

**CANADA-NEWFOUNDLAND  
WATER QUALITY MONITORING  
AGREEMENT**

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**ANNUAL WORK SCHEDULE  
2000-2001**

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**Water Resources Management Division  
Department of Environment & Labour  
St. John's, Newfoundland**

**Ecosystem Science Division  
Environmental Conservation Branch  
Environment Canada  
Moncton, New Brunswick**

**Canada-Newfoundland  
Water Quality Monitoring Agreement  
Annual Work Schedule 2000-2001**

The attached Schedules A, B, C, and D outline work activities to be carried out during the current fiscal year under the Canada-Newfoundland Water Quality Monitoring Agreement. All four Schedules have been reviewed and approved by the Administrators of the Agreement.



Tom Pollock, Ph. D.  
Administrator, on behalf of  
Environment Canada



Martin Goebel, P.Eng.  
Administrator, on behalf of  
Newfoundland Environment

**Schedule A**  
**Agreement Committees**

## Schedule A

The following officials are named to administer this Agreement according to Article x:

Dr. Tom Pollock                                      Environment Canada Atlantic Region, on behalf of Canada

Mr. Martin Goebel                                      Newfoundland Department of Environment & Labour, on  
behalf of Newfoundland

The Administrators will be assisted by a Coordinating Committee consisting of the following:

Dr. Tom Pollock                                      Environment Canada Atlantic Region

Mr. Haseen Khan                                      Water Resources Management Division, Newfoundland  
Department of Environment & Labour

**Schedule B**

**Station Location, Designation  
and Sampling Frequency**

## Schedule B

### Index Station Location, Designation and Sampling Frequency 2000-2001

Station #	Description	Latitude	Longitude	Samples/year Sampled By	Remarks
<b>Island</b>					
NF02YA0001	Ste. Genevieve	51 08 17	56 47 30	P 4	
NF02YC0001	Torrent River	50 36 44	57 10 05	F 6	
NF02YE0005	Western Brook	49 49 49	57 51 23	P 12	
NF02YG0001	Main River	49 46 10	56 54 15	P6	
NF02YH0018	Lomond River	49 24 07	57 43 49	P 12	
NF02YJ0004	Pinchgut Brook	48 47 51	58 03 43	P6	
NF02YJ0006	Harrys River	48 34 32	58 21 48	F 12	
NF02YL0011	Humber River	49 20 54	57 14 07	P 6	
NF02YL0012	Humber River	48 59 01	57 45 40	P 6	
NF02YL0013	Corner Brook	48 56 40	57 56 12	P 12	
NF02YL0029	Wild Cove Brook	48 58 28	57 53 02	P 12	
NF02YM0004	South West Brook	49 55 15	56 13 45	P 4	
NF02YN0001	Lloyds River	48 18 16	57 43 07	P 4	
NF02YN0036	Star Brook	48 33 43	57 12 22	P 4	
NF02YN0038	Exploits River	49 01 15	55 27 15	P 6	
NF02YN0039	Corduroy Brook	48 56 21	55 39 47	P 12	
NF02YO0001	Exploits River	48 55 27	55 39 21	P 6	
NF02YO0020	Exploits River	48 56 55	55 54 56	P 6	
NF02YO0021	Exploits River	49 00 40	55 28 55	P 6	
NF02YO0107	Exploits River	48 45 34	56 35 32	P 6	
NF02YO0128	Exploits River	48 56 12	55 37 05	P 6	
NF02YQ0006	NorthW. Gander R.	48 34 54	55 30 20	P 6	
NF02YQ0030	Gander River	48 59 41	54 52 04	P 6	
NF02YR0001	Pound Cove Brook	49 10 40	53 33 36	P 4	
NF02YR0021	Middle Brook	48 48 08	54 13 34	P 4	
NF02YS0001	Terra Nova River	48 30 27	54 12 43	P 6	
NF02YS0005	Southwest Brook	48 36 36	53 48 36	P 6	
NF02YS0011	Terra Nova River	48 38 27	54 02 11	P 6	
NF02YS0083	Northwest River	48 23 44	54 11 53	P 6	
NF02ZA0006	Grand Codroy R.	47 52 08	59 07 05	P 4	
NF02ZA0007	Crabbe's River	48 10 30	58 46 23	P 4	
NF02ZB0001	Isle Aux Morts R.	47 36 50	59 00 33	F 6	
NF02ZB0005	Cing Cerf Brook	47 42 40	58 08 47	P 4	HS
NF02ZC0001	Grandy Brook	47 51 25	57 44 00	F 6	HS
NF02ZC0011	White Bear River	47 48 29	57 16 40	F 4	HS
NF02ZD0003	Grey River	47 44 35	56 56 03	F 6	HS
NF02ZF0020	Bay du Nord River	47 44 45	55 26 23	F 6	HS
NF02ZG0016	Garnish River	47 13 00	55 19 48	F 6	
NF02ZG0024	Tides Brook	47 07 39	55 15 55	P 4	
NF02ZH0001	Pipers Hole R.	47 55 51	54 16 25	F 12	
NF02ZJ0024	Southern Bay River	48 22 24	53 40 19	P 4	
NF02ZK0001	Rocky River	47 13 38	53 34 09	F 12	
NF02ZK0005	Northeast River	47 16 23	53 50 25	P 12	
NF02ZL0029	Goulds Brook	47 30 18	53 17 28	P 4	

