

PRAIRIE PROVINCES WATER BOARD

REPORT #5

EVAPORATION FROM LAKES AND RESERVOIRS
ON
THE CANADIAN PRAIRIES

A study based on thirty years of
meteorological records: 1921-1950

413 Post Office Building
Regina, Saskatchewan
December, 1952

PRAIRIE PROVINCES WATER BOARD

413 Post Office Building,
Regina, Saskatchewan,
December 15, 1952.

Dr. L. B. Thomson,
Chairman, Prairie Provinces Water Board,
910 McCallum Hill Building,
Regina, Saskatchewan.

Dear Dr. Thomson:

Transmitted herewith is Water Board Report #5
entitled "Evaporation From Lakes and Reservoirs on the Canadian
Prairies".

This report was prepared to partially fulfill one
of the duties of the Board as set out in Section 4 (a) of the
Water Board Agreement dated July 28, 1948, which is "to collate
and analyze the data now available relating to the water and
associated resources of interprovincial streams with respect
to their utilization for irrigation, drainage, storage, power,
industrial, municipal, navigation and other purposes".

This investigation was conducted by the Hydrology
Division of the Prairie Farm Rehabilitation Administration
(Canada Department of Agriculture) under the direction of the
Prairie Provinces Water Board.

Acknowledgement should be made of the work of
Mr. W. Stichling, P.F.R.A. Engineer, under whose immediate
direction this study was carried out. The assistance of
Dr. B. W. Currie, Physics Department, University of Saskatchewan,
and Mr. W. Fryers, Officer-in-charge, Aviation Forecast Office,
Regina, both of whom furnished data and later reviewed the
completed report, is gratefully acknowledged.

Yours very truly,

W. M. Berry,
Engineering Secretary.

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I SUMMARY

Wherever water is stored in prairie lakes or reservoirs, a knowledge of the water lost through evaporation is essential to the efficient design and operation of the works involved. Up to the present time, there has been no acceptable procedure available for estimating these losses on the Canadian prairies.

The only available data on evaporation losses have been the indirect measurements made using evaporation pans. It is shown herein that these measurements can only be used to estimate evaporation from very small open bodies of water (dugouts, farm ponds, etc.) providing a coefficient of 0.7 is applied. When dealing with larger bodies of water, such as the usual lake or reservoir, heat storage in the water causes a marked difference between water temperatures and corresponding air temperatures, thereby destroying any relationship between pan measurements and evaporation from these larger surfaces.

A. F. Meyer's evaporation formula was selected, from the many existing formulae, as a means of estimating evaporation losses from these larger lakes and reservoirs. Using this method, and the period from 1921 to 1950, various calculations were made and the conclusions drawn therefrom are summarized in both tabular and graphical form. In addition, maps are presented showing isopleths of mean evaporation over the prairies for different conditions.

With these results, and using procedures outlined in the text, it is possible to estimate evaporation for any particular month (or series of months, years, or means) for various sized lakes or reservoirs anywhere on the Canadian prairies (excluding Cypress Hills).

II INTRODUCTION

Evaporation from open water surfaces is a very important factor in water resource development in the agricultural areas of the Canadian prairies. Available water is at a premium and the design and operation of works to control these waters is governed, to a great extent, by water losses through evaporation.

"Evaporation", as used herein, is defined as the actual loss of water mass due to the change from the liquid or solid to the gaseous state.

Information on evaporation in this area has been sadly neglected: the only measurements of this factor that are available were taken by the Experimental Farms Service (Canada) and the Water Resources Divisions (Canada) using very few, and sometimes non-standardized, land pans. These scattered measurements have never been brought together nor analyzed.

There are many types of evaporation-measuring devices^{*}, and there is a long-standing controversy as to which is the best device to use, and with what coefficients, for estimating evaporation from a free water surface. Similarly, there must be hundreds of formulae developed for determining evaporation from meteorological observations. These formulae range from simple to complex and from the most fundamental to the ridiculous.

This lack of definite information on evaporation made it necessary to conduct the study outlined herein. An attempt was made first to collate and analyze existing pan measurements. This failed due to the scarcity of data and the non-standardized measurements. Acceptable results were finally achieved when a well-established empirical formula was adopted which utilizes meteorological factors that are commonly recorded at all Class I meteorological stations.

The final results should enable anyone to estimate the open-water evaporation that occurred anywhere on the Canadian prairies for any or all months during the period 1921-1950.

An interesting by-product of this study was the development of equations giving monthly water surface temperatures of lakes and reservoirs which require only a knowledge of air temperatures.

* Types of pans: round, square, land, sunken, floating, small-diameter, large diameter, colored, screened, etc.
Other devices: Piche, porous porcelain bodies, etc.

III METHODS OF DETERMINING EVAPORATION

There are several broad approaches available for determining evaporation from open-water surfaces. These are, in brief:

Direct Measurement

1. The Water Budget: evaporation is the negative residual after measuring inflow, outflow, seepage, and change in bank and reservoir storage--not practical as evaporation is small compared to errors in measuring the other factors.

Indirect Measurement

2. Evaporation Pans: requires "pan coefficients" to apply results to lakes and reservoirs--this method is the one most used to date but the few and non-standardized pans, together with the controversial "coefficients" required, greatly restricts the value of this method.

3. Other means of indirect measurement: porous porcelain bodies and wet paper surfaces have been used--as these devices also require "coefficients" and bear even less relationship to reservoirs than do pans, their field of usefulness for our purposes is negligible.

Formulae

4. Using Dalton's Law: a variety of empirical formulae have been based on the relationship that evaporation varies directly with the difference between the saturated vapor pressure corresponding to surface water temperature and the actual vapor pressure of the air--many of the formulae were developed for specific local conditions, but some, particularly the Meyer formula, were developed for general use.

5. Using an energy budget: these are based upon a determination of the energy available for evaporation and require the use of such factors as direct and reflected radiation from the sun and sky, back radiation, heat storage, advection, etc.--the impracticability of obtaining these factors prohibit their use for our purpose.

6. Based on mass-transfer theory: this requires parameters related to the factors affecting the transport of water vapor such as

density, shearing stress, viscosity and velocity of the air, surface roughness conditions, etc.--again these formulae are impractical for our use.

Meyer's formula was chosen for this study because (a) it is a widely accepted method of long standing, (b) there is available a fine report on evaporation based on this method which includes isopleths of evaporation extending up to the southern boundary of the Canadian prairies, and (c) the formula requires factors that are recorded at Class I meteorological stations.

The Meyer formula is

$$E = C (V_w - V_a) (1 + 0.1W)(1 + 0.00001 A)$$

where

- E = total monthly evaporation measured in inches depth;
- V_w = maximum vapor pressure, in inches, mercury, corresponding to the mean temperature of the surface water of the given lake or reservoir. Temperature measurements are to be made about 1 foot below the water surface;
- V_a = actual vapor pressure, in inches, mercury, in the atmosphere about 25 feet above the water surface or above the surface of the surrounding land area;
- W = wind velocity, in miles per hour, measured about 25 feet above the surface of the water or above the surrounding cleared land, or the tops of trees or buildings;
- A = elevation of reservoir above sea level, in feet;
- C = '11.0' for monthly evaporation from lakes and reservoirs when the actual vapor pressure in the air is determined from the mean of the daily maximum and minimum temperatures and the mean of the morning and evening relative humidity measured about 25 feet above the surface of the water or the ground, and adjusted for vapor pressure extremes.

IV FACTORS USED IN EVAPORATION DETERMINATION

Certain of the factors used in Meyer's formula depend upon the processing of certain fundamental meteorological elements. Meteorological elements used were obtained, in the main, from the "Monthly Record of Meteorological Observations in Canada" published by the Meteorological Division of the Department of Transport (Canada). In certain cases, these elements were obtained from observations taken by various Dominion Experimental Farms' stations. The various factors and elements are discussed below.

1. Air Temperature

Monthly mean air temperatures are a simple average of the daily mean air temperatures during the month. Daily mean air temperatures represent the average of the daily maximum and minimum temperatures.

Air temperature information is very good for the fifteen stations used in this study. The few missing records have been estimated from neighboring stations.

2. Water Temperature

One of the most significant elements used in determining open-water evaporation is the temperature of the water (preferably measured one foot below the surface). Unfortunately, this phase of basic data collection has been almost entirely neglected on the prairies.

The only known continuous measurements of air and surface water temperatures have been taken (1) at Lake-of-the-Woods near Keowatin, Ontario, by the Water Resources Division from 1913 to date, and (2) at Glenmore Reservoir a few miles west of Calgary, Alberta, by the Calgary Waterworks Department from 1931 to date.

Other measurements, widely scattered with respect to both time and geographical location, are available but these random measurements are useless for our purpose. Similarly, there is no water temperature information available from the U.S.A. for districts close to the Canadian prairies.

An evaporation study such as this demands a knowledge of the monthly means of surface water temperatures for any lake in any area on the prairies. Since this information is lacking, it was necessary to determine

rules for estimating these water temperatures using available local data. Fortunately, a satisfactory procedure was evolved employing only monthly mean air temperatures. Using this procedure, it is possible to estimate water temperatures for any sized lake anywhere on the prairies as long as the local air temperatures are known.

The following procedure outlines the method used to obtain water temperatures from air temperatures:

1. Correlate Keewatin's April air and water temperatures.
2. Correlate separately Keewatin's May, June, July, August, September and October water temperatures with the air temperatures for that month and the water temperatures for the previous month (e.g. $W_S = a + bW_{AG} + cA_S$ where W_S = September water temperature, W_{AG} = August water temperatures, A_S = September air temperatures and 'a', 'b' and 'c' are constants).
3. Obtain usable equations by converting the above correlation equations into ones using only air temperatures.
4. Check these by computing theoretical water temperatures at Keewatin using only air temperatures.
5. Check results by computing theoretical water temperatures at Glenmore using only air temperatures (as the reservoir at Glenmore is much smaller than at Keewatin, there should be a smaller lag in water temperature changes due to smaller heat storage).

The correlation equations obtained for Lake-of-the-Woods at Keewatin (using the period 1930-51) were:

Month	Correlation Equations	Standard Error	Correlation Coefficient
April	$W_A = 0.278 A_A + 25.5$	1.1°	-
May	$W_M = 0.84 W_A + 0.63 A_M - 15.5$	1.3	0.82
June	$W_J = 0.741 W_M + 0.591 A_J - 9.46$	1.42	0.92
July	$W_{JY} = 0.348 W_J + 0.652 A_{JY} + 4.37$	1.36	0.81
Aug.	$W_{AG} = 0.136 W_{JY} + 0.480 A_{AG} + 28.72$	1.05	0.80
Sept.	$W_S = 0.127 W_{AG} + 0.398 A_S + 30.8$	1.12	0.76
Oct.	$W_O = 0.260 W_S + 0.557 A_O + 10.3$	1.22	0.87

where: W = monthly mean water temperatures
 A = monthly mean air temperatures
 subscripts = indicates month in question: subscript "A" denotes "April"; "M" denotes "May", and so on.

Converting these correlation equations into ones using only air temperatures involves only a simple arithmetical procedure, giving:

Month	Correlation Equations	Stand- ard Error	Corr. Coef- ficient
April	$W_A = 0.278 A_A + 25.5$	-	-
May	$W_M = 0.234 A_A + 0.63 A_M + 5.9$	-	-
June	$W_J = 0.173 A_A + 0.467 A_M + 0.591 A_J - 5.1$	-	-
July	$W_{JY} = 0.060 A_A + 0.163 A_M + 0.206 A_J + 0.652 A_{JY} + 2.6$	-	-
Aug.	$W_{AG} = 0.025 A_M + 0.028 A_J + 0.089 A_{JY} + 0.480 A_{AG} + 29.1$	1.16°	0.75
Sept.	$W_S = 0.006 A_J + 0.011 A_{JY} + 0.061 A_{AG} + 0.398 A_S + 34.5$	-	-
Oct.	$W_O = 0.018 A_{AG} + 0.103 A_S + 0.557 A_O + 19.3$	1.2°	0.85

These equations now enable one to estimate any monthly water temperature for the Lake-of-the-Woods using only air temperature. It should be noted that the accuracy checks worked out for the months of August and October are not as good as those obtained from the equations employing water temperatures for the previous month: yet these are still very acceptable.

Applying these equations to the recorded air temperatures at Glenmore Reservoir, theoretical water temperatures were obtained corresponding to an equivalent Lake-of-the-Woods. Comparing these with the actual recorded water temperatures at Glenmore gives:

	Mean Monthly Water Temperatures						
	Apr.	May	June	July	Aug.	Sept.	Oct.
Theoretical water temp.	?	47.2°	57.6°	65.4°	66.1°	60.0°	50.3°
Actual Glenmore temp.	?	50.5	57.8	64.5	63.1	56.3	46.5
Difference	?	-3.3	-0.2	+0.9	+3.0	+3.7	+3.8

It is known that a large body of water (such as Lake-of-the-Woods) will be cooler in spring and warmer in autumn than a smaller body of water (such as Glenmore Reservoir). The above table indicates this feature and checks the assumptions. Unfortunately, Glenmore Reservoir is the only body of water which can be used for comparison.

Having, then, this rough check of the worth of the correlation equations, it is assumed that these equations may be used to obtain water temperatures of any body of water similar to the Lake-of-the-Woods for any month for any area on the prairies--providing local air temperatures are used. For lakes smaller than Lake-of-the-Woods, it will be necessary to adjust the calculated water temperatures by assuming them warmer in spring and cooler in fall--this is a matter of judgment which may be assisted by noting the adjustment necessary for Glenmore Reservoir^k as shown in the previous table.

However, the charts in this report have all been prepared for the purpose of indicating evaporation from bodies of water similar in all respects to the Lake-of-the-Woods. That is, the correlation equations and local air temperatures were used to compute equivalent water temperatures at all 15 stations used. Adjustments for determining evaporation for smaller lakes and reservoirs could be made by adjusting water temperatures for size of lake, but in this study, this adjustment was determined at a later stage in the process and will be explained in the following chapter.

It is interesting to note the difference between monthly water temperatures (corresponding to Lake-of-the-Woods) and air temperatures. The following table indicates the mean average difference between water and air temperatures for a typical location on the prairies (Saskatoon, using the period 1921-50).

Saskatoon	Apr.	May	June	July	Aug.	Sept.	Oct.	Aver.
Calculated water temp.	36.2°	47.4°	60.9°	68.8°	68.3°	60.3°	48.6°	55.8°
Mean air temperature	38.5	51.8	59.7	66.3	63.1	52.4	40.7	53.2
Difference	-2.3	-4.4	+1.2	+2.5	+5.2	+7.9	+7.9	+2.6

Mr. A. F. Meyer has often put forward the opinion in various technical journals that water temperatures average somewhat lower than air temperatures in the southern latitudes, whereas in the northern latitudes

^kGlenmore Reservoir: surface area = 1,000 acres; av. depth = 20';
max. depth = 60'.

the water temperatures, during the open water season, average somewhat higher than air temperatures. He feels that the lower water temperatures in the southern latitudes can be explained by the rapid radiation into the dry atmosphere at night and high heat loss through evaporation in the arid regions. Certainly our results bear out this idea (assuming the prairies are in the "northern latitudes"!). However, no "latitude" effect has been considered in this study: that is, the correlation equations for water temperature determined here probably cannot be applied to areas much outside of latitudes 46° - 52° .

This whole procedure has been aimed at determining water temperatures during the open water season (April-October). For the winter season (November-March) when lakes and reservoirs are covered with ice and snow, evaporation losses were determined by using Meyer's formula using air temperature. This was done because (a) it was assumed that the ice and snow were at air temperature, (b) no other reasonable method of determining winter evaporation losses were known to us, and (c) any reasonable determination of these losses was good enough for our purposes because the total winter losses are only a small percentage (approximately 6%-8%) of the total annual losses.

3. Moisture in the Air

The evaporation losses depend on the moisture condition in the overlying air. It is a commonly accepted theory that evaporation varies proportionately to the difference between the actual humidity and saturation at the prevailing temperatures. The difference between the actual humidity and saturated humidity is an important factor in calculating evaporation losses. This difference in Meyer's formula ($V_w - V_a$) represents the difference between the actual vapor pressure of the air and saturated vapor pressure corresponding to the surface water temperature. In the determination of saturated vapor pressure, the psychrometric tables published in Meyer's "Evaporation From Lakes and Reservoirs" were used. The tables are based on conditions over ice for temperatures below 32°F .

Actual vapor pressure of the air as used in this study is the product of relative humidity and saturated vapor pressure. The method of calculating average actual vapor pressure on a monthly basis was specially investigated using records from the meteorological station in Regina for January and July. Average monthly actual vapor pressure of the air was calculated separately using:

1. 24 observations daily
2. 4 observations daily (at 1:00, 7:00, 13:00 and 19:00 hours)
3. 2 observations daily (at 7:00 and 19:00 hours).

Assuming the average monthly actual vapor pressure obtained from 24 daily observations equals 100%, the averages from the other calculations deviates as shown in the following table:

	January	July
24 observations (every hour)	100%	100%
4 observations (1:00, 7:00, 13:00 & 19:00)	99.4	99.6
2 observations (7:00 and 19:00)	100.9	98.5

The results calculated from two and four daily observations are very close to the results of the twenty-four daily observations, therefore in the present study, for the stations only having two or four observations per day, the actual monthly vapor pressure was calculated as a straight average without additional correction. For stations with three daily observations the actual monthly vapor pressure was computed only from the observations taken at 7:00 and 19:00 hours.

The calculated vapor pressures were all adjusted to the common height of 25 feet above the ground. This was done to reduce all observed vapor pressures to equivalence as regards height above ground. Figure 1 (c), developed by Mr. Meyer, was used for this adjustment.

The height of all air temperature measurements were assumed to be at the standard height of 4 feet above the ground on all meteorological stations.

All published relative humidity records were carefully investigated. The obviously inaccurate records are mostly in the years before 1935 and the most obviously inaccurate records were not used in this study at all.

Relative humidity records at the fifteen stations used for this study for the 30-year period are not complete. Some of the stations, i.e. Regina, Qu'Appelle, Yorkton, Rivers and others, did not take records of relative humidity for many years. For missing months or the months with inaccurate records, relative humidity was estimated. The process of estimating missing humidity records varied. The best results were obtained by correlation between closely adjacent meteorological stations. Correlation between distantly located stations, such as Regina and Saskatoon, was used in a few cases: in these cases the maximum deviation is not higher than $\pm 9\%$. For the three stations, Yorkton, Rivers, and The Pas, the missing records were impossible to establish. Therefore, evaporation was not calculated for a period of 21 years at Yorkton; 18 years at Rivers; and the winter months of 22 years at The Pas. For these three stations the final evaporation results were estimated by correlation methods.

4. Wind Velocity

The process of removing moisture-laden air from the water surface and replacing it by drier air has a big influence in evaporation losses.

In Meyer's method of determining evaporation losses, the wind factor is $1 + 0.1W$, where W = wind velocity in miles per hour, measured about 25 feet above the surface of the water or above the surrounding cleared land.

Wind velocity information at meteorological stations on the prairies has been inadequate. Wind records for many years are missing. Some of the meteorological stations with long periods of observation (e.g. Moose Jaw) could not be included in this study because of inadequate

velocity information. Similarly, at Edmonton and Yorkton, because of incomplete wind information, evaporation computations were completed for short periods only.

For many of the meteorological stations used in this study, wind records were estimated by correlation methods, similar to the correlation methods, similar to the correlation used in the relative humidity estimation.

The wind velocity relationship between neighboring meteorological stations is sufficient in many cases. The relationship between distantly located stations was accepted at a few stations only; e.g. Regina-Saskatoon. Wind velocity at Regina was correlated from Saskatoon for the period 1921-1938 with a standard error of approximately 0.85 miles per hour. This could influence these particular final evaporation results $\pm 5\%$ during summer months.

At a few of the meteorological stations where the wind velocity was measured only by two daily observations (7:00 and 19:00) for a long period, the average velocity of these two observations was adjusted by an arbitrary coefficient to an equivalent record of 24 daily observations and the final results were accepted for the evaporation computation.

The completed sets of wind velocity records at every station were adjusted to a height of 25 feet above the ground. The adjustment of wind velocity was made using the method recommended by Meyer, see Figure 1 (b).

Every relocation of the meteorological station or change in the anemometer height was considered in the wind velocity adjustment. The direction of the wind was not considered in the adjustment.

5. Evaporation Coefficient

The evaporation coefficient $C = 11$ was accepted in this study. It is the coefficient for monthly evaporation from lakes and reservoirs when the actual vapor pressure in the air is determined by the mean of the daily maximum and minimum temperatures and the mean of the morning and

evening relative humidity measured about 25 feet above the surface of the water or the ground.

A small adjustment of the evaporation coefficient was made to allow for extreme average summer vapor pressures. This adjustment was performed using a modified form of Mr. Meyer's recommendations--see Figure 1 (a). Adjusted coefficients did not range beyond 10.8 - 11.3.

6. Barometric Pressure

Other things being equal, smaller barometric pressures cause increased evaporation. Then, since elevation and barometric pressures are related, the calculated evaporation losses were increased one percent for every thousand feet increase in elevation. The lowest barometric pressure correction was 0.7% at The Pas and the highest was 3.5% at Calgary.

7. Other Factors Affecting Evaporation

There are many other factors which affect evaporation to some unknown extent such as sunshine, incoming radiation, back radiation, chemical condition of the water, etc. These were not considered in this study.

V FORMULA RESULTS AND APPLICATION

Evaporation losses from lakes and reservoirs, in inches depth, were calculated using Meyer's formula, for 15 basic stations for each month from January, 1921, to December, 1950, in two different ways:

1. Assuming water temperatures were equal to air temperatures--these results represent evaporation from very small bodies of water where the water temperatures follow the air temperatures very closely. Dugouts and farm ponds would be in this category. These results are summarized on an annual basis in Table 2, while detailed monthly results are indicated for only one typical station (Saskatoon) in Table 4, although similar tables were prepared covering the other 14 basic stations.

2. Assuming water temperatures were the same as would be found in a large lake with similar characteristics as the Lake-of-the-Woods (see Chapter IV - 2)--these results represent evaporation from large lakes, examples of which would be Buffalo Lake, Last Mountain Lake, Dauphin Lake and, of course, Lake-of-the-Woods. These results are summarized on an annual basis in Table 3, are detailed out in Tables 5 to 19 and have been used directly to construct the isopleths of average evaporation for large lakes on the prairies as illustrated in Figures 5 to 10. Appendix A explains the construction of these evaporation isopleths.

To approach the problem of applicability of these results, the mean monthly results for each station were expressed as a percentage of the mean annual 'large-lake' evaporation found for that station and were plotted in Figures 3 (a) and 3 (b). These graphs of percentage monthly distribution indicate a remarkable similarity, all the more so when it is realized the distinction between similar groups in the graphs represent homogeneous geographical regions. Using this basis, a small map was prepared (Figure 3 (g)) outlining these regions or 'zones' and similar groups were averaged and plotted separately (Figures 3 (c) and 3 (f)) to represent the mean percentage monthly distribution of evaporation in these zones. These zones are described as follows:

Zone I: North-eastern prairies - elevations range from 700 to 2000 feet. This zone, unfortunately, contains only one basic station - The Pas.

Zone II: Central prairies - elevations from 750 to 2500 feet. The basic stations included in this region are Winnipeg, Rivers, Yorkton, Broadview, Qu'Appelle, Regina, Saskatoon, Prince Albert, Battleford and Swift Current.

Zone III: Western prairies - elevations from 2500 to 4000 feet. The three basic stations in this region include Edmonton, Calgary and Lethbridge.

Zone IV: Medicine Hat-Maple Creek area - this zone only includes that area north of the Cypress Hills, Medicine Hat is the only basic station represented.

Cypress Hills Region: Lack of data in this topographically-broken region precludes reliable evaporation assumptions and therefore anyone requiring evaporation data for points in this area must make his own estimates.

Sufficient data has now been presented to enable one to estimate evaporation from any sized lake or reservoir anywhere on the prairies (excluding Cypress Hills). The process of applying these results are outlined below:

To determine mean annual evaporation losses

Mean annual evaporation losses, for the period 1921-50, can easily be found for large lakes by referring to Figure 9. For smaller bodies of water, Figure 9 should still be used but the results should be decreased by some percentage as interpolated from the small summary table on Figure 3.

Example: determine mean annual evaporation from:

- (a) Buffalo Lake (a large lake east of Lacombe, Alta.)
- (b) Lake Newell (a medium-large lake in south-central Alta.)
- (c) a dugout near Moose Jaw, Sask.

(a) Mean annual evaporation from Buffalo Lake is found directly from Figure 9, by interpolation between isopleths, to be 28.5 inches.

(b) From Figure 9, Lake Newell's equivalent evaporation is 36.5 inches. From the summary table in Figure 3 we have, for Zone III, large-lake mean annual evaporation of 100% while a dugout's is 78.9%; by exercising judgment assume a medium-large lake evaporation is 93%. Then Lake Newell's evaporation is $36.5 \times 0.93 = \underline{33.9}$ inches

(c) From Figure 9, a dugout near Moose Jaw would have an equivalent large-lake evaporation of 31.5 inches. The summary table in Figure 3 indicates, for Zone II, a dugout's mean annual evaporation is 78.1% of large-lake evaporation. Therefore this dugout's mean annual evaporation would be $31.5 \times 0.781 = \underline{24.6}$ inches. This may be checked by using Table 2 where Regina's mean annual evaporation for dugouts (air temperature) is shown to be 23.9 inches: since Moose Jaw's evaporation is known to be somewhat larger than Regina's, this checks.

Note: approximately the same procedure would be followed if the mean summer or mean winter evaporation were desired.

To determine total annual evaporation for a particular year

To obtain the total evaporation from any body of water in a particular year, the procedure would be to obtain the mean annual large-lake evaporation from Figure 9, adjust it for the year by using the ratio between the evaporation for that particular year and the mean annual evaporation for the nearest basic station from Table 3 and finally adjusting for size-of-lake by use of Figure 3.

Example: determine the total annual evaporation from

- (a) Buffalo Lake in 1925
- (b) Lake Newell in 1935
- (c) A Moose Jaw dugout in 1945.

(a) Buffalo Lake's mean annual evaporation (Figure 9) is 28.5 inches. Nearest basic station is Edmonton where mean annual evaporation is 27.4 inches and the 1925 evaporation is 25.7 inches (Table 3). Therefore, Buffalo Lake's evaporation in 1925 was $28.5 (25.7/27.4) = \underline{26.8}$ inches.

