

*Regional Chief,
(Regina).*

CANADA - SASKATCHEWAN

MEMORANDUM OF AGREEMENT

FOR

WATER QUANTITY SURVEYS

ANNUAL REPORT 1977-1978

RESOURCE
CENTRE

5007.353

IWD - YK

JULY, 1978

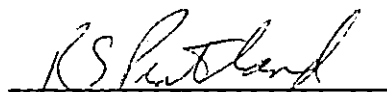
TO: Mr. D. A. Davis
Administrator for Canada

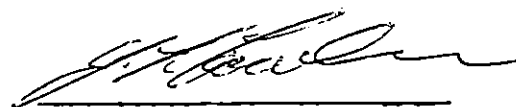
Mr. S. R. Blackwell
Administrator for Saskatchewan

Submitted herewith is a report for fiscal year 1977-78 covering activities under the Memorandum of Agreement for Water Quantity Surveys in the Province of Saskatchewan.

SASKATCHEWAN

CANADA


R.S. Pentland
Saskatchewan Department
of the Environment.


J.L. Fowler
Fisheries and Environment
Canada

Members
Co-ordinating Committee

July, 1978

Regina, Saskatchewan.

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1977/78 ANNUAL REPORT

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INTRODUCTION

Since the 1975-76 fiscal year, Canada and Saskatchewan have cooperated in the collection of Water Quantity data under the Agreement attached to this report as Appendix I. This report describes activities under the Agreement for the third year of operation, namely 1977-78.

During the year there were a number of changes to the coordinating committee and administrators of the agreement. Mr. D.A. Davis replaced Mr. E.F. Durrant as federal administrator. Mr. J.L. Fowler replaced Mr. D.A. Davis as federal member of the coordinating committee and Mr. R.S. Pentland replaced Mr. J.R..Hart as provincial member of the coordinating committee.

SUMMARY OF ACTIVITIES

Apart from ongoing liaison and informal discussions, the Coordinating Committee held one formal meeting on December 19, 1977. Significant agenda items were a review of 1977/78 operations and construction program, proposed station classification changes for 1978-79 (Schedule A) and Saskatchewan requests for new hydrometric stations during 1978-79. The Committee also agreed to explore the feasibility of operating a public information and demonstration gauging station on Wascana Lake.

Precipitation throughout southern Saskatchewan was generally below normal in 1977 and this was reflected in low runoff volumes recorded throughout much of the network. While this condition tended to reduce the overall level of field activities, there were concurrent problems associated with silted or frozen intakes and purge tubes and degraded record due to extended backwater periods. Low flows in international streams meant that stations producing data for apportionment purposes had to be very closely monitored during periods of high water demand.

The national metric conversion program was 75 percent completed in Saskatchewan during the year. The program essentially consists of replacing or converting all stage recording and flow metering equipment so that raw field data are produced directly in metric units. With the exception of a few items where a design or supply problem exists, the conversion will be completed by October 31, 1978. Total costs will approach \$100,000.

Details of operations and construction costs for the Saskatchewan water quantity network for 1977-78 have been detailed in separate reports with appropriate distribution to individuals and agencies. A summary of costs is provided at the end of this report.

The Canada-Saskatchewan cost sharing agreement and schedules and the guidelines for gauging station classification are appended to this report for convenient reference.

CHANGES IN WATER QUANTITY NETWORK

A. GAUGING STATIONS ADDED

Federal

1. 05JE010 - Avonlea Index Reservoir
2. 05JM018 - Esterhazy Index Reservoir
3. 05JF013 - Lumsden Index Reservoir
4. 05JH007 - Sifton Index Reservoir
5. 11AF005 - Beaver Creek at International Boundary

Provincial

6. 05MA016 - Romance Creek near Watson

B. GAUGING STATIONS DISCONTINUED

Federal

1. 11AB003 - Battle Creek above Gaff Ditch
2. 11AB107 - East Fork Battle Creek near International Boundary
3. 11AE007 - McEachern Creek at International Boundary
4. 11AB105 - Woodpile Coulee near International Boundary
5. 11AE011 - East Poplar River at Coronach Dam Site
6. 11AB088 - Lodge Creek below Spangler Project

Federal-Provincial

7. 05MA010 - Big Quill Lake near Kandahar*

Provincial

8. 05HG017 - Moon Lake Creek near Saskatoon

C. GAUGING STATION CLASSIFICATION CHANGES

Federal to Federal Provincial

1. 05KH002 - Cumberland Lake near Cumberland House
2. 06CB001 - Lac La Ronge at La Ronge
3. 05HD039 - Swift Current Creek near Leinav
4. 05NB012 - Boundary Reservoir near Estevan
5. 05AG001 - Beaver River below Waterhen River
6. 05JF010 - Wascana Lake above Board Street Weir
7. 05JF002 - Wascana Lake below Broad Street Weir
8. 05MB003 - Whitesand River near Canora

* Retained as a "Provincial Contributed" station

Federal to Provincial

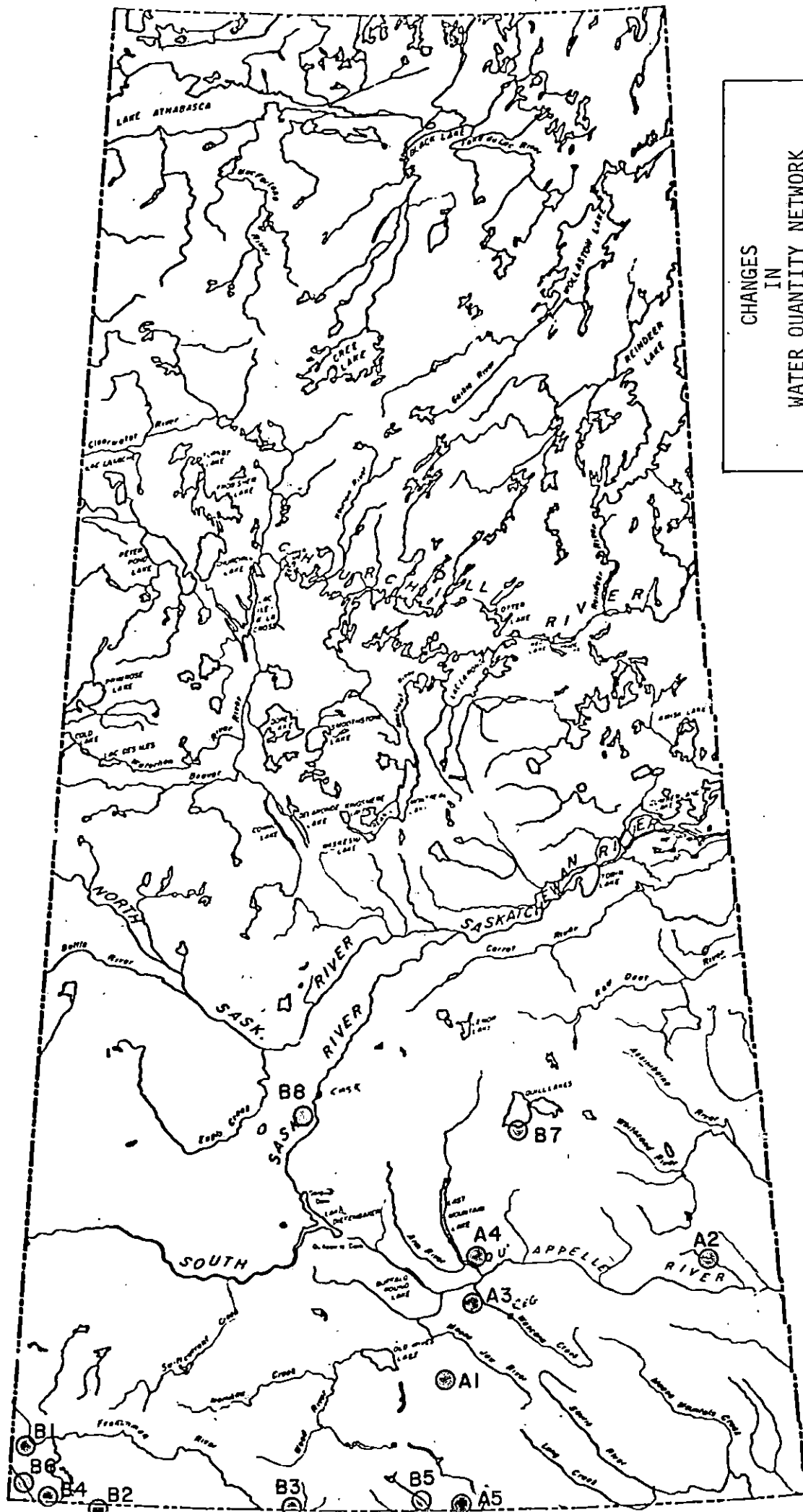
9. 05HF017 - Broderick Reservoir at West Embankment

Federal-Provincial to Federal

10. 05GG006 - Spruce River Diversion to Emma Lake
11. 05HH001 - South Saskatchewan River at St. Louis
12. 07CD006 - Clearwater River at Outlet of Clearwater Lake
13. 07LE003 - Grease River below Fontaine Lake

Provincial to Federal

14. 05KH011 - Dragline Channel near Squaw Rapids



CHANGES
IN
WATER QUANTITY NETWORK
1977-78

●	ADDED
○	DISCONTINUED

COSTING PROCEDURES

A summary table of 1977-78 operations and construction costs is shown on page 8.

Costing methods and assumptions as explained in previous annual reports as well as in the annual cost summary report were followed.

It is the intent in the year forthcoming to refine the method of calculating depreciation of hydrometric equipment. To date, and on the advice of material management staff, a depreciation factor of 8% annually has been used. While this may be a reasonable approximation for total inventory, it is obvious that the useful life of a pair of waders is somewhat shorter than a level or an outboard motor. It is hoped to eventually develop a system whereby inventory is depreciated by category or class-of-equipment.