NF02ZM0004	Waterford River	47 31 19	52 48 29	P 6
NF02ZM0009	Waterford River	47 31 46	52 44 34	P 6
NF02ZM0014	Virginia River	47 35 02	52 41 29	P 12
NF02ZM0015	Quidi Vidi Outlet	47 35 02	52 40 51	P 6
NF02ZM0016	Rennies River	47 34 40	52 42 03	P 12
NF02ZM0017	Raymond Brook	47 26 31	52 46 20	P 2
NF02ZM0098	Virginia River	47 35 56	52 45 17	P 6
NF02ZM0109	Mundy Pond	47 33 40	52 44 38	P 6
NF02ZM0144	Kelly's Brook	47 34 28	52 42 45	P 6
NF02ZM0175	Waterford River	47 31 34	52 45 48	P 6
NF02ZM0176	South Brook	47 31 41	52 44 48	P 6
NF02ZM0177	Rennies River	47 34 28	52 42 36	P 6
NF02ZM0178	Learys Brook	47 34 21	52 44 21	P 6
NF02ZM0179	Virginia River	47 35 47	52 42 06	P 6
NF02ZM0180	Virginia River	47 35 59	52 42 02	P 6
NF02ZM0181	Waterford River	47 32 53	52 43 09	P 12
NF02ZM0182	Waterford River	47 31 07	52 51 21	P 6
NF02ZM0183	Kelligrews River	47 29 45	53 01 03	P 4
NF02ZM0184	Learys Brook	47 34 16	52 47 29	P 6
NF02ZM0185	South Brook	47 29 37	52 51 02	P 6
NF02ZM0186	Nut Brook	47 26 24	52 58 22	P 2
NF02ZN0002	Northwest Brook	46 45 33	53 23 25	P 4
NF02ZN0004	Salmonier River	47 10 54	53 23 56	P 6

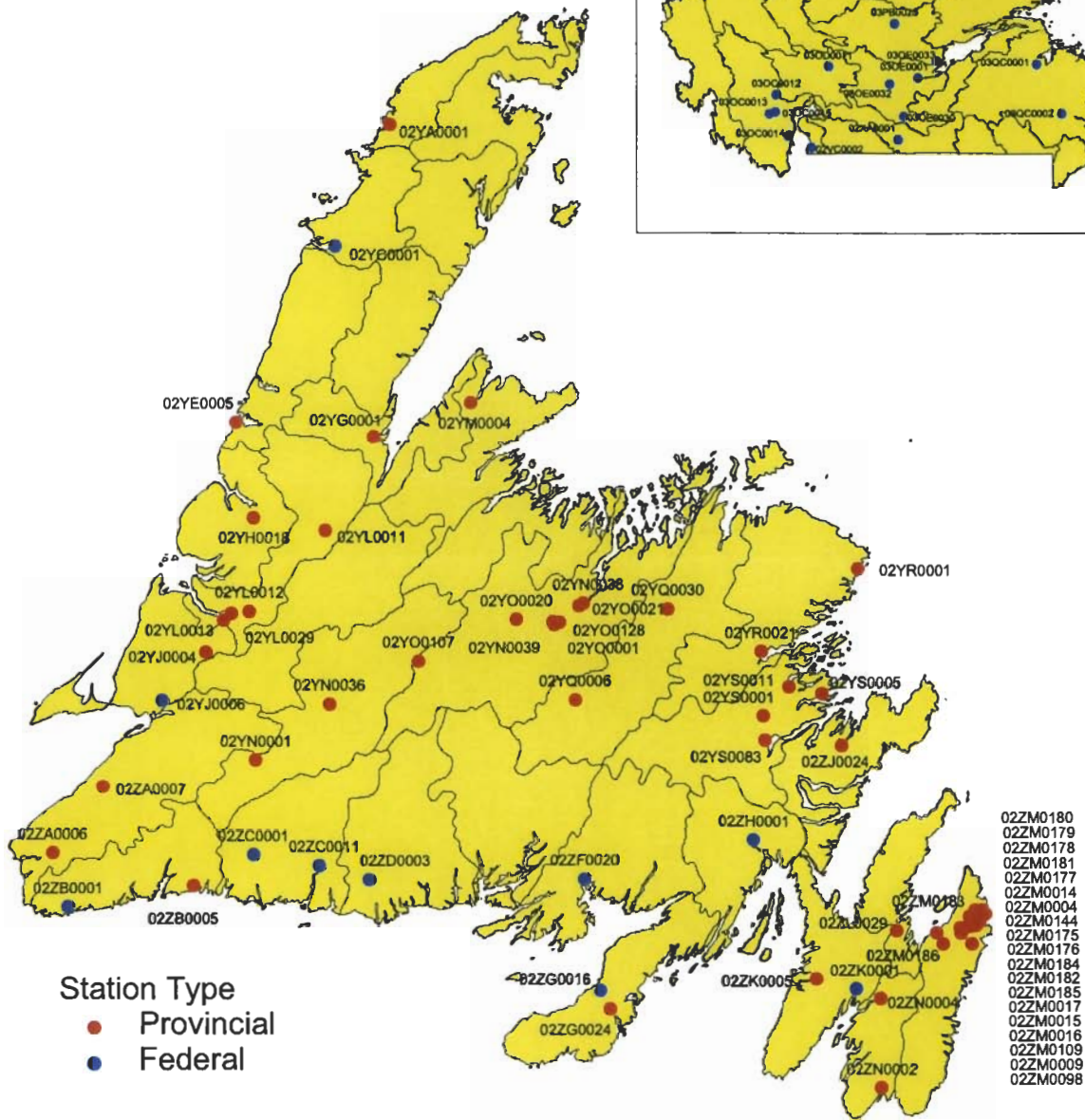
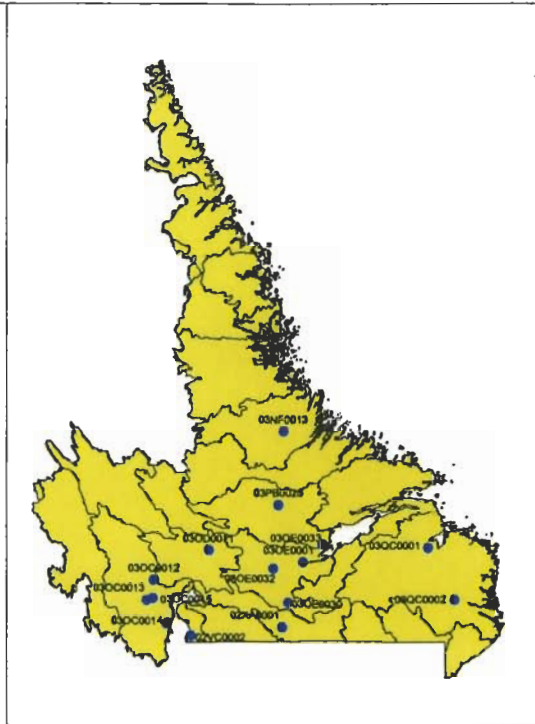
#### LABRADOR