(b) Lake Newell's mean annual large-lake evaporation is 36.5 inches (Figure 9). Size-of-lake adjustment is 93% (Figure 3). Nearest basic station is Lethbridge where mean annual evaporation is 35.8 inches and the 1935 evaporation was 36.2 inches (Table 3). Therefore, Lake Newell's evaporation in 1935 was $36.5 (0.93)(36.2/35.8) = \underline{34.3}$ inches.

(c) For dugouts, various procedures may be followed. Regina's total evaporation in 1945 for a dugout is 22.0 inches (Table 2). From Figure 9 get mean annual large-lake evaporation for Regina of 30.4 inches and for Moose Jaw of 31.5 inches. Therefore a dugout near Moose Jaw in 1945 would evaporate $22.0 (31.5/30.4) = \underline{22.8}$ inches.

Note: comparable procedures would be followed if total summer or total winter evaporation were desired.

To determine evaporation for individual summer months

For determining the evaporation for particular months, the following procedure is recommended:

- (a) get mean annual evaporation from Figure 9
- (b) obtain monthly distribution percentages from Figure 3, interpolating between the two distribution graphs to adjust for size of lake
- (c) calculate mean monthly evaporation for each month required
- (d) calculate individual monthly evaporation by multiplying by the ratio of the individual monthly evaporation and mean monthly evaporation of the nearest basic station.

Example: Find evaporation for the months of May, June, July, August and September for the period from 1926 to 1929 for a medium sized reservoir near Morden, Manitoba.

(a) The mean annual large-lake evaporation from Figure 9 is 28.6 inches.

(b) Using the distribution graph for Zone II and interpolating for a medium-sized lake (matter of judgment), get

(c) mean monthly evaporation as follows:

	May	June	July	August	September
Mean annual large-lake evap.	28.6"	28.6	28.6	28.6	28.6
Monthly percentage distr.	9.4	13.3	17.3	17.2	12.2
Mean Monthly evaporation	2.69	3.80	4.95	4.92	3.49

(d) The individual monthly evaporation for, say May, 1926, could now be found by multiplying

$$2.69" \times \frac{1.74 \text{ (Winnipeg's evap. for May 1926 - Table 5)}}{1.71" \text{ (Winnipeg's mean May evaporation - Table 5)}}$$

Where a number of similar determinations have to be made, it will be found simpler to use the procedure in the following table:

YEAR	ACTUAL EVAPORATION AT MORDEN				
	"K" x Wpg's actual evap. (Table 5)				
	May	June	July	Aug.	Sept.
Morden's mean monthly evap.(1)	2.69"	3.80	4.95	4.92	3.49
Wpg's mean monthly evap (2)	1.71"	3.71	5.11	5.46	4.48
"K" = (1) + (2)	1.57	1.02	0.97	0.90	0.78
1926	2.7"	5.1	5.2	4.5	3.5
1927	2.4	3.3	3.9	5.0	3.1
1928	2.0	3.4	3.3	3.9	3.2
1929	2.8	3.4	4.9	5.3	3.5

To determine evaporation for individual winter months

A determination of this type requires no adjustment for size of lake: a tabular set-up similar to the above should be used. The constant "K" is obtained by dividing the mean winter evaporation at the required point by the mean winter evaporation at the nearest basic station (from Figure 7)--using same "K" for each month. The actual evaporation is then obtained by multiplying actual monthly evaporation of basic station (Tables 5 to 19) by "K".

Note:

The applications illustrated in this chapter all result in answers expressed in inches of gross evaporation. To obtain net evaporation, which is required in all reservoir studies, the precipitation must be subtracted from the gross evaporation.

Precipitation varies so much from place to place and time to time that only Figure 10 has been prepared to illustrate mean annual large lake net evaporation.

VI EVAPORATION PANS1. General

Direct measurement of relative evaporation from open water surfaces has been made at several locations on the prairies during the past years. Piche evaporimeters have been installed at only a few locations. The following table sets forth most of the information available on pans, their locations, dates and type.

Location	Agency	Dates	Pan type
Calgary	Dept. Interior	1896-1900	Ground pan - ?
"	" "	1896	Floating - ?
Mosquito Cr.	" "	1899	Ground - ?
McCaskill Lake	" "	1899	Floating - ?
Nanton Lake	" "	1899	Floating - ?
Edmonton	" "	1918-22	Ground - 4' diameter
Maple Cr.	" "	1922-23	Ground - ?
Battle Cr.	" "	1922-24	Ground - 4' diameter
Willow Cr.	" "	1924	Ground - 4' "
Brooks Lake	" "	1920-24	Ground - 4' "
" "	" "	1920-23	Floating - 3' square
" "	" "	1923-24	Floating - 4' diameter
Lake Newell	" "	1920-24	Ground - 4' "
Brooks	" "	1918-28	Ground - 4' "
Coaldale	" "	1915-27	Ground - 4' "
Strathmore	" "	1915-27	Ground - 4' "
Cypress Lake	Hydrometric Ser.	1939-date	Ground - 4' "
Val Marie	"	(1937-41	
		(1942-date	Ground - 4' "
Pinawa	"	1915-20	Floating - ?
"	"	1924-date	Floating - ?
Keewatin	"	1912-date	Floating - 3'x 2.5'
Beaverlodge	Exper. Farms	1922-date	Ground - 4' diameter
Fort Vermilion	"	1948-date	Ground - 4' "
Indian Head	"	1936-date	Ground - 4' "
	"	(1923-36	?
Lacombe		(1944-47	?
		(1950-date	?
Lethbridge	"	1922-date	Ground - 4' diameter
Manyberries	"	1928-date	Ground - 4' "
Morden	"	1926-35	Ground - 5' "
Regina	"	-date	Ground - 4' "
Scott	"	1923-date	Ground - 4' "
Swift Current	"	1922-date	Ground - 4' "
Taber	"	1948-date	Ground - 4' "
Saskatoon	Univ. of Sask.	1918-date	Ground - 4' "

Many of these pan records are useless. The undesirable influence of nearby obstructions (high weeds, floating weeds and algae, and close fences, buildings and trees) have been, and still are being, overlooked by many of the operators of these pans.

The importance of clean, unobstructed, standardized evaporation pans cannot be over-emphasized. Appendix B outlines specifications for a four-foot diameter evaporation pan submitted by the Experimental Farms Service (Canada) which every operator of pans would do well to use. Pans measure relative evaporation only, and non-conforming (or obstructed) pans produce data that cannot be directly compared with data from any other type.

2. Ground Pan Analysis

Of course, the ideal way to analyze evaporation pan data would be to compare these with actual evaporation measurements made at an adjacent open body of water. Since such measurements are not available, we assumed Meyer's formula gave correct results and a comparison was made with calculated evaporation using air temperatures. These provided good results; in fact, one could pick out definite years when pan records became erratic and later checking at the source indicated, in nearly every case, that some obstruction (trees, buildings, etc.) was placed close to the pan in the year indicated by the comparison.

The results of these comparisons for the three best stations using only their 'good' period of years, are shown in the following table:

Station	Period	Correlation Equation	Standard Error	Correlation Coefficient
(See Saskatoon Fig.3d)	1921-47	$Y = 0.704 X - 0.09$	0.50"	0.89
Lethbridge	1922-37	$Y = 0.63 X + 0.48$	0.78	0.76
Swift Current	1921-38	$Y = 0.69 X + 0.40$	0.71	0.85
Swift Current	1938-50	$Y = 0.76 X - 0.17$	0.67	0.87

where: Y = calculated evaporation using air temperature

X = recorded pan evaporation

Thus, it can be seen that, although there is some discrepancy in the indicated coefficients, a fair approximation for a uniform coefficient would be 70%. That is, evaporation pan data multiplied by 0.70 should approximate the evaporation from a nearby very-small open body of water.

It can be expected that, whereas pan data is a good indicator of evaporation from very small open bodies of water, it would be a poor indicator

of evaporation from larger bodies (because the temperature of larger lakes and reservoirs is a function of air temperatures occurring days and months before--heat storage). This was borne out by comparisons made between pan data and evaporation calculated using water temperatures corresponding to large lakes. There was, however, some correlation found when a comparison by months was carried out, although the correlation was not very significant. From such a comparison, indications are that the evaporation pan coefficients to be used are:

Month	Indicated Pan Coefficients		
	Dugouts	Large Lakes	Other lake sizes
May	0.70	0.50	Interpolate by judgment
June	0.70	0.70	" " "
July	0.70	0.80	" " "
August	0.70	1.00	" " "
September	0.70	1.30	" " "

The only outside supporting data we could find was obtained from experimental work at Lake Elsinore, California, which can be classed as a small-medium sized lake (surface area of 5,500 acres; average depth of about 10 feet with maximum depth of 30 feet). Pan coefficients found for this lake varies from 0.68 in May to 0.98 in November--a favorable comparison with our results. This comparison should be tempered, however, by remembering that (1) our coefficients were obtained using a ground pan while the California comparison is based on a land pan⁴, and (2) the unproven, though possible, 'northern latitude' effect on relative water temperatures.

It appears, therefore, that records from unobstructed, standard evaporation pans may be used with some degree of confidence to estimate evaporation from very small bodies of water if a coefficient of 0.7 is used. Estimates of evaporation from larger bodies of water are less reliable and different coefficients for each month must be selected.

Unfortunately, lack of reliable meteorological records prevented any analysis of the available data on floating pans.

⁴Their 'land pan' is 4-foot in diameter, 10 inches deep, supported 6 inches above the ground surface. See Appendix A for 'ground pan' specifications.

VII CONCLUSIONS

The results contained in this report should enable one to estimate evaporation for any month during the period 1921-1950 for any sized lake anywhere on the Canadian prairies (excluding the Cypress Hills). However, although evaporation may be estimated, the accuracy of the estimate cannot be determined--this is because no direct measurements of evaporation from lakes and reservoirs have ever been taken on the prairies.

This study required the use of many meteorological elements, and the unreliability of some of these records in the years 1921-1935 forced the use of many diverse methods to estimate missing records and obvious errors. This was done and the detailed tabulations of the meteorological elements used (temperature, wind and relative humidity) are available on request by anyone seriously contemplating further investigations along this line.

The best estimates of evaporation from very small, open bodies of water will be obtained by applying a coefficient of 0.7 to records obtained from an adjacent unobstructed standard evaporation pan. If such pan records are not available, or if evaporation from larger bodies of water is required, the procedures outlined in Chapter IV are recommended.

If water temperature observations had been systematically recorded for a number of typical lakes of various sizes during the past years, it would be possible to work out definite recommendations for determining the percentage monthly distribution for particular bodies of water. Without this information, one must now, unfortunately, determine by himself, just where the evaporation distribution of his 'Lake X' would fall between the 'dugout' and 'large lake' distributions given in Figure 3.

Individual judgment must be exercised in evaporation determinations: the effect of precipitation in reducing effective evaporation must not be neglected; lakes and reservoirs well protected by trees will have less evaporation due to the wind obstruction; evaporation estimates for extra large lakes such as Lake Manitoba and Lake Winnipeg would be

difficult to determine, as such factors as 'vapor blanket effect' become important; and evaporation is not the only hidden loss in reservoir studies-- seepage, bank storage, ground water inflow and evapotranspiration from the saturated shore area all distort this picture.

The phenomena of evaporation from snow and ice are understood only vaguely. For example, during foggy periods a considerable amount of moisture condenses on snow surfaces, and it may be that this amounts to more than the evaporation on other occasions. Many other indeterminate factors are also involved, with the result that the validity of the estimates given in this report for these conditions is not known.

It is indeed unfortunate that no governmental agency has the responsibility of collecting evaporation observations. The logical agency, the Meteorological Division of the Department of Transport (Canada), makes no observations of this type on the prairies.

APPENDIX AConstruction of Isopleths of Evaporation

The evaporation results found by assuming water temperatures equivalent to a large lake were used as the basis for drawing various maps illustrating evaporation losses over the prairies. The maps drawn were:

- Fig. 5: Mean January Evaporation
- Fig. 6: Mean July Evaporation
- Fig. 7: Mean Winter Evaporation
- Fig. 8: Mean Summer Evaporation
- Fig. 9: Mean Annual Evaporation
- Fig. 10: Mean Annual Evaporation minus Mean Annual Precipitation.

In drawing the isopleths of evaporation for the 'January' and 'Winter' maps, not only were the results from the 15 basic stations used, but an additional 30 to 40 stations were employed. This was made possible because it was found that air temperatures alone were a good indicator of winter evaporation.

The construction of the 'July', 'Summer' and 'Annual' maps were aided by (1) drawing isopleths of air temperature, wind, and relative humidity, (2) preparing a rough graph of the effect of these three factors on evaporation, and (3) estimating evaporation from these maps and graph for some 30 additional stations.

The 'Evaporation Minus Precipitation' map represents the simple arithmetic difference between the mean annual evaporation and mean annual precipitation.

All these maps represent means (averages) for the period 1921 to 1950.

APPENDIX ESTANDARD EVAPORATION PAN

Recommended by Experimental Farm Service (Canada)

The tank should be 4 feet in diameter and 2 feet deep. The material should consist of No. 22 gauge galvanized iron. It is not absolutely essential to use this gauge but it should be at least as heavy in order to have the tank sufficiently strong. A band iron stiffener $1\frac{1}{2}$ inches by $1/8$ inch is rivetted to the top of the tank in order to make the top firm. The top of the tank is over the stiffener.

The tank is sunk in the ground so that only 2 inches of the rim projects above the surface of the ground. The object of having the top of the rim above the ground is to prevent surface water draining into the tank. The tank is filled with water to within 2 inches of the top. The tank should be kept filled so that the level of the water would not vary more than from between 1 to 3 inches from the top. If an excessive amount of rain falls, it may be necessary to dip out of the tank some of the water. The grass around the sides of the tank should be kept mowed so that evaporation will not be checked. For convenience the tank may be located near the other weather instruments, but it should not be put in the shade nor sheltered from the wind and it must be protected from animals.

The amount of evaporation is determined preferably each day with a micrometer screw which will measure to 0.001 of an inch. In order to prevent wave action of the water in the tank interfering with the reading, it is helpful to enclose the micrometer in a small galvanized cylinder 3 inches in diameter and 3 feet long. This can be fitted to the micrometer so that the micrometer point when it touches the water is inside this cylinder. If there is not sufficient light within the cylinder to determine when the micrometer point touches the water, a couple of small openings can be made in the side of the cylinder to allow more light to enter.

As it may be impossible to secure a micrometer at the present time, an ordinary ruler may be used, taking as fine readings as possible, say to about $1/16$ of an inch. The measurement might be taken from the top of the tank down to the water, always at the same place. Readings with a ruler might be taken weekly possibly every Monday morning, but in addition, at the end of each month an extra reading must be taken so that the monthly evaporation may be recorded. Extra readings will be necessary, of course, when water has been added or removed. Caution must be observed in the event of excessive rains which might flood the tank. It will be remembered that the amount of rainfall entering the tank must be considered with the evaporation.

The tank should be started May 1st and continued until September 30th. Possibly in some parts of Canada the evaporation might be measured, also, in April and October.

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Table 1 - SUMMARY OF METEOROLOGICAL ELEMENTS AND EVAPORATION RESULTS

Station	Elevation	Average for summer period (Apr-Oct)						Average Annual								
		Air Temp.	Rel. Hum. %	Vapor Press. in in. Hg.	Wind m.p.h.	Evap. Using air Temp.	in in. Using water Temp.	Air Temp.	Rel. Hum. %	Vapor Press. in in. Hg.	Wind m.p.h.	Evap. Using Air Temp.	in in. Using Water Temp.	Prec.	Evap. minus Prec. Using Air Temp.	Using Water Temp.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Winnipeg	786 (A) 760 (C)	55.0	71.6	0.322	7.2	19.53	24.51	36.5	76.7	0.208	7.2	20.94	25.98	19.72	1.22	6.26
The Pas	890	50.5	78.1	0.295	6.1	13.24	18.43	31.4	82.4*	0.192*	5.9	14.21	19.42	17.02	-2.81	2.40
Rivers	1553	54.0a	71.8a	0.304a	8.8a	20.98	26.77	36.1a	78.6a	0.199a	8.6a	22.24a	28.04a	18.42a	3.82a	9.62a
Broadview	2033	52.5	72.9	0.287	7.4	17.90	24.23	35.3	79.6	0.194	7.5	19.10	25.46	17.44	1.66	8.02
Yorkton	1633	52.3b	71.8b	0.283b	8.3b	19.51	25.82	34.2b	77.4b	0.185b	8.2b	20.83b	27.14b	16.14b	4.69b	11.00b
Qu'Appelle	2115 before 1930 2147 after 1931	52.8	69.6	0.277	7.3	19.55	25.73	35.9	75.0	0.188	7.4	21.28	27.53	17.89	3.39	9.64
Regina	1864	53.6	68.5	0.282	8.3	22.40	28.84	36.2	76.6	0.191	8.2	23.93	30.43	15.08	8.85	15.35
Saskatoon	1690 (U) 1645 (A)	53.2	64.9	0.262	6.4	22.23	27.79	35.5	72.9	0.175	6.2	23.66	29.26	17.73	5.93	11.53
Swift Current	2677 (A) 2392 (C)	54.5	63.5	0.264	9.4	27.42	33.56	39.0	70.1	0.185	9.5	30.36	36.48	14.84	15.52	21.64
Medicine Hat	2144 before 1933 2365 after 1934	56.4	62.2	0.277	7.8	28.47	33.78	41.4	70.0	0.198	7.8	31.44	36.75	13.44	18.00	23.31
Prince Albert	1414 (A) 1450 (C)	52.1	74.9	0.292	4.8	14.14	20.01	34.4	79.5	0.194	4.6	15.14	21.18	15.60	-0.46	5.58
Battleford	1796 (A) 1592 & 1620 (C)	53.2	69.6	0.271	7.3	20.47	26.27	35.4	76.7	0.188	7.0	21.76	27.61	13.29	8.47	14.32
Lethbridge	2961 (Ex.F.) 3018 (A)	54.2	61.7	0.253	7.4	25.68	31.40	41.5	68.0	0.179	8.1	30.01	35.76	16.41	13.60	19.35
Calgary	3540 (A) 3428 (C)	51.5	66.9	0.252	6.8	20.06	26.66	38.9	70.4	0.182	6.7	23.42	30.00	17.52	5.90	12.48
Edmonton	2219 (A) 2158 (C)	51.4	65.4	0.256c	6.2c	18.60	25.38	36.4	70.6	0.184c	7.3c	20.64c	27.44c	17.65	2.99c	9.79c

(A) - Airport; (C) - City; * - Average winter records partly guessed; a - average for 30 yrs. partially estimated according to Broadview records; b - average for 30 yrs. partially estimated according to Saskatoon records; (U) - University; c - average for 30 yrs. partially estimated according to Battleford records. (Ex.F.) - Experimental Farm.

Table 2 - YEARLY EVAPORATION FROM LAKES AND RESERVOIRS USING AIR TEMPERATURE

	Winnipeg	The Pas	Rivers	Broodview	Yorkton	Qu'Appelle	Regina	Saskatoon	Swift Current	Medicine Hat	Prince Albert	Battleford	Lethbridge	Calgary	Edmonton
1921	15.6	17.4	21.0	17.9	17.8	21.0	20.0	19.7	33.7	31.0	17.7	21.3	30.4	26.9	20.6
1922	17.1	23.3	20.5	17.4	16.3	20.4	19.4	18.1	27.4	26.6	16.2	21.7	25.7	23.4	20.2
1923	22.1	12.7	19.6	16.7	16.9	20.1	20.0	16.9	26.1	27.1	14.4	18.3	27.0	24.2	18.9
1924	19.3	10.9	20.8	17.7	18.9	20.7	21.0	20.9	32.4	27.9	14.0	20.4	26.5	21.7	19.6
1925	18.8	10.3	20.2	17.2	16.7	20.8	20.4	18.9	26.7	25.7	11.1	18.9	25.0	21.5	18.2
1926	20.2	12.8	20.0	17.1	17.5	20.3	22.0	18.2	27.4	28.5	13.0	18.6	30.0	20.4	18.8
1927	19.5	10.6	16.4	14.0	15.9	16.9	17.2	15.3	28.2	19.8	11.6	17.1	20.5	17.3	17.3
1928	15.9	13.3	9.7	8.2	18.8	11.9	12.4	19.7	37.1	22.1	9.6	19.5	24.4	17.4	19.5
1929	21.4	9.1	20.1	17.2	18.8	20.7	23.3	22.4	36.9	30.6	13.0	21.5	25.3	21.1	19.6
1930	17.3	9.2	17.2	14.7	20.0	18.6	18.5	20.7	35.8	31.5	11.6	21.7	29.4	20.2	20.6
1931	20.4	12.2	28.8	24.5	20.2	26.2	30.1	24.3	35.7	35.3	17.1	17.7	31.6	23.3	18.4
1932	19.9	11.9	20.9	17.8	20.6	19.9	25.1	22.0	24.3	29.7	10.8	17.7	30.0	14.9	18.0
1933	22.9	11.2	23.4	19.9	22.2	21.8	28.2	25.8	30.7	33.9	10.2	23.6	31.6	22.2	21.2
1934	21.7	13.9	31.0	26.4	24.9	27.9	33.6	26.8	34.7	38.8	17.2	22.9	34.7	25.5	21.1
1935	18.9	12.4	20.7	17.6	25.0	19.7	20.5	26.4	28.1	33.9	12.0	19.4	31.0	23.0	18.8
1936	22.6	12.6	27.1	23.1	24.6	23.4	31.0	33.8	38.0	38.1	16.0	26.1	33.4	27.3	22.6
1937	21.2	14.4	35.7	30.4	28.6	26.6	37.4	37.1	44.4	34.9	18.9	26.2	30.8	24.8	22.6
1938	23.8	14.3	26.5	23.1	23.5	23.2	24.2	28.4	29.6	30.3	18.4	21.8	29.8	24.8	24.2
1939	24.3	13.7	25.5	23.7	22.8	25.0	28.9	29.8	30.8	37.2	16.1	22.0	32.3	25.5	20.7
1940	23.9	16.8	23.9	21.0	26.8	22.4	30.9	30.3	28.6	32.6	19.4	22.4	30.4	22.2	18.2
1941	20.6	16.6	20.0	19.3	23.5	21.4	25.2	24.9	29.1	29.3	18.9	22.4	33.9	23.1	19.4
1942	22.0	14.9	18.6	16.3	19.2	17.4	19.0	18.9	22.8	27.1	14.3	20.1	29.5	20.0	19.3
1943	22.7	15.8	23.8	18.6	19.8	22.3	25.8	21.3	30.6	37.7	17.3	23.9	39.2	26.7	21.6
1944	20.6	16.8	22.6	18.7	23.5	22.3	23.9	19.3	26.8	36.4	15.3	23.0	35.3	26.9	23.8
1945	20.1	17.1	20.0	20.1	18.5	22.7	22.0	20.9	26.5	31.0	15.7	23.5	28.8	22.6	23.7
1946	24.7	15.7	23.3	17.8	20.4	20.3	24.3	25.6	27.3	32.7	16.2	22.7	32.5	26.0	21.6
1947	21.3	16.9	22.5	20.4	19.1	21.2	21.5	26.2	25.8	30.3	17.3	24.5	28.6	26.8	20.6
1948	24.4	17.2	23.3	18.4	20.8	21.0	25.0	28.1	29.5	35.9	17.6	29.5	29.9	26.8	19.7
1949	25.2	17.8	25.3	20.9	23.8	23.2	27.0	27.6	33.2	39.8	18.9	25.5	33.5	33.5	26.2
1950	20.1	14.6	18.7	17.1	19.6	19.2	20.0	21.4	22.5	27.1	14.6	18.9	29.3	22.7	24.5
Total	628.3	426.4	667.2	573.1	624.8	638.3	717.8	709.7	910.7	942.6	454.2	652.7	900.3	702.8	619.3
Average	20.9	14.2	22.2	19.1	20.8	21.3	23.9	23.7	30.4	31.4	15.1	21.8	30.0	23.4	20.6