1977-78 COST SUMMARY

SASKATCHEWAN WATER QUANTITY PROGRAM

UNIT COST SUMMARY

1977-78	Unit	Salary	Operations	Capital	Total
1. Normal Access					
A) Non-International	1.0	1166	602	160	\$1928
B) International	1.0	1458	602	160	\$2220
2. Remote Access	1.0	1341	2712	160	\$4213

TOTAL COST SUMMARY

	No. of Stations	Unit	Salary	Operations	Capital	Total
<u>Federal</u>						
Remote	16	14.2	19,042	38,510	2,272	59,824
Normal						
- Non-International	76	53.25	62,090	32,056	8,520	102,666
- International	66	42.70	62,257	25,705	6,832	94,794
						\$257,284
<u>Federal-Provincial</u>						
Remote	15	13.20	17,701	35,798	2,112	55,611
Normal	101	76.15	88,791	45,842	12,184	146,817
						\$202,428
<u>Provincial</u>						
Normal	58	40.30	46,990	24,261	6,448	77,699
Total	332	239.80	296,871	202,172	38,368	\$537,411

FEDERAL SHARE = $257,284 + \frac{202,428}{2}$ = \$358,498

PROVINCIAL SHARE = $\frac{202,428}{2} + 77,699$ = \$178,913

PROVINCIAL SHARE CONSTRUCTION = \$ 72,268

PROVINCIAL CREDIT FOR OPERATION OF THREE FEDERAL/PROVINCIAL STATIONS = \$ -1,350

TOTAL PROVINCIAL SHARE = \$249,831

PROVINCIAL PAYMENTS + CREDIT 1977-78 = \$243,975

PROVINCIAL DEBIT 1977/78 AGREEMENT = \$ 5,856

APPENDIX I
CANADA - SASKATCHEWAN
MEMORANDUM OF AGREEMENT
FOR
WATER QUANTITY SURVEYS

MEMORANDUM OF AGREEMENT made this eighteenth
day of February, 1975,

BETWEEN:

The Government of Canada, hereinafter called "Canada",
represented by the Minister of the Environment

OF THE FIRST PART

-and-

The Government of the Province of Saskatchewan,
hereinafter called the "Province", represented by
the Minister of Environment

OF THE SECOND PART.

WHEREAS co-operative water quantity surveys have been
carried on for many years under various informal federal-provincial
agreements in the Provinces of Canada by the Water Survey of Canada
of the Department of the Environment, for the purpose of securing
co-ordinated and standardized basic data to facilitate resource
planning and management in general and the design and implementation
of projects related to navigation, hydro-electric development,
irrigation, drainage, flood control, recreation, domestic and
industrial water supply and other purposes;

AND WHEREAS the Governor-in-Council has by Order-in-
Council No. PC 1975-1/172 dated January 28, 1975, authorized the
Minister of Environment to execute this agreement on behalf of Canada,
subject to funds being voted by the Parliament of Canada;

AND WHEREAS the Lieutenant Governor in Council has, by
Order-in-Council No. O.C. 282/75 dated February 11, 1975, authorized the
Minister of Environment to execute this agreement on behalf of the
Provincial subject to funds being voted by the Legislative Assembly.

NOW THEREFORE this agreement witnesseth that water
quantity surveys in the Province and the financing thereof shall
be continued and maintained upon the following basis:-

INTRODUCTION

DEFINITIONS

- a) ANNUAL PAYMENT - a sum, agreed to by both parties in advance of the fiscal year, which shall represent the costs of operation and construction of water quantity survey stations.
- b) CONSTRUCTION - includes the construction of new water quantity survey stations and the maintenance, repair and reconstruction of existing water quantity survey stations.
- c) CONSTRUCTION PERSONNEL - includes foremen and labourers on full time duty as well as engineering and technical staff on part time supervisory duty or reconnaissance assignment.
- d) FIELD PERSONNEL - includes hydrometric supervisors and field technicians on full time duty as well as engineering and technical staff on temporary assignment.
- e) NETWORKS - an organized system of gauging stations for collection of water quantity survey data.
- f) OPERATING PARTY - either party to this agreement which operates water quantity survey stations.
- g) PUBLISHED DATA - includes streamflow, water level and sediment data. The data is to be available in publications and computer compatible data files.
- h) SEDIMENT STATIONS - any location where surveys are undertaken to collect data on suspended sediment or bed material or bed load data singly or in combination. Water temperature data is to be collected.
- i) WATER QUANTITY SURVEY STATIONS - any location where surveys are undertaken to collect streamflow or water level or suspended sediment or bed material or bed load data singly or in combination. Water temperature data may be collected.

ARTICLE I

Each water quantity survey station presently in operation has been identified according to the designation federal, federal-provincial or provincial. The current designation is given in Schedule A, hereto attached. Schedule A may be revised to include a change in the designation of a station, the addition of new stations or the deletion of stations as agreed by the Co-ordinating Committee (Article XII) and approved by the officials named in Article XIII.

OPERATIONAL CONSIDERATIONS

ARTICLE II

Canada will construct and operate and pay the cost of construction and the annual cost of operation of water quantity survey stations which have been designated as federal. Where Canada deems it desirable in the interest of efficiency of operation, the Province may be requested to construct and operate some federal water quantity survey stations. If the Province agrees to such agreements, Canada would in such cases reimburse the Province for the cost of construction and annual cost of operation in accordance with Article VI.

ARTICLE III

Where Canada constructs and operates water quantity survey stations designated as federal-provincial, the Province will reimburse Canada for 50% of the construction costs and 50% of the annual cost of operation. Where the Province constructs and operates these stations, Canada will reimburse the Province for 50% of the construction costs and 50% of the annual cost of operation in accordance with Article VI.

ARTICLE IV

If requested by the Province, Canada will construct and operate water quantity survey stations designated as provincial provided the Province reimburses Canada for the construction cost and annual cost of operation. If the Province constructs and operates these stations the Province will assume the cost of construction and operation in accordance with Article VI.

ARTICLE V

- a) The operating party shall provide the staff to meet its responsibilities under this agreement.
- b) Canada will at its own expense publish data from stations that it operates. Canada will on request at its own expense, publish data from stations operated by the Province providing the data meets national standards.
- c) Water quantity surveys under this agreement shall be carried out to national standards in field procedures, equipment and instrumentation, data compilation and will use national guidelines for station designations. Such standards and guidelines shall be developed and maintained by Canada in consultation with all of the Provinces.
- d) Canada and the Province shall work together to take advantage of technological advancements which improve the quality of data and the efficiency of standard procedures and to develop methods and techniques to assist in planning water quantity survey networks.
- e) Canada at its own expense will provide calibration service for water quantity survey velocity instruments for both parties.

FINANCIAL CONSIDERATIONS

ARTICLE VI

- a) Procedures for computing the annual payment are given in Schedule C.
- b) The annual payment for 1975-76 is set out in Schedule D. The annual payment for subsequent years shall be determined according to the terms of this agreement and the procedures as set out in Schedule C.
- c) Annual operation costs, except for sediment stations, will be computed using average annual water quantity survey station costs and the number of stations to be operated. The average annual water quantity survey station costs shall be recomputed annually according to the items listed in Schedule B.

ARTICLE VI (Cont'd)

- d) Annual construction costs, except for sediment stations, will be the cost of constructing new water quantity survey stations plus repairs to and major reconstruction of existing water quantity survey stations.
- e) The annual operation costs for sediment stations will be the summation of the individual station operation costs.
- f) The annual construction costs of sediment stations will be the cost of constructing new sediment stations plus repairs to and major reconstruction of existing stations.

ARTICLE VII

- a) The party operating the water quantity survey stations in accordance with Articles II, III and IV, will be responsible for providing and paying the total cost of the water level recording equipment.
- b) All costs associated with the purchase, installation and operation of specialized water quantity survey equipment will be paid for by the party or parties requiring the service.

ARTICLE VIII

Canada or the Province, depending on the operating responsibilities, shall submit invoices for one-quarter of the annual payment on July 1st, October 1st, January 1st and March 1st of each fiscal year in accordance with the annual payment set out in Schedule D. Payment is to be made as soon as possible after receipt of each quarterly claim but in no case later than March 31st of each year.

ARTICLE IX

Except as agreed by the parties hereto where both parties have an interest, either operational or financial, the annual net change in the total number of water quantity survey stations, including federal, federal-provincial and provincial, as set out in Schedule A, is not to exceed 7% in any year.

ARTICLE X

Each party constructing or operating a water quantity survey station or stations shall keep complete records of all shareable expenditures made pursuant to this agreement and shall support such expenditures with proper documentation. Canada and the Province upon request shall make these records and documents available to auditors appointed by each other.

CO-OPERATION

ARTICLE XI

There shall be a free exchange of water quantity survey data between Canada and the Province. The party operating the water quantity survey station shall retain originals or a microfilm copy of observations, measurements, recorder charts and computations and these are to be available to the other party on request.

ARTICLE XII

The officials named in Article XIII shall establish a Co-ordinating Committee representing each of the parties affected by this agreement. The Co-ordinating Committee shall be responsible for:

- a) Planning and the continuing review of water quantity survey networks, including addition and deletion of all stations within Provincial boundaries.
- b) Determining and reviewing the designation of water quantity survey stations using national guidelines which may from time to time be changed, subject to ratification by Canada and all of the Provinces.
- c) Assuring the maintenance of standards in procedures, data compilation and instrumentation.
- d) Reviewing annual operating costs and establishing average annual station costs, as per Article VI, for revision of Schedule D.

ARTICLE XII (Cont'd)

- e) Preparation annually of new Schedules A and D which with the approval of the officials named in Article XIII would apply for the second and each subsequent year of the agreement.

The committee shall meet at least once a year and shall report to the officials named in Article XIII.

ADMINISTRATIVE ARRANGEMENTS

ARTICLE XIII

This agreement is to be administrated for Canada by the Regional Director of the Inland Waters Directorate located at Regina, Saskatchewan, and for the Province by the Chief, Water Management Service, Saskatchewan Department of Environment, located at Regina, Saskatchewan.

IMPLEMENTATION

ARTICLE XIV

The parties hereto agree that water quantity surveys will be carried out as indicated in Articles I to XIII inclusive and the Schedules attached hereto.

PERIOD OF AGREEMENT

ARTICLE XV

This agreement shall become effective and binding on the parties upon the first day of April, 1975.

The agreement may be terminated by Canada or the Province on March 31st of any year provided that eighteen (18) months notice in writing is given. The agreement may be revised with the consent of the Governor-in-Council and the Lieutenant Governor-in-Council.

IN WITNESS WHEREOF the Honourable Jeanne Sauvé, Minister of Environment has hereunto set her hand on behalf of Canada, and the Honourable Neil E. Byers, Minister of Environment has hereunto set his hand on behalf of the Province of Saskatchewan.