NF02XA0001	Little Mecatina River	52 13 42	61 19 32	F 4	HS
NF02VC0002	Romaine River	52 05 46	63 42 22	F 4	HS
NF03NF0013	Ugjoktok River	55 13 60	61 17 57	F 4	HS
NF03OC0012	Atikonak River	52 58 03	64 39 40	F 4	HS
NF03OC0013	Kipimits River	52 39 12	64 50 45	F 4	HS
NF03OC0014	Atikonak River	52 17 14	64 19 40	F 4	HS
NF03OC0015	Atikonak Lake	52 41 16	64 41 22	F 4	HS
NF03OD0011	East Metchin River	53 26 07	63 14 03	F 4	HS
NF03OE0001	Churchill River	53 14 52	60 47 21	F 4	HS
NF03OE0030	Minipi River	52 36 53	61 11 11	F 4	HS
NF03OE0032	Pinus River	53 08 52	61 33 31	F 4	HS
NF03OE0033	Big Pond Brook	53 30 43	60 17 31	F 4	HS
NF03PB0025	Naskaupi River	54 07 54	61 25 45	F 4	HS
NF03QC0001	Eagle River	53 27 54	57 33 29	F 4	HS
NF03QC0002	Alexis River	52 38 57	56 52 17	F 4	HS

#### HS - Helicopter site

- Note:
1. A total of 80 stations will be sampled during 2000-2001.
  2. Monthly stations will be sampled in the first week of every month; bi-monthly samples in the first week of April, June, August, October, December, and February and quarterly samples in the first week of April, July, October, and January.
  3. Lake sampling program in Gros Morne National Park may also continue subject to the availability of funds from Environment Canada.

# Water Quality Stations 2000-2001



- 02ZM0180
- 02ZM0179
- 02ZM0178
- 02ZM0181
- 02ZM0177
- 02ZM0014
- 02ZM0004
- 02ZM0144
- 02ZM0175
- 02ZM0176
- 02ZM0184
- 02ZM0182
- 02ZM0185
- 02ZM0017
- 02ZM0015
- 02ZM0016
- 02ZM0109
- 02ZM0009
- 02ZM0098



**Schedule C**

**Sampling Media and Analytical Parameters**

Schedule C

Sampling Media and Analytical  
Parameters 2000 - 2001

Station #	Description	Sampling Media	Analytical Group	Analyzed by:
<b>ISLAND</b>				
NF02YA0001	Ste. Genevieve	W	W1, W2, W3	F
NF02YC0001	Torrent River	W	W1, W2, W3	F
NF02YE0005	Western Brook	W + M	W1, W2, W3, W5	F
NF02YG0001	Main River	W	W1, W2, W3	F
NF02YH0018	Lomond River	W + M	W1, W2, W3, W5	F
NF02YJ0004	Pinchgut Brook	W	W1, W2, W3	F
NF02YJ0006	Harrys River	W	W1, W2, W3	F
NF02YL0011	Humber River	W + M	W1, W2, W3, W5	F
NF02YL0012	Humber River	W + M	W1, W2, W3, W5	F
NF02YL0013	Corner Brook	W + M	W1, W2, W3, W5	F
NF02YL0029	Wild Cove Brook	W + M	W1, W2, W3, W5	F
NF02YM0004	South West Brook	W	W1, W2, W3	F
NF02YN0001	Lloyds River	W	W1, W2, W3	F
NF02YN0036	Star Brook	W	W1, W2, W3	F
NF02YN0038	Exploits River	W + M	W1, W2, W3, W5	F
NF02YN0039	Cordroy Brook	W + M	W1, W2, W3, W5	F
NF02YO0001	Exploits River	W + M	W1, W2, W3, W5	F
NF02YO0020	Exploits River	W + M	W1, W2, W3, W5	F
NF02YO0021	Exploits River	W + M	W1, W2, W3, W5	F
NF02YO0107	Exploits River	W + M	W1, W2, W3, W5	F
NF02YO0128	Exploits River	W + M	W1, W2, W3, W5	F
NF02YQ0006	NorthW. Gander R.	W	W1, W2, W3	F
NF02YQ0030	Gander River	W + M	W1, W2, W3, W5	F
NF02YR0001	Pound Cove Brook	W	W1, W2, W3	F
NF02YR0021	Middle Brook	W	W1, W2, W3	F
NF02YS0001	Terra Nova R	W + M	W1, W2, W3, W5	F
NF02YS0005	Southwest Brook	W + M	W1, W2, W3, W5	F
NF02YS0011	Terra Nova River	W + M	W1, W2, W3, W5	F
NF02YS0083	Northwest River	W	W1, W2, W3	F
NF02ZA0006	Grand Codroy R.	W	W1, W2, W3	F
NF02ZA0007	Crabbe's River	W	W1, W2, W3	F
NF02ZB0001	Isle Aux Morts R.	W	W1, W2, W3	F
NF02ZB0005	Cing Cerf Brook	W	W1, W2, W3	F
NF02ZC0001	Grandy Brook	W	W1, W2, W3	F
NF02ZC0011	White Bear River	W	W1, W2, W3	F
NF02ZD0003	Grey River	W	W1, W2, W3	F
NF02ZF0020	Bay du Nord River	W	W1, W2, W3	F
NF02ZG0016	Garnish River	W	W1, W2, W3	F
NF02ZG0024	Tides Brook	W	W1, W2, W3	F
NF02ZH0001	Pipers Hole R.	W	W1, W2, W3	F
NF02ZJ0024	Southern Bay River	W	W1, W2, W3	F
NF02ZK0001	Rocky River	W	W1, W2, W3	F
NF02ZK0005	Northeast River	W	W1, W2, W3	F
NF02ZL0029	Goulds Brook	W + M	W1, W2, W3, W5	F