Table 3 - YEARLY EVAPORATION FROM LAKES AND RESERVOIRS USING WATER TEMPERATURE

	Winnipeg	The Pas	Rivers	Broadview	Yorkton	Cu'Appelle	Regina	Saskatoon	Swift Current	Medicine Hat	Prince Albert	Battleford	Lethbridge	Calgary	Edmonton
1921	21.0	21.7	26.1	24.0	23.2	27.4	25.6	25.0	39.9	36.9	23.5	25.9	37.4	33.5	26.6
1922	22.9	19.9	25.7	23.3	21.6	26.2	28.4	23.3	32.8	30.6	22.7	26.8	32.7	30.2	26.5
1923	27.2	17.8	23.6	21.4	20.2	26.3	25.8	21.9	31.4	32.2	19.9	23.6	31.6	30.5	24.6
1924	23.8	16.9	26.9	24.4	24.5	26.6	27.0	26.5	38.4	33.6	19.4	25.5	32.8	28.6	25.6
1925	23.2	17.0	27.7	25.1	22.7	27.0	26.9	24.5	33.3	32.6	17.8	25.1	32.0	28.3	25.7
1926	26.9	20.0	27.6	25.1	23.2	28.0	29.8	25.3	35.0	35.8	19.9	26.7	36.0	28.5	26.9
1927	23.8	16.2	24.6	22.4	19.4	22.8	23.0	21.0	32.2	24.8	17.7	22.3	27.6	23.9	23.1
1928	21.2	19.2	18.2	16.5	24.9	22.1	21.9	26.9	44.5	29.1	17.6	26.0	30.2	24.9	26.9
1929	25.4	15.9	25.2	22.9	25.9	25.9	28.2	28.2	47.8	34.1	18.3	26.7	32.7	27.6	25.9
1930	21.7	14.4	23.2	21.0	24.4	24.3	24.8	26.3	44.6	38.2	18.0	27.3	32.1	27.7	27.5
1931	24.0	17.0	33.0	29.9	27.3	31.7	35.6	29.4	44.2	41.0	22.3	23.2	36.7	29.8	24.3
1932	24.6	17.5	27.0	24.6	26.4	26.9	32.5	28.4	25.9	35.1	18.0	24.0	34.3	22.2	24.7
1933	28.2	16.3	28.4	25.8	28.4	27.8	34.7	30.6	37.3	39.5	17.2	30.2	36.6	29.0	29.1
1934	28.7	19.7	37.7	34.2	31.5	35.5	41.9	34.0	42.6	45.7	24.1	30.8	42.7	32.4	30.9
1935	24.9	17.5	26.8	24.3	24.9	26.4	29.1	32.2	29.8	38.9	17.9	25.3	36.2	29.5	25.6
1936	26.6	16.9	31.2	28.3	36.9	29.5	36.7	40.0	41.5	42.3	22.6	31.8	38.4	33.5	29.9
1937	26.2	19.8	39.4	36.0	39.9	34.3	42.9	42.9	47.7	39.3	25.0	32.1	35.9	30.7	30.4
1938	27.5	18.2	29.4	27.2	30.3	26.8	29.9	32.9	35.0	34.4	23.0	26.3	33.5	29.4	30.0
1939	29.6	19.6	31.8	29.6	32.9	31.0	35.2	35.5	36.7	42.9	21.9	27.3	43.0	32.0	27.8
1940	27.6	21.7	28.8	26.3	32.5	27.3	36.0	35.1	34.7	37.2	24.3	27.7	35.2	28.5	24.6
1941	27.9	22.5	26.6	26.1	28.2	28.2	31.7	30.5	35.7	34.7	24.4	28.2	37.7	29.8	26.0
1942	27.6	21.1	24.7	22.4	25.2	25.3	25.5	24.9	30.2	32.2	20.1	26.7	34.4	26.5	26.1
1943	27.7	21.3	29.1	24.8	25.5	28.4	31.4	26.3	36.6	41.5	22.6	29.3	43.7	32.6	27.6
1944	27.4	23.4	30.0	25.5	30.8	28.8	30.8	25.7	31.6	42.0	21.1	29.4	41.2	33.5	30.1
1945	25.4	21.8	26.4	26.4	24.5	28.7	28.8	25.7	33.4	36.1	22.3	29.8	32.7	29.4	30.4
1946	30.9	22.0	29.8	24.6	28.1	27.5	30.7	30.8	33.6	37.7	21.7	29.6	38.3	32.0	28.8
1947	25.2	21.2	27.0	26.3	24.7	26.3	27.8	31.3	31.8	36.1	22.6	30.0	34.2	33.6	27.8
1948	28.0	21.0	28.2	23.7	25.4	26.2	30.1	31.9	34.4	36.7	23.1	34.3	34.9	32.5	24.6
1949	30.2	24.9	31.7	28.1	29.4	27.5	34.2	33.4	43.3	45.4	25.4	31.3	40.7	39.6	34.5
1950	24.1	19.9	25.1	23.5	26.2	25.1	25.9	27.4	28.7	36.1	21.2	25.2	35.4	29.6	30.9
Total	779.3	582.7	841.2	763.7	814.2	825.8	913.0	877.9	1094.5	1102.5	635.3	828.3	1072.7	899.8	823.3
Average	26.0	19.4	28.0	25.5	27.1	27.5	30.4	29.3	36.5	36.8	21.2	27.6	35.8	30.0	27.4

Table 4 - EVAPORATION IN INCHES USING AIR TEMPERATURE

Year	SASKATOON												Total
	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	
1921	0.18	0.20	0.36	1.17	2.85	3.72	3.76	3.73	1.75	1.51	0.25	0.19	19.68
1922	0.13	0.09	0.32	1.12	2.03	3.23	4.04	2.72	2.74	1.12	0.44	0.10	18.08
1923	0.16	0.18	0.26	1.38	3.23	2.51	2.62	2.03	1.95	1.61	0.60	0.38	16.92
1924	0.19	0.31	0.33	1.24	2.59	3.22	5.52	2.56	2.60	1.88	0.38	0.09	20.91
1925	0.15	0.15	0.34	1.75	3.48	2.33	3.56	3.82	2.01	0.69	0.47	0.19	18.93
1926	0.26	0.32	0.68	2.08	2.18	3.30	3.84	2.84	1.22	1.04	0.23	0.17	18.17
1927	0.14	0.14	0.37	1.25	2.03	3.05	2.47	2.74	1.84	1.00	0.19	0.08	15.28
1928	0.20	0.29	0.53	1.34	4.61	2.67	2.95	3.21	2.43	0.74	0.45	0.22	19.65
1929	0.03	0.08	0.41	0.90	1.99	4.57	5.41	4.99	1.81	1.75	0.34	0.12	22.41
1930	0.06	0.18	0.37	1.70	3.03	3.40	4.20	4.18	1.88	0.89	0.50	0.32	20.71
1931	0.21	0.46	0.44	2.50	3.63	5.00	4.48	3.67	.68	1.42	0.47	0.29	24.27
1932	0.16	0.22	0.23	1.66	4.00	3.78	4.27	3.66	2.59	0.87	0.33	0.21	21.97
1933	0.14	0.20	0.42	1.53	3.14	5.33	5.59	5.33	2.13	1.09	0.73	0.15	25.78
1934	0.40	0.59	1.02	2.55	5.63	2.88	5.00	4.27	1.73	1.76	0.69	0.25	26.77
1935	0.09	0.30	0.38	1.54	3.67	3.92	6.38	4.62	3.40	1.67	0.20	0.23	26.38
1936	0.07	0.06	0.52	1.56	6.36	4.70	8.39	6.15	3.26	1.68	0.81	0.24	33.78
1937	0.07	0.21	0.49	2.56	5.20	7.87	8.76	6.09	3.73	1.60	0.38	0.20	37.14
1938	0.18	0.14	0.64	1.70	3.64	5.00	5.99	4.47	4.28	1.74	0.33	0.30	28.41
1939	0.23	0.10	0.39	2.34	4.08	3.13	6.47	6.41	3.56	1.61	0.96	0.49	29.76
1940	0.19	0.27	0.49	1.78	5.16	4.65	4.63	6.88	3.49	2.17	0.36	0.23	30.30
1941	0.18	0.22	0.48	1.85	3.77	4.67	4.92	4.87	2.14	1.18	0.41	0.19	24.90
1942	0.19	0.12	0.77	1.68	2.98	3.20	3.05	2.99	1.86	1.75	0.25	0.11	18.95
1943	0.04	0.11	0.16	2.08	2.24	2.95	4.64	3.90	2.73	1.72	0.48	0.26	21.33
1944	0.14	0.07	0.17	1.70	2.40	2.78	3.17	3.72	2.84	1.90	0.25	0.21	19.34
1945	0.12	0.15	0.75	0.96	2.64	3.48	4.78	3.86	2.22	1.63	0.18	0.10	20.86
1946	0.15	0.12	0.70	2.89	3.06	4.23	5.82	4.41	2.41	1.14	0.48	0.16	25.56
1947	0.22	0.12	0.32	1.52	2.75	4.26	7.46	4.37	2.46	2.19	0.39	0.18	26.24
1948	0.20	0.15	0.24	0.65	3.88	4.54	5.41	5.35	4.46	2.63	0.50	0.15	28.15
1949	0.12	0.08	0.35	3.05	4.07	4.52	4.49	5.02	3.47	1.46	0.89	0.09	27.61
1950	0.02	0.10	0.34	1.16	3.14	4.63	3.83	3.33	3.38	1.20	0.23	0.09	21.45
Total	4.64	5.73	13.26	51.18	103.45	117.50	145.92	126.20	78.01	44.64	13.16	5.99	709.67
Average	0.16	0.19	0.44	1.71	3.45	3.92	4.86	4.21	2.60	1.49	0.44	0.20	23.66

Table 5 - EVAPORATION IN INCHES USING WATER TEMPERATURE

WINNIPEG

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
1921	0.09	0.09	0.11	0.82	1.46	3.28	5.05	4.50	2.86	2.32a	0.30a	0.09	20.96
1922	0.11	0.09	0.32	0.53	0.99	5.21	5.41	3.65	3.12	2.60	0.64	0.20	22.86
1923	0.16	0.19	0.28	1.23	1.66	3.57	5.00	5.62	4.75	3.28	1.04a	0.41	27.18
1924	0.12	0.29	0.58	0.90	1.84	2.69	4.32	5.11	4.16	3.14	0.47	0.14	23.76
1925	0.14	0.24	0.46	0.54	2.24	2.96	5.16	4.77	3.54	2.28a	0.59	0.28	23.20
1926	0.20	0.31	0.53	0.86	1.74	5.03	5.33	5.05	4.46	2.64	0.62a	0.09	26.87
1927	0.13	0.23	0.76	1.29	1.56	3.22	4.01	5.54	3.94	2.60a	0.47	0.09	23.84
1928	0.13	0.18	0.28	0.91	1.26	3.34	3.36	4.34	4.09	2.20a	0.79	0.29	21.17
1929	0.09	0.12	0.56	0.86	1.81	3.29	5.04	5.85	4.52	2.68	0.39	0.18	25.39
1930	0.10	0.22	0.35	0.84b	1.31	2.88	4.31	4.29	4.29	2.40a	0.49	0.23	21.71
1931	0.18	0.28	0.38	0.75	1.45	3.39	5.18	5.17	3.33	2.82	0.78a	0.27	24.00
1932	0.21	0.16	0.22	0.68	2.14	3.24	5.24	5.16	4.75	2.45a	0.24	0.11	24.60
1933	0.11	0.11	0.33	1.11	1.83	4.63	6.11	6.20	4.46	2.96	0.29	0.11	28.25
1934	0.21	0.19	0.32	1.25	2.15	4.53	5.96	5.85	4.59	2.87	0.55	0.22	28.71
1935	0.09	0.31	0.31	0.96	1.94	3.43	4.00	5.47	4.59	3.22	0.47a	0.16	24.94
1936	0.07	0.08	0.37	0.94b	1.31	4.20	5.66	5.80	4.57	3.04a	0.39	0.20	26.62
1937	0.07	0.13	0.40	0.82	1.50	4.37	5.41	5.32	4.46	3.07	0.44	0.23	26.23
1938	0.12	0.22	0.78	1.26	1.34	4.02	4.52	6.16	4.93	3.56a	0.33	0.22	27.47
1939	0.02	0.07	0.33	1.41	1.72	4.16	6.61	6.16	4.89	2.81a	1.05	0.37	29.61
1940	0.16	0.12	0.36	1.41	1.81	3.71	5.30	6.00	4.42	3.77	0.39	0.13	27.57
1941	0.16	0.14	0.31	0.81b	1.65	4.52	5.80	5.72	4.77	3.18	0.58a	0.21	27.85
1942	0.28	0.14	0.60	0.76	2.15	3.62	5.38	5.47	5.02	3.56	0.47	0.11	27.57
1943	0.10	0.14	0.28	1.54	1.68	3.02	4.82	5.92	5.69	3.53a	0.69a	0.24	27.66
1944	0.20	0.08	0.31	1.43	1.65	4.08	5.80	6.03	4.16	3.03	0.48a	0.17	27.41
1945	0.08	0.08	0.55	1.44	1.52	2.76	4.30	6.00	5.02	3.17	0.34	0.13	25.39
1946	0.12	0.12	0.74	1.28	2.60	4.57	5.63	6.49	5.29	3.32	0.50	0.19	30.86
1947	0.19	0.09	0.19	1.19	1.78	2.99	4.67	4.97	5.09	3.37	0.54a	0.14	25.22
1948	0.17	0.11	0.22	1.00	1.98	4.36	5.09	5.32	5.48	3.50a	0.64a	0.13	28.01
1949	0.08	0.06	0.24	0.85	2.32	4.86	6.40	5.94	5.20	3.32a	0.84a	0.12	30.22
1950	0.13	0.16	0.34	1.32b	0.94	1.43	4.42	5.83	4.07	3.43	1.56a	0.51	24.15
Total	4.01	4.76	11.82	30.99	51.33	111.37	153.27	163.71	134.49	90.15	17.37	5.99	779.27
Average	0.13	0.16	0.39	1.03	1.71	3.71	5.11	5.46	4.48	3.00	0.58	0.20	25.98

a - adjusted according to air temperature

b - partially guessed

Table 6 - EVAPORATION IN INCHES USING WATER TEMPERATURE

Year	THE PAS												
	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
1921	0.16c	0.18c	0.28c	0.94a	1.25	1.80	4.59	5.15	4.60	2.18a	0.32	0.27	21.72
1922	0.12	0.08c	0.44	1.02	1.28	2.66	3.60	3.96	3.73	2.42a	0.55	0.09c	19.95
1923	0.12c	0.19c	0.21c	0.73a	0.74	1.67	2.92	4.31	3.67	2.56	0.43a	0.27c	17.82
1924	0.09c	0.26c	0.31c	0.86	1.01	1.43	2.57	4.63	3.40	2.21	0.09	0.10c	16.94
1925	0.08c	0.10c	0.28c	0.50b	1.34	2.40	2.69	3.63	3.47	2.02a	0.36c	0.14c	17.01
1926	0.19c	0.26c	0.47c	0.72a	1.13	2.02	3.93	4.62	4.42	1.93a	0.19c	0.13c	20.02
1927	0.12c	0.12c	0.36c	0.56	1.33	1.62	1.82	4.25	3.84	1.98	0.16c	0.06c	16.19
1928	0.18c	0.21c	0.40c	0.74a	0.90	2.27	2.96	4.05	4.39	2.33a	0.50	0.22	19.16
1929	0.06	0.04	0.11c	0.62	1.22	1.09	2.80	4.13	3.62	1.94	0.22c	0.10c	15.95
1930	0.04c	0.04c	0.22c	0.50b	0.57	1.16	2.51	3.35	3.46	2.15	0.30	0.12	14.42
1931	0.16c	0.13c	0.09	0.65	0.76	2.51	3.15	3.65	3.15	2.22	0.43	0.08	16.98
1932	0.03	0.14c	0.15c	0.58	0.73	2.55	3.67	3.67	3.60	2.03a	0.22a	0.12c	17.50
1933	0.09c	0.04c	0.08c	0.61a	0.55	1.74	2.97	3.58	4.41	1.82a	0.36c	0.08c	16.33
1934	0.12c	0.16c	0.73c	0.88a	0.91	2.42	4.00	4.82	3.52	1.91	0.22a	0.19c	19.88
1935	0.07c	0.23c	0.24c	0.70a	0.79	1.86	3.58	4.31	3.38	2.00a	0.18c	0.14c	17.50
1936	0.07c	0.04c	0.40c	0.65a	0.77	1.63	2.85	4.02	3.50	2.30a	0.53c	0.13c	16.90
1937	0.06c	0.16c	0.32c	0.44	1.30	3.12	4.52	4.06	3.37	2.11	0.27c	0.12c	19.84
1938	0.12c	0.13c	0.53c	0.87a	0.96	2.00	3.02	4.22	3.28	2.64a	0.27c	0.20c	18.23
1939	0.14c	0.08c	0.25c	0.86a	0.96	2.28	3.36	4.80	4.11	2.22a	0.35c	0.19c	19.60
1940	0.17c	0.20c	0.37c	0.98a	1.51	3.20	4.07	4.97	3.16	2.65	0.30c	0.14c	21.73
1941	0.16c	0.17c	0.38c	0.56	1.05	3.35	4.75	5.07	4.23	2.29a	0.32c	0.16c	22.49
1942	0.17c	0.09c	0.48c	0.62a	1.75	2.86	3.75	4.32	4.11	2.65a	0.26a	0.06	21.10
1943	0.03	0.11	0.12	0.84a	1.64	2.33	3.40	4.78	4.82	2.68	0.37	0.16	21.29
1944	0.18	0.11	0.18	0.90a	1.57	3.99	4.06	5.18	4.06	2.61a	0.42a	0.14	23.41
1945	0.17	0.17	0.54	0.60b	1.22	1.97	3.86	5.30	4.74	2.88	0.22	0.09	21.77
1946	0.14	0.07	0.34	0.99	1.49	2.82	3.89	4.75	4.36	2.62	0.37	0.12	21.96
1947	0.11	0.11	0.23	0.70a	0.95	1.98	3.96	4.53	5.45	2.86a	0.24	0.06	21.19
1948	0.08	0.08	0.12	0.65a	1.17	2.19	4.02	5.02	3.97	3.15	0.43	0.09	20.97
1949	0.08	0.06	0.32	0.94	1.95	3.39	4.83	5.09	4.87	2.85a	0.45	0.06	24.89
1950		0.09	0.29	0.50b	1.26	2.59	3.49	4.67	4.11	2.60	0.21	0.03	19.95
Total	3.29	3.86	9.25	21.82	34.06	68.90	105.58	132.91	118.78	70.81	9.53	3.86	582.66
Average	0.11	0.13	0.31	0.73	1.14	2.30	3.52	4.43	3.96	2.36	0.32	0.13	19.42

a - adjusted according to air temperature
 b - partially guessed
 c - correlated from Prince Albert

Table 7 - EVAPORATION IN INCHES USING WATER TEMPERATURE

RIVERS

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
1921	0.13	0.14	0.47	0.89	1.72	3.16	5.43	5.85	4.64	3.35	0.14	0.17	26.11
1922	0.12	0.05	0.34	0.48	0.90	4.28	5.49	5.37	5.32	2.99	0.25	0.06	25.65
1923	0.15	0.21	0.23	1.52	0.81	2.67	4.25	5.42	5.36	1.92	0.70	0.39	23.62
1924	0.20	0.44	0.26	1.41	2.62	2.85	4.49	5.08	5.52	3.75	0.26	0.05	26.93
1925	0.11	0.09	0.34	0.67	2.85	3.85	5.05	5.98	5.13	3.01	0.45	0.13	27.67
1926	0.17	0.28	0.57	1.59	1.86	4.66	5.20	5.63	4.50	2.92	0.13	0.13	27.65
1927	0.15	0.12	0.32	1.05	1.40	3.26	3.28	5.21	6.71	2.97	0.12	0.07	24.65
1928	0.20	0.22	0.38	0.94	1.09	2.43	3.10	2.59	4.58	2.38	0.21	0.12	18.23
1929	0.03	0.07	0.13	0.65	0.70	1.77	6.42	7.64	4.98	2.59	0.19	0.07	25.23
1930	0.03	0.12	0.20	0.93	1.75	2.50	4.85	5.26	4.62	2.49	0.34	0.13	23.22
1931	0.13	0.23	0.31	1.36	2.94	6.12	7.52	6.32	4.23	3.22	0.44	0.19	33.00
1932	0.12	0.20	0.20	0.82	2.31	3.30	5.71	6.17	5.10	2.74	0.24	0.14	27.05
1933	0.12	0.17	0.27	1.28	1.57	3.75	5.90	6.11	5.14	3.38	0.56	0.19	28.43
1934	0.34	0.48	0.99	1.79	3.44	5.04	7.51	8.02	5.47	3.67	0.74	0.24	37.73
1935	0.09	0.46	0.54	1.58	1.86	2.70	4.10	6.17	5.55	3.30	0.20	0.28	26.84
1936	0.08	0.08	0.53	1.76	2.51	4.36	5.70	6.88	5.35	3.10	0.46	0.35	31.15
1937	0.07	0.23	0.39	1.07	2.89	7.58	9.12	8.87	5.54	3.40	0.23	0.07	39.45
1938	0.09	0.13	0.71	1.13	2.06	3.99	6.00	6.75	4.63	3.35	0.35	0.16	29.35
1939	0.10	0.07	0.30	1.59	2.12	4.42	6.13	7.40	5.48	3.01a	0.82	0.40	31.84
1940	0.14	0.15	0.30	1.63	2.20	3.53	5.42	6.71	4.49	3.75	0.35	0.11	28.79
1941	0.16	0.11	0.30	0.69	1.63	4.41	5.57	5.36	4.86	2.94	0.40	0.18	26.62
1942	0.22	0.11	0.56	0.87	2.23	3.34	4.34	5.19	4.84	2.45	0.42	0.11	24.68
1943	0.10	0.14	0.21	1.61	1.43	3.02	5.03	6.57	6.44	3.54a	0.55	0.45	29.10
1944	0.24	0.21	0.37	1.37	2.40	4.89	5.70	6.43	4.28	3.46	0.48a	0.21	30.04
1945	0.11	0.17	0.65	1.85	1.64	2.19	4.35	5.77	5.81	3.40	0.27	0.15	26.36
1946	0.10	0.15	0.50	1.05	2.29	4.14	5.68	6.77	5.20	3.22	0.55	0.18	29.83
1947	0.24	0.18	0.25	1.84	1.53	3.07	4.72	5.51	5.44	3.73	0.34	0.14	26.97
1948	0.17	0.14	0.24	1.24	1.58	3.70	5.65	5.26	5.83	3.84	0.43	0.15	28.20
1949	0.16	0.09	0.32	0.89	2.59	4.83	6.01	6.14	5.82	3.80	0.90a	0.17	31.72
1950	0.02	0.16	0.38	1.98	1.14	2.69	4.01	5.70	4.86	3.72	0.30	0.11	25.09
Total	4.06	5.40	11.56	37.53	58.07	112.51	161.74	182.13	155.72	95.39	11.82	5.29	841.21
Average	0.14	0.18	0.38	1.25	1.94	3.75	5.39	6.07	5.19	3.18	0.39	0.18	28.04

1921-1938 inclusive - correlated from Broadview

a - correlated from Broadview

Table 8 - EVAPORATION IN INCHES USING WATER TEMPERATURE

Year	BROADVIEW												
	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
1921	0.11	0.12	0.40	0.81	1.56	2.88	4.94	5.32	4.22	3.05	0.42a	0.15	23.98
1922	0.10	0.04	0.29	0.43	0.82	3.91	4.99	4.88	4.84	2.72	0.21	0.05	23.29
1923	0.12	0.18	0.19	1.38	0.73	2.43	3.86	4.93	4.88	1.75	0.60	0.33	21.39
1924	0.17	0.38	0.22	1.28	2.39	2.59	4.08	4.62	5.02	3.42	0.22	0.05	24.42
1925	0.09	0.08	0.29	0.61	2.60	3.51	4.59	5.44	4.66	2.74	0.39	0.11	25.11
1926	0.15	0.24	0.49	1.45	1.70	4.24	4.73	5.12	4.09	2.66	0.11	0.11	25.08
1927	0.12	0.10	0.27	0.95	1.28	2.96	2.99	4.74	6.11	2.70	0.10	0.06	22.37
1928	0.17	0.19	0.32	0.86	0.99e	2.21	2.82	2.36	4.16	2.16	0.18	0.10	16.52
1929	0.02	0.06	0.11	0.59	0.64	1.61	5.83	6.95	4.53	2.36	0.16	0.06	22.91
1930	0.02	0.10	0.17	0.84	1.59	2.27	4.41	4.79	4.20	2.26	0.29	0.11	21.06
1931	0.11	0.19	0.26	1.23	2.67	5.57	6.84	5.75	3.85	2.93	0.37	0.16	29.93
1932	0.10	0.17	0.17	0.75	2.10	3.00	5.20	5.61	4.64	2.49	0.20	0.12	24.55
1933	0.10	0.14	0.23	1.17	1.44	3.40	5.36	5.56	4.67	3.07	0.47	0.16	25.78
1934	0.29	0.41	0.84	1.62	3.14	4.58	6.83	7.29	4.98	3.34	0.63	0.21	34.16
1935	0.08	0.40	0.46	1.44	1.69	2.45	3.73	5.61	5.05	2.99	0.17	0.24	24.30
1936	0.07	0.07	0.45	1.60	2.28	3.96	5.18	6.28	4.87	2.82a	0.39	0.30	28.27
1937	0.06	0.19	0.33	0.97	2.63	6.90	8.30	8.06	5.04	3.10	0.40a	0.06	36.02
1938	0.08	0.11	1.12	1.03	1.88	3.63	5.46	6.13	4.21	3.04a	0.40a	0.14	27.22
1939	0.11	0.06	0.29	1.38	1.83	3.63	5.21	7.26	5.09	3.00a	1.21	0.57	29.65
1940	0.14	0.15	0.25	1.29	1.64	3.79	4.71	6.38	4.31	3.18	0.29	0.20	26.33
1941	0.17	0.15	0.29	0.61	1.55	3.75	5.25	5.35	4.99	3.13	0.53	0.37	26.13
1942	0.25	0.24	0.49	0.68	1.48	2.44	3.69	5.03	4.58	2.85a	0.49	0.16	22.36
1943	0.08	0.23	0.28	1.30	1.97	2.75	3.96	5.26	5.29	2.82	0.43	0.46	24.83
1944	0.33	0.14	0.22	1.54	1.62	3.27	4.61	5.26	4.53	3.18a	0.55	0.28	25.52
1945	0.18	0.25	0.73	2.24	2.02	2.08	3.88	6.01	5.53	3.02a	0.27	0.18	26.40
1946	0.22	0.19	0.60	0.49	2.03	2.81	4.76	5.20	4.52	3.19	0.39a	0.18	24.58
1947	0.24	0.17	0.30	1.83	2.92	2.54	3.92	5.72	4.88	3.03a	0.47	0.24	26.26
1948	0.10	0.11	0.24	1.37	0.96	2.65	4.59	4.83	4.81	3.51	0.38	0.11	23.67
1949	0.10	0.06	0.15	1.86	2.34	4.04	4.54	5.54	5.33	3.21	0.82	0.09	28.07
1950	0.03	0.10	0.21	1.38	1.46	3.55	3.58	5.14	4.46	3.22	0.27	0.09	23.49
Total	3.91	5.01	10.67	34.97	53.94	99.41	142.82	166.40	142.34	86.94	11.81	5.43	763.66
Average	0.13	0.17	0.36	1.17	1.80	3.31	4.76	5.55	4.75	2.90	0.39	0.18	25.46

a - guessed according to daily air temperature
e - guessed

Table 9 - EVAPORATION IN INCHES USING WATER TEMPERATUREYORKTON

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
1921	0.16	0.18	0.32	1.10	1.35	2.91	4.78	5.92	4.05	2.04	0.22	0.17	23.20
1922	0.12	0.08	0.29	0.67	0.76	3.42	5.15	3.94	4.19	2.53	0.39	0.09	21.62
1923	0.14	0.16	0.23	1.11	2.02	2.20	3.37	4.02	3.75	2.36	0.54	0.34	20.23
1924	0.17	0.27	0.29	1.15	1.77	3.02	5.52	4.60	4.26	3.07	0.33	0.08	24.54
1925	0.13	0.13	0.30	0.86	2.07	2.93	4.38	5.23	4.15	1.93	0.42	0.17	22.70
1926	0.23	0.28	0.61	1.33	1.03	4.18	4.43	4.76	4.13	1.86	0.20	0.15	23.20
1927	0.12	0.12	0.33	1.00	1.19	2.54	3.57	3.90	4.09	2.27	0.17	0.07	19.40
1928	0.18	0.26	0.47	1.44	2.33	3.48	3.85	5.34	4.61	2.32	0.40	0.20	21.89
1929	0.03	0.07	0.36	0.93	1.19	3.52	5.74	6.51	4.33	2.81	0.32	0.12	25.94
1930	0.05	0.17	0.35	0.86	2.53	3.47	4.78	5.25	4.01	2.18	0.47	0.25	24.38
1931	0.19	0.41	0.39	1.44	2.50	4.78	5.54	5.17	3.52	2.61	0.45	0.28	27.28
1932	0.14	0.20	0.20	0.91	2.44	4.18	5.54	5.57	4.43	2.23	0.31	0.20	26.36
1933	0.12	0.18	0.37	1.12	1.63	4.91	6.65	6.37	4.34	1.87	0.70	0.14	28.40
1934	0.36	0.53	0.91	1.60	3.45	4.52	6.04	6.16	4.54	2.54	0.66	0.24	31.54
1935	0.08	0.26	0.33	1.48	2.21	3.75	6.09	6.76	5.28	3.23	0.20	0.22	29.89
1936	0.06	0.05	0.47	1.66	3.52	5.56	8.48	7.77	5.48	2.86	0.77	0.23	36.90
1937	0.07	0.20	0.48	1.51	3.52	7.74	9.36	7.77	5.52	3.15	0.36	0.18	39.87
1938	0.16	0.12	0.57	1.28	2.36	4.61	6.45	6.27	4.77	3.10	0.31	0.28	30.28
1939	0.20	0.09	0.34	1.57	2.38	4.39	6.60	7.63	5.52	2.83	0.91	0.47	32.93
1940	0.14	0.24	0.44	1.50	2.91	5.48	5.70	7.84	4.53	3.20	0.32	0.22	32.52
1941	0.16	0.20	0.43	0.94	2.59	4.54	5.43	6.36	4.53	2.50	0.37	0.17	28.21
1942	0.28	0.11	0.47	0.95	2.32	3.49	4.56	4.68	4.78	3.04e	0.38	0.10	25.17
1943	0.08	0.17	0.18	0.86	2.14	3.08	4.50	6.24	4.48	3.08	0.43	0.29	25.53
1944	0.24	0.50	0.18	1.12	1.71	5.07	6.00	6.99	5.07	3.36	0.30	0.26	30.79
1945	0.09	0.20	0.54	1.69	1.71	2.08	4.02	5.72	5.23	2.81e	0.27	0.14	24.50
1946	0.10	0.06	0.53	1.26	2.16	4.14	5.57	6.03	4.71	3.01	0.41	0.10	28.07
1947	0.15	0.04	0.27	1.18	1.36	2.30	4.57	5.77	5.28	3.39	0.23	0.17	24.72
1948	0.16	0.12	0.21	1.53	1.12	3.12	4.89	5.43	5.18	3.03e	0.47	0.15	25.42
1949	0.09	0.06	0.36	1.21	2.38	4.48	5.66	6.14	5.56	2.57e	0.80	0.10	29.41
1950	0.06	0.15	0.23	1.77	1.46	3.69	4.31	5.83	4.71	3.46	0.46e	0.14	26.25
Total	4.27	5.63	11.48	37.04	62.10	117.58	161.54	175.96	139.04	81.25	12.59	5.71	814.17
Average	0.14	0.19	0.38	1.23	2.07	3.92	5.38	5.86	4.63	2.71	0.42	0.19	27.14

