Sampling February 1976 to December 1980.

RATIO OF DISSOLVED SILICA TO TOTAL PHOSPHORUS (P)

Median loads and their statistical characteristics determined for

Individual Months	543
All Months	545
Individual Years	546
Seasons	547
April to September	
October to March	
April to March	
All Years	548

STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF DISSOLVED SILICA / TOTAL PHOSPHORUS (P)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN	CONFIDENCE INTERVAL LOWER	CONFIDENCE INTERVAL UPPER	PROBABILITY LEVEL
1976 FEBRUARY	4	538.960			
JULY					
AUGUST	4	594.590			
SEPTEMBER	2	569.230			
DECEMBER	4	430.260			
1977 MARCH	5	406.500		362.5801	0.969
APRIL	6	636.680	419.3501	825.6899	0.969
MAY	18	531.340	450.5701	559.8799	0.969
JUNE	13	682.240	545.4500	741.3101	0.978
JULY	13	851.850	765.9600	933.3301	0.978
AUGUST	2	375.450			
OCTOBER	1	396.090			
NOVEMBER	7	511.030	321.6799	701.0300	0.984
DECEMBER	4	568.270			
1978 JANUARY	10	588.710	293.7000	789.2900	0.979
FEBRUARY	11	575.270	475.3601	758.3999	0.961
MARCH	5	620.790		396.9600	0.969
APRIL	10	480.900	463.9199	701.0000	0.979
MAY	7	546.150	400.6499	760.2600	0.984
JUNE	11	704.070	661.1399	767.0300	0.961
JULY	6	763.060	142.7700	1012.3000	0.969
AUGUST	9	688.280	490.1599	861.5000	0.961
SEPTEMBER	2	361.620			
OCTOBER	3	434.340			
NOVEMBER	1	207.320			
DECEMBER	2	597.360			
1979 JANUARY	2	419.350			
FEBRUARY	1	331.130			
MARCH	2	269.520			
APRIL	1	302.380			
MAY	2	322.220			
JULY	3	420.000			
AUGUST	2	464.400			
SEPTEMBER	2	410.170			
OCTOBER	2	446.220			
NOVEMBER					
DECEMBER					

STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
RATIO OF DISSOLVED SILICA / TOTAL PHOSPHORUS (P)
SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN	CONFIDENCE INTERVAL LOWER	CONFIDENCE INTERVAL UPPER	PROBABILITY LEVEL
1980 JANUARY	1	424.080			
FEBRUARY	1	537.120			
MARCH	2	365.450			
APRIL	2	502.020			
MAY	1	187.500			
JUNE	2	418.690			
JULY	3	603.540			
AUGUST	2	316.000			
SEPTEMBER	2	377.840			
OCTOBER	2	294.570			
NOVEMBER	2	544.140			
DECEMBER	2	384.760			

STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF DISSOLVED SILICA / TOTAL PHOSPHORUS (P)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN	CONFIDENCE INTERVAL LOWER	CONFIDENCE INTERVAL UPPER	PROBABILITY LEVEL
-78-79-80 JANUARY	7	597.360	66.8200	814.8101	0.984
1976-78-79-80 FEBRUARY	13	550.510	419.3501	717.1101	0.978
-77-78-79-80 MARCH	18	475.360	430.6599	668.7900	0.969
-77-78-79-80 APRIL	14	431.210	396.9600	620.7900	0.965
-77-78-79-80 MAY	18	480.900	463.9199	701.0000	0.969
-77-78-80 JUNE	27	531.340	478.6799	559.8799	0.964
1976-77-78-79-80 JULY	33	661.140	599.2800	704.0701	0.965
1976-77-78-79-80 AUGUST	24	799.320	685.5300	899.5801	0.957
1976-78-79-80 SEPTEMBER	17	554.620	468.7500	695.8101	0.951
-77-78-79-80 OCTOBER	8	375.450	300.5300	518.3301	0.961
-77-78-79-80 NOVEMBER	8	446.220	423.6599	594.3000	0.961
1976-77-78-79-80 DECEMBER	12	489.540	384.7600	627.8000	0.961

STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF DISSOLVED SILICA / TOTAL PHOSPHORUS (P)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN	CONFIDENCE INTERVAL LOWER	CONFIDENCE INTERVAL UPPER	PROBABILITY LEVEL
1976 FEB JUL AUG SEP DEC	10	594.590	533.5500	623.6001	0.979
1977 MAR APR MAY JUN JUL AUG OCT NOV DEC	69	559.880	512.1101	682.2400	0.959
1978 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC	79	590.250	549.0701	677.2200	0.958
1979 JAN FEB MAR APR MAY JUL AUG SEP OCT NOV DEC	19	446.220	404.9600	517.1001	0.959
1980 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC	22	480.950	384.7600	537.1201	0.965

STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF DISSOLVED SILICA / TOTAL PHOSPHORUS (P)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN	CONFIDENCE INTERVAL LOWER	CONFIDENCE INTERVAL UPPER	PROBABILITY LEVEL
APRIL TO SEPTEMBER					
1976	8	594.590	533.5500	696.2000	0.961
1977	55	613.640	538.6101	729.1699	0.956
1978	48	653.210	554.6201	701.0000	0.956
1979	10	404.960	302.3799	480.7900	0.979
1980	12	480.950	377.8401	548.8101	0.961
1976-80	133	590.190	538.6101	620.7900	0.953
OCTOBER TO MARCH					
1976-77	6	430.660	290.2200	623.6001	0.969
1977-78	35	568.270	511.0300	668.7900	0.959
1978-79	11	434.340	361.6201	597.3601	0.961
1979-80	8	446.220	410.1699	537.1201	0.961
1980-81	6	384.760	294.5701	594.3000	0.969
1976-80	66	511.030	461.8101	549.0701	0.950
APRIL TO MARCH					
1976-80	199	547.500	524.4600	590.1899	0.953

STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
RATIO OF DISSOLVED SILICA / TOTAL PHOSPHORUS (P)
SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN	CONFIDENCE INTERVAL LOWER	CONFIDENCE INTERVAL UPPER	PROBABILITY LEVEL
1976 FEB JUL AUG SEP DEC					
1977 MAR APR MAY JUN JUL AUG OCT NOV DEC					
1978 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC					
1979 JAN FEB MAR APR MAY JUN AUG SEP OCT NOV DEC					
1980 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC	199	547.500	524.4600	590.1899	0.953

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OKANAGAN RIVER BELOW OKANAGAN LAKE

Statistical Characteristics of Nutrient Concentrations

Period of Sampling February 1976 to December 1980.