NF02ZM0004	Waterford River	W + M	W1, W2, W3, W5	F
NF02ZM0009	Waterford River	W + M	W1, W2, W3, W5	F
NF02ZM0014	Virginia River	W + M	W1, W2, W3, W5	F
NF02ZM0015	Quidi Vidi Outlet	W + M	W1, W2, W3, W5	F
NF02ZM0016	Rennies River	W + M	W1, W2, W3, W5	F
NF02ZM0017	Raymond Brook	W + M	W1, W2, W3, W5	F
NF02ZM0098	Virginia River	W + M	W1, W2, W3, W5	F
NF02ZM0109	Mundy Pond	W + M	W1, W2, W3, W5	F
NF02ZM0144	Kelly's Brook	W + M	W1, W2, W3, W5	F
NF02ZM0175	Waterford River	W + M	W1, W2, W3, W5	F
NF02ZM0176	South Brook	W + M	W1, W2, W3, W5	F
NF02ZM0177	Rennies River	W + M	W1, W2, W3, W5	F
NF02ZM0178	Learys Brook	W + M	W1, W2, W3, W5	F
NF02ZM0179	Virginia River	W + M	W1, W2, W3, W5	F
NF02ZM0180	Virginia River	W + M	W1, W2, W3, W5	F
NF02ZM0181	Waterford River	W + M	W1, W2, W3, W5	F
NF02ZM0182	Waterford River	W + M	W1, W2, W3, W5	F
NF02ZM0183	Kelligrews River	W + M	W1, W2, W3, W5	F
NF02ZM0184	Learys Brook	W + M	W1, W2, W3, W5	F
NF02ZM0185	South Brook	W + M	W1, W2, W3, W5	F
NF02ZM0186	Nut Brook	W + M	W1, W2, W3, W5	F
NF02ZN0002	Northwest Brook	W	W1, W2, W3	F
NF02ZN0004	Salmonier River	W + M	W1, W2, W3, W5	F

### **LABRADOR**

NF02XA0001	Little Mecatina River	W	W1, W2, W3	F
NF02VC0002	Romaine River	W	W1, W2, W3	F
NF03NF0013	Ugjohtok River	W	W1, W2, W3	F
NF03OC0012	Atikonak River	W	W1, W2, W3	F
NF03OC0013	Kipimits River	W	W1, W2, W3	F
NF03OC0014	Atikonak River	W	W1, W2, W3	F
NF03OC0015	Atikonak Lake	W	W1, W2, W3	F
NF03OD0011	East Metchin River	W	W1, W2, W3	F
NF03OE0001	Churchill River	W	W1, W2, W3	F
NF03OE0030	Minipi River	W	W1, W2, W3	F
NF03OE0032	Pinus River	W	W1, W2, W3	F
NF03OE0033	Big Pond Brook	W	W1, W2, W3	F
NF03PB0025	Naskaupi River	W	W1, W2, W3	F
NF03QC0001	Eagle River	W	W1, W2, W3	F
NF03QC0002	Alexis River	W	W1, W2, W3	F

W	-	Water
S	-	Sediment
B	-	Biota
F	-	Federal lab
M	-	Microbiology

\* Refer to Table C.1 for analytical group codes

- Notes: 1. Microbiological (total and fecal coliform) analysis is carried out by the Provincial Public Health Lab.  
2. All other analytical work is carried out by federal labs in Burlington and Moncton  
3. A total of 500 (400 Burlington and 100 Moncton) water samples will be analyzed by federal labs in Burlington and Moncton.  
4. Water quality parameters (temperature, pH, dissolved oxygen, and conductivity) are analyzed by Water Quality Officers in the provincial environment lab, as well as by Burlington and Moncton labs.