1921-1941 - correlated from Saskatoon

e - guessed according to daily air temperature

Table 10 - EVAPORATION IN INCHES USING WATER TEMPERATURE

Year	<u>QU'APPELLE</u>												
	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
1921	0.26	0.28	0.54	1.26	1.70	3.09	5.54	6.03	5.00	3.08a	0.36a	0.27	27.42
1922	0.19	0.10	0.50	0.82	1.33	4.02	5.23	5.30	4.92	3.03a	0.60a	0.14	26.17
1923	0.20	0.26	0.35	1.29	2.06	3.11	4.04	5.26	4.97	3.44	0.86	0.49	26.34
1924	0.16	0.43	0.38	1.31	2.23	3.12	4.62	5.22	5.17	3.50a	0.43a	0.04	26.63
1925	0.19	0.18	0.48	0.76	2.42	3.95	5.29	5.90	4.73	2.28a	0.60	0.23	27.00
1926	0.34	0.32	0.61	1.52	2.14	4.74	5.12	5.57	4.44	2.46a	0.45a	0.24	27.95
1927	0.22	0.19	0.48	1.17	1.13	3.16	3.57	4.98	4.80	2.59a	0.42a	0.10	22.81
1928	0.28	0.06	0.57	1.00	1.76	3.00	3.70	4.32	4.43	2.28a	0.47	0.19	22.06
1929	0.03	0.11	0.68	0.82	1.00	1.99	6.07	7.12	4.94	2.70	0.31	0.16	25.93
1930	0.07	0.25	0.34	1.02	1.77	2.79	4.69	5.43	4.77	2.36a	0.49	0.28	24.26
1931	0.25	0.22	0.44	1.30	2.68	5.50	6.90	6.03	4.49	3.07a	0.52	0.33	31.74
1932	0.16	0.28	0.25	0.90	2.11	3.51	5.58	6.02	4.98	2.50	0.34	0.23	26.86
1933	0.17	0.22	0.43	1.33	1.56	3.91	5.69	5.62	5.24	2.77a	0.64	0.19	27.76
1934	0.41	0.54	0.96	1.54	3.06	5.14	6.87	7.27	5.21	3.46	0.78	0.29	35.54
1935	0.13	0.53	0.55	1.60	1.70	2.62	4.02	5.89	5.24	3.34	0.49a	0.25	26.35
1936	0.10	0.09	0.58	1.80	1.96	4.25	5.36	6.32	5.09	3.31a	0.38a	0.30	29.54
1937	0.09	0.19	0.52	1.20	2.57	5.74	7.11	7.70	5.35	3.06a	0.60a	0.15	34.28
1938	0.11	0.10	0.57	1.00	1.77	3.46	5.04	5.91	4.66	3.51a	0.40	0.30	26.81
1939	0.20	0.10	0.41	1.24	1.89	4.13	5.64	6.91	5.60	3.09a	1.19	0.64	31.04
1940	0.18	0.24	0.56	1.21	2.10	4.35	5.74	4.30	4.44	3.54	0.37	0.31	27.33
1941	0.22	0.21	0.45	0.80	1.80	3.68	5.48	5.73	5.32	3.31	0.70	0.47	28.18
1942	0.43	0.30	0.58	0.89	1.61	3.21	4.11	5.10	4.70	3.56	0.61	0.24	25.33
1943	0.09	0.79	0.35	1.27	2.30	3.35	4.43	5.71	5.62	3.01	0.88a	0.61	28.42
1944	0.38	0.20	0.33	1.38	1.98	4.08	5.32	6.11	4.72	3.34a	0.50	0.41	28.76
1945	0.24	0.28	0.94	1.68	2.15	2.82	4.54	6.17	5.84	3.39a	0.39	0.25	28.69
1946	0.30	0.27	0.84	1.24	2.01	3.39	5.17	5.70	4.89	3.03a	0.35	0.26	27.45
1947	0.33	0.41	0.38	1.76	1.90	3.26	3.44	6.04	5.13	2.75	0.57	0.31	26.27
1948	0.24	0.18	0.33	1.40	1.21	3.15	5.25	5.05	5.25	3.20	0.77a	0.19	26.22
1949	0.14	0.09	0.30	0.69	2.60	3.77	4.69	5.63	5.44	3.09a	1.00	0.09	27.53
1950	0.03	0.16	0.30	1.56	1.64	3.66	3.97	5.46	4.37	3.26a	0.57a	0.16	25.13
Total	6.14	7.59	15.00	36.77	58.15	109.96	152.23	173.79	149.75	91.31	17.01	8.10	825.82
Average	0.20	0.25	0.50	1.23	1.94	3.66	5.07	5.79	4.99	3.04	0.57	0.27	27.53

a - adjusted according to daily air temperature

Table 11 - EVAPORATION IN INCHES USING WATER TEMPERATURE

Year	REGINA												
	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
1921	0.12	0.17	0.50	1.09	2.02	3.26	4.43	5.85	4.44	3.24	0.31	0.19	25.62
1922	0.97	0.48	1.00	0.70	1.59	4.41	5.14	5.14	5.03	2.91	1.00	0.07	28.42
1923	0.14	0.08	0.30	1.25	2.40	3.36	3.94	5.07	4.94	3.32	0.67	0.34	25.80
1924	0.08	0.30	0.32	1.18	2.50	3.23	5.23	4.85	5.30	3.47	0.48a	0.08	27.02
1925	0.11	0.16	0.38	0.54	1.86	4.07	5.82	5.86	4.02	2.74a	0.50	0.88	26.94
1926	0.22	0.33	0.75	1.52	1.99	5.31	5.64	5.37	4.43	3.68a	0.47a	0.15	29.85
1927	0.15	0.22	0.35	1.01	0.97	3.66	3.73	5.01	4.40	3.06	0.37a	0.07	23.01
1928	0.18	0.28	0.51	0.83	1.83e	3.17	3.65	4.80e	3.73	2.50	0.37	0.10	21.94
1929	0.03	0.07	0.38	0.58	0.98	2.34	7.26	7.96	4.83	3.21	0.37a	0.19	28.21
1930	0.03	0.14	0.28	1.44e	2.19	2.99	5.18	5.25	4.04	2.60	0.40	0.24	24.78
1931	0.17	0.37	0.41	1.65	3.48	7.17	7.91	6.12	4.24	3.23	0.53	0.31	35.58
1932	0.19	0.23	0.20	1.00	2.81	4.28	6.30	6.69	7.80	2.60	0.25	0.16	32.51
1933	0.14	0.19	0.45	1.46	2.05	4.49	7.13	6.56	7.70	3.03	0.63	0.85	34.69
1934	0.38	0.78	1.19	1.93	4.01	5.90	8.51	8.57	5.91	3.71a	0.78	0.27	41.94
1935	0.19	0.43	0.61	1.68	1.74	3.38	3.35	6.96	6.96	3.41	0.27	0.14	29.12
1936	0.09	0.08	0.58	1.64	3.14	5.52	7.44	7.94	6.08	3.25a	0.52	0.40	36.66
1937	0.08	0.08	0.56	1.46	3.47	7.71	9.54	9.52	5.96	3.82a	0.59a	0.14	42.92
1938	0.08	0.06	0.46	0.80	2.24	3.93	5.78	6.73	5.55	3.46a	0.53a	0.26	29.89
1939	0.25	0.26	0.39	1.59	2.74	4.52	7.00	8.23	6.02	3.25a	0.66	0.28	35.18
1940	0.16	0.20	0.49	1.55	2.62	5.46	6.78	9.02	5.25	3.80a	0.50a	0.17	36.00
1941	0.12	0.09	0.29	0.96	1.88	5.49	6.75	5.95	5.77	3.24a	0.50	0.63	31.68
1942	0.20	0.16	0.43	0.81	2.15	4.15	4.04	5.25	4.73	3.07a	0.40	0.12	25.50
1943	0.54	0.15	0.24	1.33	2.52	3.66	4.93	7.23	6.29	3.55	0.54	0.41	31.39
1944	0.28	0.16	0.25	1.18	2.38	4.48	5.21	6.98	5.29	3.91	0.44	0.29	30.84
1945	0.12	0.20	0.71	1.45	2.33	3.10	4.58	6.63	5.49	3.52	0.45a	0.18	28.78
1946	0.17	0.22	0.54	1.80	2.44	4.25	5.44	6.97	5.23	3.09a	0.41	0.12	30.68
1947	0.11	0.09	0.19	1.12	2.19	2.64	5.59	5.74	5.57	3.67	0.38a	0.52	27.82
1948	0.12	0.07	0.27	1.26	1.94	4.11	5.69	6.18	6.06	3.68a	0.60a	0.08	30.06
1949	0.04	0.04	0.16	2.29	3.02	5.44	6.16	6.95	6.11	3.16a	0.79a	0.08	34.25
1950	0.02	0.07	0.19	1.45	1.52	3.52	4.44	5.98	5.13	3.13a	0.37a	0.08	25.91
Total	5.50	6.14	13.38	38.57	68.98	129.01	172.57	195.37	162.30	98.32	15.08	7.79	913.00
Average	0.18	0.20	0.45	1.29	2.30	4.30	5.75	6.51	5.41	3.28	0.50	0.26	30.43

a - adjusted according to air temperature

e - guessed

Table 12 - EVAPORATION IN INCHES USING WATER TEMPERATURE

Year	SASKATOON												
	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
1921	0.18	0.20	0.36	1.18	1.45	3.14	5.15	6.38	4.36	2.19a	0.25	0.19	25.05
1922	0.13	0.09	0.32	0.72	0.82	3.68	5.55	4.25	4.51	2.73	0.44	0.10	23.34
1923	0.16	0.18	0.26	1.20	2.18	2.37	3.63	4.33	4.04	2.55a	0.60	0.38	21.87
1924	0.19	0.31	0.33	1.24	1.91	3.25	5.95	4.96	4.59	3.31	0.38	0.09	26.51
1925	0.15	0.15	0.34	0.92	2.23	3.16	4.72	5.64	4.47	2.08a	0.47	0.19	24.51
1926	0.26	0.32	0.68	1.43	1.11	4.50	4.77	5.13	4.46	2.01a	0.43a	0.17	25.27
1927	0.14	0.14	0.37	1.08	1.28	2.74	3.85	4.20	4.41	2.47	0.19	0.08	20.95
1928	0.20	0.29	0.53	1.56	2.51	3.75	4.15	5.76	4.97	2.50	0.45	0.22	26.89
1929	0.03	0.08	0.41	1.00	1.28	3.79	6.18	7.02	4.66	3.03	0.54a	0.12	28.16
1930	0.06	0.18	0.37	0.92e	2.73	3.74	5.15	5.66	4.32	2.35a	0.50	0.32	26.29
1931	0.21	0.46	0.44	1.56	2.69	5.16	5.97	5.57	3.80	2.81	0.47	0.29	29.43
1932	0.16	0.22	0.23	0.98	2.62	4.51	5.97	6.00	4.77	2.40a	0.33	0.21	28.41
1933	0.14	0.20	0.42	1.21	1.76	5.29	7.16	6.86	4.68	2.02a	0.73	0.15	30.61
1934	0.40	0.59	1.02	1.73	3.72	4.87	6.51	6.64	4.90	2.73a	0.69	0.25	34.05
1935	0.09	0.30	0.38	1.59	2.38	4.04	6.56	7.29	5.69	3.48	0.20	0.23	32.22
1936	0.07	0.06	0.52	1.78	3.80	5.99	9.14	8.38	5.90	3.08a	1.01a	0.24	39.96
1937	0.07	0.21	0.49	1.62	3.80	8.34	10.08	8.38	5.94	3.39	0.38	0.20	42.89
1938	0.18	0.14	0.64	1.38	2.55	4.97	6.95	6.75	5.14	3.34	0.53a	0.30	32.85
1939	0.23	0.10	0.39	1.69	2.57	4.73	7.11	8.22	5.95	3.05a	0.96	0.49	35.49
1940	0.19	0.27	0.49	1.61	3.14	5.91	6.15	8.44	4.88	3.45	0.36	0.23	35.12
1941	0.18	0.22	0.48	1.02	2.79	4.90	5.85	6.85	4.88	2.70	0.41	0.19	30.47
1942	0.19	0.12	0.77	1.10	2.13	3.54	4.16	5.05	4.27	3.04a	0.45a	0.11	24.94
1943	0.04	0.11	0.16	0.97	1.90	3.25	4.97	5.91	5.14	3.09	0.48	0.26	26.28
1944	0.14	0.07	0.17	0.57	1.09	4.24	4.77	5.84	4.93	3.16	0.55a	0.21	25.74
1945	0.12	0.15	0.75	1.46	1.81	2.78	5.03	5.75	5.23	2.39a	0.18	0.10	25.75
1946	0.15	0.12	0.70	1.49	2.62	4.74	6.57	6.44	4.76	2.56a	0.48	0.16	30.81
1947	0.22	0.12	0.32	1.24	2.06	4.02	7.42	6.56	5.20	3.53	0.39	0.18	31.26
1948	0.20	0.15	0.24	1.47	1.92	4.21	6.65	7.02	6.21	3.20a	0.50	0.15	31.91
1949	0.12	0.08	0.35	1.38	3.20	5.84	6.10	6.38	5.93	3.08a	0.89	0.09	33.44
1950	0.02	0.10	0.34	1.43	1.97	4.33	4.84	5.60	5.44	2.98	0.23	0.09	27.38
Total	4.64	5.73	13.26	38.52	68.01	129.78	177.07	187.27	148.42	84.71	14.46	5.99	877.86
Average	0.16	0.19	0.44	1.28	2.27	4.33	5.90	6.24	4.95	2.82	0.48	0.20	29.26

a - adjusted according to daily air temperature

e - guessed

Table 13 - EVAPORATION IN INCHES USING WATER TEMPERATURE

Year	SWIFT CURRENT												Total
	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	
1921	0.48	0.61	0.68	1.38	2.22	5.47	9.08	8.29	7.08	3.66a	0.52	0.46	39.93
1922	0.41	0.24	0.98	1.24	2.09	4.38	5.80	6.40	6.67	3.28a	1.00	0.28	32.77
1923	0.46	0.43	0.76	1.13	2.59	3.58	5.11	6.58	5.85	3.41a	0.91a	0.58	31.39
1924	0.42	1.04	1.00	2.04	2.97	4.09	7.80	6.99	6.34	4.36	1.08	0.26	38.40
1925	0.34	0.38	0.55	0.84	3.45	4.86	6.92	6.92	4.80	2.95	0.88	0.40	33.30
1926	0.44	0.39	1.11	1.69	2.57	5.69	6.75	6.89	5.17	3.20	0.64	0.44	34.98
1927	0.44	0.37	0.92	1.67	2.12	4.61	6.04	6.05	5.88	3.42	0.49	0.20	32.21
1928	0.57	0.84	1.38	2.15	3.42	7.33	7.53	8.60	6.41	3.88a	1.35a	1.03	44.49
1929	0.26	0.50	1.88	2.09	3.19	5.13	9.94	11.32	7.10	4.72	1.15a	0.49	47.75
1930	0.19	0.92	1.30	1.77	4.07	6.88	8.16	8.46	6.81	3.88	1.17	1.02	44.62
1931	1.10	1.41	1.12	0.86	3.52	6.86	9.34	7.46	6.47	4.45a	1.00	0.63	44.24
1932	0.41	0.39	0.81	0.92	2.36	3.04	4.36	4.94	4.58	3.06	0.70	0.34	25.91
1933	0.40	0.34	1.07	1.33	1.69	4.86	8.23	7.34	6.76	3.81a	1.21a	0.27	37.30
1934	0.63	0.80	0.80	0.82	3.93	7.12	8.68	8.48	6.39	3.72	0.95	0.33	42.64
1935	0.21	0.61	0.50	1.26	2.01	3.55	5.33	6.25	5.38	3.74	0.45	0.54	29.83
1936	0.19	0.10	0.68	1.26	2.02	7.60	8.22	8.84	7.57	3.42a	1.11a	0.48	41.48
1937	0.14	0.31	0.86	1.42	3.17	8.79	9.94	11.49	6.91	3.62	0.70	0.37	47.71
1938	0.51	0.30	1.20	1.40	1.73	3.50	6.96	7.89	6.58	3.90a	0.51	0.48	34.97
1939	0.48	0.16	0.62	1.53	2.32	4.03	6.15	8.45	6.50	3.55a	1.77a	1.09	36.65
1940	0.07	0.16	0.56	1.15	2.16	5.08	6.04	9.42	5.12	3.96a	0.44a	0.54	34.70
1941	0.31	0.34	0.62	1.00	2.55	6.54	6.57	7.25	5.47	3.76a	0.91	0.41	35.72
1942	0.67	0.14	0.95	1.42	2.27	3.76	4.98	5.62	5.17	4.26	0.74a	0.23	30.19
1943	0.16	0.41	0.42	1.53	2.35	3.55	7.31	8.51	6.89	4.04	0.65	0.74	36.60
1944	0.60	0.30	0.33	0.64	1.68	4.29	6.31	6.67	5.48	4.22a	0.66a	0.37	31.56
1945	0.26	0.30	1.02	1.60	1.69	3.09	6.81	8.14	6.02	3.80	0.52a	0.14	33.39
1946	0.24	0.38	1.04	1.71	2.68	4.36	6.57	7.19	5.40	3.01a	0.69a	0.31	33.57
1947	0.34	0.17	0.27	1.06	2.22	3.37	6.67	7.14	6.40	3.21	0.67a	0.25	31.78
1948	0.36	0.25	0.28	0.98	1.25	3.90	8.00	7.69	6.54	4.26a	0.70	0.18	34.41
1949	0.21	0.14	0.59	3.32	3.70	7.21	6.96	8.10	7.53	3.81	1.61	0.14	43.32
1950	0.07	0.24	0.30	1.46	1.80	3.90	5.15	5.54	5.60	3.71	0.49	0.20	28.65
Total	11.36	12.95	24.59	42.71	75.78	150.44	211.73	228.91	185.08	112.04	25.69	13.18	1094.45
Average	0.38	0.43	0.82	1.42	2.53	5.02	7.06	7.63	6.17	3.74	0.86	0.44	36.48

a - adjusted according to daily air temperature

Table 14 - EVAPORATION IN INCHES USING WATER TEMPERATURE

Year	<u>MEDICINE HAT</u>												
	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
1921	0.18	0.32	0.48	0.82	1.54	5.10	9.10	8.49	5.92	4.20	0.59a	0.18	36.93
1922	0.07	0.02	0.24	0.55	1.63	4.75	6.39	7.33	5.26	3.44	0.72a	0.17	30.56
1923	0.31	0.35	0.96	1.26	2.60	4.49	6.11	6.16	5.09	3.22	0.99	0.66	32.19
1924	0.10	0.70	0.37	1.27	2.36	5.02	8.18	6.98	4.58	3.20	0.54a	0.29	33.59
1925	0.30	0.11	0.35	0.60	2.51	5.50	7.76	7.03	4.39	2.69	0.88a	0.44	32.56
1926	0.61	0.61	0.97	0.86	2.95	6.47	7.88	6.51	4.56	3.39	0.55a	0.41	35.77
1927	0.45	0.35	0.63	0.90	1.32	3.18	4.39	5.15	4.47	3.40	0.40a	0.16	24.81
1928	0.35	0.46	0.67	1.02	2.17	3.95	4.75	6.01	4.84	3.23	1.12	0.56	29.13
1929	0.06	0.03	0.85	1.18	1.63	4.38	7.95	8.44	4.94	3.56	0.77	0.30	34.09
1930	0.12	0.85	0.94	1.08e	2.60	5.50	7.03	7.80	5.80	4.10	1.06	1.29	38.16
1931	1.04	1.23	0.94	1.79	3.29	6.17	8.89	7.07	5.22	4.27a	0.63	0.42	40.96
1932	0.22	0.45	0.48	1.15	2.27	5.26	7.93	7.31	5.28	3.35	0.92	0.53	35.14
1933	0.49	0.39	1.13	1.45	2.02	6.56	9.09	7.29	6.11	3.33	1.36	0.24	39.46
1934	0.93	0.92	1.47e	1.58	3.92	7.12	9.33	9.60	5.41	3.78	1.16	0.46	45.69
1935	0.23	0.59	0.73	1.36	2.09	5.33	7.90	8.39	6.79	4.09	0.67a	0.78	38.95
1936	0.14	0.04	0.83	1.00	2.71	7.14	11.30	7.90	5.76	3.68a	1.30	0.53	42.33
1937	0.15	0.30	0.86	1.24	3.10	7.32	8.22	8.16	5.48	3.32	0.71	0.41	39.26
1938	0.52	0.20	1.18	1.12	1.77	4.18	7.48	7.30	5.05	3.79a	1.09	0.67	34.35
1939	0.58	0.19	0.79	1.53	3.20	4.86	8.74	9.08	6.69	3.86	2.25a	1.14	42.93
1940	0.10	0.19	0.69	0.84	2.23	6.18	7.76	8.84	4.79	4.37a	0.58a	0.59	37.17
1941	0.38	0.62	0.85	1.04e	2.73	5.41	6.45	6.96	5.08	3.26a	1.19a	0.72	34.68
1942	0.75	0.17	1.23	1.32	2.75	4.41	5.96	6.00	5.18	3.58a	0.53	0.36	32.24
1943	0.11	0.39	0.43	1.28	3.08	5.79	8.74	8.86	6.26	4.34a	1.15a	1.05	41.49
1944	0.78	0.47	0.54	1.85	3.84	6.60	8.98	7.62	6.18	4.07a	0.65a	0.41	41.99
1945	0.30	0.43	1.38	1.44	2.40	4.32	8.06	8.48	5.33	3.16	0.45	0.30	36.06
1946	0.45	0.45	1.55e	1.78	2.79	4.46	9.08	7.02	5.75	3.49	0.45	0.40	37.68
1947	0.58	0.19	0.38	0.82e	2.59	4.64	9.02	7.09	5.65	4.00a	0.74a	0.41	36.11
1948	0.66	0.18	0.40	1.02e	1.81	5.10	7.22	8.35	6.54	4.12a	1.09	0.22	36.72
1949	0.22	0.16	0.92	1.44	3.68	7.84	9.17	8.93	6.93	3.78	2.10	0.22	45.40
1950		0.52	0.60	2.22	2.74	5.11	7.67	6.41	6.11	3.50a	0.72	0.52	36.12
Total	11.16	11.91	23.86	36.78	76.30	162.15	236.51	226.58	165.46	109.60	27.38	14.83	1102.52
Average	0.38	0.40	0.80	1.23	2.54	5.40	7.88	7.55	5.52	3.65	0.91	0.49	36.75