Signed on behalf of Canada)
by the Honourable Jeanne Sauvé,)
Minister of Environment)

IN THE PRESENCE OF)

Signed on behalf of the Province of)
Saskatchewan by the Honourable)
Neil E. Byers, Minister of)
Environment)

IN THE PRESENCE OF)

APPENDIX II
MEMORANDUM OF AGREEMENT
SCHEDULE A
SASKATCHEWAN WATER QUANTITY STATIONS 1977-78

SCHEDULE A

SASKATCHEWAN WATER QUANTITY STATIONS

1977-78

FEDERAL 1. SUPPORT NATIONAL PROGRAMS

PAGE 1

ITEM	INDEX *	STATION NAME	*RECORD RETAINED*	*OPERATION*	ACCESS	*
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* NO. * NO. * *-----*-----*-----*-----*

* * * * * *AGENCY*FLOW*LEVEL*SED.* 8M *12M *REMOTE*NORMAL*

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* 1. 05GG005	ANGLIN LAKE RESERVOIR	* WSC	X		X		X	*
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* 2. 05HA070	DOWNIE LAKE INFLOW CANAL	* WSC	X		X				X	*
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* 3. 05HA064	DOWNIE LAKE RESERVOIR NEAR MAPLE CREEK	* WSC	X	X	X	*
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* 4. 05JF008	FAHLMAN CREEK NEAR DAVIN	* WSC	X		X		X	*
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* 5. 05HA069 GAP CREEK BELOW DOWNIE LAKE DIVERSION * WSC X X X *

* 6. 05HA074	HARRIS RESERVOIR NEAR MAPLE CREEK	* WSC	X	X	X	*
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* 7. 05HA063	JUNCTION RESERVOIR NEAR MAPLE CREEK	* WSC	X	X	X	*
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#	8.	05HA076	MAPLE CREEK BELOW JUNCTION RESERVOIR	#	WSC	X		X		X	#
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* 9. 05JC004	RUSHLAKE CREEK ABOVE FIGHFIELD RESERVOIR	* WSC	X		X		X	*
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# 10. 05GG007	SPRUCE RIVER BELCH ANGLIN LAKE RESERVOIR	# WSC	X			X			X	#
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* 11. 05GG006	SPRUCE RIVER DIVERSION TO EMMA LAKE	* WSC	X		X		X	*
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* 12. 06CA002	WASKESIU LAKE AT WASKESIU LAKE	* WSC	X	X	X *
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SCHEDULE A

SASKATCHEWAN WATER QUANTITY STATIONS

1977-78

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FEDERAL 2. INTERPROVINCIAL RIVERS

ITEM	INDEX	STATION NAME	*RECORD	OBTAINED	*OPERATION*	ACCESS
* NO.*	NO.		*-----*	*-----*	*-----*	*-----*
* * *	* * *		*AGENCY*	FLOW*	LEVEL*	SED.*
* * *	* * *		* 8M	* 12M	* REMOTE	* NORMAL
* 1.	05MD004	ASSINIBOINE RIVER AT KAMSACK	* WSC	X	X	X
* 2.	05JE010	AVONLEA INDEX RESERVOIR	* WSC	X	X	X
* 3.	05JE007	AVONLEA RESERVOIR NEAR AVONLEA	* WSC	X	X	X
* 4.	11AB117	BATTLE CREEK AT ALBERTA BOUNDARY	* WSC	X	X	X
* 5.	05FE001	BATTLE RIVER NEAR UNWIN	* WSC	X	X	X
* 6.	05AH001	BOXELDER CREEK NEAR WALSH	* WSC	X	X	X
* 7.	05HF007	BROCKFICK IRRIGATION PROJECT MAIN CANAL BELOW PUMPING STATION	* WSC	X	X	X
* 8.	05JG009	BUFFALO POUND LAKE AT PUMPING STATION	* WSC	X	X	X
* 9.	05KH007	CARROT RIVER NEAR TURNBERRY	* WSC	X	X	X
* 10.	06EA002	CHURCHILL RIVER AT SANDY BAY	* WSC	X	X	X
* 11.	05JM006	CROOKED LAKE NEAR GRAYSON	* WSC	X	X	X
* 12.	05KH011	DRAGLINE CHANNEL NEAR SQUAW RAPIDS	* WSC	X	X	X
* 13.	05JK005	ECHO LAKE AT FISH HATCHERY	* WSC	X	X	X
* 14.	05JG006	FLBOW DIVERSION CANAL AT CRCP STRUCTURE	* WSC	X	X	X
* 15.	05JM018	FSTERHAZY INDEX RESERVOIR	* WSC	X	X	X
* 16.	05JL004	KATEPWA LAKE AT CUTLET WEIR	* WSC	X	X	X
* 17.	05HF003	LAKE CIEFENBAKER AT GARDINER DAM	* WSC	X	X	X

SCHEDULE A

SASKATCHEWAN WATER QUANTITY STATIONS
1977-78
FEDERAL 2. INTERPROVINCIAL RIVERS

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*****
*ITEM* INDEX *          STATION NAME          *RECORD OBTAINED*OPERATION*  ACCESS  *
* NO.* NO.  *          *-----*-----*-----*-----*
*      *      *          *AGENCY*FLOW*LEVEL*SED.* 8M *12M *REMOTE*NORMAL*
*-----*-----*-----*-----*-----*-----*
*
* 18. 05JH006  LAST MOUNTAIN CREEK NEAR CRAVEN      * WSC      X              X              X  *
* 19. 05JH004  LAST MOUNTAIN LAKE AT ROWAN'S RAVINE  * WSC      X              X              X  *
* 20. 11AB082  LODGE CREEK AT ALBERTA BOUNDARY      * WSC      X              X              X  *
* 21. 05JF013  LUMSDEN INDEX RESERVOIR              * WSC      X              X              X  *
* 22. 05JE006  MOOSE JAW RIVER NEAR BURDICK        * WSC      X              X              X  *
* 23. 05GG001  NORTH SASKATCHEWAN RIVER AT PRINCE   *
*              ALBERT                             * WSC      X              X              X  *
* 24. 05EF001  NORTH SASKATCHEWAN RIVER NEAR DEER CREEK * WSC      X              X              X  *
* 25. 05JG004  QU'APPELLE RIVER ABOVE BUFFALO POUND *
*              LAKE                               * WSC      X              X              X  *
* 26. 05JM013  QU'APPELLE RIVER AT FYDE            * WSC      X              X              X  *
* 27. 05JL001  QU'APPELLE RIVER AT CUTLET OF KATEPWA *
*              LAKE                               * WSC      X              X              X  *
* 28. 05JK002  QU'APPELLE RIVER BELOW CRAVEN DAM    * WSC      X              X              X  *
* 29. 05JG007  QU'APPELLE RIVER BELOW MOOSE JAW RIVER * WSC      X              X              X  *
* 30. 05JF001  QU'APPELLE RIVER NEAR LUMSDEN        * WSC      X              X              X  *
* 31. 05JM001  QU'APPELLE RIVER NEAR WELBY          * WSC      X              X              X  *
* 32. 05LC001  RED DEER RIVER NEAR ERWOOD           * WSC      X              X              X  *
* 33. 05HD033  REID LAKE NEAR DUNCAIRN             * WSC      X              X              X  *
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SCHEDULE A

SASKATCHEWAN WATER QUANTITY STATIONS
1977-78

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FEDERAL 2. INTERPROVINCIAL RIVERS

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*****
*ITEM* INDEX *          STATION NAME          *RECORD OBTAINED* OPERATION*  ACCESS  *
* NO.* NO.  *          *          *-----*-----*-----*
*   *   *          *          *AGENCY*FLOW*LEVFL*SED.* 8M.*12M *REMOTE*NORMAL*
*-----*-----*-----*-----*-----*-----*
*
* 34. 05JM007  ROUND LAKE NEAR WHITEWOOD      * WSC          X          X          X  *
* 35. 05KH008  SASKATCHEWAN RIVER NEAR MANITOBA  *          *-----*-----*-----*
*          BOUNDARY      * WSC          X          X          X  *
* 36. 05JH007  SILTON INDEX RESERVOIR          * WSC          X          X          X  *
* 37. 05HG001  SOUTH SASKATCHEWAN RIVER AT SASKATOON * WSC          X          X          X  *
* 38. 05HH001  SOUTH SASKATCHEWAN RIVER AT ST. LOUIS * WSC          X          X          X  *
* 39. 05HD034  SWIFT CURRENT CANAL AT SWIFT CURRENT * WSC          X          X          X  *
* 40. 05MB009  THEODORE RESERVOIR NEAR THEODORE * WSC          X          X          X  *
*
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SCHEDULE A

SASKATCHEWAN WATER QUANTITY STATIONS
1977-78

FEDERAL 3. INTERNATIONAL COMMITMENTS

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FEDERAL 3. INTERNATIONAL COMMITMENTS						
ITEM	INDEX	*STATION NAME*	*RECORD OBTAINED*OPERATION* ACCESS*			
* NO.*	NO.		*AGENCY*	*FLOW*	*LEVEL*	*SED.* 8M *12M *REMOTE*NORMAL*
* 1.	11AB095	ADAMS LAKE	* WSC	X	X	X *
* 2.	11AB089	ALTAWAN RESERVOIR NEAR GOVENLOCK	* WSC	X	X	X *
* 3.	05NC006	ARCOLA INDEX RESERVOIR	* WSC	X	X	X *
* 4.	11AB100	BATTLE CREEK ABOVE CYPRESS LAKE WEST OUTFLOW CANAL	* WSC	X	X	X *
* 5.	11AB027	BATTLE CREEK AT INTERNATIONAL BOUNDARY	* WSC	X	X	X *
* 6.	11AB101	BATTLE CREEK BELCW NASHLYN PROJECT	* WSC	X	X	X *
* 7.	11AB096	BATTLE CREEK NEAR CONSUL	* WSC	X	X	X *
* 8.	11AF005	BEAVER CREEK NEAR INTERNATIONAL BOUNDARY	* WSC	X	X	X *
* 9.	11AC064	BFLANGER CREEK DIVERSION TO CYPRESS LAKE	* WSC	X	X	X *
* 10.	11AC037	CYPRESS LAKE	* WSC	X	X	X *
* 11.	11AC060	CYPRESS LAKE EAST OUTFLOW CANAL	* WSC	X	X	X *
* 12.	11AB078	CYPRESS LAKE WEST INFLOW CANAL	* WSC	X	X	X *
* 13.	11AB085	CYPRESS LAKE WEST INFLOW CANAL DRAIN	* WSC	X	X	X *
* 14.	11AB077	CYPRESS LAKE WEST OUTFLOW CANAL	* WSC	X	X	X *
* 15.	05NB029	DEAD LAKE PROJECT - SOURIS RIVER CHANNEL	* WSC	X	X	X *
* 16.	05NB022	DEAD LAKE RESERVOIR NEAR MICALE	* WSC	X	X	X *
* 17.	11AC025	DENNIEL CREEK NEAR VAL MARIE	* WSC	X	X	X *