**Table C.1**  
**Analytical Parameters**

Parameter Set	Analysis Type	Parameter Group
<b>1) Water - Physical Parameters, Major Ions and Nutrients</b>		
Temperature	Field	W1
pH	Field & Lab	W1
Specific Conductance	Field & Lab	W1
Dissolved Oxygen	Field	W1
Turbidity	Lab	W1
Colour	Lab	W1
Calcium (Diss.)	Lab	W1
Magnesium (Diss.)	Lab	W1
Potassium (Diss.)	Lab	W1
Sodium (Diss.)	Lab	W1
Alkalinity Total or Gran	Lab	W1
Chloride (Diss.) IC	Lab	W1
Sulphate (Diss.) IC	Lab	W1
Dissolved Organic Carbon	Lab	W1
Total Nitrogen	Lab	W1
Nitrate and Nitrite (Diss.)	Lab	W1
Total Phosphorus	Lab	W1
Silica Reactive	Lab	W1
<b>2) Water - Total Extractable Metals</b>		
Aluminum      Barium	ICAP	W2
Iron            Beryllium	ICAP	W2
Copper        Chromium	ICAP	W2
Zinc            Manganese	ICAP	W2
Cadmium      Molybdenum	ICAP	W2
Lead            Lithium	ICAP	W2
Cobalt         Strontium	ICAP	W2
Nickel         Vanadium	ICAP	W2
Mercury	Lab	W2

Parameter Set	Analysis Type	Parameter Group
<b>3) Water - Total Dissolved Metals</b>		
Aluminum	Lab	W3
Iron	Lab	W3
Copper	Lab	W3
Zinc	Lab	W3
Cadmium	Lab	W3
Lead	Lab	W3
Cobalt	Lab	W3
Nickel	Lab	W3
Mercury	Lab	W3
<b>4) Water - Selected Organics</b>		
OC/PCB	Lab	W4
<b>5) Water - Bacterias</b>		
Total coliform	Lab	W5
Fecal Coliform	Lab	W5
<b>6) Sediments - Metals and Organics</b>		
Lead	Lab	S1
Copper	Lab	S1
Zinc	Lab	S1
Mercury	Lab	S1
Iron	Lab	S1
Aluminum	Lab	S1
Cadmium	Lab	S1
Chromium	Lab	S1
OC/PCB	Lab	S1
Organic Carbon	Lab	S1
Particle Size Analysis	Lab	S1
<b>7) Fish - Metals, Organics and Physiology</b>		
Lead	Lab	B1
Copper	Lab	B1
Zinc	Lab	B1

<b>Parameter Set</b>	<b>Analysis Type</b>	<b>Parameter Group</b>
Mercury	Lab	B1
Cadmium	Lab	B1
OC/PCB	Lab	B1
Lipid Content	Lab	B1
Physiology	Lab	B1
<b>8) Fish - Organics</b>		
Scan	Lab	B2

**Schedule D**

**Data Management and  
Technical Reports**

**Schedule D - Data Management and  
Technical Reports**

Activity	Responsible Agency
<b>1. Quality Assurance in the National Water Quality and Moncton Laboratory Laboratory</b>	Environment Canada
1.1 Quality Control Procedures	
1.2 Guidelines for Good Laboratory Practices	
1.3 Guidelines for Instrument Performance	
<b>2. Management Water Quality Data</b>	Environment Canada
2.1 Data Recording, Documentation and Validation	
2.2 Data Screening and Verification	
2.3 Data Audits, Custody and Transfer	
2.4 Management of National Water Quality Database (ENVIRODAT)	
2.5 Downloading and Processing of Water Quality Data	Newfoundland Environment Water Resources Management Division
2.6 Management of Provincial Water Quality Database	Newfoundland Environment Water Resources Management Division
<b>3. Technical Documents</b>	Newfoundland Environment Water Resources Management Division
3.1 Agreement Annual Reports 1998-99 & 1999-00	
3.2 Fact Sheets on Some Urban Rivers	
3.3 Water Quality of St. John's Rivers	
3.4 Water Quality Trends in Wild Cove Brook	
3.5 State of Water Quality of Newfoundland	
3.6 Water Quality of Exploits River Basin	Newfoundland Environment Water Resources Management Division
3.7 Sampling Protocol Manual	
3.8 Western Brook Pond Sediment Survey	



**Schedule E**

**Special Studies**

Special studies for water, biota and sediment survey will be planned for selected basins.

**Schedule F**

**Meeting Minutes**

# Canada-Newfoundland Water Quality Monitoring Agreement

## Co-Ordinating Committee Meeting

### Minutes

The Co-ordinating Committee for the Canada-Newfoundland Water Quality Monitoring Agreement, met on March 24, 1997 in the Boardroom of the Department of Environment and Labour. The following members were in attendance:

Tom Pollock	Environmental Conservation Branch, Ecosystem Science, Environmental Quality Section, Moncton, NB
Wasi Ullah	Water Resources Management Division, Department of Environment and Labour, St. John's, NF
Haseen Khan	Water Resources Management Division, Department of Environment and Labour, St. John's, NF

The following is an overview of discussions, decisions, and action items:

#### 1. Network Size and Monitoring Activities for 1997-98

Dr. Ullah briefed about 1997-98 budget and expressed hope that the present level of provincial funding will continue for next three years.

Dr. Ullah indicated that as a part of the provincial program review, two positions (Water Quality Manager and Water Quality Officer for the central region) under this Agreement, were made redundant. This will require redesign of the water quality monitoring network. To this end, Dr. Ullah suggested that any changes in the present water quality monitoring network, should maintain adequate coverage to all geographic regions of the province. Haseen agreed to redesign the network.

Haseen provided an overview of the activities undertaken during 1996-97 fiscal year. A total of 62 stations were operated under the Agreement which were sampled according to the designed frequency by the federal and provincial staff.