a - adjusted according to air temperature

e - vapor pressure saturated or vapor pressure actual was guessed

Table 15 - EVAPORATION IN INCHES USING WATER TEMPERATURE

Year	PRINCE ALBERT												
	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
1921	0.16	0.18	0.28	1.12	1.61	2.89	4.35	4.86	4.34	3.07	0.42a	0.18	23.45
1922	0.07	0.08	0.30	0.80	1.34	3.98	4.88	4.00	3.74	2.64	0.76a	0.09	22.68
1923	0.12	0.19	0.21	0.75	1.47	2.63	4.09	3.67	3.39	2.54	0.54	0.27	19.87
1924	0.09	0.26	0.32	0.57	1.25	2.46	3.29	4.39	3.79	2.52	0.36a	0.10	19.39
1925	0.08	0.10	0.28	0.84	1.37	2.39	3.26	3.31	3.48	2.09	0.46a	0.14	17.80
1926	0.19	0.26	0.47	0.52	1.13	3.64	3.57	3.97	3.79	1.97a	0.29a	0.14	19.93
1927	0.12	0.12	0.36	0.61	0.79	1.62	3.67	4.08	3.64	2.37a	0.26a	0.06	17.69
1928	0.18	0.21	0.40	0.76	1.36	2.07	2.71	3.59	3.49	2.04	0.64a	0.14	17.58
1929	0.03	0.08	0.11	0.63	0.82	1.73	3.82	4.20	4.23	2.10	0.42a	0.10	18.27
1930	0.04	0.04	0.22	0.64	0.95	2.26	3.76	4.08	3.46	1.93	0.38	0.24	18.02
1931	0.16	0.13	0.31	0.39	2.01	3.28	4.64	4.40	3.76	2.56	0.46a	0.21	22.30
1932	0.11	0.14	0.15	0.52	1.14	2.88	3.09	3.70	3.83	1.92a	0.37a	0.12	17.99
1933	0.09	0.04	0.08	0.51	1.23	1.92	3.65	3.82	3.28	2.10	0.36	0.08	17.15
1934	0.12	0.16	0.73	1.21	1.42	3.48	4.65	5.39	3.87	2.55	0.30	0.19	24.07
1935	0.07	0.23	0.24	1.28	1.25e	1.61	2.66	4.45	3.13	2.53	0.28a	0.14	17.88
1936	0.07	0.04	0.40	1.36	1.39e	3.15	4.14	4.64	3.83	2.87	0.54	0.13	22.57
1937	0.06	0.16	0.32	0.78	1.36	4.08	5.74	5.54	3.98	2.36	0.47a	0.12	24.97
1938	0.12	0.13	0.54	1.11	1.48	3.04	4.68	5.25	3.39	2.67	0.37a	0.20	23.00
1939	0.15	0.08	0.25	0.68	1.19	3.05	3.87	5.31	4.23	2.50	0.35	0.19	21.85
1940	0.17	0.20	0.37	1.20	1.67	3.55	4.41	5.78	3.57	2.69	0.50a	0.15	24.27
1941	0.16	0.17	0.38	0.68	1.63	3.48	5.47	5.17	4.03	2.48	0.63a	0.16	24.43
1942	0.17	0.09	0.48	0.69	1.69	2.52	3.63	4.12	3.36	2.80a	0.49a	0.07	20.10
1943	0.03	0.16	0.11	1.06	1.88	2.75	3.79	4.86	4.26	2.66a	0.86a	0.22	22.64
1944	0.17	0.12	0.20	1.13	1.52	3.32	3.82	4.38	3.47	2.35	0.41a	0.16	21.06
1945	0.14	0.19	0.46	1.42	1.56	1.59	5.13	4.87	3.99	2.50	0.36a	0.11	22.31
1946	0.09	0.09	0.54	0.91	1.59	2.72	3.98	4.63	4.22	2.46	0.38	0.09	21.71
1947	0.16	0.11	0.26	1.01	1.17	2.61	4.70	5.00	4.32	2.66a	0.48a	0.07	22.56
1948	0.09	0.08	0.19	1.50	1.48e	2.73	4.24	4.36	4.51	3.12	0.68a	0.10	23.07
1949	0.09	0.07	0.26	1.02	2.35	4.28	4.64	4.81	4.08	2.86	0.90a	0.03	25.41
1950	0.00	0.04	0.26	1.46	1.23	2.56	3.45	4.61	4.4	2.60	0.52a	0.04	21.23
Total	3.28	3.98	9.51	27.14	42.32	84.28	121.79	135.26	114.92	74.50	14.22	4.07	635.27
Average	0.11	0.13	0.32	0.90	1.41	2.81	4.06	4.51	3.83	2.48	0.47	0.14	21.18

a - adjusted according to air temperature

e - guessed

Table 16 - EVAPORATION IN INCHES USING WATER TEMPERATURE

Year	BATTLEFORD												
	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
1921	0.20	0.18	0.36	1.16	1.57	3.97	5.29	5.34	4.19	2.92	0.58	0.19	25.95
1922	0.13	0.09	0.29	0.33	2.02	5.81	6.65	4.62	3.73	2.58	0.42	0.10	26.79
1923	0.13	0.20	0.31	0.84	1.12	3.52	4.62	5.48	3.50	2.88	0.65	0.34	23.61
1924	0.15	0.29	0.30	0.90	0.72	4.02	5.78	5.48	4.58	2.87	0.33	0.09	25.51
1925	0.13	0.13	0.35	0.57	2.02	4.00	5.58	5.46	3.66	2.60	0.41	0.18	25.08
1926	0.25	0.29	0.60	0.96	1.48	4.83	6.22	5.23	3.95	2.54	0.20	0.14	26.68
1927	0.11	0.12	0.41	1.09	1.08	3.30	4.28	4.91	4.19	2.51	0.28a	0.07	22.35
1928	0.22	0.32	0.52	1.60	2.02	3.34	4.52	5.23	4.81	2.90	0.38	0.17	26.05
1929	0.03	0.09	0.38	0.86	0.71	3.40	6.42	7.07	4.52	2.71	0.44a	0.10	26.74
1930	0.03	0.19	0.36	0.92	2.74	4.13	4.69	5.94	4.90	2.57	0.50	0.28	27.27
1931	0.16	0.37	0.38	0.87	1.27	2.88	4.72	5.49	3.67	2.78	0.39	0.20	23.18
1932	0.13	0.21	0.16	1.14	1.49	2.90	4.79	5.08	4.66	2.95	0.28	0.17	23.96
1933	0.12	0.18	0.33	0.89	1.66	4.48	7.20	6.87	4.78	3.05	0.56	0.11	30.23
1934	0.29	0.48	0.91	1.45	3.00	4.78	6.02	6.20	3.98	2.87	0.58	0.19	30.77
1935	0.07	0.20	0.27	1.50	1.91	2.54	4.88	6.02	4.61	2.93	0.26a	0.16	25.34
1936	0.07	0.03	0.45	1.13	1.31	4.99	8.76	6.64	4.71	3.01a	0.48a	0.17	31.76
1937	0.04	0.15	0.34	1.18	2.04	7.26	7.05	6.35	4.36	2.90	0.29	0.15	32.13
1938	0.17	0.10	0.59	1.24	1.26	3.93	5.74	5.88	3.93	2.79	0.40a	0.24	26.28
1939	0.19	0.07	0.27	1.53	1.39	3.60	6.08	5.40	4.86	2.87a	0.69	0.36	27.29
1940	0.15	0.20	0.43	1.43	1.55	4.38	4.77	7.07	4.24	2.98	0.32	0.18	27.70
1941	0.20	0.22	0.48	0.54	1.83	4.56	6.64	6.02	4.39	2.69	0.42	0.19	28.19
1942	0.23	0.11	0.74	0.71	2.57	3.88	4.49	5.39	4.31	3.64	0.50a	0.11	26.68
1943	0.06	0.20	0.19	1.26	2.69	3.42	5.00	6.76	5.61	3.34	0.50	0.29	29.31
1944	0.17	0.09	0.23	0.96	2.43	4.58	5.86	6.08	4.90	3.49	0.39a	0.20	29.39
1945	0.16	0.20	0.89	1.76	2.17	3.25	5.60	6.49	5.34	3.39	0.37a	0.18	29.81
1946	0.09	0.21	0.90	0.86	2.13	4.50	5.56	6.80	5.44	2.46a	0.53a	0.14	29.61
1947	0.12	0.10	0.32	1.29	2.16	4.24	6.89	6.12	4.96	3.09	0.56a	0.11	29.96
1948	0.16	0.08	0.16	1.62	1.97	4.87	7.09	7.40	6.41	3.92a	0.50	0.07	34.25
1949	0.10	0.04	0.28	1.43	2.65	5.71	6.13	5.98	4.88	3.04a	0.97a	0.08	31.28
1950	0.02	0.04	0.28	1.51	1.81	3.75	4.36	5.50	4.69	2.89	0.26a	0.08	25.20
Total	4.10	5.22	12.49	33.55	54.76	124.84	171.68	178.30	136.77	88.16	13.44	5.03	828.34
Average	0.14	0.17	0.42	1.12	1.82	4.16	5.72	5.94	4.56	2.94	0.45	0.17	27.61

a - adjusted according to daily air temperatures

Table 17 - EVAPORATION IN INCHES USING WATER TEMPERATURE

LETHBRIDGE													
Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
1921	0.35	0.34	0.37	1.00	2.29	5.53	7.42	8.13	6.80	4.01a	0.69a	0.47	37.38
1922	0.17	0.08	0.48	1.07	1.95	4.40	5.78	7.16	6.45	3.87	0.94	0.32	32.67
1923	0.56	0.56	1.57	1.04	2.42	4.06	4.71	5.38	4.90	3.46	1.90	1.02	31.56
1924	0.24	1.02	1.07	1.66	2.27	4.22	6.09	6.28	5.35	3.65a	0.59	0.39	32.84
1925	0.47	0.25	0.53	0.82	2.88	4.91	5.98	7.32	4.46	2.71	0.87	0.82	32.04
1926	1.09	1.11	1.22	1.57	3.37	5.38	6.98	6.15	4.49	3.16a	0.75a	0.67	35.96
1927	0.71	0.56	0.90	1.23	1.55	3.06	4.33	6.45	4.81	3.29a	0.47a	0.24	27.60
1928	0.59	0.68	0.90	1.08	2.69	3.91	4.67	5.64	4.93	3.24	1.31	0.62	30.25
1929	0.09	0.10	1.14	1.36	1.76	3.91	6.74	8.09	4.83	3.26a	1.01	0.36	32.66
1930	0.20	1.20	1.10	1.00e	2.44	4.39	5.23	6.11	5.04	2.86a	0.95	1.54	32.05
1931	1.59	1.74	1.13	1.83	2.84	5.04	6.52	6.09	4.61	3.93a	0.72	0.65	36.70
1932	0.37	0.61	0.51	1.18	2.41	4.74	6.90	7.35	5.15	3.22a	1.11	0.72	34.28
1933	0.87	0.68	1.29	1.52	2.13	5.78	7.61	6.14	5.36	3.14	1.81a	0.27	36.59
1934	1.35	1.16	2.21	1.76	4.12	6.05	7.70	7.44	5.04	3.88a	1.35	0.65	42.72
1935	0.36	0.99	0.77	1.57	1.92	4.38	6.79	7.64	6.12	4.04a	0.77	0.90	36.24
1936	0.23	0.21	0.95	1.16	2.66	5.89	8.58	6.82	5.38	3.99a	1.80	0.69	38.36
1937	0.27	0.47	1.02	1.65	3.01	5.77	6.38	7.17	5.06	3.68	0.82	0.63	35.93
1938	0.96	0.16	1.30	1.17	1.71	4.15	6.36	6.59	5.15	3.60a	1.24	1.14	33.52
1939	1.55	0.29	1.15	1.78	3.63	4.48	7.54	8.44	6.28	3.75a	2.52	1.61	43.03
1940	0.40	0.32	1.11	0.93	2.05	5.32	6.49	8.08	4.88	4.02	0.49	1.07	35.15
1941	0.56	0.94	1.20	1.10	3.24	5.70	7.77	6.73	5.55	3.87a	2.15	0.86	39.67
1942	1.73	0.44	1.46	1.47	2.16	4.06	5.52	5.88	5.86	4.32a	0.91	0.61	34.43
1943	0.24	1.42	0.77	1.53	2.99	5.10	7.98	8.14	7.24	4.08	2.11	2.08	43.69
1944	1.76	0.77	0.95	1.39	2.95	6.60	8.21	7.24	5.37	4.28a	0.81a	0.88	41.19
1945	0.69	0.45	1.74	1.57	1.42	3.06	6.05	7.45	5.68	3.71a	0.49	0.42	32.73
1946	1.34	1.06	2.21	1.47	2.71	4.20	7.13	7.64	5.83	3.60a	0.55	0.55	38.31
1947	0.98	0.39	0.41	1.15	2.58	3.76	7.06	6.62	5.56	4.12	0.88a	0.70	34.22
1948	1.36	0.68	0.64	1.12	1.51	3.18	5.88	7.24	6.50	4.54a	1.84	0.40	34.90
1949	0.20	0.18	0.75	1.93	2.91	6.48	7.27	7.43	6.90	3.68a	2.76a	0.22	40.70
1950	0.04	1.01	0.76	1.43	2.74	4.62	5.98	6.76	6.56	3.59a	0.98a	0.91	35.37
Total	21.31	19.86	31.62	40.53	75.33	142.14	197.64	209.57	166.16	110.57	35.58	22.42	1072.74
Average	0.71	0.66	1.05	1.35	2.51	4.74	6.59	6.99	5.54	3.69	1.19	0.75	35.76

a - adjusted according to daily air temperature

e - guessed

Table 18 - EVAPORATION IN INCHES USING WATER TEMPERATURE

Year	CALGARY												
	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
1921	0.38	0.56	0.51	0.99	1.94	4.68	6.50	6.35	6.50	3.93	0.73	0.48	33.54
1922	0.49	0.29	0.62	1.04	1.55	4.34	5.95	5.17	5.58	4.05	1.00a	0.14	30.21
1923	0.58	0.82	1.14	1.83	2.36	4.42	5.47	5.41	4.25	3.03	0.74	0.44	30.49
1924	0.13	0.95	0.50	0.64	2.21	4.59	5.66	5.48	4.98	2.99	0.37	0.12	28.61
1925	0.24	0.21	0.67	0.86	2.87	3.99	5.35	5.83	4.28	2.10a	0.99	0.94	28.33
1926	1.02	0.94	1.50	0.60	2.24	4.19	4.67	5.11	4.77	2.54	0.66a	0.30	28.54
1927	0.23	0.29	0.38	1.29	1.43	2.86	4.14	5.32	4.51	2.80	0.26	0.12	23.93
1928	0.48	0.52	0.61	0.93	2.46	3.44	3.37	4.13	4.26	3.02	1.25	0.47	24.93
1929	0.08	0.09	0.72	0.75	0.92	2.75	7.14	6.90	5.00	2.30	0.55	0.36	27.57
1930	0.34	0.54	0.54	1.04e	1.74	4.20	5.18	6.16	3.83	2.70	0.83	0.59	27.68
1931	0.60	1.33	1.08	1.88	1.79e	3.33	4.80	6.33	4.71	3.00a	0.57	0.34	29.80
1932	0.26	0.32	0.23	0.70e	0.70	2.80	3.92	5.05	4.96	2.70	0.31	0.21	22.15
1933	0.22	0.26	0.57	0.77	1.12	4.06	5.46	6.27	5.28	3.15	1.61	0.22	28.99
1934	1.09	1.15	1.84	1.65	1.92	3.92	4.82	5.88	5.08	3.21	1.12	0.74	32.43
1935	0.33	1.19	0.73	1.64	1.63	3.01	4.73	6.04	5.57	3.07a	0.66	0.88	29.46
1936	0.24	0.08	1.00	1.45	2.26	4.54	6.55	6.26	5.15	3.79	1.54a	0.63	33.43
1937	0.34	0.50	0.89	1.48	2.66	4.68	4.52	6.16	5.06	3.05a	0.73	0.66	30.72
1938	0.87	0.30	1.45	1.44	1.80	3.22	4.97	5.97	4.73	3.06a	0.90	0.67	29.39
1939	0.76	0.23	0.62	1.80	2.67	3.25	4.89	6.86	5.81	2.79a	1.82	0.53	32.02
1940	0.34	0.30	0.62	1.04	1.84	4.62	4.32	7.08	4.11	3.07	0.53	0.63	28.51
1941	0.56	0.70	0.72	1.24	2.38	3.59	5.23	5.94	4.83	3.21	0.89	0.53	29.81
1942	1.18	0.51	1.26	1.48	1.59	3.21	3.76	4.80	4.31	3.59	0.45	0.35	26.50
1943	0.27	0.94	0.63	1.14	2.16	3.29	5.47	6.26	5.92	3.49	1.59	1.51	32.64
1944	0.98	0.57	0.86	1.30	2.33	4.67	5.62	6.08	5.31	4.02	0.92	0.87	33.52
1945	0.63	0.73	1.40	1.50	1.40	2.94	4.66	6.39	5.66	3.23	0.46	0.37	29.37
1946	0.87	0.76	1.46	1.46	2.39	3.45	5.18	6.46	5.58	3.03a	0.67	0.65	31.97
1947	0.94	0.45	0.63	1.54	3.01	3.73	6.47	6.42	5.91	3.08a	0.64	0.74	33.56
1948	1.16	0.36	0.51	1.50	1.63e	3.25	5.98	6.36	6.24	3.61a	1.56	0.36	32.52
1949	0.29	0.16	0.81	1.77	3.26	6.80	6.36	7.61	7.12	3.09a	2.04a	0.26	39.57
1950	0.10	0.58	0.43	1.64	2.61	4.27	4.56	5.38	5.82	3.23	0.58	0.39	29.59
Total	16.02	16.64	24.90	38.38	60.86	116.06	155.99	179.46	155.14	93.95	26.98	15.48	899.84
Average	0.53	0.56	0.83	1.28	2.03	3.87	5.20	5.98	5.17	3.13	0.90	0.52	30.00

a - adjusted according to air temperature
e - guessed

Table 19 - EVAPORATION IN INCHES USING WATER TEMPERATURE

EDMONTON

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
1921	0.34	0.32	0.56	1.35	1.82	3.96	4.88	4.92	4.12	3.10	0.86	0.33	26.55
1922	0.24	0.18	0.48	0.46	2.30	5.22	5.76	4.43	3.78	2.82	0.66	0.15	26.48
1923	0.24	0.34	0.51	1.00	1.32	3.62	4.42	5.02	3.60	3.07	0.92	0.54	24.60
1924	0.25	0.48	0.50	1.07	0.90	4.00	5.20	5.01	4.40	3.06	0.53	0.18	25.58
1925	0.24	0.24	0.55	0.72	2.30	3.97	5.08	5.00	3.72	2.84	0.74	0.29	25.67
1926	0.42	0.48	0.87	1.15	1.70	4.57	5.48	4.84	3.94	2.80	0.36	0.25	26.85
1927	0.19	0.22	0.63	1.28	1.28	3.43	4.18	4.62	4.12	2.74	0.31	0.12	23.12
1928	0.38	0.51	0.78	1.83	2.30	3.46	4.35	4.82	4.55	3.10	0.58	0.28	26.94
1929	0.06	0.18	0.60	1.04	0.88	3.52	5.61	6.03	4.35	2.92	0.54	0.17	25.92
1930	0.06	0.31	0.57	1.10	2.96	4.08	4.47	5.31	4.64	2.82	0.74	0.47	27.53
1931	0.27	0.57	0.58	1.04	1.49	3.09	4.50	5.02	3.75	3.00	0.61	0.33	24.25
1932	0.24	0.36	0.28	1.33	1.71	3.10	4.54	4.75	4.4	3.15	0.47	0.29	24.66
1933	0.20	0.29	0.51	1.06	1.90	4.32	6.12	5.90	4.53	3.22	0.83	0.20	29.09
1934	0.49	0.74	1.21	1.67	3.20	4.55	5.35	5.47	3.98	3.08	0.84	0.33	30.90
1935	0.12	0.36	0.42	1.72	2.18	2.78	4.60	5.36	4.42	3.11	0.28	0.28	25.62
1936	0.12	0.06	0.70	1.32	1.52	4.68	7.12	5.76	4.50	3.20	0.66a	0.29	29.93
1937	0.08	0.24	0.54	1.38	2.31	6.15	6.02	5.57	4.24	3.10	0.49	0.25	30.38
1938	0.37	0.18	1.03	1.79	2.95	4.14	4.92	5.99	4.42	3.26	0.62	0.28	29.95
1939	0.31	0.13	0.48	1.66	2.00	3.62	4.56	6.04	4.62	3.05	0.77	0.55	27.76
1940	0.14	0.16	0.44	0.93	2.09	4.08	3.64	5.60	4.17	2.80	0.36a	0.20	24.61
1941	0.20	0.49	0.52	0.90	1.92	4.00	4.45	4.88	4.65	2.78	0.86	0.32	25.98
1942	0.42	0.53	1.02	1.60	2.28	3.54	3.68	4.83	4.04	3.54	0.55a	0.10	26.14
1943	0.13	0.45	0.37	1.01	2.27	3.79	4.37	5.01	5.54	3.19	0.79a	0.71	27.62
1944	0.39	0.29	0.66	1.35	2.56	5.33	5.17	5.22	4.74	3.59	0.45	0.37	30.12
1945	0.28	0.41	1.00	1.69	2.49	4.38	5.67	5.45	5.13	3.49	0.31a	0.14	30.44
1946	0.24	0.18	0.96	1.33	2.80	3.61	4.94	5.80	4.51	3.49	0.73	0.18	28.79
1947	0.36	0.13	0.39	1.10	2.76	3.78	4.99	5.16	4.63	3.61	0.59a	0.31	27.81
1948	0.52	0.13	0.37	1.24	0.92	3.70	4.95	4.77	4.22	2.99a	0.66	0.19	24.64
1949	0.21	0.10	0.66	1.49	3.24	6.50	5.75	6.39	5.54	3.57	0.89a	0.13	34.47
1950	0.02	0.23	0.46	1.84	2.61	4.68	5.94	6.42	5.51	2.84	0.24	0.14	30.92
Total	7.49	9.27	18.67	38.45	62.99	123.65	150.71	159.39	132.79	93.32	18.24	8.35	823.32
Average	0.25	0.31	0.62	1.28	2.10	4.12	5.02	5.31	4.43	3.11	0.61	0.28	27.44

1921-1937 - correlated from Battleford

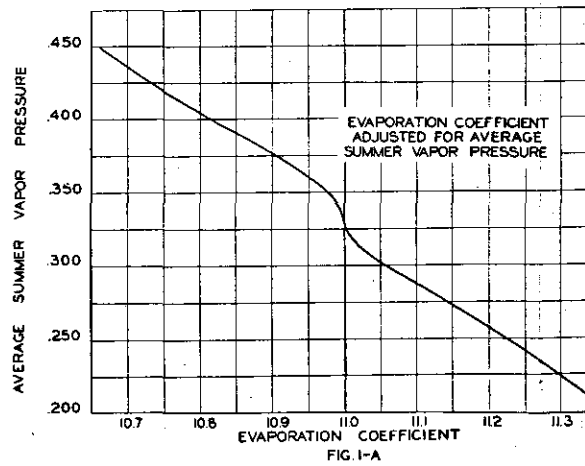
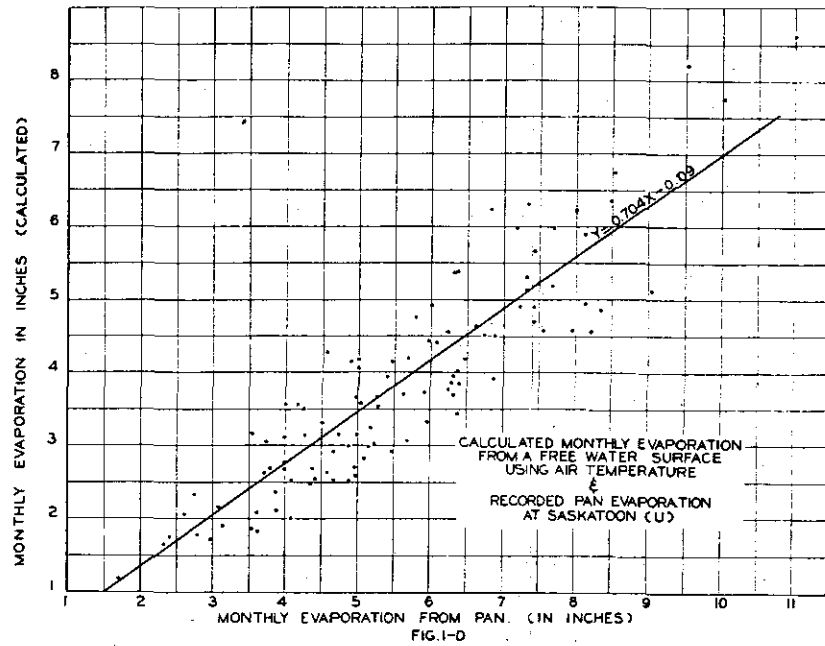
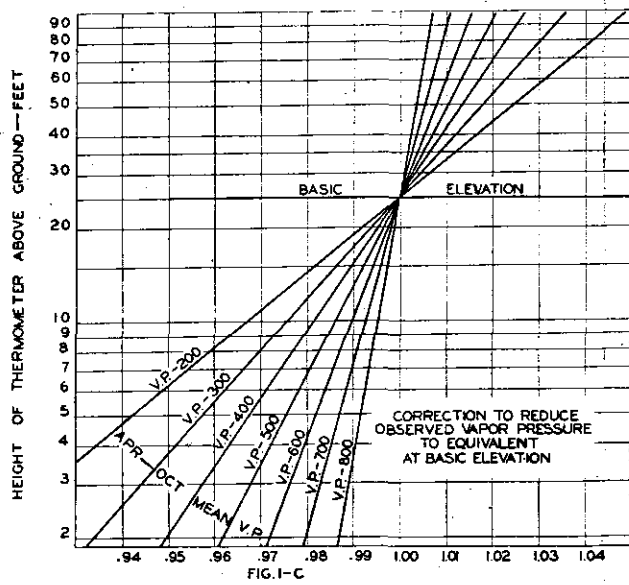
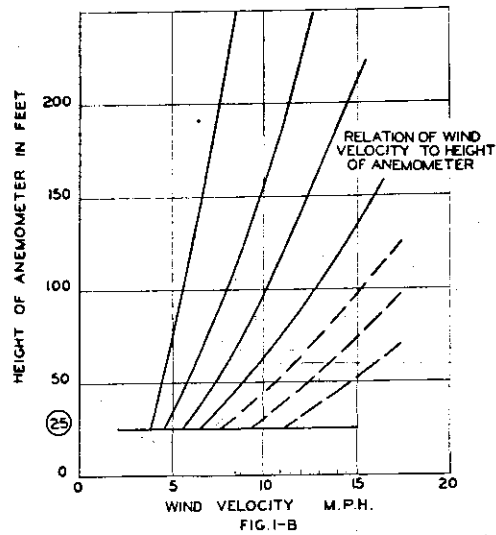
a - adjusted according to daily air temperature