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FEDERAL 3. INTERNATIONAL COMMITMENTS

ITEM	INDEX	*STATION NAME	*RFCORD OBTAINED*OPERATION* ACCESS						
* NO.*	NO.	*	*-----*-----*-----*						
* *	*	*	*AGENCY*FLOW*LEVEL*SED.* 8M *12M *REMOTE*NORMAL*						
* *	*	*	*-----*-----*-----*						

* 18.	11AE013	EAST POPLAR RESERVOIR NEAR CORONACH	* WSC		X			X	X
* 19.	11AE003	EAST POPLAR RIVER AT INTERNATIONAL	*						
		BOUNDARY	* WSC	X			X		X
* 20.	11AC052	EASTEND CANAL	* WSC	X			X		X
* 21.	11AC055	EASTEND RESERVOIR	* WSC		X		X		X
* 22.	11AC041	FRENCHMAN RIVER AT INTERNATIONAL	*						
		BOUNDARY	* WSC	X		X	X		X
* 23.	11AC001	FRENCHMAN RIVER BELOW EASTEND RESERVOIR	* WSC	X			X		X
* 24.	11AC062	FRENCHMAN RIVER BELOW VAL MARIE	*						
		RESERVOIR	* WSC	X			X		X
* 25.	05ND006	FROBISHER INDEX RESERVOIR	* WSC		X		X		X
* 26.	11AB102	GAFF DITCH NEAR MERRYFLAT	* WSC	X			X		X
* 27.	05NA006	LARSEN RESERVOIR NEAR RADVILLE	* WSC		X		X		X
* 28.	11AB083	LODGE CREEK BELOW MCRAE CREEK AT	*						
		INTERNATIONAL BOUNDARY	* WSC	X			X		X
* 29.	05NA003	LONG CREEK AT WESTERN CROSSING OF	*						
		INTERNATIONAL BOUNDARY	* WSC	X			X		X
* 30.	05NB001	LONG CREEK NEAR ESTEVAN	* WSC	X			X		X
* 31.	05NB027	LONG CREEK NEAR NOONAN	* WSC	X			X		X
* 32.	11AB075	LYONS CREEK AT INTERNATIONAL BOUNDARY	* WSC	X			X		X

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*ITEM* INDEX *          STATION NAME          *RECORD OBTAINED*OPERATION*  ACCESS  *
* NO.*  NO.  *          *-----*-----*-----*-----*
*      *      *          *AGENCY*FLOW*LEVEL*SED.* 8M *12M *REMOTE*NORMAL*
*-----*-----*-----*-----*-----*-----*
*
* 33. 11AB044  MCKINNON DITCH NEAR CONSUL      * WSC      X              X              X *
* 34. 11AB008  MIDDLE CREEK ABOVE LODGE CREEK  * WSC      X              X              X *
* 35. 11AB001  MIDDLE CREEK BELOW MIDDLE CREEK  *          *          *          *          *
*          RESERVOIR                        * WSC      X              X              X *
* 36. 11AB108  MIDDLE CREEK NEAR GOVENLOCK      * WSC      X              X              X *
* 37. 11AB080  MIDDLE CREEK RESERVOIR          * WSC              X              X              X *
* 38. 11AB114  MIDDLE CREEK RESERVOIR BECFORD OUTLET * WSC      X              X              X *
* 39. 11AB115  MIDDLE CREEK RESERVOIR FLOOD SPILLWAY * WSC      X              X              X *
* 40. 11AB113  MIDDLE CREEK RESERVOIR MAIN OUTLET * WSC      X              X              X *
* 41. 11AE008  MIDDLE FORK POPLAR RIVER AT      *          *          *          *          *
*          INTERNATIONAL BOUNDARY            * WSC      X              X              X *
* 42. 05NC002  MOOSE MOUNTAIN LAKE (RESERVOIR) NEAR *          *          *          *          *
*          CORNING                          * WSC              X              X              X *
* 43. 11AB018  NASHLYN CANAL NEAR CONSUL        * WSC      X              X              X *
* 44. 05NA009  RADVILLE INDEX RESERVOIR        * WSC              X              X              X *
* 45. 11AB058  RICHARDSON DITCH NEAR CONSUL      * WSC      X              X              X *
* 46. 11AE009  ROCK CREEK BELOW HORSE CREEK NEAR *          *          *          *          *
*          INTERNATIONAL BOUNDARY            * WSC      X              X              X *
* 47. 05NB016  ROUGHBARK RESERVOIR NEAR WEYBURN  * WSC              X              X              X *
* 48. 11AB020  SHEPHERD DITCH NEAR CONSUL      * WSC      X              X              X *
*          *          *          *          *          *
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*****
*ITEM* INDEX *          STATION NAME          *RECORD OBTAINED*OPERATION*  ACCESS  *
* NO.*  NO.  *          *-----*-----*-----*-----*
*   *    *          *AGENCY*FLOW*LEVEL*SED.* 8M *12M *REMOTE*NORMAL*
*-----*-----*-----*-----*-----*-----*
*
* 49. 05NB021  SHORT CREEK NEAR ROCHE PERCEE      * WSC      X              X              X  *
* 50. 05ND001  SOURIS RIVER NEAR GLEN EWEN        * WSC      X              X              X  *
* 51. 05ND007  SOURIS RIVER NEAR SHERWOOD         * WSC      X              X              X  *
* 52. 11AB060  SPANGLER DITCH NEAR GOVENLOCK      * WSC      X              X              X  *
* 53. 11AB103  SQUAW COULFE NEAR WILLOW CREEK     * WSC      X              X              X  *
* 54. 05NB018  TATAGWA LAKE DRAIN NEAR WEYBURN    * WSC      X              X              X  *
* 55. 11AC068  VAL MARIE ELECTRIC PUMP NO. 1       * WSC      X              X              X  *
* 56. 11AC069  VAL MARIE ELECTRIC PUMP NO. 2       * WSC      X              X              X  *
* 57. 11AC054  VAL MARIE MAIN CANAL                * WSC      X              X              X  *
* 58. 11AC056  VAL MARIE RESERVOIR                 * WSC      X              X              X  *
* 59. 11AC065  VAL MARIE WEST GRAVITY CANAL        * WSC      X              X              X  *
* 60. 11AC066  VAL MARIE WEST PUMPING CANAL        * WSC      X              X              X  *
* 61. 11AC063  VAL MARIE WEST RESERVOIR             * WSC      X              X              X  *
* 62. 11AB084  VIDORA DITCH NEAR CONSUL            * WSC      X              X              X  *
* 63. 05NB024  WEYBURN INDEX RESERVOIR             * WSC      X              X              X  *
* 64. 05NB020  WEYBURN RESERVOIR NEAR WEYBURN      * WSC      X              X              X  *
* 65. 11AD001  WHITEWATER CREEK NEAR INTERNATIONAL  *
*              BOUNDARY                          * WSC      X              X              X  *
*
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*****
*ITEM* INDEX *          STATION NAME          *RECORD CONTAINED*OPERATION*  ACCESS  *
* NO.* NO.  *          *-----*-----*-----*-----*
*   *   *          *AGENCY*FLOW*LEVEL*SED.* 8M *12M *REMOTE*NORMAL*
*-----*-----*-----*-----*
*
* 66. 05NB011 YELLOW GRASS DITCH NEAR YELLOW GRASS * WSC      X              X              X *
*
*****

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FEDERAL 4. MAJOR NAVIGATIONAL IMPORTANCE

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*****
*ITEM* INDEX *
* NO.* NO. *
* * *
*-----*
*AGENCY*FLOW*LEVEL*SED.* 8M *12M *REMOTE*NORMAL*
*-----*
*
*
* 1. 07MC003 LAKE ATHABASCA NEAR CRACKINGSTONE POINT * WSC X X X *
*
*****

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FEDERAL 5. NATIONALLY FUNDED RESEARCH PROJECTS

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FEDERAL & NATIONALLY FUNDED RESEARCH PROJECTS									
ITEM	INDEX	STATION NAME			*RECORD OBTAINED*		*OPERATION*		ACCESS
* NO.	* NO.				*	*	*	*	*
					*AGENCY*FLOW*LEVEL*SED.* 8M *12M *REMOTE*NORMAL*				
					*	*	*	*	*
* 1.	05HF019	ARNOLD TRIBUTARY NEAR FISKE			* WSC	X		X	X
* 2.	05HF014	CREIGHTON TRIBUTARY NEAR TOTNES			* WSC	X		X	X
* 3.	05HF016	GREENLEIGH RESERVOIR NEAR BICKLEIGH			* WSC		X	X	X
* 4.	05HF015	MCDONALD TRIBUTARY NEAR TCTNES			* WSC	X		X	X
* 5.	05HF013	RIDALLS TRIBUTARY BELCW GREENLEIGH RESERVOIR			* WSC	X		X	X
* 6.	05HF018	SMITH TRIBUTARY NEAR FISKE			* WSC	X		X	X
* 7.	05HF010	WHITE RESERVOIR NEAR FISKE			* WSC		X	X	X
* 8.	05HF020	WHITE RESERVOIR CUTFLW			* WSC	X		X	X
* 9.	05HF011	WHITE TRIBUTARY NEAR FISKE			* WSC	X		X	X

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FEDERAL 6. BASIN INVESTIGATIONS

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*****
*ITEM* INDEX *          STATION NAME          *RECORD OBTAINED*OPERATION*  ACCESS  *
* NO.* NO.  *          *-----*-----*-----*-----*
*      *      *          *AGENCY*FLOW*LEVEL*SED.* 8M *12M *REMOTE*NORMAL*
*-----*-----*-----*-----*-----*-----*
*
* 1. 05NA005  GIBSON CREEK NEAR RADVILLE      * WSC      X              X              X *
* 2. 05NB014  JEWEL CREEK NEAR GOODWATER      * WSC      X              X              X *
* 3. 05NA004  LONG CREEK NEAR MAXIM           * WSC      X              X              X *
* 4. 05JE001  MOOSE JAW RIVER ABOVE THUNDER CREEK * WSC      X              X              X *
* 5. 05NC001  MOOSE MOUNTAIN CREEK BELOW MOOSE *      *      *      *      *      *
*      MOUNTAIN LAKE                        * WSC      X              X              X *
* 6. 05ND004  MOOSE MOUNTAIN CREEK NEAR OXBOW  * WSC      X              X              X *
* 7. 05JK007  QU'APPELLE RIVER BELOW LOCN CREEK * WSC      X              X              X *
* 8. 05NB017  SOURIS RIVER NEAR HALBRITE      * WSC      X              X              X *
* 9. 05NB009  SOURIS RIVER NEAR ROCHE PERCEE  * WSC      X              X              X *
* 10. 05JF005  WASCANA CREEK NEAR LUMSDEN     * WSC      X              X              X *
*
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FEDERAL 7. NATIONAL STREAM INVENTORY

