

77
CHEN

ANNUAL REPORT

FOR THE YEAR ENDING MARCH 31, 1978



PRAIRIE PROVINCES WATER BOARD

CANADA ALBERTA SASKATCHEWAN MANITOBA

1977-78

ANNUAL REPORT

FOR THE YEAR ENDING MARCH 31, 1978



PRAIRIE PROVINCES WATER BOARD

306 - 1901 VICTORIA AVENUE REGINA, SASKATCHEWAN S4P 3R4

CANADA

ALBERTA

SASKATCHEWAN

MANITOBA

ISSN 0704-8726

TABLE OF CONTENTS

	Page
INTRODUCTION	1
RECONSTITUTION OF BOARD ADMINISTRATION	3
ADMINISTRATIVE DECISIONS	5
Natural Flow Determination	5
Streamflow Forecasting	5
PPWB Monitoring Stations	5
Ducks Unlimited Cumberland Marsh Project	6
Orders-in-Council resulting from former PPWB action	6
PPWB Federal Funding Ceiling	6
Information Release on PPWB	6
Downstream Effects of Projects	7
BOARD STUDIES	9
Water Demand Study	9
Water Quality Objectives Study	10
Natural Flow of Small Interprovincial Basins	10
Administration of Apportionment Study	11
Westward Flowing Streams	11
Natural Flow and Streamflow Forecasting Studies	12
Forest Management for Increased Water Yields	12
Battle Creek Study	12
BOARD COMMITTEES	13
Committee on Hydrology	13
Committee on Water Quality	14
Committee on Water Demand	15
Committee on Interjurisdictional Agreements Administration	15
Battle Creek Steering Committee	16
SECRETARIAT	17
Accommodation and Staff	17
Reports	17
Information	17
Financial	17
Natural Flow Reports	18
1977 FLOW DATA	19
WATER QUALITY MONITORING	25
APPENDIX INDEX	31

INTRODUCTION

The Master Agreement on Apportionment records the agreement of Canada and the Provinces of Alberta, Saskatchewan and Manitoba to share the flow and consider the quality of eastward flowing interprovincial streams, to work together for the mutual benefit of all parties, and to set up an administrative body to administer the Agreement -- the Prairie Provinces Water Board. The Agreement is dated October 30, 1969.

Two meetings were held by the Prairie Provinces Water Board during this fiscal year. The first meeting, No. 16, was held on May 18, 1977 in Winnipeg, Manitoba. The second meeting, No. 17, was held on November 9, 1977 in Regina, Saskatchewan.

Dr. J.S. Tener retired as the Assistant Deputy Minister of Environmental Management Service, Environment Canada, and as Chairman of the PPWB. Dr. Tener served as Board Chairman from November 1973 to June 1977. The Board was unanimous in its expression of appreciation for the contribution of Dr. Tener as Chairman.

In August, 1977, Mr. J.P. Bruce was appointed Assistant Deputy Minister of Environmental Management Service, Environment Canada, and Chairman of the Prairie Provinces Water Board. Mr. Bruce chaired the regular fall Board meeting which was held on November 9, 1977.

Dr. H.M. Hill was appointed Director of the Prairie Farm Rehabilitation Administration in September 1977, and as such, became a member of the Board, replacing Mr. W.B. Thomson who retired in December 1976.

This report summarizes the activities and progress of the Prairie Provinces Water Board for the period April 1, 1977 to March 31, 1978.

RECONSTITUTION OF BOARD ADMINISTRATION

During the 22 year history of the original Prairie Provinces Water Board, the Engineering Secretary of the Board was a Federal Government PFRA employee who served in this capacity as part of his regular duties. In addition, support staff for studies and office accommodation were provided by the PFRA in Regina at no charge.

Schedule C of the Master Agreement on Apportionment reconstituted the Prairie Provinces Water Board and provides for the necessary Board staff, accommodation and supplies, to be financed by the four governments party to the Agreement. Following the reconstitution of the Board, the members agreed to the establishment of a semi-autonomous Board Secretariat.

The Secretariat is composed of Federal Public Servants that receive direction entirely from the Board and have no working connection with any part of the Federal Government. The Board has direct control over the operation of the Secretariat through approval of an Annual Budget. The Board has Federal spending authority up to an amount equal to the total Board budget with the Provincial Governments' shares recovered after the fiscal year audit is completed.

The effective change of the Board's administration came with the appointment of an Executive Director on June 1, 1972. The Board now operates through the Executive Director and his staff, supported by various committees. The organization chart is shown on page 39.

With the appointment of a permanent staff, the By-Laws, and Rules and Procedures came into effect July 1, 1972. The Master Agreement on Apportionment with the By-Laws and Rules and Procedures are appended to this Annual Report.

ADMINISTRATIVE DECISIONS

Natural Flow Determination

Because of the low-flow conditions throughout the prairies during this year, monthly reporting of natural flows was done for the North Saskatchewan, South Saskatchewan, Saskatchewan, and Qu'Appelle River basins, and the storage condition of the major reservoirs of the area. Summary tables of these results are shown on pages 20 and 22 in this report. The method used to determine natural flows in all but the Qu'Appelle Basin is the Project Depletion Method. The Qu'Appelle Basin natural flow is calculated by the SSARR routing-model method.

During 1977, the recorded flow, natural flow, and per cent of natural flow of these basins were as follows:

	<u>Recorded</u>	<u>Natural</u>	<u>Per Cent</u>
North Saskatchewan to A-S boundary	5,019,000	5,005,000	100
South Saskatchewan to A-S boundary	2,714,000	4,124,000	66
Saskatchewan to S-M boundary	10,761,000	10,316,000	104
Qu'Appelle to S-M boundary	72,200	73,300	98

Streamflow Forecasting

Due to the low winter snowfall in the mountains, and the dry autumn across the prairies, the Board requested volume forecasts on April 1st, May 1st, and June 1st. These forecasts indicated low flow conditions in several areas and were used by various agencies in the planning of operations, in changes to monitoring frequencies, and in reporting periods to the Board.

PPWB Monitoring Stations

The Board has designated 11 locations for the establishment of common water quantity - water quality monitoring stations to carry out the responsibilities of the PPWB. The Inland Waters Directorate of the Department of Fisheries and Environment were requested,

and agreed, to ensure monthly monitoring of the flow and quality of the waters at these locations. The map at the end of this Annual Report shows the location of these 11 monitoring stations.

Ducks Unlimited Cumberland Marsh Project

At the October 13, 1976 meeting, the members discussed the Ducks Unlimited Project being constructed in Saskatchewan and its effect on the water quantity and quality downstream of the project. The members agreed that in the interests of good water management, water quality and quantity monitoring should be undertaken near the Saskatchewan-Manitoba boundary at the outlet of the Ducks Unlimited Cumberland Marsh Project.

During this past fiscal year, the Board requested Inland Waters Directorate to prepare a proposal on water quality and quantity monitoring at the inlet and outlet of the Ducks Unlimited project.

Following receipt of this proposal, Saskatchewan Environment with the support of Environment Canada was asked to approach Ducks Unlimited to fund the monitoring, and to produce an annual report on the results including the extent of development and the method of operation.

Orders-in-Council resulting from Former PPWB Action

During this fiscal year, the Chairman reported that PC 1976-2972, which amends the Dominion Water Power Regulations, was passed and published in the Canada Gazette. This in effect means that all redundant Orders-in-Council specified in Schedule D of the Master Agreement on Apportionment have now been rescinded by the parties to the Agreement.

PPWB Federal Funding Ceiling

Due to the upcoming Water Demand Study expenditures, the total PPWB expenditures will exceed the Federal funding limit approved by Treasury Board on October 14, 1969. In anticipation of this, the Board asked Environment Canada to arrange to have the 1969 \$200,000 Federal ceiling raised to \$500,000 per annum. This was done by Treasury Board Minute 750987 dated July 28, 1977.

Information Release on PPWB

At the November 9th, 1977 meeting of the Board, the members discussed the advisability of having a procedure for the release of information concerning the Prairie Provinces Water Board.

As a result of these discussions, the members agreed that any information releases on the Prairie Provinces Water Board will be made only by the Secretariat after consultation with all Board members on the content of the release. Further, that any release made by any member within his jurisdiction that may have implications for the Board should be referred to the Executive Director for possible review by all Board members.

Downstream Effects of Projects

At the November 9th, 1977 meeting, the members discussed the requirement for information exchange regarding possible effects of projects on downstream jurisdictions, and the details of this information.

The members agreed that for all future projects on interprovincial rivers, a statement of the effects of the projects at the downstream (or upstream if applicable) boundary will be tabled with the Board, by the Board member representing the proponent province. Further involvement by the Board will depend on the adequacy of the report and the magnitude and extent of the effects.

BOARD STUDIES

Water Demand Study

The Board established a Task Force in 1970 to examine the need for, and the Terms of Reference of, a Water Demand (Use) Study for the Prairie Region. The Task Force completed the assignment and submitted a report to the Board in January 1972. The report concluded that there was a need for knowledge of the entire supply and demand picture. At a meeting of the SNBB Committee of Ministers held shortly after the completion of the report, the proposed Demand Study was discussed. The Ministers agreed that a study should be undertaken, but suggested that it be done in two parts, one of historical and present use, and one of forecasting water demands.

Following this, the Board recalled the Task Force and requested a new proposal and cost estimate in accordance with the Ministers' instructions. During January 1973, the study outline was reworked by the Task Force and submitted to the Board for their consideration. The Board forwarded the modified study proposal to the Ministers in March 1973 for their review, concurrence, and approval.

Due to financial restraints of several Governments, the implementation was postponed until this fiscal year. Because of the lapse of time since the original study outline and costs were prepared, the Board established a Committee on Water Demand to review the original proposal. This work was completed and submitted to the Board at its May 13, 1976 meeting. As this latest report contained a revised cost estimate, several members requested a postponement of implementation so that they could re-submit the revised costs to their Governments for approval.

During this fiscal year, approval was received from all parties to proceed with the study and so, because of the delay, the members adopted a resolution reconfirming the Board's agreement to proceed with Part One of the study, and asked their Committee on Water Demand to proceed with the hiring of a Study Director. The position was advertised in the newspapers with a closing date of March 13, 1978. Eligible candidates will be interviewed early in the next fiscal year.

In order that senior management of agencies involved in sector study work be informed of their agency commitments, the Board agreed that letters of understanding will be used throughout the Water Demand Study.

Water Quality Objectives Study

This study is being conducted by the Committee on Water Quality and the Secretariat. The goal of the study is to revise the current PPWB Water Quality Objectives where necessary in light of new and more comprehensive data and changed philosophies regarding the setting of interprovincial water quality criteria.

The Committee is reviewing all Federal water quality data available at the 11 PPWB monitoring stations from January 1960 to date and has identified parameters which exceed current PPWB Water Quality Objectives. Investigations aimed at determining the background levels of parameters which exceed the objectives; and the frequency and significance of exceedence are in progress. To aid in this background study, all Federal historical water quality results obtained near the boundaries have been plotted, published, and distributed to the Committee on Water Quality members.

The Committee is now in the process of estimating background levels for all parameters being considered for each major stream of interest to the Board. Because of the complexities of the task, this work will continue throughout next fiscal year.