Table 20 - CALCULATION OF MONTHLY EVAPORATION USING AIR TEMPERATURE

Years	SASKATOON								(Example)
	Saturated vapor pressure	Adjusted vapor pressure	Diff. 1 - 2	Wind adjusted to 25 ft. height	$1 + \frac{W}{10}$	Evaporation Coefficient	Monthly Evaporation (Meyer's method)	Evaporation adjusted to Elevation (101.5%)	
	1	2	3	4	5	6	7	8	
<u>1921</u>									
Jan.	0.056	0.046	0.010	6.2	1.62	11.1	0.178	0.181	
Feb.	0.063	0.052	0.011	6.0	1.60	11.1	0.200	0.203	
Mar.	0.077	0.057	0.020	6.2	1.62	11.1	0.355	0.360	
Apr.	0.203	0.139	0.064	6.2	1.62	11.1	1.154	1.171	
May	0.387	0.248	0.139	8.2	1.82	11.1	2.808	2.850	
June	0.616	0.415	0.201	6.4	1.64	11.1	3.663	3.718	
July	0.638	0.418	0.220	5.2	1.52	11.1	3.707	3.763	
Aug.	0.482	0.263	0.219	5.1	1.51	11.1	3.679	3.734	
Sept.	0.373	0.283	0.090	7.2	1.72	11.1	1.721	1.747	
Oct.	0.277	0.195	0.082	6.4	1.64	11.1	1.487	1.509	
Nov.	0.085	0.071	0.014	5.9	1.59	11.1	0.244	0.248	
Dec.	0.056	0.045	0.011	5.4	1.54	11.1	0.189	0.192	
<u>1922</u>									
Jan.	0.040	0.032	0.008	5.1	1.51	11.0	0.132	0.134	
Feb.	0.026	0.021	0.005	5.2	1.52	11.0	0.088	0.089	
Mar.	0.089	0.070	0.019	5.2	1.52	11.0	0.319	0.324	
Apr.	0.237	0.171	0.066	5.2	1.52	11.0	1.100	1.116	
May	0.402	0.295	0.107	7.0	1.70	11.0	2.002	2.032	
June	0.536	0.346	0.190	5.2	1.52	11.0	3.179	3.227	
July	0.595	0.342	0.253	4.7	1.47	11.0	3.982	4.042	
Aug.	0.616	0.450	0.166	4.7	1.47	11.0	2.684	2.724	
Sept.	0.448	0.287	0.161	5.2	1.52	11.0	2.695	2.735	
Oct.	0.247	0.181	0.066	5.1	1.51	11.0	1.100	1.117	
Nov.	0.143	0.117	0.026	4.9	1.49	11.0	0.429	0.435	
Dec.	0.040	0.034	0.006	4.5	1.45	11.0	0.099	0.100	

Table 21 - CALCULATION OF EVAPORATION FOR JULY USING WATER TEMPERATURE

Years	SASKATOON											
	Calc. Water Temp. June	1 x 0.348	Air Temp. July	3 x 0.652	Calc. Water Temp. July	Saturated vapor press. using calc. Water Temp.	Adjusted Vapor Pressure	Diff. 6 - 7	1 + $\frac{W}{10}$	Evap. Coef.	Evap. 8 x 9 x 10	Evaporation adjusted to Elevation (101.5%)
	1	2	3	4	5	6	7	8	9	10	11	12
1921	63.5	22.1	66.0	43.0	69.5	0.719	0.418	0.301	1.52	11.1	5.08	5.15
1922	62.4	21.7	64.0	41.7	67.8	0.680	0.342	0.338	1.47	11.0	5.46	5.55
1923	61.6	21.4	66.0	43.0	68.7	0.700	0.476	0.224	1.45	11.0	3.57	3.63
1924	56.0	19.5	65.8	42.9	66.8	0.657	0.334	0.323	1.62	11.2	5.86	5.95
1925	61.3	21.3	65.7	42.8	68.5	0.695	0.438	0.257	1.63	11.1	4.65	4.72
1926	59.2	20.6	65.0	42.4	67.4	0.670	0.392	0.278	1.51	11.2	4.70	4.77
1927	58.5	20.4	59.2	38.6	63.4	0.583	0.361	0.222	1.54	11.1	3.80	3.85
1928	60.6	21.1	64.4	42.0	67.5	0.673	0.432	0.241	1.53	11.1	4.09	4.15
1929	58.1	20.2	65.6	42.8	67.4	0.670	0.350	0.320	1.70	11.2	6.09	6.18
1930	61.0	21.2	66.4	43.3	68.9	0.705	0.394	0.311	1.47	11.1	5.08	5.15
1931	63.3	22.0	65.5	42.7	69.1	0.709	0.378	0.331	1.60	11.1	5.88	5.97
1932	64.3	22.4	65.5	42.7	69.5	0.719	0.396	0.323	1.64	11.1	5.88	5.97
1933	64.2	22.3	66.8	43.6	70.3	0.739	0.365	0.374	1.70	11.1	7.06	7.16
1934	63.3	22.0	65.8	42.9	69.3	0.714	0.369	0.345	1.66	11.2	6.41	6.51
1935	57.6	20.0	69.1	45.1	69.5	0.719	0.369	0.350	1.65	11.2	6.47	6.56
1936	63.5	22.1	72.1	47.0	73.5	0.824	0.362	0.462	1.74	11.2	9.00	9.14
1937	65.6	22.8	71.0	46.3	73.5	0.824	0.313	0.511	1.72	11.3	9.93	10.08
1938	61.9	21.5	67.8	44.2	70.1	0.734	0.342	0.392	1.56	11.2	6.85	6.95
1939	59.9	20.8	68.5	44.7	69.9	0.729	0.350	0.379	1.65	11.2	7.00	7.11
1940	62.8	21.8	64.7	42.2	68.4	0.693	0.353	0.340	1.59	11.2	6.06	6.15
1941	63.8	22.2	70.5	46.0	72.6	0.799	0.452	0.347	1.51	11.0	5.76	5.85
1942	59.4	20.7	63.4	41.3	66.4	0.648	0.405	0.243	1.52	11.1	4.10	4.16
1943	57.2	19.9	67.5	44.0	68.3	0.691	0.412	0.279	1.58	11.1	4.89	4.97
1944	62.7	21.8	63.7	41.5	67.7	0.677	0.415	0.262	1.63	11.0	4.70	4.77
1945	55.0	19.1	65.9	43.0	66.5	0.650	0.380	0.270	1.64	11.2	4.96	5.03
1946	59.7	20.8	67.3	43.9	69.1	0.709	0.352	0.357	1.62	11.2	6.48	6.57
1947	58.2	20.2	70.9	46.2	70.8	0.752	0.354	0.398	1.64	11.2	7.31	7.42
1948	61.4	21.4	65.9	43.0	68.8	0.703	0.342	0.361	1.62	11.2	6.55	6.65
1949	62.6	21.8	64.1	41.8	68.0	0.684	0.353	0.331	1.62	11.2	6.01	6.10
1950	58.7	20.4	63.8	41.6	66.4	0.648	0.375	0.273	1.56	11.2	4.77	4.84

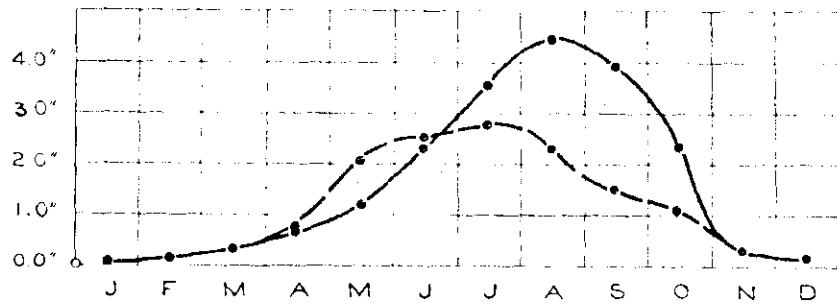


PRAIRIE PROVINCES WATER BOARD

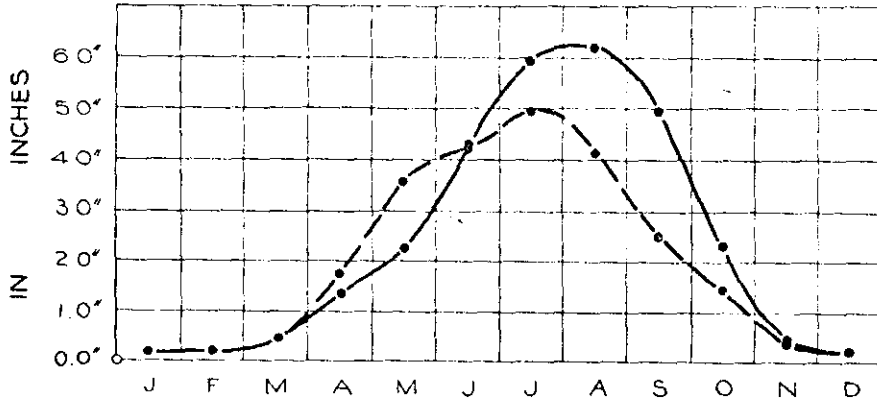
CERTAIN GRAPHS
REFERRED TO
IN TEXT OF REPORT

PREPARED BY: _____
DRAWN BY: *U.L.*

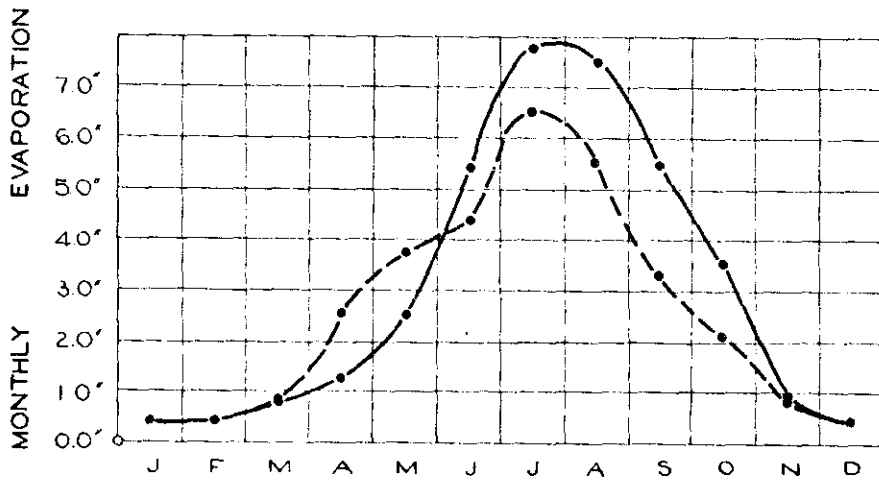
PLAN: HYD 5-8 FIG. 1



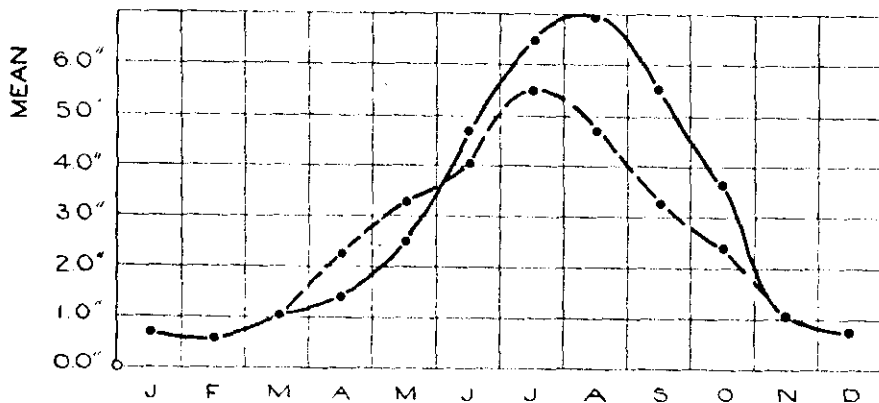
THE PAS



SASKATOON



MED HAT



LETHBRIDGE

USING WATER TEMP. ————
 USING AIR TEMP. - - - -

PRAIRIE PROVINCES WATER BOARD

CALCULATED MONTHLY EVAPORATION
 FOR
 FOUR TYPICAL STATIONS
 1921—1950

PREPARED BY
 DRAWN BY

HYD3-1 FIG. 2

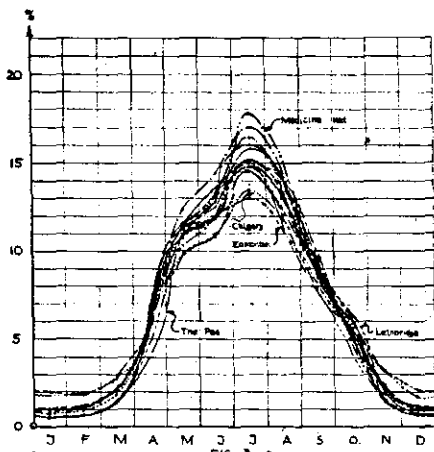


FIG. 3 a

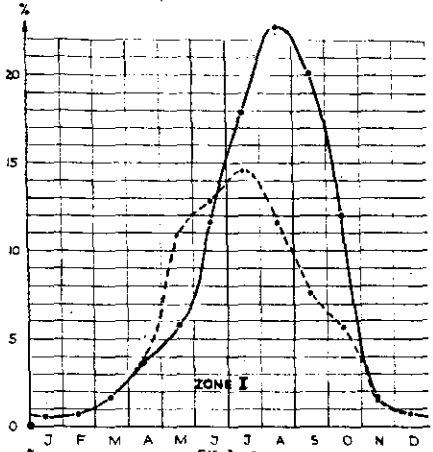


FIG. 3 c

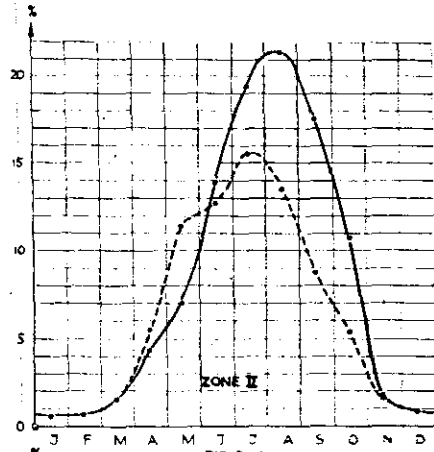


FIG. 3 d

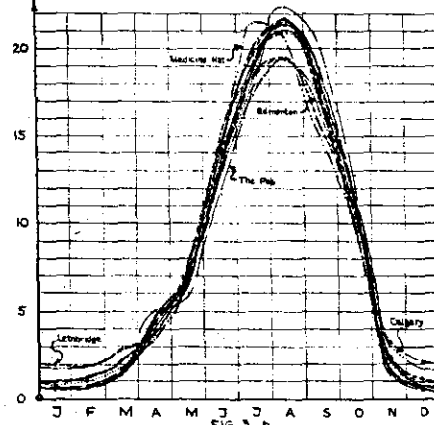


FIG. 3 b

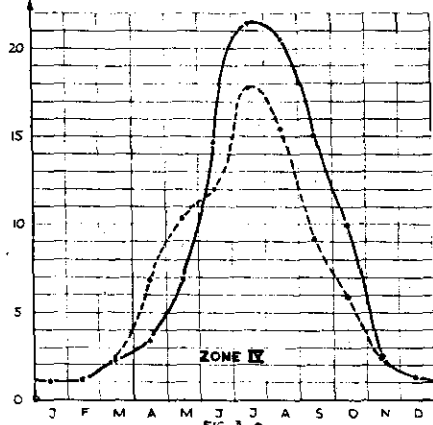


FIG. 3 e

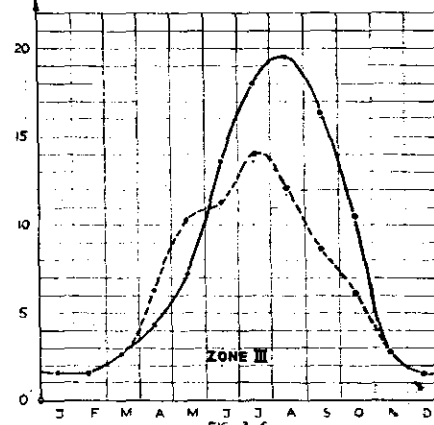


FIG. 3 f

LEGEND FOR FIGURES 3 a & 3 b
 INDIVIDUAL AVERAGE MONTHLY
 PERCENTAGE DISTRIBUTION
 FIG. a USING AIR TEMPERATURE
 FIG. b USING WATER TEMPERATURE

LEGEND FOR FIGURES 3 c, 3 d, 3 e & 3 f
 RECOMMENDED AVERAGE MONTHLY PERCENTAGE
 DISTRIBUTION
 — USING WATER TEMPERATURE
 - - - USING AIR TEMPERATURE

Zone	Year	TOTAL VAPOR FOR LARGE LAKES			TOTAL VAPOR FOR RESERVOIRS		
		Apr.-Oct.	Nov.-Mar.	Year	Apr.-Oct.	Nov.-Mar.	Year
I	100	95.0	5.0	72.3	27.7	100.0	
II	100	94.5	5.5	78.1	21.9	100.0	
III	100	89.7	10.3	78.3	21.7	100.0	
IV	100	91.9	8.1	65.4	34.6	100.0	

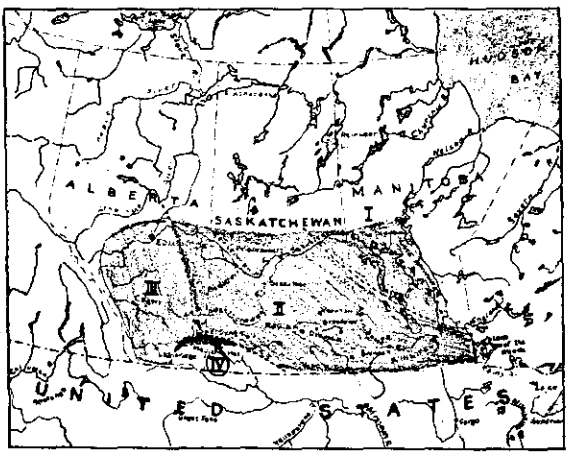


FIG. 3g

PRAIRIE PROVINCES WATER BOARD

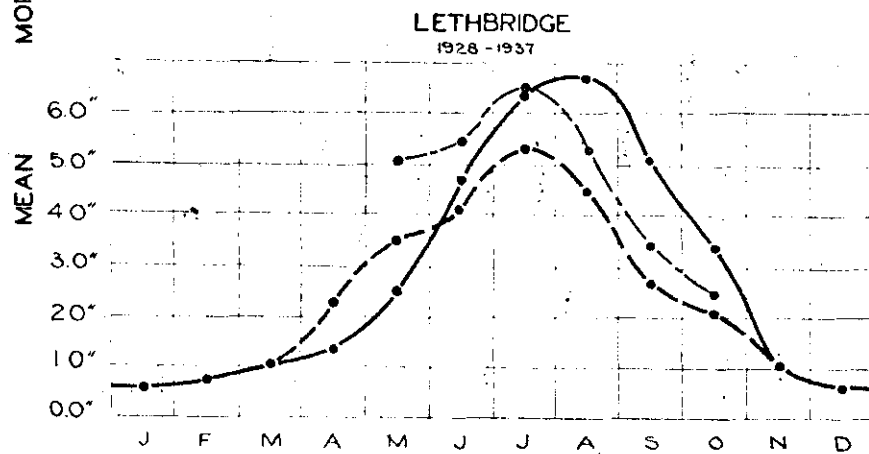
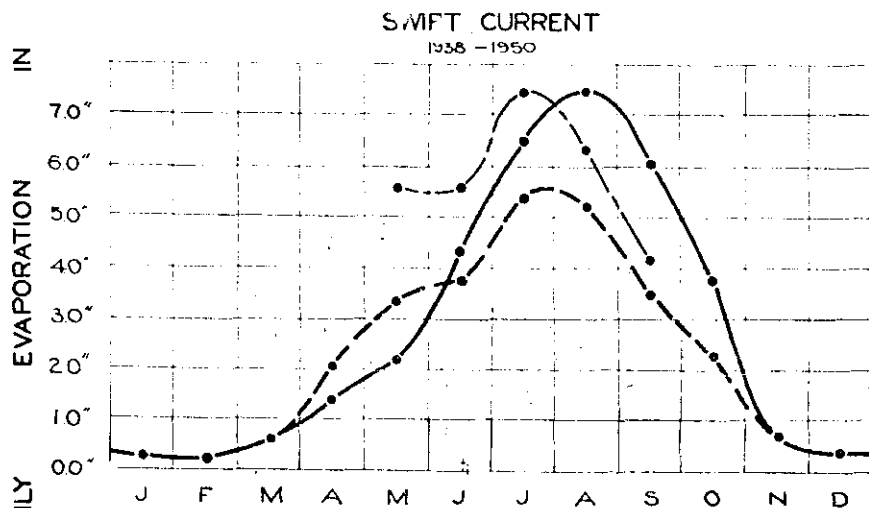
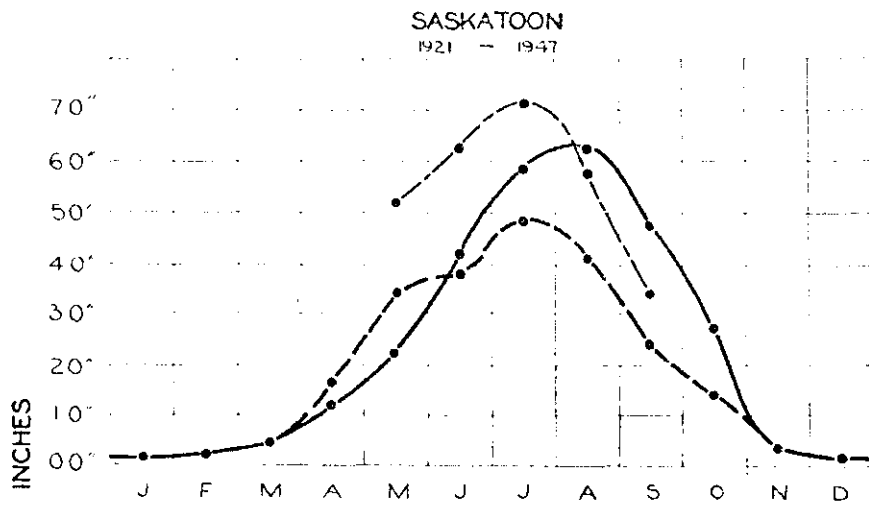
GRAPHS SHOWING MEAN MONTHLY
 DISTRIBUTION OF EVAPORATION
 USING AIR AND WATER TEMPERATURE

SCALE _____ DATE DEC 1962 SHEET _____

PREPARED BY _____

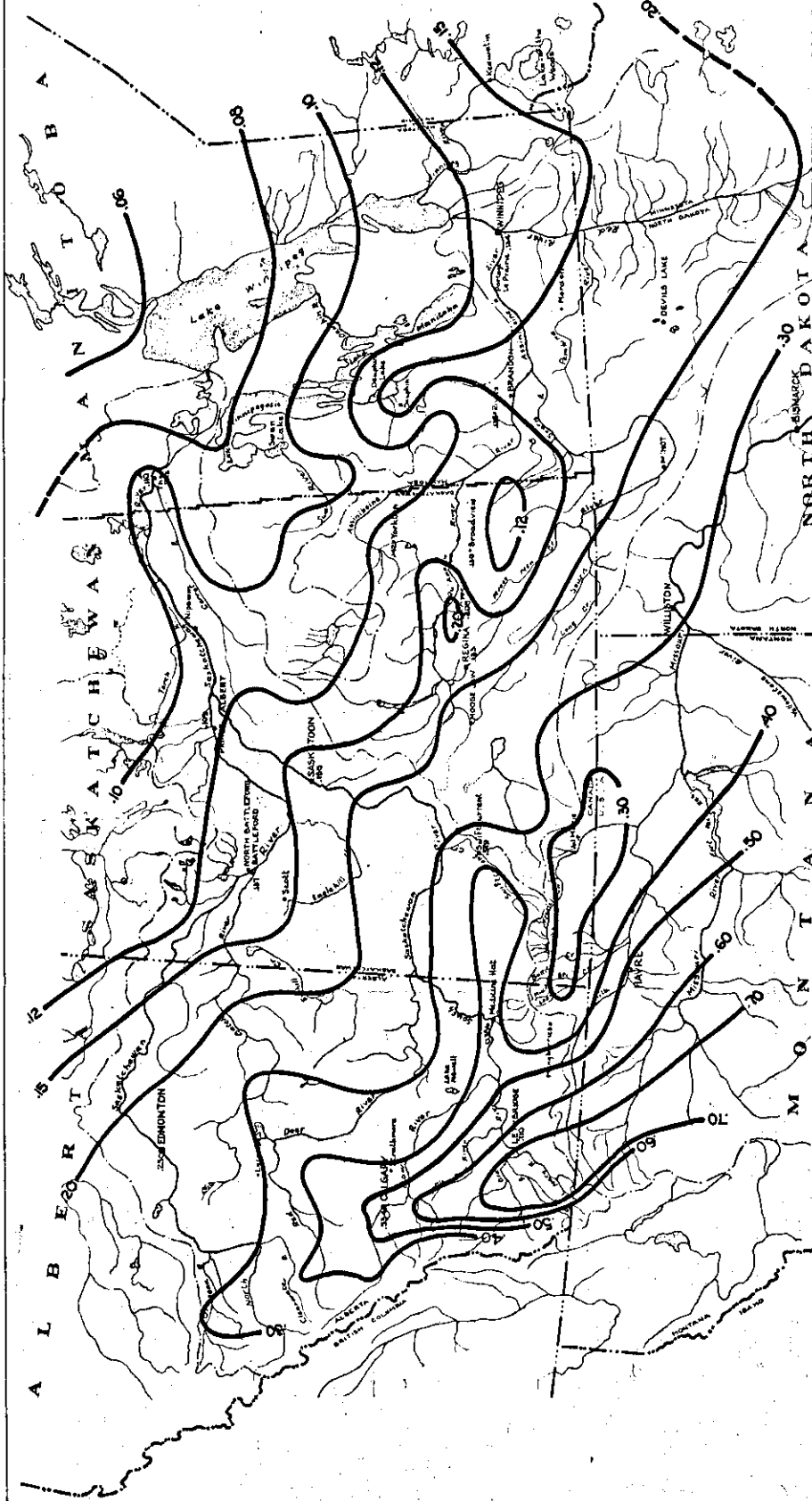
DRAWN BY _____ H.A.R. _____

HYD 4-9 | FIG. 3



USING WATER TEMP ———
 USING AIR TEMP - - - -
 EVAP FROM A PAN - · - ·

PRAIRIE PROVINCES WATER BOARD CALCULATED EVAPORATION & EQUIVALENT PAN EVAPORATION FOR THREE TYPICAL STATIONS		
PREPARED BY _____	HYD3-2	FIG. 4
DRAWN BY: W. J. E. _____		