ITEM	INDEX	STATION NAME	*RECORD OBTAINED*	*OPERATION*	ACCESS	
* NO.*	NO.		*-----*	*-----*		
* * *	* * *		*AGENCY*	*FLOW*	*LEVEL*	
* * *	* * *		*SED.*	* 8M *	*12M *	
* * *	* * *			*REMOTE*	*NORMAL*	
* * *	* * *					
* 1.	06CA004	BIGSTONE LAKE NEAR LA RONGE	* WSC	X	X	X
* 2.	05KC001	CARROT RIVER NEAR SMOKY BURN	* WSC	X	X	X
* 3.	07LC002	CHIPMAN RIVER ABOVE BLACK LAKE	* WSC	X	X	X
* 4.	06CD002	CHURCHILL RIVER ABOVE CTEER RAPIDS	* WSC	X	X	X
* 5.	06BB003	CHURCHILL RIVER NEAR PATUANAK	* WSC	X	X	X
* 6.	07CD006	CLEARWATER RIVER AT OUTLET OF LLOYD LAKE	* WSC	X	X	X
* 7.	07LD001	CREE LAKE AT CABLE BAY	* WSC	X	X	X
* 8.	07LD002	CREE RIVER AT OUTLET OF WAPATA LAKE	* WSC	X	X	X
* 9.	06BA002	DILLON RIVER AT OUTLET OF DILLON LAKE	* WSC	X	X	X
* 10.	07LE002	FOND DU LAC RIVER AT OUTLET OF BLACK LAKE	* WSC	X	X	X
* 11.	07LA002	GEIKIE RIVER BELOW WHEELER RIVER	* WSC	X	X	X
* 12.	07LE003	GREASE RIVER BELOW FONTAINE LAKE	* WSC	X	X	X
* 13.	06BD001	HAULTAIN RIVER ABOVE NORBERT RIVER	* WSC	X	X	X
* 14.	07MB001	MACFARLANE RIVER AT OUTLET OF DAVY LAKE	* WSC	X	X	X
* 15.	06CA001	MONTREAL RIVER AT OUTLET OF BIGSTONE LAKE	* WSC	X	X	X
* 16.	05KJ014	PASQUIA RIVER AT HIGHWAY NO. 109	* WSC	X	X	X
* 17.	07LC003	PORCUPINE RIVER AT OUTLET OF GROVE LAKE	* WSC	X	X	X

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FEDERAL 7. NATIONAL STREAM INVENTORY

*****			*****			
ITEM	INDEX	*	STATION NAME		*RECORD OBTAINED*OPFRATION*	ACCESS
* NO.*	NO.	*				*
-----					*AGENCY*FLOW*LEVEL*SED.*	*8M *12M *REMOTE*NORMAL*

* 18.	05HD036		SWIFT CURRENT CREEK BELOW	FOCK CREEK	* WSC X	X X
* 19.	06AF006		WATERHEN RIVER ABOVE	BEAVER RIVER	* WSC X	X X
* 20.	06DA001		WOLLASTON LAKE AT	ROSS CHANNEL	* WSC X	X X
*****			*****			

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*****
*ITEM* INDEX *          STATION NAME          *RECORD OBTAINED*OPERATION*  ACCESS  *
* NO.  NO.  *          *          *-----*-----*-----*
*      *      *          *AGENCY*FLOW*LEVEL*SED.* 8M *12M *REMOTE*NORMAL*
*-----*-----*-----*-----*-----*-----*
*
* 1. 06AD011  ALCOTT CREEK ABOVE MEADOW LAKE      * WSC      X              X              X *
* 2. 05KG003  AMISK LAKE NEAR FLIN FLON            * WSC              X              X              X *
* 3. 05HC005  ANTELOPE CREEK NEAR CABRI              * WSC      X              X              X *
* 4. 05NF010  ANTLER RIVER NEAR WAUCHOPE            * WSC      X              X              X *
* 5. 05JH001  ARM RIVER NEAR BETHUNE                * WSC      X              X              X *
* 6. 05MC001  ASSINIBOINE RIVER AT STURGIS          * WSC      X              X              X *
* 7. 05JE005  AVONLEA CREEK NEAR ROULEAU            * WSC      X              X              X *
* 8. 05KF001  BALLANTYNE RIVER ABOVE BALLANTYNE BAY   * WSC      X              X              X *
* 9. 05FF001  BATTLE RIVER AT BATTLEFORD            * WSC      X              X              X *
* 10. 05HA003  BEAR CREEK NEAR PIAPOT                    * WSC      X              X              X *
* 11. 06AG001  BEAVER RIVER BELOW WATERHEN RIVER        * WSC      X              X              X *
* 12. 06AD001  BEAVER RIVER NEAR DORINTOSH              * WSC      X              X              X *
* 13. 05FF005  BIG GULLY CREEK NEAR MAIDSTONE              * WSC      X              X              X *
* 14. 05MA011  BIRCH CREEK NEAR ELFRCS                        * WSC      X              X              X *
* 15. 05EG006  BIRLING CREEK NEAR PAYNTON                      * WSC      X              X              X *
* 16. 05JF006  BOGGY CREEK NEAR LUMSDEN                        * WSC      X              X              X *
* 17. 05NB012  BOUNCARY RESERVOIR NEAR ESTEVAN                * WSC              X              X              X *
* 18. 05HA015  BRIDGE CREEK AT GULL LAKE                      * WSC      X              X              X *
*
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ITEM	INDEX	*STATION NAME	*RECORD OBTAINED*		*OPERATION*		ACCESS		*
* NO.*	NO.	*	*-----*-----*-----*-----*		*-----*-----*-----*-----*		*-----*-----*-----*-----*		*
* *	*	*	*AGENCY*FLGW*LEVEL*SED.*		8M	*12M	*REMOTE*	*NORMAL*	*
----------*-----*-----*									
----------*-----*-----*									
* 19.	05HG002	BRIGHTWATER CREEK NEAR KENASTON	* WSC	X		X		X	*
* 20.	05KB005	BURNTOUT BROOK NEAR ARBORFIELD	* WSC	X		X		X	*
* 21.	06BB005	CANDE RIVER NEAR BEAUVAL	* WSC	X			X	X	*
* 22.	05KB003	CARROT RIVER NEAR ARMLEY	* WSC	X		X		X	*
* 23.	05JF011	COTTONWOOD CREEK NEAR LUMSDEN	* WSC	X		X		X	*
* 24.	05HB002	COULEE NEAR FOX VALLEY	* WSC	X		X		X	*
* 25.	05HH002	CROMARTY CREEK NEAR BIRCH HILLS	* WSC	X		X		X	*
* 26.	05MB006	CROOKED HILL CREEK NEAR CANCRA	* WSC	X		X		X	*
* 27.	05EG004	CRYSTAL CREEK NEAR IFFLEY	* WSC	X		X		X	*
* 28.	05KH002	CUMBERLAND LAKE NEAR CUMBERLAND HOUSE	* WSC		X		X	X	*
* 29.	05JM015	CUTARM CREEK NEAR SPY HILL	* WSC	X		X		X	*
* 30.	06AG002	DORE RIVER NEAR THE MOUTH	* WSC	X			X	X	*
* 31.	07MA003	DOUGLAS RIVER NEAR CLUFF LAKE	* WSC	X			X	X	*
* 32.	05HH003	DUCK LAKE CREEK NEAR ROSTERN	* WSC	X		X		X	*
* 33.	05GC006	EAGLE CREEK NEAR ENVIRON	* WSC	X		X		X	*
* 34.	05JM010	EKAPO CREEK NEAR MARTEVAL	* WSC	X		X		X	*
* 35.	05LB002	ETOMAMI RIVER NEAR BERTWELL	* WSC	X		X		X	*
* 36.	05GA007	EYEHILL CREEK NEAR MACKLIN	* WSC	X		X		X	*

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FEDERAL-PROVINCIAL										
ITEM	INDEX	*STATION NAME	*RECORD OBTAINED*OPERATION* ACCESS							
* NO.*	NO.		*AGENCY*	FLOW*	LEVEL*	SED.*	8M	*12M	*REMOTE*	*NORMAL*
* 37.	05LB007	FIR RIVER NEAR HUDSON BAY	* WSC	X				X		X
* 38.	06CE001	FOSTER RIVER ABOVE CHURCHILL RIVER	* WSC	X				X	X	
* 39.	05NF013	GAINSBROUGH CREEK NEAR STORTHOAKS	* WSC	X				X		X
* 40.	05GG010	GARDEN RIVER NEAR HENRIBOURG	* WSC	X				X		X
* 41.	05KA009	GOOSEHUNTING CREEK NEAR BEATTY	* WSC	X				X		X
* 42.	11AF010	HAY MEADOW CREEK NEAR LISIEUX	* WSC	X				X		X
* 43.	05JL002	INDIANHEAD CREEK NEAR INDIAN HEAD	* WSC	X				X		X
* 44.	05MA012	IRONSPRING CREEK NEAR WATSON	* WSC	X				X		X
* 45.	05JG014	ISKWAO CREEK NEAR CRAIK	* WSC	X				X		X
* 46.	05JK004	JUMPING DEER CREEK NEAR LIPTON	* WSC	X				X		X
* 47.	06BB004	KEELEY RIVER AT CUTLET OF KEELEY LAKE	* WSC	X				X	X	
* 48.	06CB001	LAC LA RONGE AT LA RONGE	* WSC		X			X		X
* 49.	05JD004	LAKE OF THE RIVERS WEST INFLW	* WSC	X				X		X
* 50.	05JJ003	LANIGAN CREEK BELOW DIVERSION	* WSC	X				X		X
* 51.	05KB006	LEATHER RIVER NEAR STAR CITY	* WSC	X				X		X
* 52.	05JH005	LEWIS CREEK NEAR IMPERIAL	* WSC	X				X		X
* 53.	05NF006	LIGHTNING CREEK NEAR CARNCUFF	* WSC	X				X		X
* 54.	05MC003	LILIAN RIVER NEAR LADY LAKE	* WSC	X				X		X