RATIO OF DISSOLVED SILICA TO TOTAL DISSOLVED PHOSPHORUS (P)

Arithmetic mean concentrations and their statistical characteristics determined for:

Individual Months	550
All Months	552
Graph of monthly concentration ranges	553
Individual Years	554
Seasons	555
April to September	
October to March	
April to March	
All Years	556
Histogram of concentration distribution	557

STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF DISSOLVED SILICA / TOTAL DISSOLVED PHOSPHORUS (P)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
1976 FEBRUARY	18	642.8601	1150.000	833.310	148.6400	35.0348	± 73.9150
JULY							
AUGUST							
SEPTEMBER	18	522.2200	1250.000	985.570	243.9800	57.5066	± 121.3250
DECEMBER	24	685.7100	1200.000	981.310	158.6900	32.3925	± 67.0000
1977 MARCH	12	1200.0000	1200.000	1200.000			
APRIL							
MAY	26	671.4299	1566.700	1107.800	211.3000	41.4393	± 85.3500
JUNE	61	383.3301	1600.000	1131.600	282.5000	36.1704	± 72.3500
JULY	48	783.3301	1566.700	1398.900	216.2800	31.2173	± 62.7999
AUGUST	44	940.0000	2400.000	1541.400	283.5100	43.0423	± 86.7999
OCTOBER	4	600.0000	1200.000	990.000	285.5000	141.7750	± 451.1948
NOVEMBER	4	442.8601	1633.300	1335.700	595.2400	297.6199	± 947.1699
DECEMBER	22	555.5601	2500.000	1604.400	450.9399	96.1407	± 199.9500
1978 JANUARY	4	90.0000	1700.000	1178.800	759.7949	379.7949	± 1208.6614
FEBRUARY	30	587.5000	1700.000	1267.500	393.0801	71.7663	± 146.8000
MARCH	40	700.0000	2550.000	1707.100	545.3301	86.2242	± 174.4000
APRIL	20	100.0000	2250.000	1656.700	544.7100	121.8009	± 254.9501
MAY	30	1000.0000	2550.000	1870.300	465.9500	85.0704	± 174.0000
JUNE	24	833.3301	1566.700	1283.200	208.9000	42.6415	± 88.2000
JULY	40	860.0000	2100.000	1434.000	303.2300	47.9449	± 97.0000
AUGUST	24	716.6699	2150.000	1402.100	393.0300	80.2269	± 165.9500
SEPTEMBER	25	628.5701	2200.000	1185.000	398.8401	79.7680	± 164.6001
OCTOBER	7	346.1499	1533.300	1016.000	445.2000	168.2698	± 411.7200
NOVEMBER	8	960.0000	1300.000	1074.400	133.1900	47.0898	± 111.3350
DECEMBER	2	612.5000	625.000	618.750	8.8388	6.2500	± 79.4099
1979 JANUARY	7	816.6699	1666.700	1288.800	372.8501	140.9241	± 344.8101
FEBRUARY	6	700.0000	1200.000	943.330	215.5600	88.0020	± 226.2400
MARCH	3	1225.0000	1633.300	1361.100	235.7500	136.1103	± 585.6150
APRIL	4	1500.0000	2250.000	2062.500	375.0000	187.5000	± 596.7000
MAY	4	980.0000	1533.300	1184.600	240.9600	120.4800	± 383.4199
JULY	8	571.4299	1050.000	734.110	166.9200	59.0151	± 139.5549
AUGUST	8	840.0000	1433.300	1105.000	196.2600	69.3884	± 164.0901
SEPTEMBER	8	537.5000	733.330	645.160	69.0800	24.4235	± 57.7550
OCTOBER	8	550.0000	1075.000	705.680	184.6500	65.2836	± 154.3750
NOVEMBER	8	587.5000	860.000	698.420	99.7220	35.2570	± 83.3700
DECEMBER							

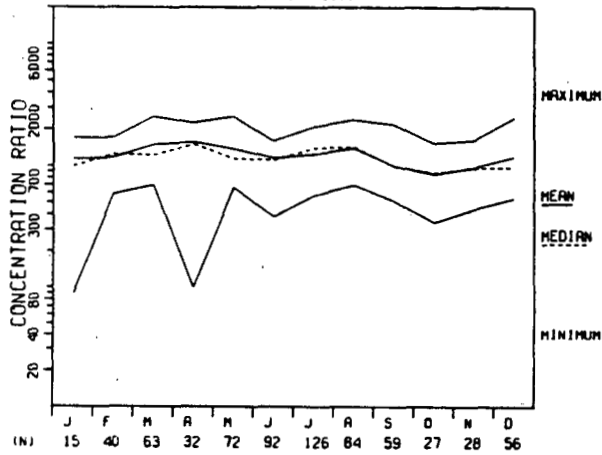
STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF DISSOLVED SILICA / TOTAL DISSOLVED PHOSPHORUS (P)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
1980 JANUARY	4	783.3301	920.000	851.670	78.9050	39.4525	± 125.5549
FEBRUARY	4	766.6699	900.000	800.000	66.6670	33.3335	± 106.0801
MARCH	8	733.3301	1500.000	978.330	253.1300	89.4950	± 211.6450
APRIL	8	488.8899	1466.700	1074.400	357.2600	126.3105	± 298.6650
MAY	12	683.3301	900.000	797.500	79.3550	22.9078	± 50.4199
JUNE	7	860.0000	1100.000	1020.700	110.3600	41.7122	± 102.0751
JULY	12	716.6699	1400.000	1031.800	249.0500	71.8945	± 158.2150
AUGUST	8	700.0000	1100.000	916.250	147.1300	52.0183	± 123.0300
SEPTEMBER	8	700.0000	1075.000	873.960	164.3200	58.0959	± 137.3600
OCTOBER	8	733.3301	900.000	818.330	82.4620	29.1547	± 68.9401
NOVEMBER	8	766.6699	1250.000	977.080	137.7100	48.6878	± 115.1200
DECEMBER	8	544.4399	960.000	814.310	128.5700	45.4563	± 107.4850

STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF DISSOLVED SILICA / TOTAL DISSOLVED PHOSPHORUS (P)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
-78-79-80 JANUARY	15	90.0000	1700.000	1142.900	468.8201	121.0488	± 259.6199
1976-78-79-80 FEBRUARY	40	587.5000	1700.000	1172.100	387.8799	61.3292	± 124.0499
-77-78-79-80 MARCH	63	700.0000	2550.000	1501.500	526.5200	66.3353	± 132.6001
-77-78-79-80 APRIL	32	100.0000	2250.000	1561.800	568.9700	100.5806	± 205.1500
-77-78-79-80 MAY	72	671.4299	2550.000	1378.100	544.0801	64.1205	± 127.8500
-77-78-80 JUNE	92	383.3301	1600.000	1162.700	265.4800	27.6782	± 55.0000
1976-77-78-79-80 JULY	126	571.4299	2100.000	1252.100	349.6499	31.1493	± 61.6500
1976-77-78-79-80 AUGUST	84	700.0000	2400.000	1400.500	362.8501	39.5902	± 78.7500
1976-78-79-80 SEPTEMBER	59	522.2200	2200.000	1008.800	348.4299	45.3617	± 90.8051
-77-78-79-80 OCTOBER	27	346.1499	1533.300	861.630	288.1599	55.4564	± 113.9950
-77-78-79-80 NOVEMBER	28	442.8601	1633.300	976.500	310.3701	58.6544	± 120.3251
1976-77-78-79-80 DECEMBER	56	544.4399	2500.000	1189.300	458.6699	61.2923	± 122.8000

RATIO OF DISSOLVED SILICA / TOTAL DISSOLVED PHOSPHORUS (P)
BELOW OKANAGAN LAKE DAM
1976 - 1980



STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF DISSOLVED SILICA / TOTAL DISSOLVED PHOSPHORUS (P)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

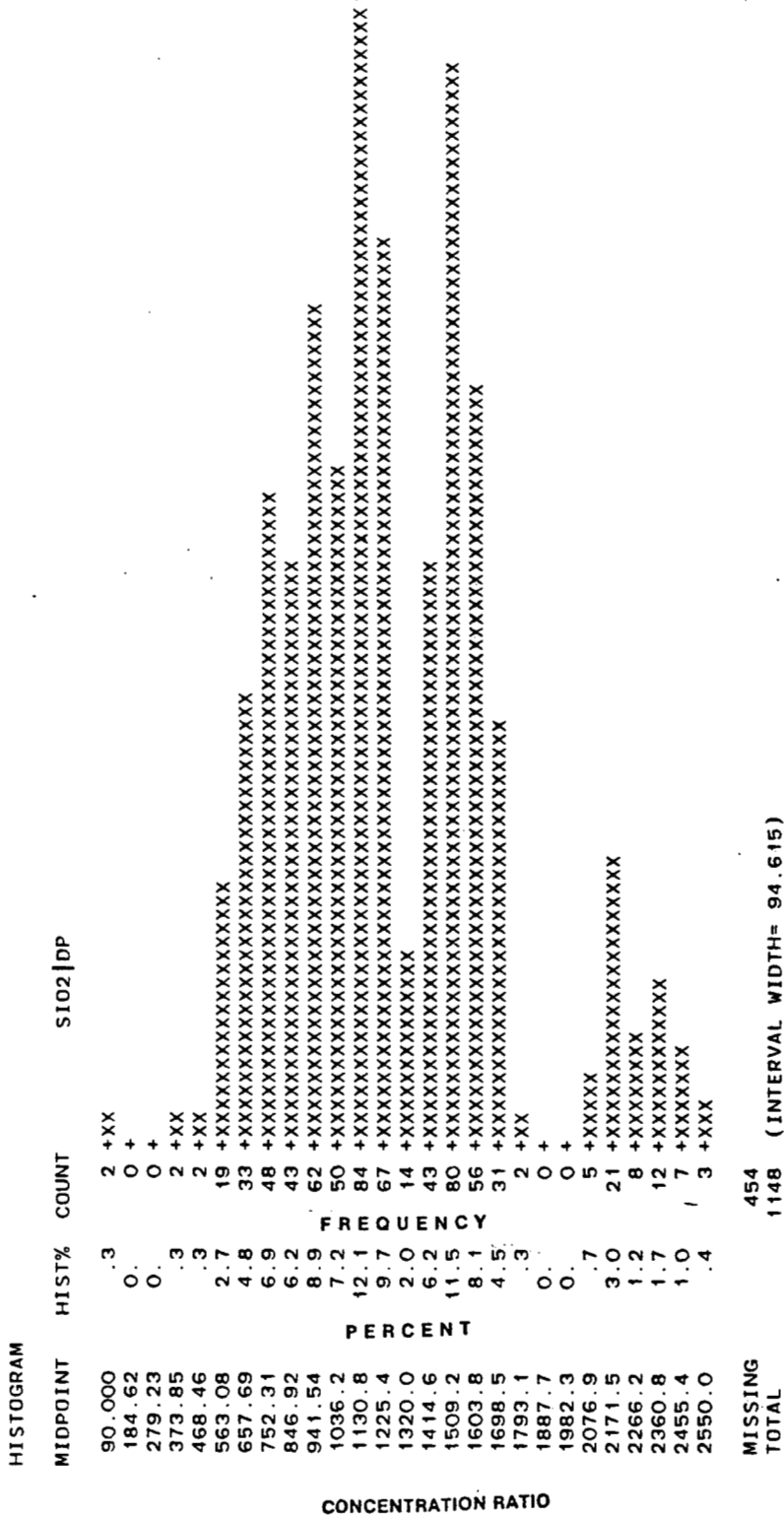
SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
1976 FEB JUL AUG SEP DEC	60	522.2200	1250.000	938.190	195.2700	25.2092	± 50.4449
1977 MAR APR MAY JUN JUL AUG OCT NOV DEC	221	383.3301	2500.000	1320.400	339.5500	22.8406	± 45.0000
1978 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC	254	90.0000	2550.000	1451.300	484.6499	30.4096	± 59.8500
1979 JAN FEB MAR APR MAY JUN AUG SEP OCT NOV DEC	64	537.5000	2250.000	982.190	423.2800	52.9100	± 105.7200
1980 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC	95	488.8899	1500.000	919.210	199.6200	20.4806	± 40.6649

STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF DISSOLVED SILICA / TOTAL DISSOLVED PHOSPHORUS (P)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
APRIL TO SEPTEMBER							
1976	36	522.2200	1250.000	909.440	213.5500	35.5917	± 72.2600
1977	179	383.3301	2400.000	1300.600	312.0601	23.3245	± 46.0500
1978	163	100.0000	2550.000	1476.500	447.3601	35.0399	± 69.2000
1979	32	537.5000	2250.000	1027.000	488.0500	86.2759	± 175.9550
1980	55	488.8899	1466.700	945.710	220.7400	29.7646	± 59.6849
1976-80	465	100.0000	2550.000	1271.200	417.3999	19.3564	± 38.0499
OCTOBER TO MARCH							
1976-77	36	685.7100	1200.000	1054.200	165.7700	27.6283	± 56.0900
1977-78	104	90.0000	2550.000	1496.400	526.2100	51.5991	± 102.3500
1978-79	33	346.1499	1666.700	1082.100	335.3999	58.3856	± 118.9100
1979-80	32	550.0000	1500.000	802.070	197.3600	34.8886	± 71.1550
1980-81	24	544.4399	1250.000	869.910	137.3600	28.0385	± 58.0000
1976-80	229	90.0000	2550.000	1204.500	481.0500	31.7887	± 62.6001
APRIL TO MARCH							
1976-80	694	90.0000	2550.000	1249.200	440.1899	16.7094	± 32.8000

STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF DISSOLVED SILICA / TOTAL DISSOLVED PHOSPHORUS (P)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
1976 FEB JUL AUG SEP DEC							
1977 MAR APR MAY JUN JUL AUG OCT NOV DEC							
1978 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC							
1979 JAN FEB MAR APR MAY JUN AUG SEP OCT NOV DEC							
1980 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC							
	694	90.0000	2550.000	1249.200	440.1899	16.7094	± 32.8000



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OKANAGAN RIVER BELOW OKANAGAN LAKE

Statistical Characteristics of Nutrient Concentrations

Period of Sampling February 1976 to December 1980.

RATIO OF DISSOLVED SILICA TO TOTAL DISSOLVED PHOSPHORUS (P)

Median concentrations and their statistical characteristics determined for

Individual Months	559
All Months	561
Individual Years	562
Seasons	563
April to September	
October to March	
April to March	
All Years	564
Cumulative distribution of concentration data	565

STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF DISSOLVED SILICA / TOTAL DISSOLVED PHOSPHORUS (P)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN	CONFIDENCE INTERVAL LOWER	CONFIDENCE INTERVAL UPPER	PROBABILITY LEVEL
1976 FEBRUARY	18	766.670	750.0000	900.0000	0.969
JULY					
AUGUST	18	940.000	783.3301	1250.0000	0.969
SEPTEMBER	24	960.000	960.0000	980.0000	0.957
DECEMBER	12	1200.000	1200.0000	1200.0000	0.961
1977 MARCH					
APRIL					
MAY	26	1150.000	940.0000	1175.0000	0.971
JUNE	61	1125.000	1100.0000	1150.0000	0.960
JULY	48	1500.000	1500.0000	1533.3000	0.956
AUGUST	44	1566.700	1533.3000	1600.0000	0.951
OCTOBER	4	960.000			
NOVEMBER	4	1633.300			
DECEMBER	22	1666.700	1250.0000	1666.7000	0.965
1978 JANUARY	4	1225.000			
FEBRUARY	30	1275.000	1250.0000	1666.7000	0.957
MARCH	40	1633.300	1225.0000	1700.0000	0.961
APRIL	20	1566.700	1500.0000	2150.0000	0.959
MAY	30	2150.000	1600.0000	2200.0000	0.957
JUNE	24	1200.000	1175.0000	1500.0000	0.957
JULY	40	1433.300	1400.0000	1433.3000	0.961
AUGUST	24	1400.000	1075.0000	1433.3000	0.957
SEPTEMBER	25	1075.000	1075.0000	1466.7000	0.957
OCTOBER	7	1125.000	346.1499	1533.3000	0.984
NOVEMBER	8	1020.000	1000.0000	1300.0000	0.961
DECEMBER	2	612.500			
1979 JANUARY	7	1225.000	816.6699	1666.7000	0.984
FEBRUARY	6	800.000	700.0000	1200.0000	0.969
MARCH	3	1225.000			
APRIL	4	2250.000			
MAY	4	1100.000			
JULY	8	700.000	585.7100	1050.0000	0.961
AUGUST	8	1025.000	1025.0000	1433.3000	0.961
SEPTEMBER	8	614.290	614.2900	733.3301	0.961
OCTOBER	8	614.290	550.0000	1075.0000	0.961
NOVEMBER	8	671.430	587.5000	860.0000	0.961
DECEMBER					

STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF DISSOLVED SILICA / TOTAL DISSOLVED PHOSPHORUS (P)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN	CONFIDENCE INTERVAL LOWER	CONFIDENCE INTERVAL UPPER	PROBABILITY LEVEL
1980 JANUARY	4	783.330			
FEBRUARY	4	766.670			
MARCH	8	880.000	733.3301	1500.0000	0.961
APRIL	8	880.000	880.0000	1466.7000	0.961
MAY	12	750.000	716.6699	860.0000	0.961
JUNE	7	1075.000	860.0000	1100.0000	0.984
JULY	12	860.000	840.0000	1400.0000	0.961
AUGUST	8	840.000	840.0000	1100.0000	0.961
SEPTEMBER	8	840.000	700.0000	1075.0000	0.961
OCTOBER	8	750.000	733.3301	900.0000	0.961
NOVEMBER	8	920.000	920.0000	1250.0000	0.961
DECEMBER	8	816.670	800.0000	960.0000	0.961

STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF DISSOLVED SILICA / TOTAL DISSOLVED PHOSPHORUS (P)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN	CONFIDENCE INTERVAL LOWER	CONFIDENCE INTERVAL UPPER	PROBABILITY LEVEL
- 78-79-80 JANUARY	15	1000.000	816.6699	1666.7000	0.965
1976- 78-79-80 FEBRUARY	40	1250.000	960.0000	1275.0000	0.961
-77-78-79-80 MARCH	63	1225.000	1225.0000	1633.3000	0.957
-77-78-79-80 APRIL	32	1500.000	1433.3000	2150.0000	0.965
-77-78-79-80 MAY	72	1150.000	1125.0000	1466.7000	0.956
-77-78- 80 JUNE	92	1125.000	1125.0000	1175.0000	0.953
1976-77-78-79-80 JULY	126	1400.000	1150.0000	1433.3000	0.960
1976-77-78-79-80 AUGUST	84	1433.300	1366.7000	1533.3000	0.962
1976- 78-79-80 SEPTEMBER	59	1000.000	840.0000	1075.0000	0.964
-77-78-79-80 OCTOBER	27	880.000	733.3301	960.0000	0.964
-77-78-79-80 NOVEMBER	28	960.000	783.3301	1020.0000	0.964
1976-77-78-79-80 DECEMBER	56	980.000	960.0000	1200.0000	0.956

STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF DISSOLVED SILICA / TOTAL DISSOLVED PHOSPHORUS (P)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

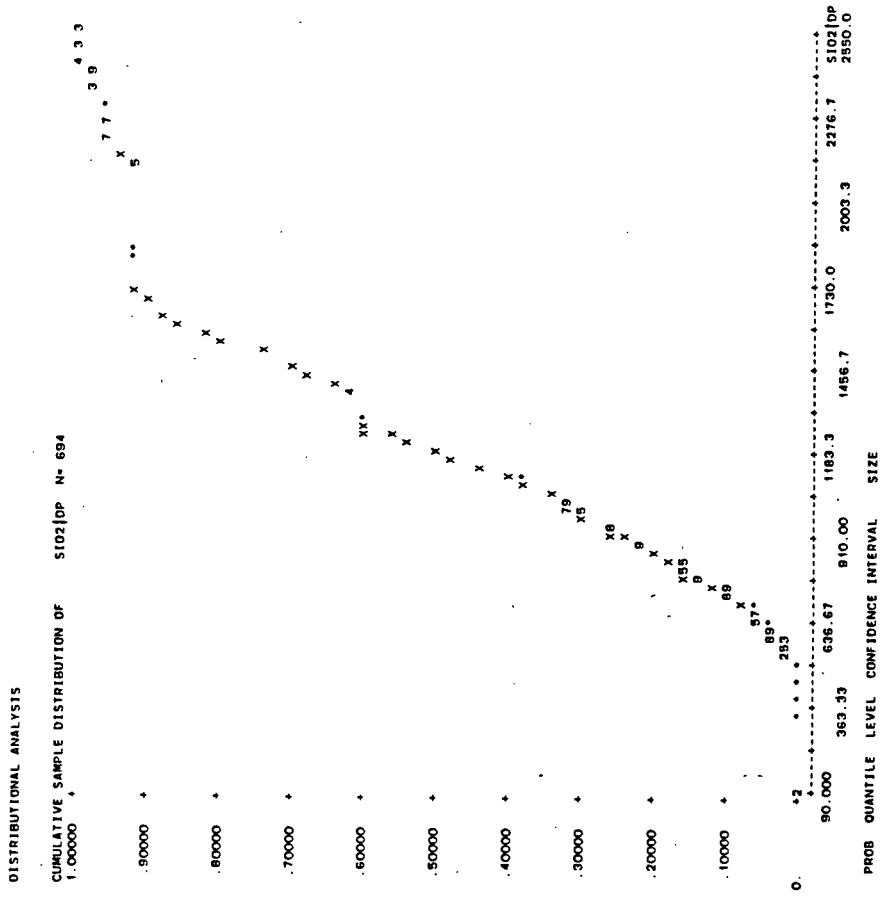
SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN	CONFIDENCE INTERVAL LOWER	CONFIDENCE INTERVAL UPPER	PROBABILITY LEVEL
1976 FEB JUL AUG SEP DEC	60	960.000	900.0000	960.0000	0.960
1977 MAR APR MAY JUN JUL AUG OCT NOV DEC	221	1250.000	1200.0000	1500.0000	0.957
1978 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC	254	1433.300	1400.0000	1433.3000	0.955
1979 JAN FEB MAR APR MAY JUL AUG SEP OCT NOV DEC	64	840.000	733.3301	1025.0000	0.954
1980 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC	95	880.000	840.0000	900.0000	0.960

STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF DISSOLVED SILICA / TOTAL DISSOLVED PHOSPHORUS (P)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN	CONFIDENCE INTERVAL LOWER	CONFIDENCE INTERVAL UPPER	PROBABILITY LEVEL
APRIL TO SEPTEMBER					
1976	36	900.000	783.3301	940.0000	0.953
1977	179	1225.000	1175.0000	1500.0000	0.956
1978	163	1433.300	1400.0000	1433.3000	0.959
1979	32	840.000	716.6699	1075.0000	0.965
1980	55	860.000	860.0000	1050.0000	0.956
1976-80	465	1175.000	1150.0000	1250.0000	0.954
OCTOBER TO MARCH					
1976-77	36	980.000	960.0000	1200.0000	0.953
1977-78	104	1600.000	1275.0000	1633.3000	0.961
1978-79	33	1020.000	960.0000	1225.0000	0.965
1979-80	32	766.670	733.3301	880.0000	0.965
1980-81	24	880.000	800.0000	920.0000	0.957
1976-80	229	1200.000	1020.0000	1200.0000	0.953
APRIL TO MARCH					
1976-80	694	1200.000	1150.0000	1200.0000	0.951