Natural Flow of Small Interprovincial Basins

At the June 10, 1975 meeting of the Board, the members agreed that a continuing study be done by the Secretariat of natural flow computations of small interprovincial river basins not dealt with in the Natural Flow Study. A list of these streams, and an order of priority, was prepared by the members.

The Secretariat submitted to each member agency, the top six basins on the priority list with the request that they submit a cost estimate and schedule for studies they could undertake on any or all of the basins. In addition, the Secretariat prepared an estimate of the work it could undertake and the time involved.

The Board considered these proposals at its October 13, 1976 meeting and agreed that the speed with which the studies are completed will depend upon the availability of Secretariat personnel, the availability of personnel from the participating agencies, and the amount budgeted each year for this work.

Late in this fiscal year, the Secretariat prepared Memorandum of Understanding between the Board and the PFRA to undertake these natural flow studies on the Pipestone Creek, the Antler River, and the Assiniboine River. Shortly after, Memorandum of Understanding were prepared for Water Survey of Canada to undertake natural flow studies on Boxelder Creek and MacKay Creek. These studies will be completed during the next fiscal year.

Administration of Apportionment Study

At the November 5, 1974 meeting of the PPWB, the members discussed some of the problems that may be encountered in the administration of the Apportionment Agreement when water use increases to the point where apportionment is critical. The Committee on Hydrology was asked to draft Terms of Reference for a study which would address itself to these problems. The Board approved the draft Terms of Reference for a study and agreed that the Committee on Hydrology should be responsible for the study.

During this fiscal year, selected members prepared papers on each of the terms of reference for a thorough discussion by the Committee as a whole. This led to requests for examples of various uses with various flows to show the effects of the various time periods involved, and to show the effects of forecasting. The Provincial members agreed to provide details of provincial forecasting requirements and desires, benefits, disbenefits, and value of water for various uses. This study will continue well into next fiscal year.

Westward Flowing Streams

The Board recognized that there are streams which cross interprovincial boundaries in an east to west direction and are therefore not covered by the Apportionment Agreement. At the November 1973 meeting of the Board, the members observed that although no problems have arisen, the situation should be considered in view of the probable time involved to develop a satisfactory solution.

It was realized that the problem was two-fold and involved westward flowing streams which are tributary to streams covered by the Apportionment Agreement as well as westward flowing streams not tributary to eastward flowing streams. The Board asked the Committee on Hydrology, with the aid of the Secretariat, to prepare a report on the number and size of both types of streams, to consider possible apportionment problems, and to speculate on solutions taking into account any relevant precedents.

The subject was discussed at several meetings of the Committee on Hydrology with particular attention given to streams which cross Provincial Boundaries several times along their course. Various methods for apportioning westward flowing watercourses have been reviewed and discussed by the Committee. The Secretariat is presently working on a draft report based on the comments and suggestions of the Committee members.

Natural Flow and Streamflow Forecasting Studies

These two studies were carried out under contract to the Board by Water Survey of Canada and were under the direction of the Committee on Hydrology. The study group started work in mid 1971 and completed their assignment last fiscal year, at a total cost to the Board of \$400,000.

The last of the reports were delivered from the printers during this fiscal year and distributed to the participating agencies, and to the Engineering Libraries specified by the Board.

Forest Management for Increased Water Yields

At the May 18th, 1977 meeting of the Board, the members heard an address by Mr. R.H. Swanson of the Northern Forest Research Center on the present research efforts toward increasing water yields from the Eastern slopes of the Rocky Mountains.

Following the presentation and discussion by the Board, the members agreed that the Committee on Hydrology should undertake an examination of the increased yield available by forest management practices, the timing and benefits of increased yield, and the total increase in yield that may be expected on the major river basins with their headwaters in the Eastern Slopes area.

At this time, Alberta has embarked on studies of the potential for increased yield in the Oldman Basin and so the Committee agreed that it would be premature to start their study until results could be obtained from the Alberta work. The Committee will monitor the studies done by Alberta.

Battle Creek Study

At the May 18th, 1977 meeting, the Board discussed the need for a study to resolve the water supply problem in Battle Creek. The members agreed that a comprehensive approach and more studies were needed. To this end, the Board agreed that the Executive Director would call a meeting of representatives from Environment Canada, Saskatchewan Environment, Alberta Environment, and PFRA to develop detailed Terms of Reference for a coordinated study of the basin, and to consider the setting up of a Steering Committee to oversee the Study. The meeting was held in October and draft Terms of Reference for the study and a cost estimate were prepared. These were submitted to the Board.

The Board deferred the decision on whether or not to proceed with this study until it receives a report from the PPWB Committee on Interjurisdictional Agreements Administration which deals with the pre-1969 allocation situation in the Battle and Lodge Creek Basins. This report is not due until next fiscal year.

BOARD COMMITTEES

Committee on Hydrology

The Committee on Hydrology met three times during fiscal 1977-78. The meetings were all held in Regina, on June 8-9, 1977; September 29-30, 1977; and January 9-10, 1978.

During the year, the Committee completed its review and direction of the Streamflow Forecasting Study being done for the Board by the Calgary District Office of Water Survey of Canada. The Committee prepared a summary report on this study containing recommendations on the use of the study. This Committee report was submitted to the Board on November 9, 1977.

Forest management for increased yields was discussed and it was agreed that action by the Committee should await the results of ongoing Alberta Environment studies in similar work. Temporary discontinuance of AES data from several Churchill Basin stations prompted the Committee to request the Board Chairman to inform AES of the stations of interest and ask that the Board be informed of any planned discontinuance of these stations. A reply was received from AES agreeing to this request.

Because of the low flow conditions throughout the area, the members reviewed the arrangements for natural flow computations and adopted an interim frequency of computing and reporting for this year. Natural flows on the South Saskatchewan, North Saskatchewan, Saskatchewan and Qu'Appelle Rivers were reported monthly, while the Churchill River was reported annually.

During this fiscal year, the Committee began its task of studying the Administration of the Apportionment Agreement. In order to identify problem areas, several members prepared written comments on each Term of Reference of the assignment, reviewed graphs showing the effects of annual, quarterly, and monthly apportionment which initiated lengthy discussions on the various time periods involved, and the areas where more information was required. To aid in the discussion of the value of forecasting for apportionment, the provincial members agreed to supply details of their apportionment requirements such as

timing, benefits, disbenefits, and the estimated value of water for various uses. This assignment will carry on through next fiscal year.

Disposition of the SNBB data banks were discussed. The members preferred retention of these files by the Secretariat, and continued updating using the SNBB method. Methods proposed for apportioning westward flowing tributaries were approved for recommendation in the Committee's report to the Board. This report will be completed by the Secretariat early in next fiscal year for submission to the Board.

Committee on Water Quality

The Committee on Water Quality met three times during the 1977-78 fiscal year. The meetings were held in Regina on April 26-27, 1977; in Winnipeg on October 26-27, 1977; and in Regina on February 1-2, 1978.

During the past year, the Committee has devoted most of its time to the review of the PPWB Water Quality Objectives. As the members are concerned about the philosophy upon which the objectives are based, they have spent considerable time attempting to formulate an alternative water quality management strategy which will more fully meet the needs of the Board than the present objectives. In support of this study, the Committee has conducted investigations into the current status of water quality networks, analytical methodology, and methods of storing and retrieving water quality data. Three boundary water quality management strategies have been considered by the Committee. The Committee is currently evaluating a method which would define and apportion the ability of streams to assimilate constituents and would ensure that all beneficial downstream uses would be protected. This study will continue well into next fiscal year.

The Committee finalized a two-year discussion on the need for a long-term network. They agreed that such a network was badly needed in the prairies so that there would be a stabilization of station locations to provide some long needed continuity of records that are valuable and necessary for trend analysis, and background data for future studies. The Committee completed a report on this proposed network for submission to the Board early next fiscal year.

During the year, the members were addressed by Mr. S. Reeder, National Coordinator of Water Quality Objectives, Environment Canada, on the Federal approach to interprovincial Water Quality Objectives; and by Mr. W. Ward, Head, Policy, Planning and Research, Environmental Management Division, Province of Manitoba, on the proposed Manitoba Surface Water Quality Objectives, and the results of the Manitoba Clean Environment Commission hearings on these objectives.

Committee on Water Demand

At the November 13, 1975 meeting of the Board, the members established a Committee on Water Demand to aid in the development of the study design and to advise the study director throughout the course of the study.

The Committee on Water Demand met twice during this fiscal year. The meetings were held in Regina on August 18, 1977 and in Winnipeg on October 25, 1977.

The Committee on Water Demand was reactivated due to the decision of the Board to proceed with the Water Demand Study. Several new members were appointed.

The members asked Mr. D.M. Tate, Fisheries and Environment Canada, to develop more detailed sector study outlines. In addition, they modified the original schedule to conform to the actual date of approval, and changed the budget in order to reduce the high cost year. They agreed to hiring only the Study Director and postpone hiring of the other two staff members until the Director was in place.

The Committee agreed that each sector sub-committee should be allocated funds and be responsible for the production of the sector reports.

Late in the fiscal year, interviews were held for the position of Study Director. An offer of employment will be made early next fiscal year.

Committee on Interjurisdictional Agreements Administration

At the March 1973 meeting of the Board, the members agreed to establish an ad hoc committee to develop procedures for the efficient administration of inter-jurisdictional agreements, and to provide procedural guidelines for various management situations. This Committee was instructed to proceed, with particular attention to the Battle and Lodge Creek Basins.

The Committee held one meeting during this fiscal year, on February 16, 1978 in Regina.

The members agreed to the basic hydrometric data used by the Secretariat which had come from the International Joint Commission, Water Survey of Canada and Prairie Farm Rehabilitation Administration.

Much discussion took place as to the definition of allocation because Alberta and Saskatchewan identify different quantities as allocations on their licenses. The discussion centred on the use of gross diversion, net depletion, or consumptive use, to represent a 'water right'. The Committee agreed to use the term 'net depletion' rather than allocation because from the data provided by both Alberta and Saskatchewan Water Rights Offices, net depletion could be calculated and used for comparison between basins.

The Committee agreed to an apportionment formula suitable for the Battle and Lodge Creek Basins and approved a revised draft of their earlier report for submission to the Board early next fiscal year.

Battle Creek Steering Committee

A meeting of the Battle Creek Steering Committee was held on August 10, 1977 in Regina to discuss the water supply and use problems in this basins, and to develop Terms of Reference for a study of the problems.

The assignment was completed at this meeting, and a short report presented to the Board for their consideration.

SECRETARIAT

Accommodation and Staff

The Secretariat moved on January 10, 1978 to Room 306, Motherwell Building in Regina, Saskatchewan.

Mr. Adrian D'Hont, a graduate of the Kelsey Institute of Saskatoon, joined the Secretariat staff as a Technician on June 14, 1977.

Mrs. J.E. Nelson, Secretary to the Executive Director, resigned on September 3, 1977. The position was filled by Mrs. L.C.M. Glasser on November 7, 1977.

Reports

The Secretariat published and distributed to member agencies the second annual report containing Water Quality data collected at the 11 PPWB monitoring stations. Because of the size, distribution is limited.

Information

During the year, the update of the SNBB hydrometric data files from 1968 to 1973 was completed. The A, B and C files are now complete from 1912 to 1973.