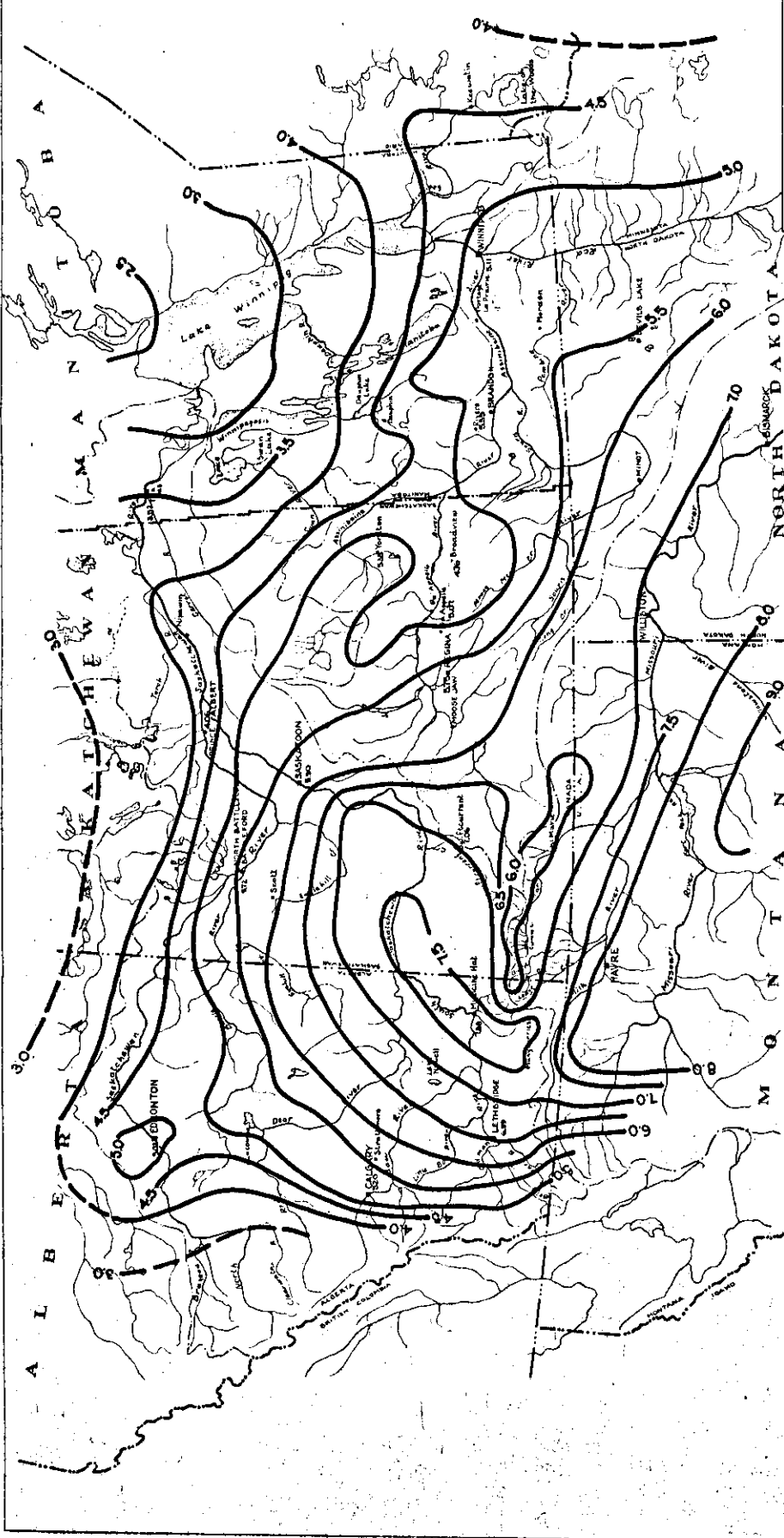


PRAIRIE PROVINCES WATER BOARD
 MEAN JANUARY EVAPORATION FROM
 LAKES & RESERVOIRS
 IN INCHES DEPTH
 (1921-1924)
 SCALE 1:50,000 MILES TO DECEMBER 1952

PREPARED BY
 DRAWN BY

FIG. 5
 W-5-9

NOTE
 These isopleths indicate evaporation from large lakes and reservoirs equivalent in size to Lake of the Woods. Evaporation from smaller and shallower lakes and reservoirs will be greater in spring and substantially less in fall, and less for the entire year. The values shown are based on the mean for Great local differences in topography and climate in hilly regions cause large local differences in evaporation not adequately shown here.



MEAN JULY EVAPORATION FROM LAKES & RESERVOIRS IN INCHES OF DEPTH (1921 - 1950)

SCALE 1:60 MILES DEC. DECEMBER 1952 5-42

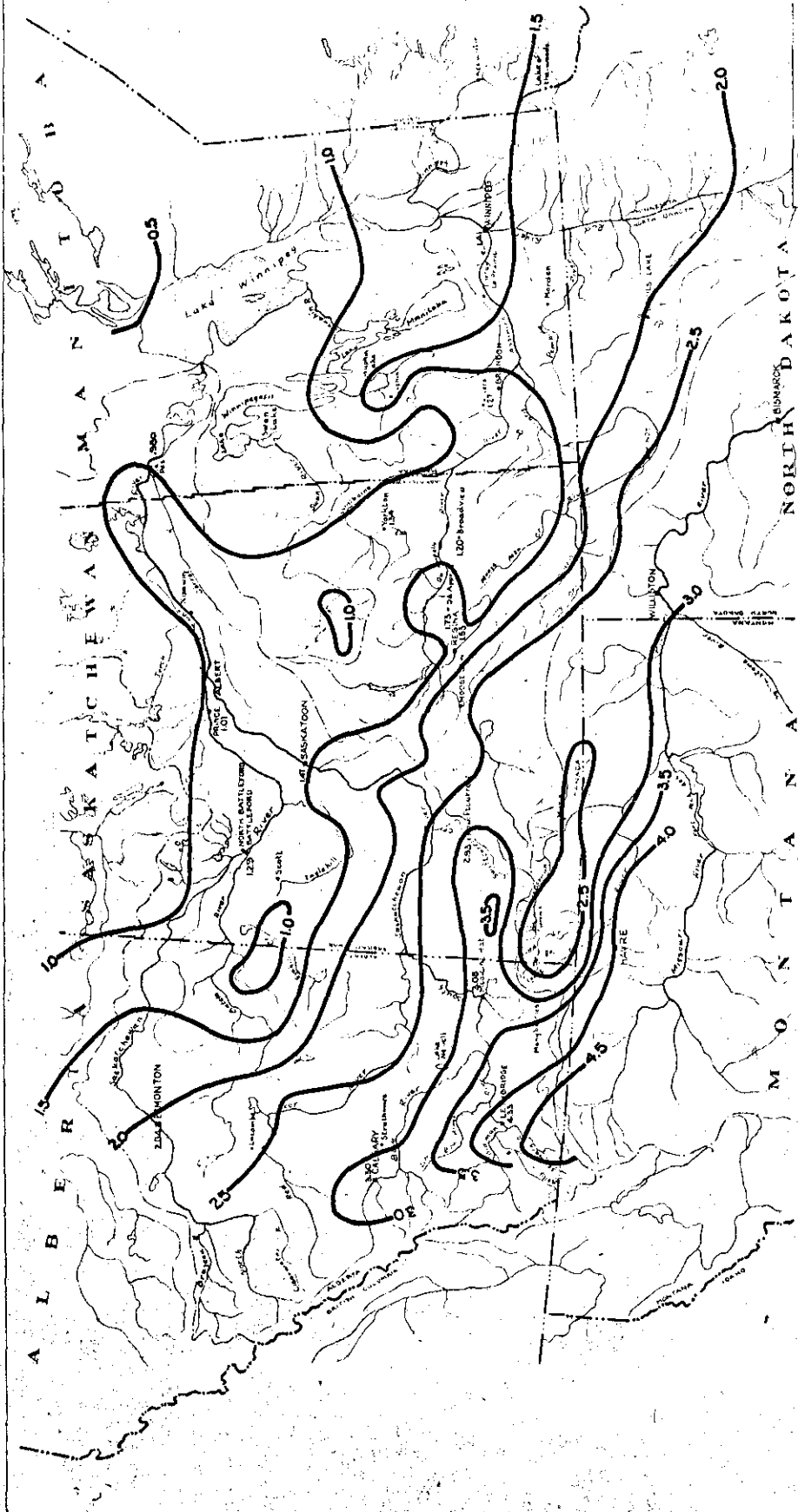
PREPARED BY
DRAWN BY

HYD.5-10 FIG. 6

PRAIRIE PROVINCES WATER BOARD

NOTE

These isopleths indicate evaporation from large lakes and reservoirs equivalent in size to Lake of the Woods. Evaporation from smaller and shallower lakes and reservoirs will be greater in spring and substantially less in fall, and the effect of wind speed on the lakes will be more pronounced. Great local differences in topography and climate in hilly regions cause large local differences in evaporation not adequately shown here.



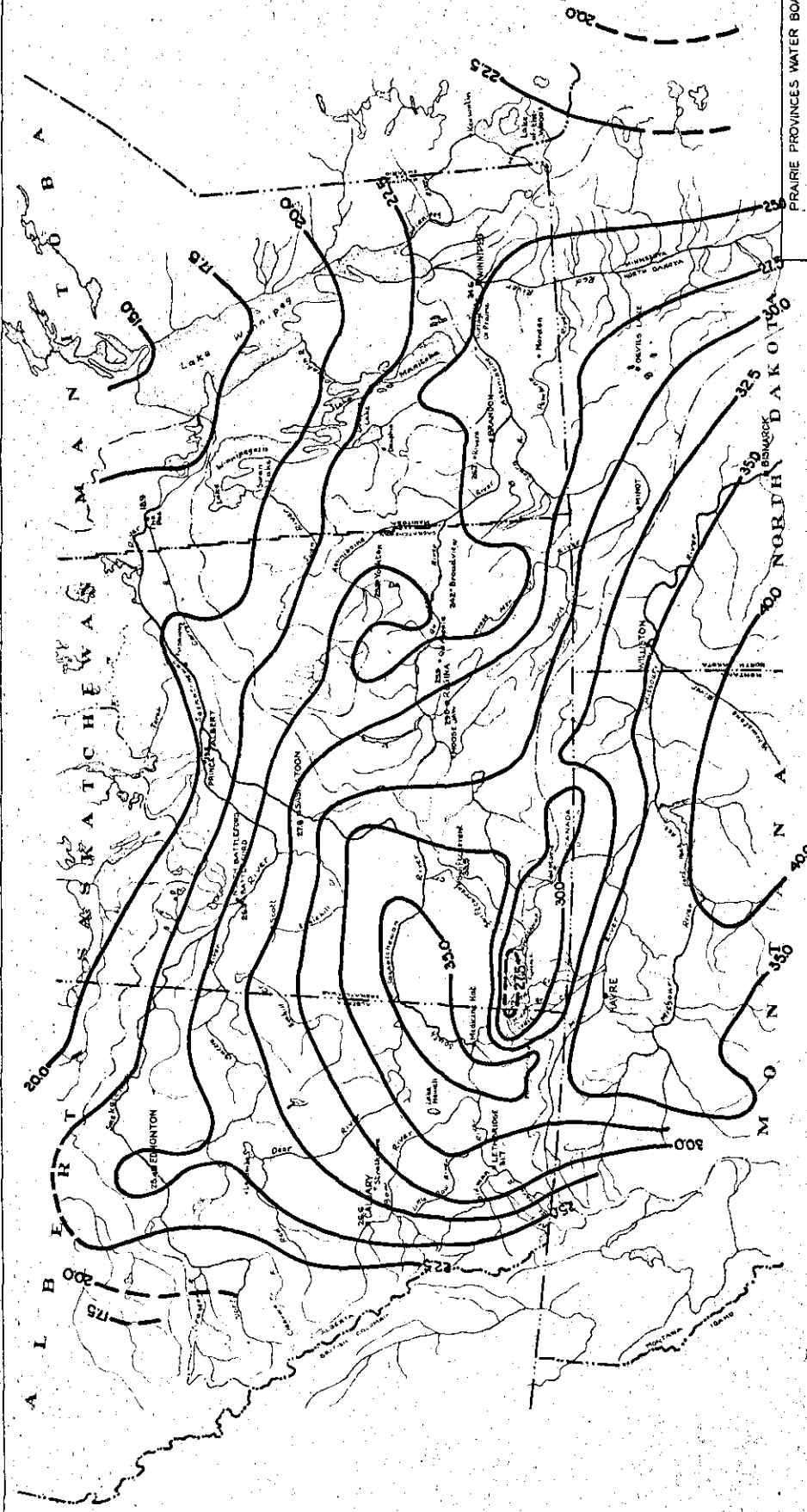
PRAIRIE PROVINCES WATER BOARD

MEAN WINTER EVAPORATION
FROM
LAKES & RESERVOIRS
NOVEMBER TO MARCH
IN INCHES OF DEPTH

SCALE 1:500,000 DECEMBER 1962

PREPARED BY
DRAWN BY

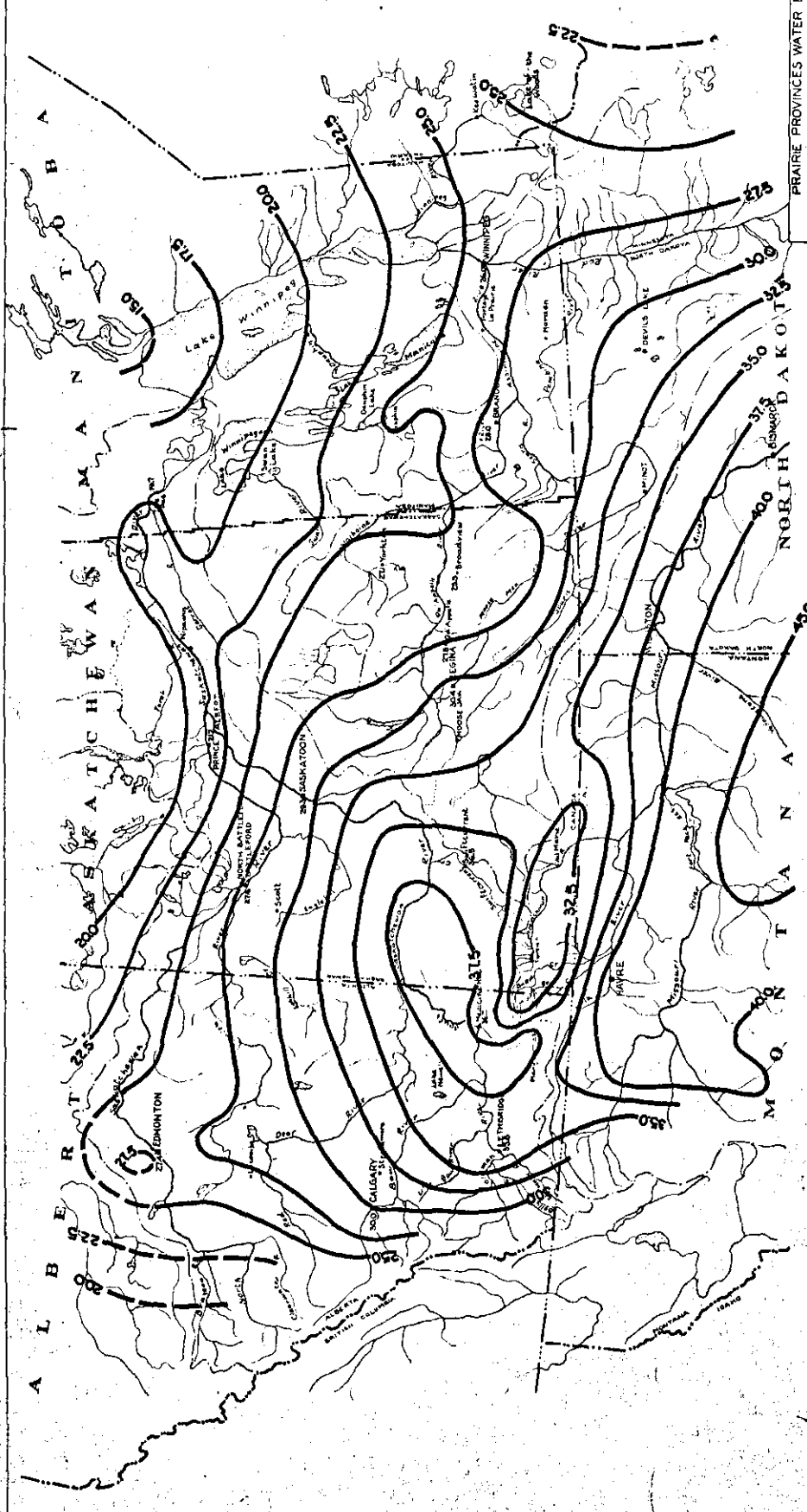
HYD-5-II FIG. 7



NOTE
 These isopleths indicate evaporation from large lakes and reservoirs equivalent in size to Lake-of-the-Woods. Evaporation from smaller and shallower lakes and reservoirs will be greater in spring and substantially less in fall, and less for the year than the values shown. Great local differences in topography and climate in hilly regions cause large local differences in evaporation not adequately shown here.

PRAIRIE PROVINCES WATER BOARD I
 MEAN SUMMER EVAPORATION
 LAKES & RESERVOIRS
 APRIL TO OCTOBER
 IN INCHES DEPTH
 (1921 - 1950)
 SCALE 1:500,000
 PREPARED BY
 DRAWN BY

FIG-5



PRAIRIE PROVINCES WATER BOARD

MEAN ANNUAL EVAPORATION FROM LAKES & RESERVOIRS IN INCHES OF DEPTH (1921-1924)

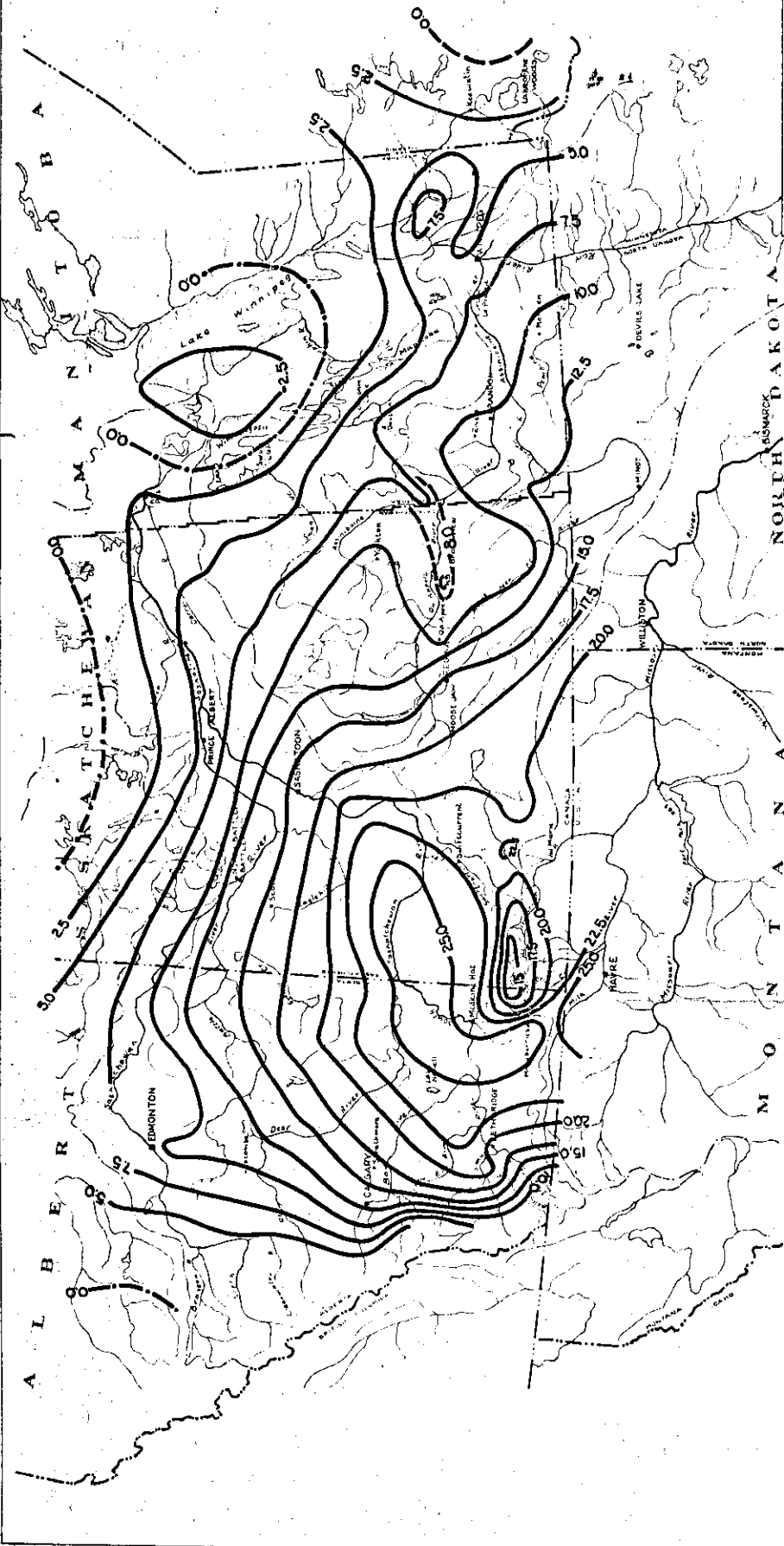
SCALE: 60 MILES DATE: DECEMBER 1952

PREPARED BY: DRAWN BY:

HYD-5-13 FIG. 9

NOTE

These isotherms indicate evaporation from large lakes and reservoirs equivalent in size to Lake-of-the-Woods. Evaporation from smaller and shallower lakes and reservoirs will be greater in some and substantially less in fall, and less for the entire year. Great local differences in topography and climate in hilly regions cause large local differences in evaporation, not adequately shown here.



PRAIRIE PROVINCES WATER BOARD

MEAN ANNUAL EVAPORATION
 — MINUS —
 MEAN ANNUAL PRECIPITATION
 IN INCHES DEPTH
 (1921 - 1950)

SCALE 1:60 MILES DATE: DECEMBER 1952 SHEET

PREPARED BY

DRAWN BY

HYD-5-14 FIG. 10

NOTE:

These isopleths indicate evaporation from large lakes and reservoirs equivalent in size to Lakes-of-the-Woods. Evaporation from smaller and shallower lakes and reservoirs will be greater in spring and substantially less in fall, and less in winter. The isopleths shown are based on the average for the great local differences in topography and climate in hilly regions cause large local differences in evaporation not adequately shown here.

PRAIRIE PROVINCES WATER BOARD

REPORT NO. 5 - SUPPLEMENT A

EVAPORATION FROM LAKES AND RESERVOIRS
ON
THE CANADIAN PRAIRIES

Prepared by: G.A. McKay
Hydrometeorologist

Regina, Saskatchewan
April, 1965

TABLE OF CONTENTS

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<u>SUMMARY</u>	1

TABLES 1 to 15 incl.

Computed evaporation in inches from a free water or ice surface using estimated surface temperatures and the Meyer evaporation formula for lakes and reservoirs (monthly and annual values)

<u>No.</u>	<u>Station</u>
1.	Winnipeg
2.	The Pas
3.	Rivers
4.	Broadview
5.	Yorkton
6.	Qu'Appelle
7.	Regina
8.	Saskatoon
9.	Swift Current
10.	Medicine Hat
11.	Prince Albert
12.	Battleford
13.	Lethbridge
14.	Calgary
15.	Edmonton

EVAPORATION FROM LAKES AND RESERVOIRS ON THE CANADIAN PRAIRIESSUMMARY

This supplement extends the tables of estimated, large-lake evaporation contained in P.P.W.B. Report No. 5, to cover the period 1921 to 1963 inclusive. These tables were listed in the original report as numbers 5 to 19. Estimates for Qu'Appelle terminate in 1954 because of a reduction in the Qu'Appelle weather-observation program.

Report No. 5 noted the lack of systematic water-temperature measurements in prairie lakes. Since water temperatures are required for the procedures outlined in the report, methods of estimating water temperatures were included in the report. In recent years systematic measurements have been made in several reservoirs. These indicate that the assumption that water and air temperatures are equal for very small bodies of water may lead to significant errors in estimating evaporation. There has been no appreciable increase in our knowledge of the temperatures of large prairie lakes; and procedures for their estimation, as outlined in Report No. 5, have been continued in preparing the following tables.