Dr. Pollock indicated that the federal staff will continue to sample all those stations which were sampled by them in 1996-97. He also indicated that during 1997-98 Environment Canada Lab in Burlington will analyse about 400 water samples for nutrients, ions, metals, and other parameters. These samples are in addition to about 100 samples to be analysed by the Environment Canada Lab in Moncton, which are collected by the federal staff as a part of water quality related activities in Newfoundland.

## **2. Sample Shipping and Federal Contact Persons**

As has been the practice in the past, all samples collected by the Water Resources Management Division will be shipped to Environment Canada Lab in Burlington and the samples collected by the federal staff will be shipped to Environment Canada Lab in Moncton. Wendy Charlton will remain the federal contact person in Burlington Lab.

## **3. Water Quality Database**

Haseen informed that with the help of Environment Canada staff in Moncton, we have downloaded nine years (1986 to 1994) of water quality data from the NAQUADAT database for all stations operated under the Agreement. All data sets have been processed and are ready to be used for any type of analysis. This was quite tedious and time consuming task.

## **4. Water Quality Index**

Haseen gave a brief overview of the approach, formulation, and its application to the Exploits River basin for testing purposes. The results of the index will be used to prepare a report entitled as "Newfoundland Water Quality Status Report". Water Quality Guidelines and State of Environment Reporting Task Groups of the CCME are promoting the use of this approach for the preparation of State of Environment Reports throughout the country.

## **5. Water Quality Data Requests and Charges**

Dr. Ullah informed that we have introduced nominal fees for water quality data requests. The exact amount of fees is decided on a case-by-case basis depending on the record length of the requested data, data processing time, etc. Dr. Pollock expressed his agreement with the concept of data use charges, and indicated that the federal government is also moving in the same direction.

## **6. Annual Work Plan**

After a brief discussion on various activities to be undertaken during 1997-98, it was agreed that an annual work plan be prepared. Haseen agreed to prepare the work plan which will be forwarded to Dr. Pollock for his review and signature.

## **7. Other Items**

- (A) It was agreed that work should continue towards the preparation of following documents under this Agreement:

- Annual reports for the following fiscal years: 1994-95, 1995-96, and 1996-97.
  - Interpretive reports for each basin monitored under the Agreement.
  - Fact sheets for each basin monitored under the Agreement.
- (b) Dr. Ullah told the members that this his last meeting as the Provincial Administrator of the Agreement, and he will be retiring from the public services on March 31, 1997. He thanked Dr. Pollock for his excellent cooperation and support.

**7. Next Meeting**

Dr Ullah suggested that the Co-ordinating Committee for the Agreement should meet at least twice every year. It was agreed that one of these two meetings will be held in St. John's and the second in Moncton. Haseen and Tom will fix the next meeting date which will be held in Moncton.

# Canada-Newfoundland Water Quality Monitoring Agreement

## Progress Review Meeting

### Minutes

The Administrators and Coordinators for the Canada-Newfoundland Water Quality Monitoring Agreement, met on September 25, 1997 in Moncton, to review the progress of the annual work plan for 1996-97. The following were in attendance:

Tom Pollock	Environmental Conservation Branch, Ecosystem Science, Environmental Quality Section, Moncton, NB
Martin Goebel	Water Resources Management Division, Department of Environment and Labour, St. John's, NF
Guy Byrn	Environmental Conservation Branch, Ecosystem Science, Environmental Quality Section, Moncton, NB
Haseen Khan	Water Resources Management Division, Department of Environment and Labour, St. John's, NF

The following is an overview of discussions, decisions, and action items:

#### 1. **Introductory Remarks**

Martin was welcomed as provincial administrator for the Agreement in place of Dr. Wasi Ullah, who retired from the public service on March 31, 1997.

Tom briefed the members about on-going organizational changes in Environment Canada.

Areas of future cooperation such as use of federal lab in Moncton for waste water effluent analysis and similar other analytical services were discussed. Guy Byrn is the federal contact person to work out cost related details, if the province decides to avail the services of the federal lab.

#### 2. **Annual Work Schedule 1997-98**

After a brief discussion on the annual work plan, it was decided that all activities should continue for the rest of the fiscal year as identified in the work plan.

Tom indicated that the federal government is working on appropriate updates to the ENVIRODAT in order to deal with year 2,000.

### **3. Annual Work Schedule 1998-99**

- Monitoring activities for the next year will be decided once Tom hears from National Lab in Burlington regarding the available credit for 1998-99. Tom will keep us posted on any new development in this area.
- Tom will ensure that Lawrence Wong is available to assist us in data retrieval and processing purposes, however, he needs some time to sort it out.
- Due to organizational changes, Environment Canada will not be able to initiate any new technical documents. However, they will continue to provide technical input on the document prepared by the provincial staff.
- It was agreed in principle that few urban rivers could be sampled for organic parameters. The exact analytical details and number of samples are to be worked out in consultation with Guy.
- Federal representatives were receptive to the provincial initiative of real time water quality monitoring at selected rivers.

### **4. Staff Training and Communication**

- There was discussion on the need for safety training of Regional Water Quality Officers. Tom Pollock will inform Haseen if any such training programs are available within the federal government.

### **5. Other Business**

The following items were discussed

- Getting data from Burlington is not up-to-date.
- Environment Canada Lab in Moncton will have an ICMS unit by the end of this fiscal year.
- Next meeting will be held in St. John's. Haseen and Tom will fix the date at a later date.