Financial

The Secretariat expenditures for this fiscal year were audited by the Audit Services Bureau of the Department of Supply and Services, Canada. The audited expenditures are shown on page 38.

Natural Flow Reports

Water Survey of Canada, Inland Waters Directorate, provided the Board with quarterly reports on the natural flow of the South Saskatchewan River below the junction with the Red Deer River for \$3,200. The natural flows are calculated using the Project Depletion Method, as approved by the Board.

1977 FLOW DATA

NATURAL FLOWS, CONSUMPTIVE USE AND STORAGE
(ACRE-FEET)

FOR THE YEAR 1977

SOUTH SASKATCHEWAN RIVER -- ALBERTA-SASKATCHEWAN BOUNDARY

	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	TOTALS
RECORDED DISCHARGE	155,000	184,000	196,000	157,000	128,000	211,000	106,000	162,000	142,000	134,000	105,000	113,000	1,793,000
CONSUMPTIVE USE	0	0	0	79,175	271,256	313,883	285,263	208,927	154,692	79,248	5,351	0	1,397,795
CHANGE IN RESERVOIRS	-85,650	-68,650	-45,400	-28,350	67,900	129,750	-29,900	47,550	55,950	10,900	-23,500	-36,300	-5,700
DIVERSION FROM BASIN	0	0	0	0	12,692	21,564	23,679	21,102	10,283	10,119	2,404	0	101,843
NATURAL FLOW ALTA. BDRY.	87,966	106,548	151,480	146,081	454,632	665,748	426,119	442,850	373,949	256,850	119,417	78,516	3,304,752

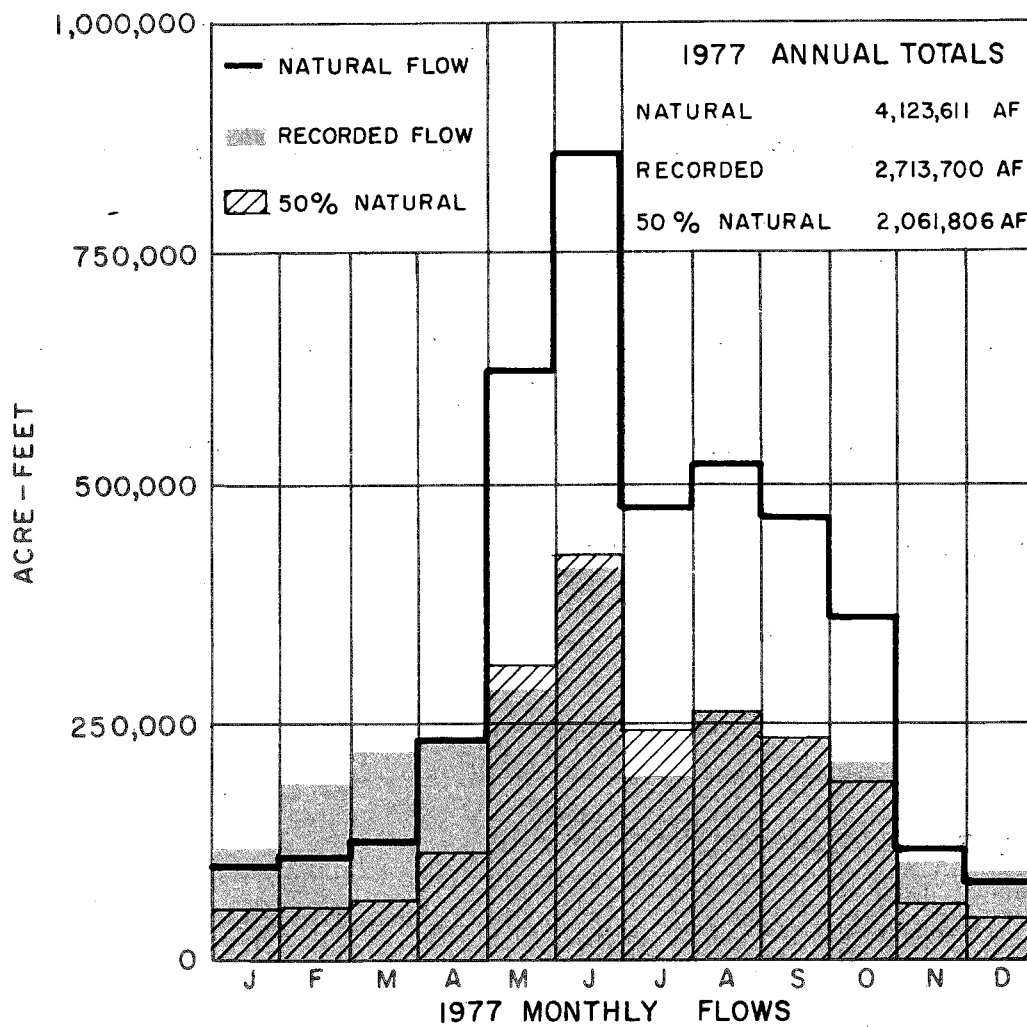
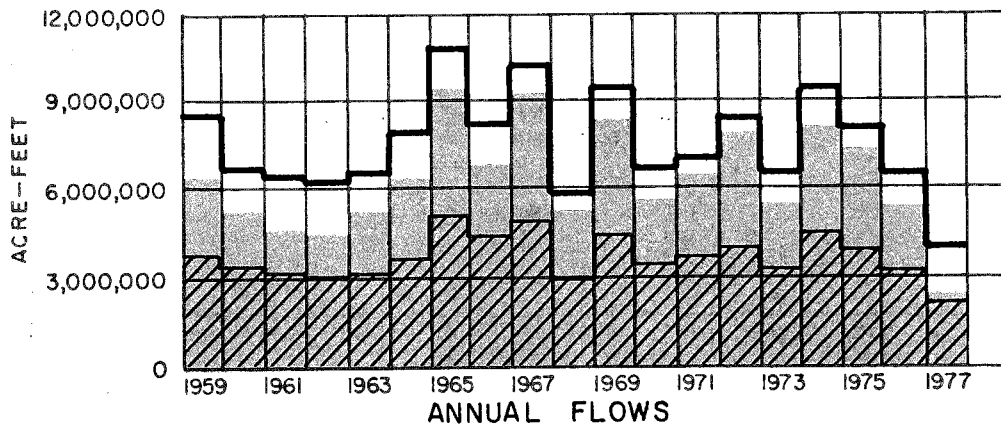
RED DEER RIVER -- ALBERTA-SASKATCHEWAN BOUNDARY

	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	TOTALS
RECORDED DISCHARGE	10,600	13,500	34,600	84,900	159,000	185,000	95,800	111,000	97,000	86,500	29,300	13,500	920,700
CONSUMPTIVE USE	0	0	0	0	0	0	0	0	0	0	0	0	0
DIVERSION FROM BASIN	0	0	0	0	-12,692	-21,564	-23,679	-21,102	-10,283	-10,119	-2,404	0	-101,843
NATURAL FLOW ALTA. BDRY.	10,600	13,500	34,600	84,900	147,434	164,520	72,201	89,494	85,821	76,438	25,851	13,500	818,859

SOUTH SASKATCHEWAN RIVER -- BELOW JUNCTION WITH RED DEER

	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	TOTALS
RECORDED DISCHARGE	165,600	197,500	230,600	241,900	287,000	396,000	201,800	273,000	239,000	220,500	134,300	126,500	2,713,700
NATURAL FLOW	110,216	124,162	173,440	237,026	624,282	829,170	473,681	533,708	456,840	330,266	140,614	90,206	4,123,611

QUANTITIES SHOWN IN TABLE HAVE BEEN ROUTED TO ALBERTA BOUNDARY



SOUTH SASKATCHEWAN RIVER NEAR ALBERTA-SASKATCHEWAN BOUNDARY
(INCLUDES RED DEER RIVER)

RECORDED AND NATURAL FLOWS - SUMMARY
SELECTED INTERPROVINCIAL STREAMS
(ACRE-FEET)

FOR THE YEAR 1977

	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	TOTALS
--	------	------	------	------	-----	------	------	------	-------	------	------	------	--------

NORTH SASKATCHEWAN RIVER -- ALBERTA-SASKATCHEWAN BOUNDARY (NEAR DEER CREEK)

RECORDED FLOW	247,000	193,000	218,000	376,000	640,000	874,000	519,000	545,000	507,000	408,000	198,000	294,000	5,019,000
NATURAL FLOW	35,900	46,600	88,200	275,000	788,000	1,110,000	738,000	836,000	594,000	352,000	42,000	99,100	5,004,800

CHURCHILL RIVER -- SASKATCHEWAN-MANITOBA BOUNDARY (AT SANDY BAY)

RECORDED FLOW	1,890,000	1,760,000	1,830,000	1,820,000	1,800,000	2,630,000	3,090,000	2,920,000	2,360,000	1,790,000	1,670,000	1,770,000	25,330,000
NATURAL FLOW	1,740,000	1,530,000	1,520,000	1,660,000	1,980,000	2,270,000	2,630,000	2,500,000	2,580,000	2,170,000	1,880,000	1,810,000	24,270,000

SASKATCHEWAN RIVER -- SASKATCHEWAN-MANITOBA BOUNDARY

RECORDED FLOW	970,000	976,000	785,000	1,100,000	1,030,000	1,250,000	919,000	813,000	931,000	742,000	579,000	666,000	10,761,000
APPORTIONMENT* FLOW	386,000	629,000	676,000	1,298,000	1,206,000	1,483,000	1,076,000	985,000	935,000	894,000	392,000	356,000	10,316,000

QU'APPELLE RIVER -- SASKATCHEWAN-MANITOBA BOUNDARY (NEAR WELBY)

RECORDED FLOW	11,900	8,060	7,540	5,140	6,290	6,400	4,620	1,700	1,000	5,700	8,700	5,100	72,150
NATURAL FLOW	1,700	250	6,280	16,000	15,400	12,200	11,300	6,300	3,340	530	30	0	73,330

* Recorded flow from Alberta + natural inflow from Saskatchewan

RECORDED DISCHARGE - SUMMARY
SELECTED INTERPROVINCIAL STREAMS
(ACRE-FEET)

FOR THE YEAR 1977

JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	TOTALS
------	------	------	------	-----	------	------	------	-------	------	------	------	--------

BEAVER RIVER -- ALBERTA-SASKATCHEWAN BOUNDARY (AT COLD LAKE)

10,300	9,230	9,400	44,900	72,500	53,600	33,200	44,900	30,100	48,000	21,400	10,600	388,130
--------	-------	-------	--------	--------	--------	--------	--------	--------	--------	--------	--------	---------

BATTLE RIVER -- ALBERTA-SASKATCHEWAN BOUNDARY (NEAR UNWIN)

1,670	1,570	3,060	8,700	18,200	10,400	4,400	2,170	1,120	1,350	1,160	1,010	54,810
-------	-------	-------	-------	--------	--------	-------	-------	-------	-------	-------	-------	--------

CARROT RIVER -- SASKATCHEWAN-MANITOBA BOUNDARY (NEAR TURNBERRY)

2,020	1,710	3,560	43,700	45,700	29,200	5,810	23,100	20,400	19,400	27,700	7,650	229,950
-------	-------	-------	--------	--------	--------	-------	--------	--------	--------	--------	-------	---------

RED DEER RIVER -- SASKATCHEWAN-MANITOBA BOUNDARY (NEAR ERWOOD)

162	64	87	18,500	25,700	10,600	5,200	11,300	21,800	16,200	8,200	4,050	121,863
-----	----	----	--------	--------	--------	-------	--------	--------	--------	-------	-------	---------

ASSINIBOINE RIVER -- SASKATCHEWAN-MANITOBA BOUNDARY (AT KAMSACK)

884	758	1,070	20,900	9,430	1,490	341	255	308	769	969	946	38,120
-----	-----	-------	--------	-------	-------	-----	-----	-----	-----	-----	-----	--------

WATER QUALITY MONITORING

PPWB Water Quality Monitoring Program

At the request of the Prairie Provinces Water Board, the Water Quality Branch of Environment Canada continued reporting monthly or quarterly data collected at the 11 PPWB monitoring stations for the 78 water quality parameters listed on page 27.