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*ITEM* INDEX *          STATION NAME          *RFCORD OBTAINED*OPERATION*  ACCESS  *
* NO.* NO.  *          *-----*-----*-----*-----*
*      *      *          *AGENCY*FLOW*LEVEL*SED.* 8M *12M *REMOTE*NORMAL*
*-----*-----*-----*-----*-----*
*
* 55. 05LB004  LOISELLE CREEK NEAR HUDSON BAY      * WSC      X              X              X *
* 56. 05HF005  MACDONALD CREEK NEAR BCUNTY          * WSC      X              X              X *
* 57. 05MA021  MAGNUSSON CREEK NEAR WYNYARD         * WSC      X              X              X *
* 58. 06AD007  MAKWA RIVER AT RAPID VIEW            * WSC      X              X              X *
* 59. 05LE011  MALONECK CREEK NEAR PELLY            * WSC      X              X              X *
* 60. 05JA003  MCDONALD CREEK NEAR MCCORD           * WSC      X              X              X *
* 61. 05EF004  MCNNERY RIVER NEAR PARADISE HILL      * WSC      X              X              X *
* 62. 06CA005  MONTREAL LAKE NEAR MOLANOSA           * WSC      X              X              X *
* 63. 06CA003  MONTREAL RIVER AT HIGHWAY NO. 2       * WSC      X              X              X *
* 64. 05JE004  MOOSE JAW RIVER NEAR ROULEAU          * WSC      X              X              X *
* 65. 05NE002  MOOSOMIN RESERVOIR NEAR MCCOMIN       * WSC      X              X              X *
* 66. 06BC001  MUDJATIK RIVER NEAR FORCIER LAKE      * WSC      X              X      X              *
* 67. 05JB004  NOTUKEU CREEK ABOVE ADMIRAL RESERVOIR * WSC      X              X              X *
* 68. 05JB001  NOTUKEU CREEK NEAR VANGUARD           * WSC      X              X              X *
* 69. 05GD002  OSCAR CREEK NEAR KRYDER              * WSC      X              X              X *
* 70. 07LE004  OTHERSIDE RIVER AT OUTLET OF MFCREDI   *
*      LAKE      * WSC      X              X      X              *
* 71. 06EA007  PAGATO RIVER AT CUTLET OF PAGATO LAKE    * WSC      X              X      X              *
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ITEM	INDEX	STATION NAME	*RECORD OBTAINED*	*OPERATION*	ACCESS
* NO.*	* NO.*		*-----*	*-----*	*-----*
* *	* *		*AGENCY*	*FLOW*	*LEVEL*SED.* 8M *12M *REMOTE*NORMAL*
* *	* *		*-----*	*-----*	*-----*
* 72.	05JL005	PHEASANT CREEK NEAR ABERNETHY	* WSC	X	X
* 73.	05JA004	PINTO CREEK NEAR WOODROW	* WSC	X	X
* 74.	05NE001	PIPESTONE CREEK NEAR MOOSOMIN	* WSC	X	X
* 75.	06BC002	POPTER LAKE AT CREW CABIN	* WSC	X	X X
* 76.	05MA020	QUILL CREEK NEAR QUILL LAKE	* WSC	X	X
* 77.	05MA014	RANCH CREEK NEAR ANNAHEIM	* WSC	X	X
* 78.	05LB005	RED DEER RIVER NEAR STEEN	* WSC	X	X
* 79.	05JG013	RIDGE CREEK NEAR BRIDGEFORD	* WSC	X	X
* 80.	05JB002	RUSSELL CREEK NEAR VANGUARD	* WSC	X	X
* 81.	05JJ009	SALINE CREEK NEAR NOKOMIS	* WSC	X	X
* 82.	05KD003	SASKATCHEWAN RIVER BELOW TOBIN LAKE	* WSC	X	X X
* 83.	05KH009	SASKATCHEWAN RIVER OLD CHANNEL	* WSC	X	X
* 84.	05LB006	SHAND CREEK NEAR DILLABOUGH	* WSC	X	X
* 85.	05GF001	SHELL BROOK NEAR SHELLBROCK	* WSC	X	X
* 86.	05ME007	SMITH CREEK NEAR MARCHWELL	* WSC	X	X
* 87.	05HE001	SNAKEBITE CREEK NEAR BEECHY	* WSC	X	X
* 88.	05MB007	SPIRIT CREEK NEAR BUCHANAN	* WSC	X	X
* 89.	05MD010	STONY CREEK NEAR KAMSACK	* WSC	X	X

SASKATCHEWAN WATER QUANTITY STATIONS
1977-78
FEDERAL-PROVINCIAL

FEDERAL-PROVINCIAL

FEDERAL-PROVINCIAL										
ITEM	INDEX	*STATION NAME	*RECORD OBTAINED*OPERATION* ACCESS							
* NO.*	NO.									
* *	*	*								
			AGENCY	*FLOW*	*LEVEL*	*SED.*	*8M	*12M	*REMOTE*	*NORMAL*
* 90.	05MC002	STONY CREEK NEAR STENEN	* WSC	X				X		X
* 91.	05GF002	STURGEON RIVER NEAR PRINCE ALBERT	* WSC	X				X		X
* 92.	05KG007	STURGEON-WEIR RIVER AT LEAF RAPIDS	* WSC	X				X		X
* 93.	05KB002	STURGEON-WEIR RIVER AT OUTLET OF AMISK LAKE	* WSC	X				X		X
* 94.	05LE008	SWAN RIVER NEAR NORQUAY	* WSC	X				X		X
* 95.	05HD041	SWIFT CURRENT CREEK BELOW REID LAKE	* WSC	X				X		X
* 96.	05HD039	SWIFT CURRENT CREEK NEAR LEINAN	* WSC	X		X		X		X
* 97.	07QC002	TAZIN LAKE NEAR CUTLET	* WSC		X			X	X	
* 98.	05JG012	THUNDER CREEK NEAR DARMODY	* WSC	X				X		X
* 99.	05KE002	TORCH RIVER NEAR LOVE	* WSC	X				X		X
*100.	05FG005	TURTLELAKE RIVER NEAR TURTLEFORD	* WSC	X				X		X
*101.	05JF012	WASCANA CREEK BELOW KRONAL MARSH	* SDOE	X				X		X
*102.	05JF004	WASCANA CREEK NEAR SECLEY	* WSC	X				X		X
*103.	05JF010	WASCANA LAKE ABOVE BROAD STREET WEIR	* SDOE		X			X		X
*104.	05JF002	WASCANA LAKE BELOW BROAD STREET WEIR	* SDOE		X			X		X
*105.	07LB001	WATERBURY LAKE AT CREW CABIN	* WSC		X			X	X	
*106.	07LB002	WATERFOUNTAIN RIVER BELOW UNKNOWN LAKE	* WSC	X				X	X	

SCHEDULE A

SASKATCHEWAN WATER QUANTITY STATIONS
1977-78
FEDERAL-PROVINCIAL

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*****
*ITEM* INDEX *          STATION NAME          *RECORD OBTAINED*OPERATION* ACCESS *
* NO.* NO.  *          *          *-----*-----*-----*
*      *      *          *AGENCY*FLOW*LEVEL*SED.* 8M *12M *REMOTE*NORMAL*
*-----*-----*-----*-----*-----*-----*
*
*107. 06AF005  WATERHEN RIVER NEAR GOODSCIL      * WSC      X              X              X *
*108. 06DC001  WATHAMAN RIVER BELOW WATHAMAN LAKE  * WSC      X              X              X *
*109. 07LA003  WHEELER RIVER BELOW RUSSELL LAKE    * WSC      X              X              X *
*110. 05KE005  WHITE FOX RIVER NEAR GARRICK        * WSC      X              X              X *
*111. 05MB003  WHITESAND RIVER NEAR CANORA          * WSC      X              X              X *
*112. 05MB008  WHITESAND RIVER NEAR SPRINGSIDE      * WSC      X              X              X *
*113. 07MA004  WILLIAM RIVER ABOVE CARSWELL RIVER  * WSC      X              X              X *
*114. 05MB005  WILLOW BROOK AT WILLCWBROCK              * WSC      X              X              X *
*115. 05JA002  WOOD RIVER NEAR LAFLECHE                * WSC      X              X              X *
*116. 05MB001  YORKTON CREEK NEAR EBENEZER              * WSC      X              X              X *
*
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SASKATCHEWAN WATER QUANTITY STATIONS
1977-78
PROVINCIAL

ITEM	INDEX	*STATION NAME	*RECORD OBTAINED*	*OPERATION*	*ACCESS*
NO.	*NO.*				
*	*				
*	*				
*	*				
*	*				
* 1.	05LA006	BARRIER RIVER BELOW BARRIER LAKE	* WSC X	X	X *
* 2.	05LA001	BARRIER RIVER OVERFLOW	* WSC X	X	X *
* 3.	05MA022	BECKETT BROOK NEAR FCAM LAKE	* WSC X	X	X *
* 4.	05MA010	BIG GUILL LAKE NEAR KANDAFAR	* SDOE X	X	X *
* 5.	05KE006	BISSETT CREEK NEAR CHOICELAND	* WSC X	X	X *
* 6.	05HG014	BLACKSTRAP RESERVOIR AT SCUTH SIDE OF CAUSEWAY	* SDOE X	X	X *
* 7.	05HG013	BRADWELL RESERVOIR AT PUMP STATION	* SDOE X	X	X *
* 8.	05HG006	BRIGHTWATER RESERVOIR AT FIFARIAN OUTLET	* SDOE X	X	X *
* 9.	05HF017	BRODERICK RESERVOIR AT WEST EMBANKMENT	* WSC X	X	X *
* 10.	05JE009	BROKENSHELL CREEK NEAR TROSSACHS	* WSC X	X	X *
* 11.	05KE008	CANDLE LAKE AT CANDLE LAKE	* WSC X	X	X *
* 12.	05KA001	CARROT RIVER NEAR KINISTINC	* WSC X	X	X *
* 13.	06AD012	CHITEK LAKE AT CHITEK VILLAGE	* SDOE X	X	X *
* 14.	05GG009	CHRISTOPHER LAKE NEAR CHRISTOPHER LAKE	* SDOE X	X	X *
* 15.	05MC004	CONJURING CREEK NEAR PREECEVILLE	* WSC X	X	X *
* 16.	05KC002	CONNELL CREEK NEAR CONNELL CREEK	* WSC X	X	X *
* 17.	06AE002	COWAN LAKE AT BIG RIVER	* SDOE X	X	X *