STATISTICAL CHARACTERISTICS OF NUTRIENT CONCENTRATION FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF DISSOLVED SILICA / TOTAL DISSOLVED PHOSPHORUS (P)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	CONFIDENCE INTERVAL		PROBABILITY LEVEL
		MEDIAN	UPPER	
1976 FEB JUL AUG SEP DEC				
1977 MAR APR MAY JUN JUL AUG OCT NOV DEC				
1978 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC				
1979 JAN FEB MAR APR MAY JUN AUG SEP OCT NOV DEC				
1980 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC	694	1200.000	1150.0000	1200.0000
				0.951



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OKANAGAN RIVER BELOW OKANAGAN LAKE

Statistical Characteristics of Nutrient Loads

Period of Sampling February 1976 to December 1980.

RATIO OF DISSOLVED SILICA TO TOTAL DISSOLVED PHOSPHORUS (P)

Arithmetic mean loads and their statistical characteristics determined for

Individual Months	567
All Months	569
Graph of monthly load ranges	570
Individual Years	571
Seasons	572
April to September	
October to March	
April to March	
All Years	573

STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF DISSOLVED SILICA / TOTAL DISSOLVED PHOSPHORUS (P)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
1976 FEBRUARY	2	757.9900	891.300	824.650	94.2670	66.6568	± 846.9534
JULY							
AUGUST	1	913.3899	913.390	913.390			
SEPTEMBER	1	956.8999	956.900	956.900			
DECEMBER	1	1197.3999	1197.400	1197.400			
1977 MARCH							
APRIL							
MAY	6	984.4600	1238.700	1088.400	91.8800	37.5099	± 96.4000
JUNE	18	692.7700	1419.400	1117.300	226.4100	53.3653	± 112.6000
JULY	13	1086.0000	1535.100	1369.900	151.3100	41.9658	± 91.4000
AUGUST	13	1111.1001	1697.000	1497.200	161.0200	44.6589	± 97.3000
OCTOBER	2	662.9199	1198.800	930.880	378.9399	267.9509	± 3404.6992
NOVEMBER	1	1109.6001	1109.600	1109.600			
DECEMBER	7	666.6699	1825.300	1449.800	382.5801	144.6017	± 353.8499
1978 JANUARY	4	90.0620	1703.200	1178.800	760.1699	380.0850	± 1209.6018
FEBRUARY	10	587.3899	1674.200	1255.400	387.4600	122.5256	± 277.1851
MARCH	11	982.0400	2413.800	1601.700	442.4299	133.3976	± 297.2000
APRIL	5	1324.2000	2151.900	1626.200	315.2300	140.9751	± 391.3999
MAY	10	1145.5000	2397.800	1829.300	394.8201	124.8531	± 282.4500
JUNE	7	1114.0000	1519.900	1256.800	149.6700	56.5699	± 138.4000
JULY	11	1106.2000	1864.600	1409.300	221.6800	66.8390	± 148.9000
AUGUST	6	987.8899	1907.300	1360.300	316.3799	129.1615	± 332.0000
SEPTEMBER	9	799.7300	1474.200	1064.000	254.8900	84.9633	± 195.9399
OCTOBER	2	649.5100	1070.400	859.960	297.6101	210.4422	± 2673.9492
NOVEMBER	3	979.6201	1132.300	1043.400	79.3690	45.8237	± 197.1700
DECEMBER	1	618.1799	618.180	618.180			
1979 JANUARY	2	983.7000	1425.900	1204.800	312.7000	221.1123	± 2809.5000
FEBRUARY	2	772.2800	1013.100	892.690	170.2900	120.4132	± 1529.9949
MARCH	1	1303.0000	1303.000	1303.000			
APRIL	2	1802.5000	2239.300	2020.900	308.8401	218.3830	± 2774.8496
MAY	1	1151.1001	1151.100	1151.100			
JULY	2	605.7400	839.770	722.760	165.4800	117.0121	± 1486.7600
AUGUST	3	840.0000	1134.300	1023.100	159.8000	92.2606	± 396.9651
SEPTEMBER	2	613.7600	665.650	639.710	36.6910	25.9444	± 329.6599
OCTOBER	2	661.2000	677.070	669.140	11.2200	7.9337	± 100.8049
NOVEMBER	2	647.3999	730.770	689.080	58.9520	41.6854	± 529.6399
DECEMBER							

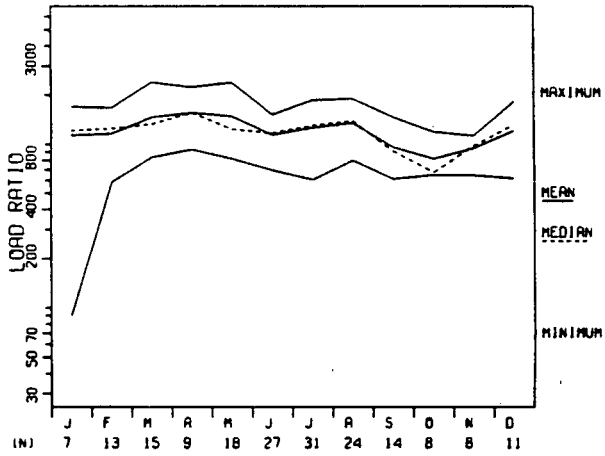
STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF DISSOLVED SILICA / TOTAL DISSOLVED PHOSPHORUS (P)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
1980 JANUARY	1	848.1699	848.170	848.170			
FEBRUARY	1	793.5500	793.550	793.550			
MARCH	2	836.0701	1057.700	946.880	156.7100	110.8107	± 1408.0198
APRIL	2	928.9700	976.530	952.750	33.6260	23.7772	± 302.1350
MAY	1	820.1399	820.140	820.140			
JUNE	2	1008.3000	1029.200	1018.800	14.7700	10.4440	± 132.7100
JULY	3	845.1101	1293.400	1016.200	242.3200	139.9035	± 601.9451
AUGUST	2	800.0000	1016.700	908.370	153.2600	108.3712	± 1376.9399
SEPTEMBER	2	772.3799	937.500	854.940	116.7600	82.5618	± 1049.0549
OCTOBER	2	769.8899	856.710	813.300	61.3920	43.4107	± 551.5950
NOVEMBER	2	873.7900	1063.100	968.450	133.8700	94.6604	± 1202.7649
DECEMBER	2	724.9500	872.570	798.760	104.3800	73.8078	± 937.8298

STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF DISSOLVED SILICA / TOTAL DISSOLVED PHOSPHORUS (P)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
-78-79-80 JANUARY	7	90.0620	1703.200	1139.000	567.3000	214.4193	± 524.6799
1976-78-79-80 FEBRUARY	13	587.3899	1674.200	1164.100	381.6799	105.8589	± 230.6350
-77-78-79-80 MARCH	15	836.0701	2413.800	1467.500	448.9800	115.9261	± 248.6500
-77-78-79-80 APRIL	9	928.9700	2239.300	1564.300	458.0100	152.6700	± 352.0500
-77-78-79-80 MAY	18	820.1399	2397.800	1488.600	492.7300	116.1376	± 245.0500
-77-78-80 JUNE	27	692.7700	1519.900	1146.200	209.3200	40.2836	± 82.8000
1976-77-78-79-80 JULY	31	605.7400	1864.600	1272.700	285.8799	51.3455	± 104.8501
1976-77-78-79-80 AUGUST	24	800.0000	1907.300	1354.600	285.7800	58.3346	± 120.6500
1976-78-79-80 SEPTEMBER	14	613.7600	1474.200	962.790	257.4199	68.7984	± 148.6200
-77-78-79-80 OCTOBER	8	649.5100	1198.800	818.320	210.2500	74.3346	± 175.7750
-77-78-79-80 NOVEMBER	8	647.3999	1132.300	944.360	178.1800	62.9961	± 148.9451
1976-77-78-79-80 DECEMBER	11	618.1799	1825.300	1211.000	452.1299	136.3223	± 303.7549

RATIO OF DISSOLVED SILICA / TOTAL DISSOLVED PHOSPHORUS (P)
BELOW OKANAGAN LAKE DAM
1976 - 1980



STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF DISSOLVED SILICA / TOTAL DISSOLVED PHOSPHORUS (P)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
1976 FEB JUL AUG SEP DEC	4	757.9900	956.900	879.890	85.7160	42.8580	± 136.4000
1977 MAR APR MAY JUN JUL AUG OCT NOV DEC	61	662.9199	1825.300	1282.500	271.3401	34.7415	± 69.5000
1978 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC	79	90.0620	2413.800	1377.400	427.3701	48.0829	± 95.7500
1979 JAN FEB MAR APR MAY JUN AUG SEP OCT NOV DEC	19	605.7400	2239.300	1010.600	436.9600	100.2455	± 210.5950
1980 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC	22	724.9500	1293.400	910.670	130.6900	27.8632	± 57.9501

STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF DISSOLVED SILICA / TOTAL DISSOLVED PHOSPHORUS (P)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
APRIL TO SEPTEMBER							
1976	3	757.9900	913.390	854.230	84.0710	48.5384	± 208.8601
1977	50	692.7700	1697.000	1278.300	243.8800	34.4898	± 69.3000
1978	48	799.7300	2397.800	1426.300	377.0400	54.4210	± 109.5000
1979	10	605.7400	2239.300	1098.700	537.4900	169.9693	± 384.4900
1980	12	772.3799	1293.400	944.860	140.3200	40.5069	± 89.1500
1976-80	123	605.7400	2397.800	1278.600	358.4399	32.3194	± 63.9500
OCTOBER TO MARCH							
1976-77	2	956.8999	1197.400	1077.100	170.0400	120.2365	± 1527.7549
1977-78	35	90.0620	2413.800	1371.700	467.4700	79.0168	± 160.5499
1978-79	11	618.1799	1425.900	996.940	248.4500	74.9105	± 166.9349
1979-80	8	647.3999	1057.700	781.490	136.1600	48.1398	± 113.8351
1980-81	6	724.9500	1063.100	860.170	116.5900	47.5977	± 122.3550
1976-80	62	90.0620	2413.800	1170.000	440.3301	55.9220	± 111.8000
APRIL TO MARCH							
1976-80	185	90.0620	2413.800	1242.200	390.0100	28.6741	± 56.6000

STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF DISSOLVED SILICA / TOTAL DISSOLVED PHOSPHORUS (P)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MINIMUM	MAXIMUM	ARITHMETIC MEAN	STANDARD DEVIATION	STANDARD ERROR	95% CONF. INTERVAL
1976 FEB JUL AUG SEP DEC	185	90.0620	2413.800	1242.200	390.0100	28.6741	± 56.6000
1977 MAR APR MAY JUN JUL AUG OCT NOV DEC							
1978 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC							
1979 JAN FEB MAR APR MAY JUN AUG SEP OCT NOV DEC							
1980 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC							

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OKANAGAN RIVER BELOW OKANAGAN LAKE

Statistical Characteristics of Nutrient Loads

Period of Sampling February 1976 to December 1980.