This data has been collected to establish the range of existing parameter concentrations and estimate compliance with the 1973 PPWB Water Quality Objectives for the parameters marked with an asterisk. (*)

This program started in April 1974 and has been carried out continuously since that time. All data obtained at these 11 stations from April 1, 1974 to December 31, 1977 have been validated, published in the PPWB Annual Water Quality Reports, and distributed to member agencies.

- * Aldrin
- Alkalinity, phenol.
- Alkalinity, total
- Aluminum, extract.
- N-Alkanes
- Aromatic Hydrocarbons
- * Arsenic, diss.
- Barban
- * Barium, extract. (Q)
- BHC - (alpha)
- * Boron, diss. (Q)
- * Cadmium, extract. (Q)
- Calcium, diss.
- Carbon, total, inorganic
- Carbon, total, organic
- Chloride, diss.
- Chlorophyll A
- * Chromium, extract. (Q)
- Coliforms, fecal
- Coliforms, total
- * Color, apparent
- * Copper, extract. (Q)
- * Cyanide, total
- * P,P-DDT
- * P,P-DDD
- * P,P-DDE
- * Dieldrin
- Endosulfan-alpha
- Endosulfan-beta
- * Endrin (Q)
- * Fluoride, diss.
- Hardness, total, CaCO₃
- * Heptachlor
- * Heptachlor, epoxide
- * Iron, extract.
- * Lead, extract. (Q)
- Gamma-BHC
- Magnesium, diss.
- * Manganese, extract.
- * MBAS Surfactants
- MCPA
- * Mercury, extract.
- P,P-methoxychlor (Q)
- NTA
- Nitrogen, TKN
- Nitrogen, diss., NO₃+NO₂
- * Nitrogen, total
- * Odour, TON
- * Oil and Grease
- * Oxygen, demand, BOD
- * Oxygen, diss., DO
- PCB, Arochlor 1248
- PCB, Arochlor 1254
- PCB, Arochlor 1260
- * pH
- * Phenolics
- * Phosphorus, total
- Potassium, diss.
- * Radioactivity Gross Beta
- * Radium 226
- * Residue, nonfilterable
- Residue, fixed, nonfilterable
- * Selenium, diss. (Q)
- Silica, reactive
- * Silver, extract. (Q)
- * Sodium, diss.
- Specific Conductance
- * Strontium
- Sulphate, diss.
- * Temperature
- Tordon, (Picloram) (Q)
- * Turbidity
- Trifluralin
- Vanadium, extract.
- * Zinc, extract. (Q)
- 2,4-D
- 2,4-DB
- 2,4-DP
- 2,4,5-T

(Q) - quarterly sampling

* Objectives exist

APPENDIX

APPENDIX INDEX

	Page
PRAIRIE PROVINCES WATER BOARD MEMBERS	32
ALTERNATE MEMBERS	33
COMMITTEE ON HYDROLOGY MEMBERS	34
COMMITTEE ON WATER QUALITY MEMBERS.	35
COMMITTEE ON INTERJURISDICTIONAL AGREEMENTS ADMINISTRATION MEMBERS	36
COMMITTEE ON WATER DEMAND MEMBERS	37
STATEMENT OF EXPENDITURES	38
ORGANIZATION CHART	39
MASTER AGREEMENT ON APPORTIONMENT	41
BY-LAWS OF THE PPWB	55
RULES AND PROCEDURES OF THE PPWB	59
MAP OF ALBERTA, SASKATCHEWAN, AND MANITOBA	61

PPWB MEMBERS

Chairman

Dr. J.S. Tener
(November 1973 - July 1977)

Assistant Deputy Minister
Environmental Management Service
Fisheries and Environment Canada

Chairman

Mr. J.P. Bruce
(Appointed August 1977)

Assistant Deputy Minister
Environmental Management Service
Fisheries and Environment Canada

Dr. H.M. Hill
(Appointed September 1977)

Director
Prairie Farm Rehabilitation Administration
Dept. of Regional Economic Expansion

Mr. R.E. Bailey

Special Projects Director
Alberta Environment

Mr. S.R. Blackwell

Chief, Water Management Service
Saskatchewan Environment

Mr. T.E. Weber

Senior Assistant Deputy Minister
Manitoba Dept. of Mines, Resources
and Environmental Management

Secretary

Mr. R.J. Wettlaufer

Operations Engineer
PPWB Secretariat

ALTERNATE MEMBERS

Mr. E.F. Durrant

(March 1973 - September 1977)

Regional Director, Western & Northern Region
Inland Waters Directorate
Environmental Management Service
Fisheries and Environment Canada

Mr. D.A. Davis

(Appointed September 1977)

Regional Director, Western & Northern Region
Inland Waters Directorate
Environmental Management Service
Fisheries and Environment Canada

Mr. W.M. Berry

(March 1973 - November 1977)

Chief Engineer
Prairie Farm Rehabilitation Administration
Dept. of Regional Economic Expansion

Mr. P.G. Melnychuk

Assistant Deputy Minister
Environmental Engineering Support Services
Alberta Environment

Mr. D.L. MacLeod

Director, Hydrology Branch
Water Management Service
Saskatchewan Environment

Mr. N. Mudry

Director of Planning
Water Resources Branch
Manitoba Dept. of Mines, Resources
and Environmental Management

COMMITTEE ON HYDROLOGY

Terms of Reference

At the request of, and under the direction of the PPWB, the Committee on Hydrology shall investigate, oversee, review, report and recommend on matters pertaining to hydrology of interprovincial or interjurisdictional basins.

The Committee may consider such things as natural flow; forecasting; network design; collection, processing and transmission of data; basin studies and other items of interprovincial interest involving hydrology.

Members

D.J. Berry Chairman	Executive Director Prairie Provinces Water Board Secretariat
D.A. Davis	Inland Waters Directorate Fisheries and Environment Canada
R.B. Godwin	Prairie Farm Rehabilitation Administration Dept. of Regional Economic Expansion
G.H. MacKay	Water Resources Branch Manitoba Dept. of Mines, Resources and Environmental Management
D.L. MacLeod	Hydrology Branch Saskatchewan Environment
R.K. Deeprise	Technical Services Division Alberta Environment
H.F. Cork	Atmospheric Environment Service Fisheries and Environment Canada
R.J. Wettlaufer Secretary	Operations Engineer PPWB Secretariat

COMMITTEE ON WATER QUALITY

Terms of Reference

At the request of, and under the direction of the Prairie Provinces Water Board, the Committee on Water Quality shall investigate, oversee, review, report and recommend on matters pertaining to water quality of interprovincial and interjurisdictional basins.

Carrying out the above responsibilities may include such things as natural quality assessment; quality forecasting; network design; processing and dissemination of data; determination of implications of proposed projects that may significantly alter the water quality of interprovincial streams; consideration of special problems; establishment of procedures for emergency situations; and other items of interprovincial interest involving water quality.

Members

D.J. Berry <small>Chairman</small>	Executive Director Prairie Provinces Water Board
K.W. Reid	Water Quality Branch Fisheries and Environment Canada
R.B. Godwin	Prairie Farm Rehabilitation Administration Dept. of Regional Economic Expansion
J.N. Warrener	Environmental Protection Branch Manitoba Department of Mines, Resources and Environmental Management
R.A. McDonald	Water Pollution Control Branch Saskatchewan Environment
P.G. Shewchuk	Standards and Approvals Division Alberta Environment
E.W. Allison <small>Secretary</small>	Water Quality Analyst PPWB Secretariat

COMMITTEE ON INTERJURISDICTIONAL AGREEMENTS ADMINISTRATION

It was agreed that a committee consisting of the Executive Director, one member from Saskatchewan, one member from Alberta, and Mr. E.F. Durrant be struck to handle the problem of developing a methodology for the efficient administration of interjurisdictional agreements, particularly as regards Battle and Lodge Creek Basins.

(8-35: March 20, 1973)

Members

D.J. Berry

Chairman

Executive Director

Prairie Provinces Water Board Secretariat

E.F. Durrant

(August 1973 - September 1977)

Environmental Management Service
Fisheries and Environment Canada

B.N. Johnson

(Appointed September 1977)

Inland Waters Directorate
Fisheries and Environment Canada

A.L. Jones

Water Rights Branch
Saskatchewan Environment

B. Boyson

Water Resources Branch
Alberta Environment

R.J. Wettlaufer

Secretary

Operations Engineer
PPWB Secretariat

COMMITTEE ON WATER DEMAND

Terms of Reference

The Committee on Water Demand shall be composed of one member representing each of the Provinces of Alberta, Saskatchewan and Manitoba, two members representing Canada, and the Executive Director of the Prairie Provinces Water Board who shall be Chairman. The Committee shall function during the life of the Water Demand Study in the Saskatchewan-Nelson Basin and shall have the responsibility of providing technical guidance and financial management for the Water Demand Study on behalf of the Board.

The Water Demand Study shall be divided into two parts. Part One shall be done under the auspices of the Prairie Provinces Water Board and consist of a study of water demand based on current needs and historical uses in accordance with the Terms of Reference for Part One. Part Two may be done at a later date and would provide estimates of future water demands.

The Committee shall: prepare draft Terms of Reference for Part One of the Water Demand Study for consideration of the Board; develop detailed study outlines for each study sector and make recommendations to the Board thereon; be responsible upon receiving Board approval to proceed with Part One, for hiring a study director, preparing his Terms of Reference and directing his work; ensure a final report for Part One is prepared in accordance with a format and time schedule to be established by the Board; upon completion of Part One, recommend Terms of Reference for Part Two to the Board.

Throughout Part One of the study the Committee shall: monitor and oversee the technical and financial aspects of the study as directed by the Board; ensure that there is no duplication of studies; report regularly to the Board on the progress of the study.