SASKATCHEWAN WATER QUANTITY STATIONS
1977-78
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ITEM INDEX *		STATION NAME	*RECORD OBTAINED*		*OPERATION*		ACCESS
* NO.*	NO.		* AGENCY*	* FLOW*	* LEVEL*	* SED.*	* 8M *12M *REMOTE*NORMAL*
* 18.	05FF003	CUTKNIFE CREEK NEAR CUTKNIFE	* WSC	X			X
* 19.	05JJ008	DELLWOOD RESERVOIR AT PUMP STATION	* SDOE		X		X
* 20.	05KB009	DOGHIDE RIVER BELOW TISDALE	* WSC	X			X
* 21.	05LA003	DUCK CREEK NEAR KELVINGTON	* WSC	X			X
* 22.	05GC002	EAGLE CREEK NEAR ANGLIA	* WSC	X			X
* 23.	05GG008	EMMA LAKE NEAR TWEEDSMUIR	* SDOE		X		X
* 24.	05EF006	ENGLISHMAN RIVER NEAR SPRUCE LAKE	* WSC	X			X
* 25.	05MB013	FISHING LAKE NEAR WADENA	* SDOE		X		X
* 26.	05JC007	FLOWING WELL WEST INFLOW NEAR FLOWING WELL	* WSC	X			X
* 27.	05MB010	GOOD SPIRIT LAKE NEAR CANCRA	* SDOE		X		X
* 28.	05LB009	GREENWATER CREEK NEAR CHELAN	* WSC	X			X
* 29.	05LB011	GREENWATER LAKE NEAR CHELAN	* SDOE		X		X
* 30.	05EG003	JACKFISH LAKE NEAR COCHIN	* WSC		X		X
* 31.	05FG007	JACKFISH RIVER NEAR PRINCE	* WSC	X			X
* 32.	05KE007	KELSEY CREEK NEAR GARRICK	* WSC	X			X
* 33.	05ND009	KFNOSEE LAKE NEAR CARLYLE	* WSC		X		X
* 34.	05LA007	KIPABISKAU LAKE NEAR MCKAGUE	* SDOE		X		X

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SASKATCHEWAN WATER QUANTITY STATIONS
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***** PROVINCIAL *****						
ITEM	INDEX	*STATION NAME	*RECORD	OBTAINED	*OPERATION*	ACCESS
* NO.*	NO.					
			*AGENCY*FLOW*LEVEL*SED.* 8M *12M *REMOTE*NORMAL*			
* 35.	05GB001	KIYIU LAKE NEAR NETHERHILL	* SDOE	X	X	X
* 36.	05HD028	LAC PELLETIER NEAR VESPER	* SDOE	X	X	X
* 37.	05HC004	LAKE CIEFENBAKER AT SASKATCHEWAN LANDING	* WSC	X	X	X
* 38.	05JJ010	LANIGAN CREEK NEAR LANIGAN	* WSC	X	X	X
* 39.	05MB012	LAWRIE CREEK NEAR INSINGER	* WSC	X	X	X
* 40.	05KB008	LITTLE BRIDGE CREEK NEAR ARMLEY	* WSC	X	X	X
* 41.	05JJ001	LITTLE MANITOU LAKE AT MANITOU BEACH	* SDOE	X	X	X
* 42.	05MA002	LITTLE QUILL LAKE NEAR CLAIR	* SDOE	X	X	X
* 43.	05LB008	MACNAB CREEK NEAR SOMME	* WSC	X	X	X
* 44.	05LE012	MADGE LAKE NEAR KAMSACK	* SDOE	X	X	X
* 45.	06AD009	MAKWA RIVER AT OUTLET OF MAKWA LAKE	* WSC	X	X	X
* 46.	05GA006	MANITO LAKE NEAR MARSCEN	* SDOE	X	X	X
* 47.	06AD010	MEADOW RIVER BELOW MEADOW LAKE	* WSC	X	X	X
* 48.	05MA023	MILLIGAN CREEK NEAR WADENA	* WSC	X	X	X
* 49.	05JE002	MOOSE JAW RIVER NEAR LANG	* WSC	X	X	X
* 50.	06AD008	MORIN CREEK NEAR MEADOW LAKE	* WSC	X	X	X
* 51.	05JB005	MOSQUITO CREEK NEAR VANGUARD	* WSC	X	X	X
* 52.	05GB004	MUDDY LAKE INFLOW NEAR REVENUE	* WSC	X	X	X

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SASKATCHEWAN WATER QUANTITY STATIONS
1977-78
PROVINCIAL

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ITEM	INDEX	*STATION NAME	*RECORD OBTAINED*	*OPERATION*	ACCESS
* NO.*	* NO.*				
* *	* *		*AGENCY*	*FLOW*	*LEVEL* SED.*
* *	* *		8M	*12M	*REMOTE*
* *	* *				*NORMAL*
* 53.	06CB003	NEMEBEN LAKE NEAR LA RONCE	* SDNE	X	X
* 54.	05GC007	OPUNTIA LAKE WEST INFLW	* WSC	X	X
* 55.	05LD003	OVERFLOWING RIVER NEAR HUDSON BAY	* WSC	X	X
* 56.	05FG008	PAGE CREEK NEAR IFFLEY	* WSC	X	X
* 57.	05MB011	PATTEN CREEK NEAR KURCKI	* WSC	X	X
* 58.	05HG003	PIKE LAKE NEAR SASKATOON	* SDNE	X	X
* 59.	05LA004	PIPESTONE CREEK NEAR ROSE VALLEY	* WSC	X	X
* 60.	05LB010	PRAIRIE RIVER NEAR PRAIRIE RIVER	* WSC	X	X
* 61.	05GE001	RADOUGA CREEK NEAR BLAINE LAKE	* WSC	X	X
* 62.	05LA005	RED OFER RIVER NEAR ARCHERWILL	* WSC	X	X
* 63.	05MA016	ROMANCE CREEK NEAR WATSON	* WSC	X	X
* 64.	05JB006	RUSSELL CREEK RESERVOIR	* WSC	X	X
* 65.	05HG008	SASKATOON S.E. PROJECT EAST MAIN CANAL BELOW BLACKSTRAP RESERVOIR	* WSC	X	X
* 66.	05HG004	SASKATOON S.E. PROJECT EAST MAIN CANAL BELOW BRIGHTWATER RESERVOIR	* WSC	X	X
* 67.	05HG019	SASKATOON S.E. PROJECT EAST MAIN CANAL BELOW BRODERICK RESERVOIR	* WSC	X	X
* 68.	05HG009	SASKATOON S.E. PROJECT EAST MAIN CANAL BELOW ZELMA RESERVOIR	* WSC	X	X

SCHEDULE A

SASKATCHEWAN WATER QUANTITY STATIONS
1977-78
PROVINCIAL

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ITEM	INDEX	*STATION NAME*	*RECORD	OBTAINED	*OPERATION*	ACCESS
NO.	*NO.*		*AGENCY*	*FLOW*	*LEVEL*	*SED.*
* 69.	05HC002	SNIPF LAKE NEAR SNIPF LAKE	* SDOF		X	X
* 70.	05HC003	SNIPF LAKE NORTH INFLOW -	* WSC	X		X
* 71.	05NB031	SOURIS RIVER BELOW LEWVAN	* WSC	X		X
* 72.	05NB025	SOURIS RIVER NEAR LEWVAN	* WSC	X		X
* 73.	05NB030	SOURIS RIVER NEAR MCTAGGART	* WSC	X		X
* 74.	05HF004	SOUTH SASKATCHEWAN RIVER BELOW GARDINER DAM	* WSC		X	X
* 75.	05KD004	TOBIN LAKE AT SQUAW RAPIDS SPILLWAY	* SDOF		X	X
* 76.	05FG009	TURTLE LAKE NEAR GLASLYN	* SDOF		X	X
* 77.	05HF022	UNNAMED CREEK NEAR CUTBANK	* WSC	X		X
* 78.	05HG018	UNNAMED CREEK NEAR GLENSIDE	* WSC	X		X
* 79.	06AE001	UNNAMED CREEK NEAR SPIRITWOOD	* WSC	X		X
* 80.	05KA010	WALDSEA LAKE NEAR HUMBOLDT	* SDOF		X	X
* 81.	06AF007	WATERHEN LAKE NEAR DORINTOSH	* SDOF		X	X
* 82.	05ND008	WHITE BEAR (CARLYLE) LAKE NEAR CARLYLE	* SDOF		X	X
* 83.	05JE008	WILCOX MAIN DITCH NEAR WILCOX	* WSC	X		X
* 84.	05JC006	WIWA CREEK NEAR ST. BOSWELLS	* WSC	X		X
* 85.	05JC005	WOOD RIVER DIVERSION TO CHAPLIN LAKE	* WSC	X		X

SCHEDULE A

SASKATCHEWAN WATER QUANTITY STATIONS
1977-78
PROVINCIAL

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ITEM	INDEX	*STATION NAME	*RECORD OBTAINED*	*OPERATION*	*ACCESS*
NO.	NO.				
*	*		*AGENCY*	*FLOW*	*LEVEL*
*	*		*SED.*	8M *12M	*REMOTE*
*	*				*NORMAL*
* 86.	05HGO12	ZELMA RESERVOIR AT PLUMP STATION	* SDCE	X	X
*			*		X

SCHEDULE A

SASKATCHEWAN WATER QUANTITY STATIONS

1977-78

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DATA CONTRIBUTED BY PRIVATE AGENCY

ITEM	INDEX	*STATION NAME	*RECORD OBTAINED*	*OPERATION*	ACCESS
* NO.*	NO.		*	*	*
* *	*		*AGENCY*	*FLOW*	*LEVEL*
* *	*		*SED.*	8M *12M	*REMOTE*
* *	*				*NORMAL*
* 1.	06BA001	CHURCHILL LAKE AT BUFFALO NARROWS	X	X	X
* 2.	06DB002	REINDEER RIVER AT OUTLET OF REINDEER LAKE	X	X	X

SCHEDULE A

SASKATCHEWAN WATER QUANTITY STATIONS
1977-78

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DATA CONTRIBUTED BY SASKATCHEWAN

DATA CONTRIBUTED BY SASKATCHEWAN											
ITEM	INDEX	STATION NAME				*RECORD OBTAINED*OPERATION*				ACCESS	*
* NO.*	NO.					*-----*	*-----*	*-----*		*	
* * *	* * *					*-----*	*-----*	*-----*		*	