RATIO OF DISSOLVED SILICA TO TOTAL DISSOLVED PHOSPHORUS (P)

Median loads and their statistical characteristics determined for

Individual Months	575
All Months	577
Individual Years	578
Seasons	579
April to September	
October to March	
April to March	
All Years	580

STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF DISSOLVED SILICA / TOTAL DISSOLVED PHOSPHORUS (P)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN	CONFIDENCE INTERVAL		PROBABILITY LEVEL
			LOWER	UPPER	
1976 FEBRUARY	2	757.990			
JULY					
AUGUST	1	913.390			
SEPTEMBER	1	956.900			
DECEMBER	1	1197.400			
1977 MARCH	1				
APRIL					
MAY	6	1042.800	984.4600	1238.7000	0.969
JUNE	18	1125.500	1006.8999	1340.1001	0.969
JULY	13	1386.400	1219.0000	1531.5000	0.978
AUGUST	13	1566.300	1380.5000	1597.1001	0.978
OCTOBER	2	662.920			
NOVEMBER	1	1109.600			
DECEMBER	7	1512.800	666.6699	1825.3000	0.984
1978 JANUARY	4	1222.200			
FEBRUARY	10	1270.400	588.5701	1661.6001	0.979
MARCH	11	1631.100	1296.3999	2003.6001	0.961
APRIL	5	1563.900		1324.2000	0.969
MAY	10	1898.000	1241.3999	2183.8000	0.979
JUNE	7	1224.100	1114.0000	1519.8999	0.984
JULY	11	1419.500	1213.8999	1691.7000	0.961
AUGUST	6	1317.000	987.8899	1907.3000	0.969
SEPTEMBER	9	953.760	861.5000	1465.1001	0.961
OCTOBER	2	649.510			
NOVEMBER	3	1018.300			
DECEMBER	1	618.180			
1979 JANUARY	2	983.700			
FEBRUARY	2	772.280			
MARCH	1	1303.000			
APRIL	2	1802.500			
MAY	1	1151.100			
JULY	2	605.740			
AUGUST	3	1095.100			
SEPTEMBER	2	613.760			
OCTOBER	2	661.200			
NOVEMBER	2	647.400			
DECEMBER	2				

STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF DISSOLVED SILICA / TOTAL DISSOLVED PHOSPHORUS (P)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN	CONFIDENCE INTERVAL LOWER	CONFIDENCE INTERVAL UPPER	PROBABILITY LEVEL
1980 JANUARY	1	848.170			
FEBRUARY	1	793.550			
MARCH	2	836.070			
APRIL	2	928.970			
MAY	1	820.140			
JUNE	2	1008.300			
JULY	3	909.910			
AUGUST	2	800.000			
SEPTEMBER	2	772.380			
OCTOBER	2	769.890			
NOVEMBER	2	873.790			
DECEMBER	2	724.950			

STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
 OKANAGAN RIVER BELOW OKANAGAN LAKE DAM
 RATIO OF DISSOLVED SILICA / TOTAL DISSOLVED PHOSPHORUS (P)
 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN	CONFIDENCE INTERVAL		PROBABILITY LEVEL
			LOWER	UPPER	
-78-79-80 JANUARY	7	1222.200	90.0620	1703.2000	0.984
1976-78-79-80 FEBRUARY	13	1252.900	772.2800	1531.5000	0.978
-77-78-79-80 MARCH	15	1335.500	1057.7000	1840.3999	0.965
-77-78-79-80 APRIL	9	1563.900	976.5300	2151.8999	0.961
-77-78-79-80 MAY	18	1238.700	1111.1001	1909.8000	0.969
-77-78-80 JUNE	27	1172.400	1065.8999	1259.6001	0.964
1976-77-78-79-80 JULY	31	1313.400	1201.1001	1432.3000	0.971
1976-77-78-79-80 AUGUST	24	1400.700	1134.3000	1567.6001	0.957
1976-78-79-80 SEPTEMBER	14	908.600	799.7300	1160.2000	0.965
-77-78-79-80 OCTOBER	8	677.070	661.2000	1198.8000	0.961
-77-78-79-80 NOVEMBER	8	979.620	730.7700	1132.3000	0.961
1976-77-78-79-80 DECEMBER	11	1318.800	724.9500	1690.0000	0.961

STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
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 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN	CONFIDENCE INTERVAL		PROBABILITY LEVEL
			LOWER	UPPER	
1976 FEB JUL AUG SEP DEC	4	891.300			
1977 MAR APR MAY JUN JUL AUG OCT NOV DEC	61	1312.800	1198.3000	1395.8000	0.960
1978 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC	79	1336.400	1251.3999	1434.6001	0.958
1979 JAN FEB MAR APR MAY JUL AUG SEP OCT NOV DEC	19	840.000	677.0701	1151.1001	0.959
1980 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC	22	872.570	836.0701	1008.3000	0.965

STATISTICAL CHARACTERISTICS OF NUTRIENT LOAD FOR SPECIFIED SAMPLING PERIOD AND NUMBER OF SAMPLES
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 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN	CONFIDENCE INTERVAL		PROBABILITY LEVEL
			LOWER	UPPER	
APRIL TO SEPTEMBER					
1976	3	891.300	1198.3000	1395.8000	0.951
1977	50	1286.200	1241.3999	1465.1001	0.956
1978	48	1400.700	613.7600	1802.5000	0.979
1979	10	840.000	820.1399	1016.7000	0.961
1980	12	928.970			
1976-80	123	1238.700	1151.1001	1347.3999	0.953
OCTOBER TO MARCH					
1976-77	2	956.900	1252.8999	1660.7000	0.959
1977-78	35	1336.400	772.2800	1303.0000	0.961
1978-79	11	1013.100	661.2000	1057.7000	0.961
1979-80	8	730.770	724.9500	1063.1001	0.969
1980-81	6	856.710			
1976-80	62	1109.600	983.7000	1296.3999	0.957
APRIL TO MARCH					
1976-80	185	1213.900	1134.3000	1296.3999	0.953

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 SIMULTANEOUS AND SEQUENTIAL SAMPLING METHODS

SAMPLING PERIOD	NUMBER OF SAMPLES	MEDIAN	CONFIDENCE INTERVAL LOWER	CONFIDENCE INTERVAL UPPER	PROBABILITY LEVEL
1976 FEB JUL AUG SEP DEC					
1977 MAR APR MAY JUN JUL AUG OCT NOV DEC					
1978 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC					
1979 JAN FEB MAR APR MAY JUN AUG SEP OCT NOV DEC					
1980 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC	185	1213.900	1134.3000	1296.3999	0.953