Members

D.J. Berry Chairman	Executive Director Prairie Provinces Water Board Secretariat
H. Foerstel	Environmental Management Service Fisheries and Environment Canada
V.M. Austford	Water Resources Branch Manitoba Department of Mines, Resources and Environmental Management
R.L. Kellow	Policy, Planning and Research Branch Saskatchewan Environment
C. Primus	Planning Division Alberta Environment
G.T. Forsyth	Prairie Farm Rehabilitation Administration Dept. of Regional Economic Expansion
E.W. Allison Secretary	Water Quality Analyst PPWB Secretariat

STATEMENT OF EXPENDITURES

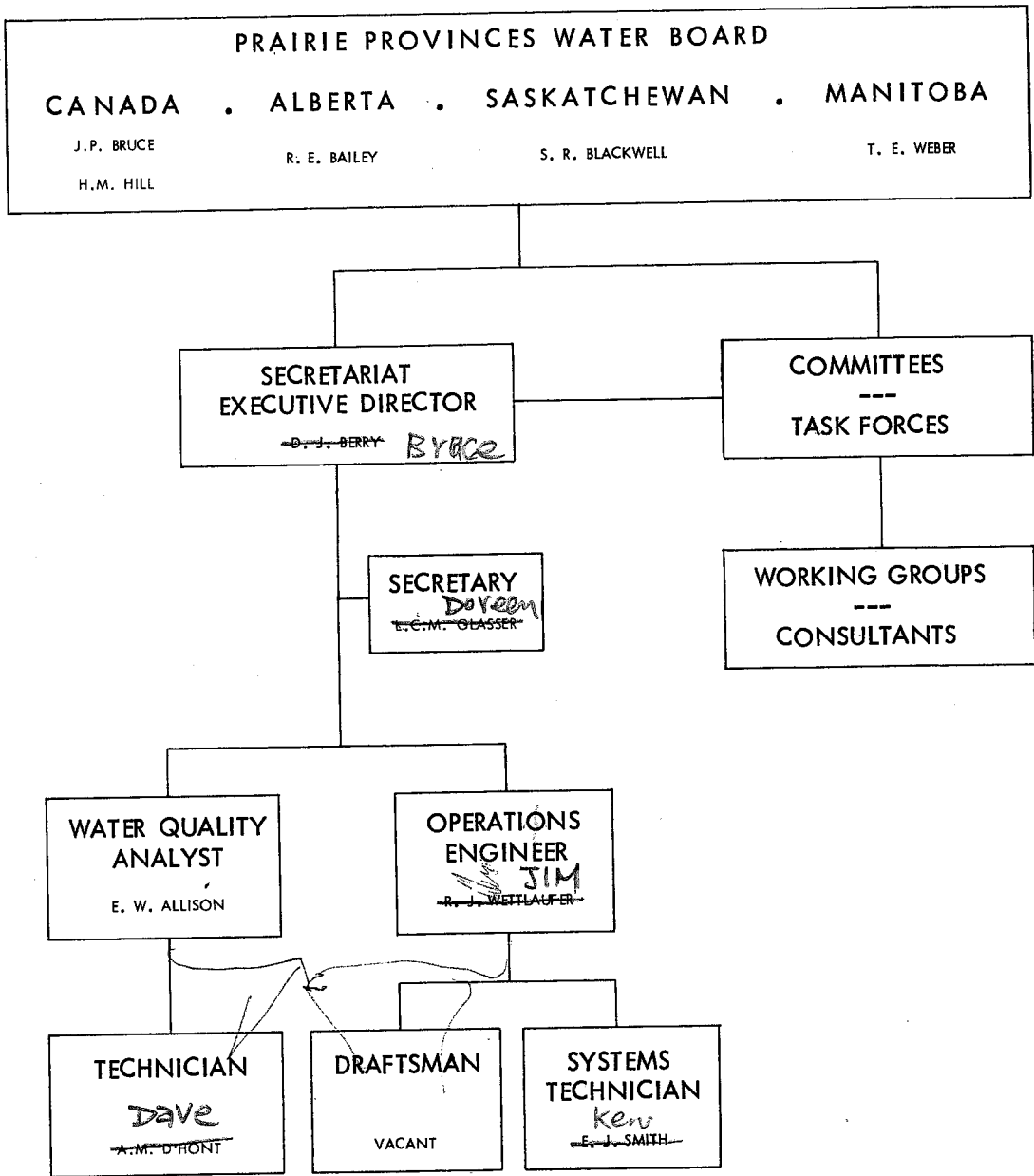
	<u>1975-76</u>	<u>1976-77</u>	<u>1977-78</u>
Natural Flow and Forecasting Study	\$ 20,000.00	\$ 0	\$ 0
Small Basin Studies			700.00
Natural Flow Reporting	5,300.00	5,300.00	3,200.00
Personnel	87,992.74	98,638.80	121,810.78
Transportation and Communication	5,889.42	6,935.77	7,077.06
Information, Printing	3,069.81	3,920.90	3,164.07
Admin. and Audit Services	1,465.22	1,795.36	1,853.70
Office Rental	10,974.48	10,848.14	11,292.08
Computer Rental	6,861.24	9,584.85	11,315.26
Materials and Supplies	1,193.95	1,104.58	555.43
Acquisition, Machinery and Equipment	859.29	1,234.90	1,864.13
Maintenance, Office Machines	180.47	0	0
Miscellaneous	18.58	18.00	175.00
	<u>\$143,805.20</u>	<u>\$139,381.30</u>	<u>\$163,007.51</u>
	(audited)	(audited)	(audited)

Shares -

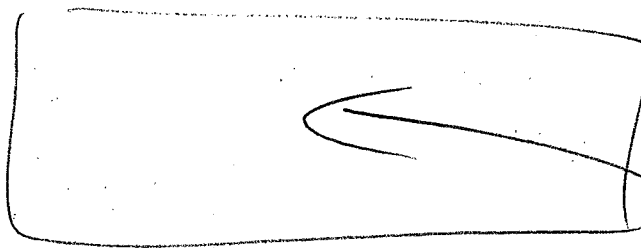
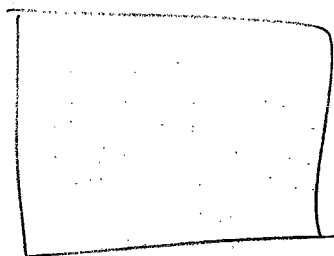
Canada	\$ 71,902.60	\$ 69,690.65	\$ 81,503.75
Province of Alberta	23,967.53	23,230.22	27,167.75
Province of Manitoba	23,967.53	23,230.22	27,167.75
Province of Saskatchewan	23,967.53	23,230.22	27,167.75

Previous Board Expenditures

Fiscal 1970-71	\$ 0
Fiscal 1971-72	105,174.12
Fiscal 1972-73	136,816.45
Fiscal 1973-74	158,273.82
Fiscal 1974-75	209,546.78



ORGANIZATION CHART
MARCH 1978



THIS APPENDIX ONLY

INCLUDES COPIES OF:

- THE MASTER AGREEMENT ON APPORTIONMENT
- SCHEDULE A
- SCHEDULE B and
- SCHEDULE C.

**MASTER AGREEMENT
ON APPORTIONMENT**

MASTER AGREEMENT ON APPORTIONMENT

THIS AGREEMENT is made in quadruplicate this THIRTIETH day of OCTOBER, 1969, A.D.

BETWEEN:

HER Majesty, the Queen, in right of Canada, represented herein by the Minister of Energy, Mines and Resources

(Hereinafter called "Canada")

- and -

HER Majesty, the Queen, in right of Alberta, represented herein by the Minister in charge of Water Resources for Alberta

(Hereinafter called "Alberta")

- and -

HER Majesty, the Queen, in right of Saskatchewan, represented herein by the Minister in charge of The Water Resources Commission Act of the said Province

(Hereinafter called "Saskatchewan")

- and -

HER Majesty, the Queen, in right of Manitoba, represented herein by the Minister in charge of The Water Control and Conservation Branch Act of the said Province

(Hereinafter called "Manitoba")

WHEREAS under natural conditions the waters of the watercourses hereinafter referred to arising in or flowing through the Province of Alberta would flow into the Province of Saskatchewan and under the said conditions the waters of some of the said watercourses arising in or flowing through the Province of Saskatchewan would flow into the Province of Manitoba;

AND WHEREAS the Governor-in-Council has authorized Canada to enter into this agreement by Order-in-Council P.C. 1969-8/2051 dated October 29, 1969, and the Lieutenant Governors-in-Council for Alberta, Manitoba and Saskatchewan, respectively, have authorized them to enter into this agreement by the following Orders-in-Council:

Alberta	- O.C. 2053/69
Manitoba	- O.C. 1359/69
Saskatchewan	- O.C. 1612/69

AND WHEREAS the parties hereto deem it to be in their mutual interest that an agreement be reached among the four parties as to the apportionment as described in the schedules attached hereto of such interprovincial waters among the three Provinces;

AND WHEREAS Alberta and Saskatchewan have entered into an agreement, which agreement is attached to this agreement as Schedule A, that permits the Province of Alberta to make a net depletion of one-half the natural flow of water arising in or flowing through the Province of Alberta and that permits the remaining one-half of the natural flow of each such watercourse to flow into the Province of Saskatchewan, subject to certain prior rights as are set forth in the said agreement;

AND WHEREAS Saskatchewan and Manitoba have entered into an agreement, which agreement is attached to this agreement as Schedule B, that permits the Province of Saskatchewan to make a net depletion of one-half the natural flow of water arising in, and one-half of the water flowing into the Province of Saskatchewan, and that permits the remaining one-half of the flow of each such watercourse to flow into the Province of Manitoba, subject to such conditions and agreements as therein contained;

AND WHEREAS the parties are desirous that the Prairie Provinces Water Board (referred to herein as the Board), reconstituted by this agreement will be responsible for the administration of this agreement;

AND WHEREAS the parties hereto recognize the continuing need for consultation and co-operation as between themselves with respect to the matters herein referred to so that the interests of all the parties are best served;

NOW THEREFORE, THIS AGREEMENT (hereinafter known as the Master Agreement) witnesseth that each party agrees as follows:

Interprovincial Agreements

1. Alberta and Saskatchewan agree that the agreement between them (hereinafter called the First Agreement), a copy of which is set out in Schedule A to the Master Agreement, will become binding upon them upon the date that the Master Agreement is executed.
2. Saskatchewan and Manitoba agree that the agreement between them (hereinafter called the Second Agreement), a copy of which is set out in Schedule B to the Master Agreement, will become binding upon them upon the date that the Master Agreement is executed.
3. The parties agree to the apportionment of water between Alberta and Saskatchewan and Manitoba as provided in the First and Second Agreements and each party agrees to be bound by the said agreements as they relate to apportionment as if it were a party thereto.
4. The parties agree that the First or Second Agreement, or both, may be altered by an agreement in writing among the four parties to the Master Agreement, but not otherwise.
5. The parties agree that the First and Second Agreements will continue in force and effect until cancelled by an agreement in writing among the four parties to the Master Agreement.

Water Quality

6. The parties mutually agree to consider water quality problems; to refer such problems to the Board; and to consider recommendations of the Board thereon.

Monitoring

7. The parties agree that the monitoring of the quantity and quality of waters as specified in the First and Second Agreements, the collection, compilation and publication of water quantity and quality data required for the implementation and maintenance of the provisions of this agreement shall be conducted by Canada, subject to provision of funds being voted by the Parliament of Canada.