* 1. 05HG016		BRIGHTWATER CREEK BELCW BRIGHTWATER RESERVOIR				* SDOE	X		X	X	*
* 2. 05JJ006		SASKATCON S.E. PROJECT DIVERSION TO LITTLE MANITOU LAKE				* SDOF	X		X	X	*
* 3. 05JJ005		SASKATCON S.E. PROJECT M. CANAL OUTLET OF MANITOU PUMPING STATION				* SDOF	X		X	X	*
* 4. 05HG005		SASKATCON S.E. PROJECT MAIN CANAL ABOVE BLACKSTRAP RESERVOIR				* SDOE	X		X	X	*
* 5. 05HG010		SASKATCON S.E. PROJECT MAIN CANAL ABOVE BRADWELL RESERVOIR				* SDOE	X		X	X	*
* 6. 05HG007		SASKATCON S.E. PROJECT MAIN CANAL ABOVE BRIGHTWATER RESERVOIR				* SDOE	X		X	X	*
* 7. 05HG011		SASKATCON S.E. PROJECT MAIN CANAL ABOVE ZELMA RESERVOIR				* SDOE	X		X	X	*
* 8. 05JJ007		SASKATCON S.E. PROJECT MAIN CANAL AT INLET TO DELLWOOD RESERVOIR				* SDOE	X		X	X	*

APPENDIX III
MEMORANDUM OF AGREEMENT
SCHEDULE B
ANNUAL PAYMENTS - ITEMS INCLUDED

SCHEDULE B

ANNUAL PAYMENTS - ITEMS TO BE INCLUDED

The items to be included in computing the annual payments of water quantity survey stations are:

I OPERATIONAL COST WATER QUANTITY SURVEY STATIONS EXCLUDING SEDIMENT

- a) Salaries and overtime of field personnel and casual labour;
- b) Field travel expenses, board and lodging costs for field personnel;
- c) The computer costs associated with computing daily mean hydrometric data;
- d) Observer pay;
- e) Depreciation, operation and maintenance of vehicles and boats
- f) Maintenance of gauging station structures including material and labour for minor repairs;
- g) Maintenance and depreciation of all field equipment and instruments (except as noted in Article VII of this agreement);
- h) Fuels such as propane for heating recorder installations and gas such as nitrogen for operating pressure sensing equipment, electricity charges;
- i) Rental of aircraft, vehicles, boats, etc. supplied by either party or chartered;
- j) The annual cost of land leases;
- k) Services, e.g. cost of establishing gas caches, operation of line cabins, etc.

II OPERATIONAL COST SEDIMENT STATIONS

All items in I OPERATIONAL COST plus:

- l) The computer costs associated with computing daily mean sediment data;
- m) Cost of analysis of sediment samples.

SCHEDULE B (cont'd)

III NEW CONSTRUCTION REPAIR AND MAJOR RECONSTRUCTION COSTS FOR
WATER QUANTITY SURVEY STATIONS:

- a) Salaries and overtime of construction personnel;
- b) Field travel expenses, board and lodging costs of construction personnel;
- c) Depreciation, operation and maintenance of vehicles;
- d) Construction materials;
- e) Maintenance, depreciation and operation of construction equipment;
- f) Rental of aircraft, vehicles, boats, construction equipment, etc. supplied by either party or chartered;
- g) Land acquisition costs including legal survey costs;
- h) Construction contract payments.

APPENDIX IV
MEMORANDUM OF AGREEMENT
SCHEDULE C
PROCEDURES FOR PREPARATION OF ANNUAL PAYMENTS

SCHEDULE C

PROCEDURES FOR PREPARATION OF ANNUAL PAYMENTS

- a) The annual payment is composed of two parts; the annual operating costs and the costs of construction for streamflow and water level installations and sediment installations.
- b) The annual payment shall be computed for each year the agreement is in effect.
- c) Cost data to be used as a basis for computing each annual payment will be the cost data from the latest available full fiscal year.
- d) A cost index factor is to be used in computing the annual payment for the year in question commensurate with sound engineering practice.
- e) The average annual unit costs for operating water quantity survey stations listed in Schedule A but not including sediment stations will be determined from the cost data of c) above and where necessary, because of significant differences in transportation costs, these average annual unit costs will be computed for more than one area or condition of operation.
- f) The total annual operation cost of the water quantity survey station listed in Schedule A but not including sediment stations will be the summation of the appropriate average annual unit cost for each station multiplied by the cost index factor as determined in item d) above.
- g) The total annual operation cost of the sediment stations listed in Schedule A will be the summation of the annual operating cost for each station multiplied by the cost index factor as determined in item d) above.
- h) The construction cost to be apportioned in accordance with Articles II, III and IV will be the summation of the construction cost for each new, or reconstructed water quantity survey station. The entire cost of construction is to be included in the annual payment. Construction costs are to be determined using data from reconnaissance surveys, standard plans, etc. and incorporating the cost index factor from item d) above.
- i) In cases where there is a significant deviation between the cost determined in (f), (g) and (h) and actual costs because of the cost index factor used, or changes in the construction program due to unforeseen circumstances such as flooding, an adjustment may be made in the final quarterly payment (March 1st) or the next fiscal year to more accurately reflect the cost shares of the parties to this agreement.

APPENDIX V
MEMORANDUM OF AGREEMENT
SCHEDULE D
ANNUAL PAYMENT 1977-78

April 7, 1977

SCHEDULE D - MEMORANDUM OF AGREEMENT

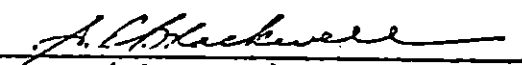
SASKATCHEWAN HYDROMETRIC SURVEYS

This schedule provides a summary of the annual payment. The details of the calculations for operation and construction are available and have been jointly reviewed by officers of each party.

ANNUAL PAYMENT FOR 1977-78 TO BE PAID TO CANADA BY SASKATCHEWAN.


	<u>Operation</u>	<u>Construction*</u>	<u>Total</u>
a) Streamflow and water level installations	176,525	63,450	239,975
b) Sediment installations	-	-	-
			<u>\$239,975</u>

* Province of Saskatchewan share of maintenance, upgrading and construction of hydrometric gauging stations.


(signature)

S. R. Blackwell
Chief, Water Management Service

Administrator for Province


(signature)

E. F. Durrant
Regional Director, Inland
Waters Directorate

Administrator for Canada

APPENDIX VI
GUIDELINES FOR DESIGNATING FEDERAL AND PROVINCIAL
RESPONSIBILITY FOR WATER QUANTITY STATIONS

August 3, 1977

GUIDELINES FOR DESIGNATING FEDERAL AND PROVINCIAL RESPONSIBILITY FOR WATER QUANTITY SURVEY STATIONS

The guidelines have been prepared in compliance with the Memoranda of Agreement between Canada and the Provinces in order to determine and review the designation of water quantity survey stations. The assignment of station designations is the responsibility of each Coordinating Committee established under the Memoranda of Agreement.

The intent of these guidelines is to provide a means by which responsibility for water quantity survey stations will be designated throughout Canada in a uniform and consistent manner. Water quantity survey stations as used in these guidelines has the same definition as in the Memorandum of Agreement and includes streamflow, water level and sediment survey stations. The word "stations" used in these guidelines means "water quantity survey stations".

FEDERAL STATIONS

The stations under these guidelines support programs of primary interest to the Government of Canada.

1. Federal Departmental Programs

Stations which are required for programs of various federal government departments where water quantity information on inland waters is required in support of specific projects or management responsibilities. Normally stations in this category would be the result of a specific request from another federal government department (e.g. MOT, DPW) or from statutory programs within Fisheries and Environment Canada (e.g. Canada Water Act, Fisheries Act, Migratory Birds Convention Act, etc.). Costs will normally be borne by the requesting agency. A station may also be designated under this guideline, where by formal agreement the federal government has accepted the responsibility for the continued operation of the station under an implementation agreement.

2. Interprovincial Rivers

Stations which are required for monitoring of streams flowing across or forming provincial or provincial-territorial boundaries where federal responsibility has been established by an agreement or where both the federal government and provincial governments recognize that there is or could be a trans-boundary management or jurisdictional problem.

3. International Commitments

Stations which are associated with federal responsibilities arising from international agreements, treaties, orders or studies.

a) Where the International Joint Commission (IJC) issues orders governing the control of waters crossing or forming part of international boundaries and stipulates the installation and monitoring of water quantity survey stations.

b) Stations which are not specifically stipulated under IJC orders but are required to support orders of the IJC.

c) International treaties and agreements which involve the use of waters crossing or forming part of an international boundary and specifically stipulate the reaches of streams required to be monitored or stipulate that special arrangements be made to meet water quantity survey needs.

d) Studies arising from federal responsibilities under the Boundary Waters Treaty which require the establishment of water quantity stations. These studies may be unilateral or bilateral and undertaken in anticipation of the need for formal studies.

e) Transboundary streams which require monitoring for management purposes.

4. Water Bodies of Navigational Importance

Stations which are operated for Federal government departments and are normally covered by internal cost sharing arrangements in carrying out responsibilities relating to maintenance of navigational channels, construction of training works, prediction and controlling of water levels in navigable streams or lakes. A water quantity survey station located on a stream classified navigable under the Navigable Waters Protection Act is not automatically included in this guideline.

5. Nationally Funded Hydrologic Research Programs

Stations which support international and nationally funded hydrologic research programs.

6. Basin Studies

This guideline normally covers stations only for an interim period. Stations are included for the period of a study where federal responsibility has been established under the terms and conditions of a study agreement between the federal and provincial governments. Where the responsibility for monitoring was federal during the study and where it is known that the implementation stage will proceed under a federal-provincial agreement the guideline may be used as a holding category between completion of a study and implementation of study recommendations.

7. National River Inventory

The number of stations that can be operated to provide information for a national inventory will be limited to those required to assess major water quantity trends in the country and significant discharge to the ocean. Many stations under other federal guidelines perform a dual function and also form part of the national inventory.

This guideline includes stations within each province and territory that will provide an assessment of the total water resources available and a representative sampling on a national basis of the hydrologic regimes in Canada giving consideration to geographic and climatic variability, basin size, streamflow regime, relationship to major groundwater resources and length of record.

FEDERAL-PROVINCIAL STATIONS

The stations under these guidelines support programs which are of interest to the governments of both Canada and the Provinces.

1. Federal-Provincial Agreements

Stations are included where joint federal and provincial responsibility is established under the terms and conditions of an agreement between federal and provincial governments. Following the completion of federal-provincial water resources study and implementation agreements a station will also be designated under this guideline, where responsibility for the continued operation of the station would be in the joint interest of both Canada and the Province.

2. River Basin Development

Stations are included where both the federal and provincial governments have stated an interest in the need for information to develop a river basin.

PROVINCIAL STATIONS

Stations which are required for provincial programs where water quantity information on inland waters is required in support of specific projects or management activity. Normally, such station designations would be the result of a specific request from the provincial government.