# Canada-Newfoundland Water Quality Monitoring Agreement

## Co-Ordinating Committee Meeting

### Minutes

The Co-ordinating Committee for the Canada-Newfoundland Water Quality Monitoring Agreement, met on June 30, 1998 in the Boardroom of the Department of Environment and Labour. The following members were in attendance:

Tom Pollock	Environmental Conservation Branch, Ecosystem Science, Environmental Quality Section, Moncton, NB
Calvin Baker	Atmospheric Environment Services, St. John's, NF
Art Cook	Environmental Conservation Branch, Ecosystem Science, Environmental Quality Section, St. John's, NF
Martin Goebel	Water Resources Management Division, Department of Environment and Labour, St. John's, NF
Haseen Khan	Water Resources Management Division, Department of Environment and Labour, St. John's, NF

The following is an overview of discussions, decisions, and action items:

#### 1. **Introductory Remarks**

Tom briefed the members about various on-going projects and programs, databases, Y2K compliance, and future priorities in Environment Canada.

Martin briefed the members about recent organizational changes in the Department of Environment and Labour, on-going projects and future priorities.

#### 2. **Annual Work Schedule 1998-99**

- No changes are expected in the on-going monitoring activities under the Agreement. Some minor changes are proposed in the water quality network within the City of St. John's, but the total number of samples collected during 1998-99 will be same as during 1997-98.
- Tom indicated that no changes are expected in the analytical work to be carried out by the federal labs in Moncton and Burlington under the Water Quality Agreement.
- A study is being planned to assess the impact of logging activities on water quality



of the Main River watershed. The study will be carried out under the Agreement with the support of the Western Model Forest Inc.

- It was agreed that the data retrieval and processing task will be reinitiated in September 1998. The main focus of this activity will be to update the water quality database for the period of 1995 to 1997. The activity will be coordinated by Mr. Lawrence Wong of Environment Canada and Mr. Paul Neary of the Department of Environment and Labour.
- Haseen reported that Agreement Annual Report for 1995-96 has been completed and other reports are under preparation.
- Haseen agreed to prepare the Annual Work Schedule for 1998-99 which will be forwarded to Tom and Martin for review and signature.

### **3. Water Quality Network in Labrador**

- It was agreed to add ten new stations to Labrador network. The details of these new stations are provided on the attachment # 1. The main objective of these new stations is to collect background water quality information in view of potential development projects in Labrador (Lower Churchill Power Project, Voisy Bay Nickel, and other projects).

### **4. Staff Training and Communication**

- There was discussion on the need for safety training of Regional Water Quality Officers.
- Haseen noted that all pending water quality data sheets have been mailed to Moncton.
- Tom agreed to provide the names of contact persons in Moncton and Burlington.

### **5. Other Business**

# Canada-Newfoundland Water Quality Monitoring Agreement

## Co-Ordinating Committee Meeting

### Minutes

The Co-ordinating Committee for the Canada-Newfoundland Water Quality Monitoring Agreement, met in Moncton on March 8, 1999. The following members were in attendance:

Tom Pollock	Environmental Conservation Branch, Ecosystem Science, Environmental Quality Section, Moncton, NB
Guy Brun	Environmental Conservation Branch, Ecosystem Science, Environmental Quality Section, Moncton, NB
Lawrence Wong	Environmental Conservation Branch, Ecosystem Science, Environmental Quality Section, Moncton, NB
Haseen Khan	Water Resources Management Division, Department of Environment and Labour, St. John's, NF
Paul Neary	Water Resources Management Division, Department of Environment and Labour, St. John's, NF

The following is an overview of discussions, decisions, and action items:

#### 1. ENVIRODAT - Present Status

- Water quality data collected under the Agreement, during 1986 to 94, was processed in 1996 (Phase 1), and is being used for interpretive analysis and dissemination to the public.
- Water quality data collected during 1995 to 99 has not yet been processed (Phase 2), and need to be processed on a priority basis, so that it can be integrated into the main water quality database, maintained by the province.

#### 2. Water Quality Database

- A number of items relating to the second phase of data downloading and processing were discussed. It was agreed that Environment Canada will initiate work on Phase 2 of the data processing, and data files will be transferred to Newfoundland by the last week of May 1999.

#### 3. Water Quality Agreement - Status and Progress

- Water quality sampling and shipping protocols were discussed. It was agreed that

Guy will provide Haseen with copies of updated sample shipping forms and field sheets.

#### 4. Technical Reports

- Status of the completed and in-progress reports was discussed.

#### 5. Other Monitoring Activities

- During 1997-98, a total of 144 tap water samples, at a cost of \$5768<sup>9</sup>, were analysed by Environment Canada Moncton Lab. *9/11/98*
- During 1998-99, a total of 120 tap water samples at a cost of \$4,800 were analysed by Environment Canada Moncton Lab. In addition to this, 32 municipal wastewater samples were also analysed at a cost of \$1,568.
- Invoices processed by the province for the additional analytical work were as follows: \$15,000 (1997-98) and \$10,000 (1998-99). The outstanding balance of \$12,864 with Environment Canada, will be used to cover the analytical cost, for samples collected during 1999-00.
- THM analytical work was carried out by St. John's Lab of Environment Canada under a separate arrangement.

#### 6. Other Business

- Status and progress of Main River study was reviewed.
- It was agreed that all lab results will be forwarded to Haseen.
- Communication on protocols between Moncton and St. John's on various matters relating to the agreement and other analytical work were discussed.