Administration

8. The parties agree, subject to Clause 9 of this agreement that if at any time, any dispute, difference or question arises between the parties with respect to this agreement or the construction, meaning and effect thereof, or anything therein, or the rights and liabilities of the parties thereunder or otherwise in respect thereto, then every such dispute, difference or question will be referred for determination to the Exchequer Court under the provisions of the Exchequer Court Act of Canada and each of the parties hereto agrees to maintain or enact the necessary legislation to provide the Exchequer Court with jurisdiction to determine any such dispute, difference, or question in the manner provided under the Exchequer Court Act.
9. The parties also agree that the Board, with the consent of the parties in dispute, may cause to be prepared, a factual report of the dispute for consideration by the parties hereto prior to the referral of the dispute to the Exchequer Court.
10. The parties agree that the Prairie Provinces Water Board shall monitor and report on the apportionment of waters as set out in the provisions of the First and Second Agreements and ratified by this Master Agreement.
11. The parties agree to revoke the agreement dated July 28, 1948, establishing the Prairie Provinces Water Board and to reconstitute the

Prairie Provinces Water Board in the form of Schedule C hereto and the said Schedule shall form and become part of this Master Agreement.

12. Because the Orders-in-Council referred to in Schedule D hereto will become redundant upon the execution of this Master Agreement, the parties agree to take steps to have them revoked.

13. The parties agree for the future application of the provisions of the Master Agreement (and the First and Second Agreements thereunder), to work together and to cooperate to the fullest extent each with the other for the integrated development and use of water and related resources to support economic growth according to selected social goals and priorities and to participate in the formulation and implementation of comprehensive planning and development programs according to their national, regional and provincial interest and importance.

14. No Member of the Parliament of Canada or Member of the Legislative Assemblies of the Provinces party to this agreement shall hold, enjoy, or be admitted to any share or part of any contract, agreement, commission or benefit arising out of this agreement.

IN WITNESS HEREOF Canada has caused its presents to be executed by its Minister of Energy, Mines and Resources, and Alberta has caused its presents to be executed by its Minister in charge of Water Resources, and Saskatchewan has caused its presents to be executed by its Minister in charge of The Water Resources Commission Act, and Manitoba has caused its presents to be executed by its Minister in charge of The Water Control and Conservation Branch Act on the day and year first mentioned above.

"A. Davidson"

Witness to the signature of the Minister
(Energy, Mines and Resources) for Canada

"J. J. Greene"

Minister (Energy, Mines and Resources) for
Canada

October 30, 1969

Date

"R. E. Bailey"

Witness to the signature of the Minister in
charge of Water Resources for Alberta

"Henry A. Ruste"

Minister in charge of Water Resources for
Alberta

October 30, 1969

Date

"Harold W. Pope"

Witness to the signature of the Minister in
charge of The Water Resources Commission
Act for Saskatchewan

"Allan R. Guy"

Minister in charge of The Water Resources
Commission Act for Saskatchewan

October 30, 1969

Date

"Thomas E. Weber"

Witness to the signature of the Minister in
charge of The Water Control and Conserva-
tion Branch Act for Manitoba

"Lenard S. Evans"

Minister in charge of The Water Control
and Conservation Branch Act for Manitoba

October 30, 1969

Date

SCHEDULE A

THIS AGREEMENT is made in quadruplicate this THIRTIETH day of OCTOBER, 1969, A.D.

BETWEEN:

HER Majesty, the Queen, in right of Alberta, represented herein by the Minister in charge of Water Resources for Alberta

(Hereinafter called "Alberta")

- and -

HER Majesty, the Queen, in right of Saskatchewan, represented herein by the Minister in charge of The Water Resources Commission Act of the said Province

(Hereinafter called "Saskatchewan")

WHEREAS under natural conditions the waters of the watercourses hereinafter referred to arising in or flowing through the Province of Alberta would flow into the Province of Saskatchewan and under the said conditions the waters of some of the said watercourses arising in or flowing through the Province of Saskatchewan would flow into the Province of Manitoba;

AND WHEREAS the parties hereto deem it to be in their mutual interest and in the interest of Manitoba that an agreement in principle be reached among the said three Provinces as to the apportionment of such interprovincial waters among them;

AND WHEREAS the parties hereto are of the opinion that an equitable apportionment of such waters as between the adjoining Provinces of Alberta and Saskatchewan would be to permit the Province of Alberta to make a net depletion of one-half the natural flow of water arising in or flowing through the Province of Alberta and to permit the remaining one-half of the natural flow of water of each such watercourse to flow into the Province of Saskatchewan, subject to certain

prior rights as are hereinafter set forth or may hereafter be mutually agreed upon in writing;

AND WHEREAS on the basis of the foregoing apportionment as between the Provinces of Alberta and Saskatchewan the parties hereto are of the opinion that in a similar manner, an equitable apportionment of the remainder of the natural flow of the said watercourses that flow into the Province of Manitoba after permitting the Province of Alberta to make its depletion of one-half thereof would be to permit the Province of Saskatchewan to make a net depletion of one-half of the said remainder and to permit the other one-half thereof to flow into the Province of Manitoba; and that the natural flow of any tributaries to the said watercourses which tributaries join the said watercourses in the Province of Saskatchewan without arising in or first flowing through the Province of Alberta could be apportioned one-half to the Province of Saskatchewan and one-half to the Province of Manitoba in a manner similar to the apportionment of waters as between the Provinces of Alberta and Saskatchewan, in all cases subject to such prior rights as may be mutually acknowledged by the said Provinces of Manitoba and Saskatchewan;

AND WHEREAS the parties hereto recognize the continuing need for consultation and co-operation as between themselves and with Manitoba with respect to the matters herein referred to so that the best and most beneficial use of the said waters may be made and the interests of all said provinces best served:

NOW THIS AGREEMENT witnesseth as follows:

1. IN THIS AGREEMENT:

- (a) "Natural flow" means the quantity of water which would naturally flow in any watercourse had the flow not been affected by human interference or human intervention, excluding any water which is part of the natural flow in Alberta but is not available for the use of Alberta because of the provisions of any international treaty which is binding on Alberta.

- (b) "Watercourse" means any river, stream, creek, or other natural channel which from time to time carries a flowing body of water from the Province of Alberta to the Province of Saskatchewan and includes all tributaries of each such river, stream, creek or natural channel which do not themselves cross the common boundary between the Provinces of Alberta and Saskatchewan. Such tributaries as do themselves cross the said common boundary between the Provinces of Alberta and Saskatchewan shall be deemed to be "watercourses" for the purpose of this agreement.
2. (a) The parties hereto shall mutually establish a method by which to determine the natural flow of each watercourse flowing across their said common boundary.
- (b) For the purpose of this agreement, the said natural flow shall be determined at a point as near as reasonably may be to their said common boundary.
- ✓ (c) Notwithstanding sub-paragraph (b) the point at which the natural flow of the watercourses known as the South Saskatchewan and Red Deer Rivers is to be determined may be, at the option of Alberta, a point at or as near as reasonably may be below the confluence of the said two rivers.
3. Alberta shall permit a quantity of water equal to one-half the natural flow of each watercourse to flow into the Province of Saskatchewan, and the actual flow shall be adjusted from time to time on an equitable basis during each calendar year, but this shall not restrict or prohibit Alberta from diverting or consuming any quantity of water from any watercourse provided that Alberta diverts water to which it is entitled of comparable quality from other streams or rivers into such watercourse to meet its commitments to Saskatchewan with respect to each watercourse.
4. Notwithstanding paragraph 3 hereof, the following special provisions shall apply as between the parties hereto with respect to the watercourse known as the South Saskatchewan River.
- (a) Alberta shall be entitled in each year to consume, or to divert or store for its consumptive use a minimum of 2,100,000 acre-feet net depletion out of the flow of the watercourse known as the South Saskatchewan River even though its share for the said year, as calculated under paragraph 3 hereof, would be less than 2,100,000 acre-feet net depletion, provided however Alberta shall not be entitled to so consume or divert, or store for its consumptive use, more than one-half the natural flow of the said South Saskatchewan watercourse if the effect thereof at any time would be to reduce the actual flow of the said watercourse at the common boundary of the said Provinces of Saskatchewan and Alberta to less than 1,500 cubic feet per second.
- (b) The consumption or diversion by Alberta provided for under the preceding sub-paragraph shall be made equitably during each year, depending on the actual flow of water in the said watercourse and the requirements of each Province, from time to time.
5. The parties hereto shall work together and co-operate to the fullest extent, each with the other, for the most effective, economical and beneficial use of waters flowing from the Province of Alberta into the Province of Saskatchewan, including the construction and operation of approved projects of mutual advantage to our Provinces on a cost-share basis proportionate to the benefits derived therefrom by each Province, (the approval of which projects shall not be unreasonably withheld by either of the parties hereto) and shall enter into such other arrangements, agreements or accords with each other, and with the Governments of Canada and other Provinces to best achieve the principles herein agreed upon.

6. This agreement shall not adversely affect any right to water in Battle or Lodge Creeks which has been given by the Government of Canada prior to the transfer of the natural resources to the Provinces and is still subsisting, or any right to such water given by either Province heretofore which has been recognized and approved by both Provinces.
7. If at any time any dispute, difference or question shall arise between the parties or their representatives touching this agreement or the construction, meaning and effect thereof, or anything therein, or the rights or liabilities, of the parties or their representatives thereunder or otherwise in respect thereto then every such dispute, difference or question shall be referred for determination to the Exchequer Court under the provisions of The Exchequer Court Act of Canada, and each of the parties hereto agrees to enact the necessary legislation to provide the Exchequer Court with jurisdiction to determine any such dispute, difference or question in the manner provided under Section 30 of The Exchequer Court Act.
8. This agreement shall become effective upon the execution of an agreement by Canada, Alberta, Manitoba and Saskatchewan relative to the apportionment of waters referred to in this agreement.

"R. E. Bailey"

Witness to the signature of the Minister
in charge of Water Resources for Alberta

"Henry A. Ruste"

Minister in charge of Water Resources
for Alberta

"Harold W. Pope"

Witness to the signature of the Minister
in charge of The Water Resources Com-
mission Act

IN WITNESS WHEREOF Alberta has caused these presents to be executed on its behalf by its Minister in charge of Water Resources, and Saskatchewan has caused these presents to be executed by its Minister in charge of The Water Resources Commission Act, both on the day and year first above mentioned.

"Allan R. Guy"

Minister in charge of The Water Re-
sources Commission Act

SCHEDULE B

THIS AGREEMENT is made in quadruplicate this THIRTIETH day of OCTOBER, 1969, A.D.

BETWEEN:

HER Majesty, the Queen, in right of Saskatchewan, represented herein by the Minister in charge of The Water Resources Commission Act of the said Province

(Hereinafter called "Saskatchewan")

- and -

HER Majesty, the Queen, in right of Manitoba, represented herein by the Minister in charge of The Water Control and Conservation Branch Act of the said Province

(Hereinafter called "Manitoba")

WHEREAS under natural conditions the waters of the watercourses hereinafter referred to arising in or flowing through the Province of Saskatchewan would flow into the Province of Manitoba;

AND WHEREAS the parties hereto deem it to be in their mutual interest and in the interest of Alberta that an agreement in principle be reached among the said three Provinces as to the apportionment of interprovincial waters among them;

AND WHEREAS the parties hereto are of the opinion that an equitable apportionment of such waters as between the adjoining Provinces of Saskatchewan and Manitoba would be to permit the Province of Saskatchewan to make a net depletion of one-half the natural flow of water arising in, and one-half the flow of water flowing into, the Province of Saskatchewan, and to permit the remaining one-half of the flow of water of each such watercourse to flow into the Province of Manitoba, subject to certain rights as may hereafter be mutually agreed upon in writing;

AND WHEREAS on the basis of the foregoing apportionment as between the Provinces of Saskatchewan and Manitoba, the parties hereto are of the opinion that in a similar manner, an equitable apportionment of the natural flow of the said watercourses arising in or flowing through the Province of Alberta would be to permit the Province of Alberta to make a net depletion of one-half thereof, subject to such prior rights as may be mutually acknowledged by the said Provinces of Alberta, Saskatchewan and Manitoba;

AND WHEREAS the parties hereto recognize the continuing need for consultation and co-operation as between themselves and with Alberta with respect to the matters herein referred to so that the interests of all said Provinces are best served;

NOW THIS AGREEMENT witnesseth as follows:

1. IN THIS AGREEMENT:

- (a) "Natural flow" means the quantity of water which would naturally flow in any watercourse had the flow not been affected by human interference or human intervention.
- (b) "Watercourse" means any river, stream, creek, or other natural channel which from time to time carries a flowing body of water from the Province of Saskatchewan to the Province of Manitoba and includes all tributaries of each such river, stream, creek or natural channel which do not themselves cross the common boundary between the Provinces of Saskatchewan and Manitoba. Such tributaries as do themselves cross the said common boundary between the Provinces of Saskatchewan and Manitoba shall be deemed to be "watercourses" for the purpose of this agreement.

2. (a) The parties hereto shall mutually establish a method by which to determine the natural flow of each watercourse flowing across their said common boundary.
 - (b) For the purpose of this agreement, the said natural flow shall be determined at a point as near as reasonably may be to their said common boundary.
3. Saskatchewan shall permit in each watercourse the following quantity of water to flow into Manitoba during the period from April 1 of each year to March 31 of the year following: A quantity of water equal to the natural flow for that period determined at the point referred to in paragraph 2(b) hereof, less
 - (a) one-half the water flowing into Saskatchewan in that watercourse from Alberta, and
 - (b) any water which would form part of the natural flow in that watercourse but does not flow into Saskatchewan because of the implementation of any provision of any subsisting water apportionment agreement made between Alberta and Saskatchewan and approved by Manitoba, and
 - (c) one-half the natural flow arising in Saskatchewan.

The actual flow shall be adjusted from time to time by mutual agreement on an equitable basis during such period but this shall not restrict or prohibit Saskatchewan from diverting, storing or consuming any quantity of water from any watercourse provided that Saskatchewan diverts water to which it is entitled of comparable quality from other streams or rivers into such watercourse to meet its commitments to Manitoba with respect to each watercourse.
 4. Saskatchewan shall be entitled during such period to consume or to divert or store for its consumptive use the water it is not required to permit to flow into Manitoba in each watercourse under paragraph 3 hereof, but such consumption or diversion shall be made equitably depending on the actual flow of water in each watercourse and the requirements of each Province from time to time, but Saskatchewan shall permit sufficient water to flow into Manitoba to meet its commitments during such period under paragraph 3 hereof.
 5. The parties hereto shall work together and co-operate to the fullest extent, each with the other, for the use of waters flowing from the Province of Saskatchewan into the Province of Manitoba, including the construction and operation of approved projects of mutual advantage to the said Provinces on a cost-share basis proportionate to the benefits derived therefrom by each Province (the approval of which projects shall not be unreasonably withheld by either of the parties hereto) and shall enter into such other arrangements, agreements or accords with each other, and with the Governments of Canada and other Provinces to best achieve the principles herein agreed upon.
 6. If at any time any dispute, difference or question shall arise between the parties or their representatives touching this agreement or the construction, meaning and effect thereof, or anything therein, or the rights or liabilities of the parties or their representatives thereunder or otherwise in respect thereto then every such dispute, difference or question shall be referred for determination to the Exchequer Court under the provisions of The Exchequer Court Act of Canada, and each of the parties hereto agrees to maintain or enact the necessary legislation to provide the Exchequer Court with jurisdiction to determine any such dispute, difference or question in the manner provided under The Exchequer Court Act.

7. - This agreement shall become effective upon the execution of an agreement by Canada, Alberta, Manitoba and Saskatchewan relative to the apportionment of waters referred to in this agreement.

IN WITNESS WHEREOF Saskatchewan has caused these presents to be executed by its Minister in charge of The Water Resources Commission Act, and Manitoba has caused these presents to be executed by its Minister in charge of The Water Control and Conservation Branch Act on the day and year first above mentioned.

"Harold W. Pope"

Witness to the signature of the Minister in charge of The Water Resources Commission Act

"Allan R. Guy"

Minister in charge of The Water Resources Commission Act

"Thomas E. Weber"

Witness to the signature of the Minister in charge of The Water Control and Conservation Branch Act

"Leonard S. Evans"

Minister in charge of The Water Control and Conservation Branch Act.

SCHEDULE C

PRAIRIE PROVINCES WATER BOARD AGREEMENT

THIS AGREEMENT made this THIRTIETH day of OCTOBER, 1969, A.D.

BETWEEN:

THE GOVERNMENT OF CANADA,
hereinafter called "Canada"

- and -

THE GOVERNMENT OF MANITOBA,
hereinafter called "Manitoba"

- and -

THE GOVERNMENT OF SASKATCHEWAN,
hereinafter called "Saskatchewan"

- and -

THE GOVERNMENT OF ALBERTA,
hereinafter called "Alberta"

1. Manitoba, Saskatchewan, Alberta and Canada agree to establish and there is hereby established a Board to be known as the Prairie Provinces Water Board to consist of five members to be appointed as follows:

- (a) two members to be appointed by the Governor General in Council, one of whom shall be Chairman of the Board, on the recommendation of the Minister of Energy, Mines and Resources,
- (b) one member to be appointed by the Lieutenant Governor in Council of each of the Provinces of Manitoba, Saskatchewan and Alberta.

2. Functions

The Board shall oversee and report on the Master Agreement (including the First and

Second Agreements thereunder) executed by Canada, Alberta, Manitoba and Saskatchewan for the apportionment of waters flowing from one Province into another Province; shall take under consideration, comprehensive planning, water quality management and other questions pertaining to water resource management referred to it by the parties hereto; shall recommend appropriate action to investigate such matters and shall submit recommendations for their resolution to the parties hereto.

3. Composition of Board

The members of the Board shall be chosen from those engaged in the administration of water resources or related duties for Manitoba, Saskatchewan, Alberta or Canada, as the case may be, and shall serve as members of the Board in addition to their other duties.

4. Duties of the Board

In accordance with its functions, the duties of the Board shall be as follows:

- (a) to review, collate, and analyze stream-flow data and prepare reports and recommendations on the apportionment of water,
- (b) to review water quality problems, particularly such problems located at the interprovincial boundaries, and to recommend to the parties hereto, appropriate management approaches for their resolution including the establishment of new institutional arrangements,
- (c) to develop recommendations on other water matters, in addition to problems on water quality, referred to the Board by any party hereto including the review and analysis of existing information and the requesting of additional studies and assistance by appropriate governmental agencies to provide information for formulating its recommendations,

- (d) to promote through consultation and the exchange of information the integrated development of water resources of inter-provincial streams,
- (e) to cause to be prepared with the consent of the parties involved factual reports on disputes arising out of the water apportionment for consideration by the parties hereto,
- (f) to ensure the co-ordination of such technical programs as water quantity and quality monitoring and streamflow forecasting required for the effective apportionment of water.

5. Confirmation of the Board's Recommendations

A recommendation of the Board with respect to any matters referred to it under Section 2 shall, subject to the Master Agreement for the apportionment of water, become effective when adopted by Orders-in-Council passed by Canada and each of the Provinces.

6. Authority of Board

The Board shall have authority to correspond with all Governmental organizations and other sources of information in Canada or abroad concerned with the administration of water resources, and such other authority as may be conferred on the Board from time to time by agreement between the parties hereto; all agencies of the four governments having to do with the water and associated resources in the area covered by the Agreement shall be required to supply the Board with all data in their possession requested by the Board.

7. Records

The records relating to the water resources of the three provinces collected and compiled by the P.F.R.A. organization at Regina shall be made available to the Board.

8. Meetings of the Board

The Board shall meet at the call of the Chairman and meetings shall be called at least twice annually; the expenses of the members shall be borne by their respective governments.

9. Reports

The Board shall submit an annual progress report outlining work done and work contemplated in the agreed program to each of the responsible Ministers of the parties hereto and such other reports as may be requested by any one of such Ministers.

10. Operation of the Board

The Secretary for the Board and such other technical and clerical staff as may be required, with a headquarters at Regina, shall be Federal or Provincial public servants. The cost of administration, excluding the cost of monitoring as described in Section 7 of the Master Agreement, but including staff, accommodation, supplies and incidental expenses of the Board, shall be borne by the parties hereto on the basis of one-half by Canada and one-sixth by each of the Provinces. The Board shall prepare for approval of the parties hereto, work program, staff requirements, annual budgets and five-year forecasts and such other reports as may be required in the operation of the Board.

- 11. Any water development project already constructed or to be constructed by any one of the parties shall be so operated as to maintain the apportionment of water as set out in the Master Agreement (and the First and Second Agreements thereunder) for the apportionment of waters of interprovincial streams.

SCHEDULE D

PREVIOUS ALLOCATIONS OF INTERPROVINCIAL WATERS
 APPROVED BY ORDERS-IN-COUNCIL BY THE GOVERNMENTS OF
 CANADA, ALBERTA, MANITOBA, AND SASKATCHEWAN

<u>Item</u>	<u>Order-in-Council</u>			
	<u>Canada</u>	<u>Alberta</u>	<u>Saskatchewan</u>	<u>Manitoba</u>
Allocation of water for specific projects in Alberta	4030/49	857/49	1307/51	1121/49
Allocation of water for specific projects in Saskatchewan	1874/51	1091/51	1310/51	1264/51
Allocation of water for South Saskatchewan River Project in Sask- atchewan	973/53	991/53	1271/53	924/53

BY-LAWS

PART I

1. In these By-Laws:

- (a) "Agreement" means the Prairie Provinces Water Board Master Agreement (including the First and Second Agreements thereunder) executed the Thirtieth day of October, 1969, A. D. by Canada, Alberta, Saskatchewan and Manitoba.
- (b) "Alternate" means Alternate Member of the Prairie Provinces Water Board.
- (c) "Board" means the Prairie Provinces Water Board.
- (d) "By-Laws" means the ordinances adopted by the Board for the regulation of the Board's internal affairs.
- (e) "Chairman" means Chairman of the Prairie Provinces Water Board.
- (f) "Executive Director" means the senior officer of the Secretariat.
- (g) "Member" means Member of the Prairie Provinces Water Board.
- (h) "Ministers" means the responsible ministers of the governments which are party to the Agreement.
- (i) "Secretariat" means the operational unit established by the Board to carry out the day-to-day affairs of the Board.
- (j) "Schedule C" means the Prairie Provinces Water Board Agreement under the Master Agreement (1969) executed by Canada, Alberta, Saskatchewan and Manitoba establishing the Prairie Provinces Water Board.

PART II

The following shall be the By-Laws of the Prairie Provinces Water Board.

1. Objectives

The objectives of the Board shall be to promote the integrated development and use of water and related resources to support economic growth according to selected social goals and priorities, and to participate in the formulation and implementation of comprehensive planning and development programs according to their national, regional and provincial interest and importance.