# Canada-Newfoundland Water Quality Monitoring Agreement

## Co-Ordinating Committee Meeting

### Minutes

The Co-ordinating Committee for the Canada-Newfoundland Water Quality Monitoring Agreement, met on June 30, 1999, in the Boardroom of the Department of Environment and Labour. The following members were in attendance:

Tom Pollock	Environmental Conservation Branch, Ecosystem Science, Environmental Quality Section, Moncton, NB
Bill Brimley	Atmospheric Environment Services, St. John's, NF
Calvin Baker	Atmospheric Environment Services, St. John's, NF
Art Cook	Environmental Conservation Branch, Ecosystem Science, Environmental Quality Section, St. John's, NF
Martin Goebel	Water Resources Management Division, Department of Environment and Labour, St. John's, NF
Haseen Khan	Water Resources Management Division, Department of Environment and Labour, St. John's, NF

The following is an overview of discussions, decisions, and action items:

#### 1. **Introductory Remarks**

- Tom briefed the members about various on-going projects and programs, databases, Y2K compliance, and future priorities in Environment Canada.
- Martin briefed the members about the organization of the Department of Environment and Labour, on-going projects and future priorities.

#### 2. **Annual Work Schedule 1999-00**

- Environment Canada (AES) sampled ten remote stations on the Island and nine stations in Labrador during the previous fiscal year (1998-99). All these stations will be sampled by Environment Canada during the current fiscal year (1999-00). In addition to this, five more stations will be added to Labrador water quality monitoring network. Station details will be included in 1999-00 work schedule.

- No changes are expected in water quality analysis work, carried out by Burlington and Moncton Laboratories of Environment Canada. Samples will be analysed as per 1999-00 annual work schedule.
- Joe Pomroy and Paul Barnable are working on the Main River Project in conjunction with other partners.
- Environment Canada has processed water quality data collected during 1995 to 99. All data files have been transferred to the Water resources Management Division for further processing and integration into the main water quality database.
- All backlogged annual agreement reports have been cleared and four technical reports (Exploits, Humber, Urban Rivers and State of Water Quality) are in progress.

### **3. Northern Ecosystem Project**

- This is new federal government initiative to deal with northern ecosystem. Labrador water quality network will provide useful baseline data for this project.
- Ecological Monitoring and Assessment Network (EMAN) along with its scope and benefits was discussed.

### **4. Biota and Sediment Monitoring**

- This new component of work along with five new stations in Labrador network will be included in 1999-00 annual work schedule. Four to five water bodies will be monitored annually under this new activity. The site specific monitoring details will be included in the annual work schedule. Tom will estimate the additional resource requirements of each party for these two new activities.

### **5. Communication**

- In order to avoid any communication gaps between two parties, the Coordinating Committee of the Agreement will meet twice (March or April meeting in St. John's and October or November meeting in Moncton) in each fiscal year, to review the work progress.

### **6. Other Monitoring Programs - 1999-00**

- About 842 drinking water samples (for THM analysis) will be submitted to St. John's Lab of Environment Canada. Payment of invoices and other procedural details will be worked out through a separate meeting between Haseen and Art.

- About 144 tap water samples (for selected inorganic analysis) will be submitted to Moncton Lab of Environment Canada.
- About 60 municipal wastewater samples will be submitted to Moncton Lab of Environment Canada.

**7. Invoicing**

- Two invoices in the amount of \$15K (first invoice for \$10K in July and second invoice for \$5K in October) will be submitted to the Water Resources Management Division, to cover the analytical cost for the above mentioned samples.

**Canada-Newfoundland Water Quality Monitoring Agreement**  
**Co-Ordinating Committee Meeting Minutes**

The Co-ordinating Committee for the Canada-Newfoundland Water Quality Monitoring Agreement, met on March 23, 2000, in the Boardroom of the Department of Environment and Labour. The following members were in attendance:

Tom Pollock	Environmental Conservation Branch, Ecosystem Science, Environmental Quality Section, Moncton, NB
John Merrick	Meteorological Service of Canada, Dartmouth, NS
Bill Brimley	Meteorological Service of Canada, Dartmouth, NS
Calvin Baker	Atmospheric Environment Services, St. John's, NF
Martin Goebel	Water Resources Management Division, Department of Environment and Labour, St. John's, NF
Haseen Khan	Water Resources Management Division, Department of Environment and Labour, St. John's, NF

The following is an overview of discussions, decisions, and action items:

**1. Annual Work Schedule 1999-00**

- Environment Canada (AES) sampled ten remote stations on the Island and nine stations in Labrador during the current fiscal year (1999-00).
- No changes were made in water quality analysis work, carried out by Burlington and Moncton Laboratories of Environment Canada. Samples were analysed as per 1999-00 annual work schedule.
- Joe Pomroy, Calvin Baker and Paul Barnable are working to establish a real-time water quality data collection station.
- All water quality data collected during 1995 to 99 has been processed and is ready for use.
- All backlogged annual agreement reports have been cleared and four technical reports (Exploits, Humber, Urban Rivers and State of Water Quality) are in progress.

- **Biota and Sediment Monitoring**

- Four to five water bodies in St. John's area were monitored as per annual work schedule (1999-00). This program will continue in the next fiscal year(2000-01). The site specific details will be included in the annual work schedule.

- **Other Monitoring Programs - 1999-00**

- About 946 drinking water samples (for THM analysis) were submitted to St. John's Lab of Environment Canada. All invoices have been processed.
- About 144 tap water samples (for selected inorganic analysis) were submitted to Moncton Lab of Environment Canada.
- About 79 municipal wastewater samples were submitted to Moncton Lab of Environment Canada.

- **Invoicing**

- Two invoices in the amount of \$10K were processed for tap water quality and municipal wastewater samples by Environment Canada Moncton Lab. The Department of Environment and Labour has \$13,233 credit with Environment Canada under this activity. This credit will be used for analytical work during 2000-01.
- Four invoices in the amount of \$30,000 were processed for THM work by Environment Canada Lab in St. John's.