In general, the Board will provide coordination and liaison between water resource agencies and will advise governments on the planning, development and management of interprovincial waters.

In particular, the Board will ensure the equitable apportionment of water flowing from one province into another province in accordance with the Agreement and will promote effective water quality management of interprovincial streams relative to standards and procedures adopted by the Board from time to time.

2. Membership

In accordance with Section 1 of Schedule "C", the Prairie Provinces Water Board shall consist of five Members to be appointed as follows:

- (a) two Members to be appointed by the Governor General in Council, one of whom shall be Chairman of the Board;
- (b) one Member to be appointed by the Lieutenant Governor in Council of each of the Provinces of Manitoba, Saskatchewan and Alberta.

3. Alternate Members

Each Member, including the Chairman, shall arrange for the appointment of an Alternate Member to act on his behalf during his absence, in which case the Alternate shall enjoy all the rights and privileges conferred on the Member.

4. Meetings and Notice

The Board shall meet at least twice a year by the call of the Chairman. Any Member may request a meeting of the Board at any time, in which case the Chairman must call the meeting within one month (30 days).

Meetings of the Board shall be called with at least 14 days notice unless every Member agrees otherwise.

5. Quorum

Meetings of the Board shall be official when all Members or their appointed Alternates are present.

6. Voting

All recommendations to government, all By-Laws and budgets-in-total shall require unanimous approval. The majority of votes determines a question on any other matter. In the event of a tie, the Chairman shall cast the deciding vote.

7. Powers

In accordance with the duties, functions and operations of the Board, as contained in Schedule "C", the Board shall have the power to authorize expenditures within the limits of approved budgets for the operations of the Secretariat, for the employment of staff, or for any other purposes necessary for administering the Agreement and furthering the objectives of the Board.

8. Authority

Within the general responsibilities given to it, the Board shall determine its technical and administrative functions from time to time and

shall decide all matters regarding the authority of the Board and the delegation thereof.

9. Financial Year

The financial year shall end on the 31st day of March in each year.

10. Budgets

The Chairman shall submit fiscal year program and budget estimates to the Board and to the parties to the Agreement for their approval. Such estimates shall be submitted not later than the first day of August preceding the financial year to which they pertain.

11. Secretariat

- (a) There shall be a permanent Secretariat with offices at Regina, Saskatchewan.
- (b) The Secretariat shall be the "operational arm" of the Board, charged with the responsibility of conducting programs approved by the Board for collating and analyzing data and reporting the apportionment and water quality of interprovincial streams; for conducting approved studies, and for furthering the policies and objectives of the Board.
- (c) Except as otherwise provided for under subsection (f) herein, employees of the Secretariat shall be federal civil servants, subject to federal public service regulations and classification and collective agreements.
- (d) The chief officer of the Secretariat shall be the Executive Director whose actions shall at all times be subject to the approval of the Board.
- (e) The Board shall approve the establishment of salaried positions within the Secretariat and shall approve job descriptions prior to submission to the appropriate federal authority. The Board shall be consulted on the appointment of employees to the Secretariat which role may be delegated to the Executive Director.

- (f) The Board may arrange by agreement for secondment to the Secretariat, the employees of the agencies of those party to the Agreement, at cost, whenever in the opinion of the party concerned the services of such employees are available. Such employees shall remain under the administrative control and public service regulations of the appropriate party.

12. Assignments to Associated Agencies and Consultants

- (a) The Board shall have the authority to engage agencies of those party to the Agreement, at cost, to undertake assignments from the Board, whenever in the opinion of the party concerned, the services of such agencies are available.
- (b) Agencies may enter into sub-contracts with consultants for purposes of professional interpretation subject to the approval of the Executive Director. Sub-contracts for the collection of basic data shall not require the approval of the Executive Director.
- (c) The Board may engage consultants to undertake assignments from the Board where such services are deemed necessary.
- (d) The services of consultants and of agencies of those party to the Agreement shall be engaged under a contractual arrangement. Contracts shall be entered into by the Chairman and/or the Executive Director subject to delegated authorities under the federal government contract regulations. Contracts for services shall also be subject to budgetary appropriations and any other controls imposed by the Board for the conduct of the work.

13. Terms of Payment for Services Provided by Associated Agencies

- (a) Canada, through the Board, shall reimburse the Provinces of Alberta, Saskatchewan and Manitoba on a monthly basis, for expenditures made pursuant to the Agreement and approved by the Board. Payment for such expenditures will be made by Canada upon the submission of a claim in a mutually agreed manner and form.

- (b) Canada, and the Provinces of Alberta, Saskatchewan and Manitoba shall keep complete records of all expenditures made severally pursuant to the Agreement and shall support such expenditures with proper documentation. Canada and the Provinces of Alberta, Saskatchewan and Manitoba shall make these records and documents available to auditors appointed by the other.

14. Cost of Administration of the Board

- (a) In accordance with Section 10 of Schedule "C", all budgeted expenditures, which shall not include the cost of monitoring, as described in Section 7 of the Master Agreement, but including staff, accommodation, supplies and incidental expenses of the Board, shall be borne by the parties to the Agreement on the basis of one-half by Canada and one-sixth by each of the Provinces.

15. Financing the Operations of the Board

- (a) Canada shall assume responsibility for financing the operations of the Board.
- (b) Subject to the cost sharing provisions of the Agreement, the Provinces of Alberta, Saskatchewan and Manitoba shall pay to Canada their shares of approved expenditures made by Canada for the operations of the Board.
- (c) On or before July 1st of each year, Canada shall prepare and submit to each of the provinces party to the Agreement, statements of claim respecting provincial shares of monies due Canada for financing the operations of the Board during the previous financial year. Statements of claim shall be certified by a senior official of Canada and bear a Canada audit certificate.
- (d) Within sixty (60) days after receipt of a claim by Canada, submitted as prescribed in Article 15(c), the Provinces of Alberta,

Saskatchewan and Manitoba shall reimburse Canada for their shares of expenditures incurred during the previous financial year for the operations of the Board.

16. Annual Report

Within three (3) months after the end of the financial year, the Chairman shall submit to the Ministers the Annual Report of the Board.

17. Amendment of By-Laws

By-Laws may be enacted, amended or repealed by unanimous approval of the Board. "Notice of Motion" to enact, amend or repeal By-Laws must be served on Members at least sixty (60) days prior to a vote on such issue.

18. Rules and Procedures

The Board shall formulate and adopt "Rules and Procedures" governing the day-to-day affairs of the Board and the operations of the Secretariat. These "Rules and Procedures" may be amended, adopted or repealed in accordance with Article 6 of these By-Laws.

PART III

EXECUTIVE DIRECTOR

1. Functions

- (a) The Executive Director shall be the senior employee of the Secretariat; subject to the Board's direction, he shall be responsible for the technical and administrative activities of the Secretariat and the day-to-day management of the Board.
- (b) He shall record or cause to be recorded all votes and minutes of all proceedings in books to be kept for that purpose.
- (c) He shall give or cause to be given notice of all meetings of the Board.
- (d) He shall keep the Board informed at all times of matters pertinent or relevant to the programs and operations of the Board.
- (e) He shall have charge of all records of the Board, together with copies of all reports made by the Board and such other books or papers as the Board may direct.
- (f) He shall implement all orders and resolutions of the Board and perform any other duties that the Board may prescribe.

Approved at PPWB Meeting No. 5
- November 2nd, 1971

RULES AND PROCEDURES

SECRETARIAT

The Prairie Provinces Water Board hereby adopts the following Rules and Procedures governing the operations of the Prairie Provinces Water Board Secretariat.

Financial Administration

1. The Executive Director is authorized to make disbursements of funds in conformity with the main items of expenditure allotted in the budget estimates approved by the Board, subject to those restrictions specified elsewhere in these Rules and Procedures.
2. The Executive Director shall prepare the annual program and budget estimates for the operations of the Prairie Provinces Water Board. Such estimates shall be submitted to the Chairman not later than the first day of July preceding the financial year to which they pertain.
3. Contracts with private consultant firms and individuals shall conform to accepted practices and procedures of the Federal Treasury Board.
4. A contract for services with a person or persons may be undertaken by the Executive Director providing that no such contract is made with a single person, a single firm of persons, or government agency exceeding \$5,000 without the approval of the Board.
5. Contracts not exceeding \$5,000 shall be executed on behalf of the Board under the signature of the Executive Director. Contracts exceeding \$5,000 shall be executed under the signature of the Chairman of the Board.
6. Payment of accounts will be made only after they have been approved by the Executive Director.

Establishment of Salaried Positions, Appointments and Administration of Salaries

7. The establishment of salaried positions in the Secretariat shall be approved by the Board.
8. The Board shall approve the duties of all positions in the Secretariat including those of Executive Director.
9. The classification and remuneration of salaried positions within the Secretariat shall be governed by the appropriate federal authority.
10. The financial and personnel administration of the Secretariat shall be carried out in accordance with federal government practices.
11. To facilitate the operations of the Secretariat, personnel and financial administrative support services shall be provided, at cost, by the Federal Department of the Environment.

Board Offices

12. The Executive Director is authorized to lease and maintain property within which to conduct Board affairs providing that terms of such leasing shall be sanctioned by the Board.
13. Costs for the operation of the Board offices shall include, but shall not necessarily be limited to, expenditures for the following items:
 - (a) Salaries and wages and related benefits of Board employees or personnel seconded to the Board offices, including removal expenses, both at the commencement and termination of the appointment, where applicable, and living expenses for seconded personnel where approved by the Board.

- (b) Field surveys and investigations including travel and living expenses when applicable, by personnel engaged in conducting studies or field investigations.
 - (c) Rentals for office space and equipment and charges for utilities and related services for the operation of Board offices.
 - (d) Purchases of furniture, and equipment not available on a rental basis.
 - (e) Operating, maintenance and transportation expenses for equipment.
 - (f) Contracts awarded by the Board including, where applicable, arbitration, settlements, legal fees and other matters, made in accordance with the provisions of the contract.
 - (g) Settlement and legal fees arising out of property damaged or public liability made or incurred by an employee of the Secretariat or a party to the Agreement working for the Secretariat and engaged in the activities of the Board offices.
 - (h) Other items required for conducting the work and for operations of the Board offices which have been approved by the Board.
- (c) Normal operating maintenance and transportation expenses for equipment where such expenses are not included in the rental rate.
 - (d) All contracts as provided under the provisions of Article 12(b) of the By-Laws.
 - (e) Other items required for conducting the work of the Board and approved by the Executive Director.

Board Members, Alternates and Advisory Committees

15. The costs incurred by Board Members and their Alternates in representing their respective governments at Board functions shall be paid for by the appropriate government. The salaries and travelling expenses of government officials appointed to represent those party to the Agreement on Committees established to advise the Board and/or the Executive Director shall be paid by the appropriate party.

Approved at PPWB Meeting No. 5
- November 2nd, 1971

Payment for Services Provided by Participating Government Agencies

14. Costs of participating government agencies for services, field investigations, planning studies, etc., specifically requested by the Board shall include the following items:
- (a) Salaries, wages, travel and living expenses for employees engaged in providing the service.
 - (b) Rental charges for equipment and operators.

MAP