TABLE I - WINNIPEG

Computed Evaporation in Inches from a Free Water or Ice surface using estimated surface temperatures and the Meyer Evaporation Formula for lakes and reservoirs

Monthly and Annual													
Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Annual
1921	0.09	0.09	0.11	0.82	1.46	3.28	5.05	4.50	2.86	2.32a	0.30a	0.09	20.96
1922	0.11	0.09	0.32	0.53	0.99	5.21	5.41	3.65	3.12	2.60	0.64	0.20	22.86
1923	0.16	0.19	0.28	1.23	1.66	3.57	5.00	5.62	4.75	3.28	1.04a	0.41	27.18
1924	0.12	0.29	0.58	0.90	1.84	2.69	4.32	5.11	4.16	3.14	0.47	0.14	23.76
1925	0.14	0.24	0.46	0.54	2.24	2.96	5.16	4.77	3.54	2.28a	0.59	0.28	23.20
1926	0.20	0.31	0.53	0.86	1.74	5.03	5.33	5.05	4.46	2.64	0.62a	0.09	26.87
1927	0.13	0.23	0.76	1.29	1.56	3.22	4.01	5.54	3.94	2.60a	0.47	0.09	23.84
1928	0.13	0.18	0.28	0.91	1.26	3.34	3.36	4.34	4.09	2.20a	0.79	0.29	21.17
1929	0.09	0.12	0.56	0.86	1.81	3.29	5.04	5.85	4.52	2.68	0.39	0.18	25.39
1930	0.10	0.22	0.35	0.84b	1.31	2.88	4.31	4.29	4.29	2.40a	0.49	0.23	21.71
1931	0.18	0.28	0.38	0.75	1.45	3.39	5.18	5.17	3.33	2.82	0.78a	0.27	24.00
1932	0.21	0.16	0.22	0.68	2.14	3.24	5.24	5.16	4.75	2.45a	0.24	0.11	24.60
1933	0.11	0.11	0.33	1.11	1.83	4.63	6.11	6.20	4.46	2.96	0.29	0.11	28.25
1934	0.21	0.19	0.32	1.25	2.15	4.53	5.96	5.85	4.59	2.87	0.55	0.22	28.71
1935	0.09	0.31	0.31	0.96	1.94	3.43	4.00	5.47	4.59	3.22	0.47a	0.16	24.94
1936	0.07	0.08	0.37	0.94b	1.31	4.20	5.66	5.80	4.57	3.04a	0.39	0.20	26.62
1937	0.07	0.13	0.40	0.82	1.50	4.37	5.41	5.32	4.46	3.07	0.44	0.23	26.23
1938	0.12	0.22	0.78	1.26	1.34	4.02	4.52	6.16	4.93	3.56a	0.33	0.22	27.47
1939	0.02	0.07	0.33	1.41	1.72	4.16	6.61	6.16	4.89	2.81a	1.05	0.37	29.61
1940	0.16	0.12	0.36	1.41	1.81	3.71	5.30	6.00	4.42	3.77	0.39	0.13	27.57
1941	0.16	0.14	0.31	0.81b	1.65	4.52	5.80	5.72	4.77	3.18	0.58a	0.21	27.85
1942	0.28	0.14	0.60	0.76	2.15	3.62	5.38	5.47	5.02	3.56	0.47	0.11	27.57
1943	0.10	0.14	0.28	1.54	1.68	3.02	4.82	5.92	5.69	3.53a	0.69a	0.24	27.66
1944	0.20	0.08	0.31	1.43	1.65	4.08	5.80	6.03	4.16	3.03	0.48a	0.17	27.41
1945	0.08	0.08	0.55	1.44	1.52	2.76	4.30	6.00	5.02	3.17	0.34	0.13	25.39
1946	0.12	0.12	0.74	1.28	2.60	4.57	5.63	6.49	5.29	3.32	0.50	0.19	30.86
1947	0.19	0.09	0.19	1.19	1.78	2.99	4.67	4.97	5.09	3.37	0.54a	0.14	25.22
1948	0.17	0.11	0.22	1.00	1.98	4.36	5.09	5.32	5.48	3.50a	0.64a	0.13	28.01
1949	0.08	0.06	0.24	0.85	2.32	4.86	6.40	5.94	5.20	3.32a	0.84a	0.12	30.22
1950	0.13	0.16	0.34	1.32b	0.94	1.43	4.42	5.83	4.07	3.43	1.56a	0.51	24.15
1951	0.11	0.16	0.35	1.22	2.33	4.93	5.96	5.44	4.38	2.98	0.40	0.11	28.37
1952	0.12	0.31	0.42	1.00	2.89	5.48	5.89	5.94	5.31	3.99	0.73	0.23	32.31
1953	0.10	0.14	0.44	1.55	1.37	3.18	5.27	5.59	4.98	3.28	1.15	0.31	27.36
1954	0.09	0.41	0.45	1.49	1.62	2.20	4.23	5.13	4.85	3.48	0.92	0.43	25.30
1955	0.22	0.18	0.30	0.48	2.54	4.80	6.37	6.70	5.64	3.54	0.38	0.21	31.36
1956	0.23	0.22	0.40	1.48	1.50	3.22	4.82	5.44	5.09	3.53	0.59	0.24	26.76
1957	0.13	0.24	0.53	1.07	3.12	4.40	5.57	5.97	4.89	3.22	0.55	0.35	30.04
1958	0.34	0.28	0.95	1.44	3.37	5.72	5.32	6.25	5.49	3.44	0.70	0.21	33.51
1959	0.17	0.20	0.52	1.43	1.91	3.75	5.98	6.34	4.93	2.98	0.38	0.42	29.01
1960	0.20	0.21	0.31	1.21	2.34	4.93	7.34	6.39	5.39	3.90	0.60	0.20	33.02
1961	0.20	0.27	0.59	1.59	2.75	6.43	6.79	7.99	5.43	3.78	0.84	0.20	36.86
1962	0.17	0.31	0.36	1.38	1.33	3.77	5.46	5.46	5.36	3.17	0.61	0.30	27.68
1963	0.11	0.21	0.64	0.98	2.21	3.62	6.24	5.85	5.14	4.25	0.95	0.21	30.41

a - adjusted according to air temperature

b - partially guessed

TABLE 2 - THE PAS

Computed Evaporation in Inches from a Free Water or Ice surface using estimated surface temperatures and the Meyer Evaporation Formula for lakes and reservoirs

Monthly and Annual													
Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Annual
1921	0.16c	0.18c	0.28c	0.94a	1.25	1.80	4.59	5.15	4.60	2.18a	0.32	0.27	21.72
1922	0.12	0.08c	0.44	1.02	1.28	2.66	3.60	3.96	3.73	2.42a	0.55	0.09c	19.95
1923	0.12c	0.19c	0.21c	0.73a	0.74	1.67	2.92	4.31	3.67	2.56	0.43a	0.27c	17.82
1924	0.09c	0.26c	0.31c	0.86	1.01	1.43	2.57	4.63	3.40	2.21	0.09	0.10c	16.94
1925	0.08c	0.10c	0.28c	0.50b	1.34	2.40	2.69	3.63	3.47	2.02a	0.36c	0.14c	17.01
1926	0.19c	0.26c	0.47c	0.72a	1.13	2.02	3.93	4.62	4.42	1.93a	0.19c	0.13c	20.02
1927	0.12c	0.12c	0.36c	0.56	1.33	1.62	1.82	4.25	3.84	1.98	0.16c	0.06c	16.19
1928	0.18c	0.21c	0.40c	0.74a	0.90	2.27	2.96	4.05	4.39	2.33a	0.50	0.22	19.16
1929	0.06	0.04	0.11c	0.62	1.22	1.09	2.80	4.13	3.62	1.94	0.22c	0.10c	15.95
1930	0.04c	0.04c	0.22c	0.50b	0.57	1.16	2.51	3.35	3.46	2.15	0.30	0.12	14.42
1931	0.16c	0.13c	0.09	0.65	0.76	2.51	3.15	3.65	3.15	2.22	0.43	0.08	16.98
1932	0.03	0.14c	0.15c	0.58	0.73	2.55	3.67	3.67	3.60	2.03a	0.22a	0.12c	17.50
1933	0.09c	0.04c	0.08c	0.61a	0.55	1.74	2.97	3.58	4.41	1.82a	0.36c	0.08c	16.33
1934	0.12c	0.16c	0.73c	0.88a	0.91	2.42	4.00	4.82	3.52	1.91	0.22a	0.19c	19.88
1935	0.07c	0.23c	0.24c	0.70a	0.79	1.86	3.58	4.31	3.38	2.00a	0.18c	0.14c	17.50
1936	0.07c	0.04c	0.40c	0.65a	0.77	1.63	2.85	4.02	3.50	2.30a	0.53c	0.13c	16.90
1937	0.06c	0.16c	0.32c	0.44	1.30	3.12	4.52	4.06	3.37	2.11	0.27c	0.12c	19.84
1938	0.12c	0.13c	0.53c	0.87a	0.96	2.00	3.02	4.22	3.28	2.64a	0.27c	0.20c	18.23
1939	0.14c	0.08c	0.25c	0.86a	0.96	2.28	3.36	4.80	4.11	2.22a	0.35c	0.19c	19.60
1940	0.17c	0.20c	0.37c	0.98a	1.51	3.20	4.07	4.97	3.16	2.65	0.30c	0.14c	21.73
1941	0.16c	0.17c	0.38c	0.56	1.05	3.35	4.75	5.07	4.23	2.29a	0.32c	0.16c	22.49
1942	0.17c	0.09c	0.48c	0.62a	1.75	2.86	3.75	4.32	4.11	2.65a	0.26a	0.06	21.10
1943	0.03	0.11	0.12	0.84a	1.64	2.33	3.40	4.78	4.82	2.68	0.37	0.16	21.29
1944	0.18	0.11	0.18	0.90a	1.57	3.99	4.06	5.18	4.06	2.61a	0.42a	0.14	23.41
1945	0.17	0.17	0.54	0.60b	1.22	1.97	3.86	5.30	4.74	2.88	0.22	0.09	21.77
1946	0.14	0.07	0.34	0.99	1.49	2.82	3.87	4.75	4.36	2.62	0.37	0.12	21.96
1947	0.11	0.11	0.23	0.70a	0.95	1.98	3.96	4.53	5.45	2.86a	0.24	0.06	21.19
1948	0.08	0.08	0.12	0.65a	1.17	2.19	4.02	5.02	3.97	3.15	0.43	0.09	20.97
1949	0.08	0.06	0.32	0.94	1.95	3.39	4.83	5.09	4.87	2.85a	0.45	0.06	24.89
1950		0.09	0.29	0.50b	1.26	2.59	3.49	4.67	4.11	2.60	0.21	0.03	19.95
1951	0.06	0.07	0.17	1.44	1.19	2.34	3.83	4.77	4.55	2.54	0.36	0.12	21.44
1952	0.08	0.19	0.22	1.00	1.29	3.52	4.56	5.15	4.07	2.50	0.34	0.11	23.03
1953	0.05	0.14	0.26	1.49	1.23	1.84	3.06	3.91	3.50	2.69	0.93	0.12	19.32
1954	0.09	0.40	0.43	2.18	1.17	1.31	3.53	4.47	3.50	2.50	0.62	0.26	20.45
1955	0.13	0.16	0.26	0.89	1.68	2.81	5.43	6.60	5.20	3.12	0.28	0.10	26.72
1956	0.09	0.15	1.12	1.85	0.92	1.60	3.98	5.03	4.76	2.95	0.40	0.14	22.99
1957	0.09	0.19	0.43	1.64	1.13	2.24	3.74	5.04	4.65	2.92	0.41	0.15	22.63
1958	0.19	0.17	0.46	1.02	1.54	2.95	3.29	5.02	4.13	2.71	0.38	0.12	21.96
1959	0.08	0.15	0.44	1.41	1.24	1.60	3.51	4.80	4.26	2.66	0.23	0.23	20.67
1960	0.07	0.17	0.25	1.46	0.98	2.53	4.65	5.11	5.19	3.02	0.31	0.19	23.93
1961	0.16	0.26	0.44	1.84	1.66	3.30	4.57	5.84	5.58	2.87	0.38	0.13	27.03
1962	0.12	0.13	0.37	1.69	1.14	2.55	5.38	5.95	5.29	3.19	0.47	0.15	26.43
1963	0.14	0.18	0.34	1.53	1.84	2.53	4.55	5.26	4.69	3.13	0.45	0.24	24.88

a - adjusted according to air temperature

b - partially guessed

c - correlated from Prince Albert

TABLE 3 - RIVERS

Computed Evaporation in Inches from a Free Water or Ice surface using estimated surface temperatures and the Meyer Evaporation Formula for lakes and reservoirs.

Monthly and Annual													
Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Annual
1921	0.13	0.14	0.47	0.89	1.72	3.16	5.43	5.85	4.64	3.35	0.14	0.17	26.11
1922	0.12	0.05	0.34	0.48	0.90	4.28	5.49	5.37	5.32	2.99	0.25	0.06	25.65
1923	0.15	0.21	0.23	1.52	0.81	2.67	4.25	5.42	5.36	1.92	0.70	0.39	23.62
1924	0.20	0.44	0.26	1.41	2.62	2.85	4.49	5.08	5.52	3.75	0.26	0.05	26.93
1925	0.11	0.09	0.34	0.67	2.85	3.85	5.05	5.98	5.13	3.01	0.45	0.13	27.67
1926	0.17	0.28	0.57	1.59	1.86	4.66	5.20	5.63	4.50	2.92	0.13	0.13	27.65
1927	0.15	0.12	0.32	1.05	1.40	3.26	3.28	5.21	6.71	2.97	0.12	0.07	24.65
1928	0.20	0.22	0.38	0.94	1.09	2.43	3.10	2.59	4.58	2.38	0.21	0.12	18.23
1929	0.03	0.07	0.13	0.65	0.70	1.77	6.42	7.64	4.98	2.59	0.19	0.07	25.23
1930	0.03	0.12	0.20	0.93	1.75	2.50	4.85	5.26	4.62	2.49	0.34	0.13	23.22
1931	0.13	0.23	0.31	1.36	2.94	6.12	7.52	6.32	4.23	3.22	0.44	0.19	33.00
1932	0.12	0.20	0.20	0.82	2.31	3.30	5.71	6.17	5.10	2.74	0.24	0.14	27.05
1933	0.12	0.17	0.27	1.28	1.57	3.75	5.90	6.11	5.14	3.38	0.56	0.19	28.43
1934	0.34	0.48	0.99	1.79	3.44	5.04	7.51	8.02	5.47	3.67	0.74	0.24	37.73
1935	0.09	0.46	0.54	1.58	1.86	2.70	4.10	6.17	5.55	3.30	0.20	0.28	26.84
1936	0.08	0.08	0.53	1.76	2.51	4.36	5.70	6.88	5.35	3.10	0.46	0.35	31.15
1937	0.07	0.23	0.39	1.07	2.89	7.58	9.12	8.87	5.54	3.40	0.23	0.07	39.45
1938	0.09	0.13	0.71	1.13	2.06	3.99	6.00	6.75	4.63	3.35	0.35	0.16	29.35
1939	0.10	0.07	0.30	1.59	2.12	4.42	6.13	7.40	5.48	3.01a	0.82	0.40	31.84
1940	0.14	0.15	0.30	1.63	2.20	3.53	5.42	6.71	4.49	3.75	0.35	0.11	28.79
1941	0.16	0.11	0.30	0.69	1.63	4.41	5.57	5.36	4.86	2.94	0.40	0.18	26.62
1942	0.22	0.11	0.56	0.87	2.23	3.34	4.34	5.19	4.84	2.45	0.42	0.11	24.68
1943	0.10	0.14	0.21	1.61	1.43	3.02	5.03	6.57	6.44	3.54a	0.55	0.45	29.10
1944	0.24	0.21	0.37	1.37	2.40	4.89	5.70	6.43	4.28	3.46	0.48a	0.21	30.04
1945	0.11	0.17	0.65	1.85	1.64	2.19	4.35	5.77	5.81	3.40	0.27	0.15	26.36
1946	0.10	0.15	0.50	1.05	2.29	4.14	5.68	6.77	5.20	3.22	0.55	0.18	29.83
1947	0.24	0.18	0.25	1.84	1.53	3.07	4.72	5.51	5.44	3.73	0.34	0.14	26.97
1948	0.17	0.14	0.24	1.24	1.58	3.70	5.65	5.26	5.83	3.84	0.43	0.15	28.20
1949	0.16	0.09	0.32	0.89	2.59	4.83	6.01	6.14	5.82	3.80	0.90a	0.17	31.72
1950	0.02	0.16	0.38	1.98	1.14	2.69	4.01	5.70	4.86	3.72	0.30	0.11	25.09
1951	0.08	0.08	0.16	1.33	2.61	4.58	6.21	5.40	4.78	3.00	0.29	0.08	28.66
1952	0.40	0.16	0.23	0.90	3.06	5.71	6.73	6.69	5.12	3.50	0.68	0.11	33.29
1953	0.11	0.18	0.24	1.55	1.57	3.21	5.64	5.96	5.00	3.46	1.21	0.29	28.42
1954	0.12	0.46	0.49	1.86	1.68	2.22	4.46	5.72	5.06	3.71	0.97	0.47	27.22
1955	0.18	0.20	0.26	0.29	1.91	6.34	5.15	5.80	5.27	3.29	0.27	0.16	29.12
1956	0.19	0.21	0.34	1.41	1.07	2.67	4.52	5.38	5.12	3.32	0.51	0.19	24.94
1957	0.11	0.20	0.43	1.11	2.10	3.79	5.56	5.29	4.86	2.84	0.38	0.23	26.90
1958	0.22	0.22	0.69	1.35	3.53	5.41	5.88	6.94	5.96	3.46	0.77	0.30	34.73
1959	0.25	0.29	0.86	1.84	2.53	4.22	6.59	6.81	5.65	2.99	0.47	0.45	32.95
1960	0.22	0.31	0.38	1.52	2.22	5.09	6.64	6.43	5.71	4.02	0.66	0.27	33.47
1961	0.17	0.26	0.55	1.74	2.49	5.94	7.40	9.09	5.69	3.56	0.72	0.18	37.79
1962	0.21	0.17	0.48	1.49	1.50	3.78	5.26	5.92	5.46	3.13	0.78	0.29	28.47
1963	0.25	0.30	0.62	1.07	2.12	3.54	5.24	5.64	5.28	4.40	0.75	0.22	29.43

1921-1938 inclusive - correlated from Broadview

a - correlated from Broadview

TABLE 4 - BROADVIEW

Computed Evaporation in Inches from a Free Water or Ice surface using estimated surface temperatures and the Meyer Evaporation Formula for lakes and reservoirs.

Monthly and Annual													
Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Annual
1921	0.11	0.12	0.40	0.81	1.56	2.88	4.94	5.32	4.22	3.05	0.42a	0.15	23.98
1922	0.10	0.04	0.29	0.43	0.82	3.91	4.99	4.88	4.84	2.72	0.21	0.05	23.29
1923	0.12	0.18	0.19	1.38	0.73	2.43	3.86	4.93	4.88	1.75	0.60	0.33	21.39
1924	0.17	0.38	0.22	1.28	2.39	2.59	4.08	4.62	5.02	3.42	0.22	0.05	24.42
1925	0.09	0.08	0.29	0.61	2.60	3.51	4.59	5.44	4.66	2.74	0.39	0.11	25.11
1926	0.15	0.24	0.49	1.45	1.70	4.24	4.73	5.12	4.09	2.66	0.11	0.11	25.08
1927	0.12	0.10	0.27	0.95	1.28	2.96	2.99	4.74	6.11	2.70	0.10	0.06	22.37
1928	0.17	0.19	0.32	0.86	0.99e	2.21	2.82	2.36	4.16	2.16	0.18	0.10	16.52
1929	0.02	0.06	0.11	0.59	0.64	1.61	5.83	6.95	4.53	2.36	0.16	0.06	22.91
1930	0.02	0.10	0.17	0.84	1.59	2.27	4.41	4.79	4.20	2.26	0.29	0.11	21.06
1931	0.11	0.19	0.26	1.23	2.67	5.57	6.84	5.75	3.85	2.93	0.37	0.16	29.93
1932	0.10	0.17	0.17	0.75	2.10	3.00	5.20	5.61	4.64	2.49	0.20	0.12	24.55
1933	0.10	0.14	0.23	1.17	1.44	3.40	5.36	5.56	4.67	3.07	0.47	0.16	25.78
1934	0.29	0.41	0.84	1.62	3.14	4.58	6.83	7.29	4.98	3.34	0.63	0.21	34.16
1935	0.08	0.40	0.46	1.44	1.69	2.45	3.73	5.61	5.05	2.99	0.17	0.24	24.30
1936	0.07	0.07	0.45	1.60	2.28	3.96	5.18	6.28	4.87	2.82a	0.39	0.30	28.27
1937	0.06	0.19	0.33	0.97	2.63	6.90	8.30	8.06	5.04	3.10	0.40a	0.06	36.02
1938	0.08	0.11	1.12	1.03	1.88	3.63	5.46	6.13	4.21	3.04a	0.40a	0.14	27.22
1939	0.11	0.06	0.29	1.38	1.83	3.63	5.21	7.26	5.09	3.00a	1.21	0.57	29.65
1940	0.14	0.15	0.25	1.29	1.64	3.79	4.71	6.38	4.31	3.18	0.29	0.20	26.33
1941	0.17	0.15	0.29	0.61	1.55	3.75	5.25	5.35	4.99	3.13	0.53	0.37	26.13
1942	0.25	0.24	0.49	0.68	1.48	2.44	3.69	5.03	4.58	2.85a	0.49	0.16	22.36
1943	0.08	0.23	0.28	1.30	1.97	2.75	3.96	5.26	5.29	2.82	0.43	0.46	24.83
1944	0.33	0.14	0.22	1.54	1.62	3.27	4.61	5.26	4.53	3.18a	0.55	0.28	25.52
1945	0.18	0.25	0.73	2.24	2.02	2.08	3.88	6.01	5.53	3.02a	0.27	0.18	26.40
1946	0.22	0.19	0.60	0.49	2.03	2.81	4.76	5.20	4.52	3.19	0.39a	0.18	24.58
1947	0.24	0.17	0.30	1.83	2.92	2.54	3.92	5.72	4.88	3.03a	0.47	0.24	26.26
1948	0.10	0.11	0.24	1.37	0.96	2.65	4.59	4.83	4.81	3.51	0.38	0.11	23.67
1949	0.10	0.06	0.15	1.86	2.34	4.04	4.54	5.54	5.33	3.21	0.82	0.09	28.07
1950	0.03	0.10	0.21	1.38	1.46	3.55	3.58	5.14	4.46	3.22	0.27	0.09	23.49
1951	0.58	0.56	0.60	1.03	1.68	3.38	4.71	5.00	6.31	2.38	0.22	0.06	26.51
1952	0.04	0.09	0.11	0.49	2.14	3.88	4.76	5.56	4.24	3.55	0.49	0.10	25.45
1953	0.08	0.08	0.14	1.37	0.63	3.25	3.77	5.04	5.16	4.16	0.66	0.04	23.38
1954	0.09	0.36	0.32	1.39	1.04	1.36	3.17	4.22	4.14	3.04	0.77	0.34	20.24
1955	0.18	0.16	0.21	0.93	1.04	3.50	4.39	5.90	5.56	3.32	0.33	0.16	25.68
1956	0.19	0.20	0.35	1.62	1.17	3.02	4.06	4.62	5.23	3.26	0.53	0.26	27.37
1957	0.14	0.25	0.38	1.22	1.95	3.24	5.19	5.20	5.21	3.04	0.39	0.30	26.51
1958	0.19	0.22	0.43	1.69	3.09	5.16	5.19	6.57	6.14	3.60	0.62	0.31	33.21
1959	0.22	0.30	0.90	1.99	2.47	3.73	6.09	7.18	5.52	3.03	0.48	0.52	32.43
1960	0.20	0.26	0.37	1.61	2.04	3.76	5.52	6.67	6.17	3.93	0.52	0.28	31.33
1961	0.24	0.30	0.58	1.80	2.19	5.63	7.36	8.78	6.09	3.48	0.65	0.20	37.30
1962	0.25	0.19	0.34	1.26	1.64	3.16	5.15	5.85	5.52	3.29	0.97	0.34	27.96
1963	0.22	0.23	0.59	1.10	1.62	2.77	4.31	5.62	5.30	4.37	0.91	0.28	27.32

a - guessed according to daily air temperature

e - guessed

TABLE 5 - YORKTON

Computed Evaporation in Inches from a Free Water or Ice surface using estimated surface temperatures and the Meyer Evaporation Formula for lakes and reservoirs.

Monthly and Annual													
Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Annual
1921	0.16	0.18	0.32	1.10	1.35	2.91	4.78	5.92	4.05	2.04	0.22	0.17	23.20
1922	0.12	0.08	0.29	0.67	0.76	3.42	5.15	3.94	4.19	2.53	0.39	0.09	21.62
1923	0.14	0.16	0.23	1.11	2.02	2.20	3.37	4.02	3.75	2.36	0.54	0.34	20.23
1924	0.17	0.27	0.29	1.15	1.77	3.02	5.52	4.60	4.26	3.07	0.33	0.08	24.54
1925	0.13	0.13	0.30	0.86	2.07	2.93	4.38	5.23	4.15	1.93	0.42	0.17	22.70
1926	0.23	0.28	0.61	1.33	1.03	4.18	4.43	4.76	4.13	1.86	0.20	0.15	23.20
1927	0.12	0.12	0.33	1.00	1.19	2.54	3.57	3.90	4.09	2.27	0.17	0.07	19.40
1928	0.18	0.26	0.47	1.44	2.33	3.48	3.85	5.34	4.61	2.32	0.40	0.20	24.89
1929	0.03	0.07	0.36	0.93	1.19	3.52	5.74	6.51	4.33	2.81	0.32	0.12	25.94
1930	0.05	0.17	0.35	0.86	2.53	3.47	4.78	5.25	4.01	2.18	0.47	0.25	24.38
1931	0.19	0.41	0.39	1.44	2.50	4.78	5.54	5.17	3.52	2.61	0.45	0.28	27.28
1932	0.14	0.20	0.20	0.91	2.44	4.18	5.54	5.57	4.43	2.23	0.31	0.20	26.36
1933	0.12	0.18	0.37	1.12	1.63	4.91	6.65	6.37	4.34	1.87	0.70	0.14	28.40
1934	0.36	0.53	0.91	1.60	3.45	4.52	6.04	6.16	4.54	2.54	0.66	0.24	31.54
1935	0.08	0.26	0.33	1.48	2.21	3.75	6.09	6.76	5.28	3.23	0.20	0.22	29.89
1936	0.06	0.05	0.47	1.66	3.52	5.56	8.48	7.77	5.48	2.86	0.77	0.23	36.90
1937	0.07	0.20	0.48	1.51	3.52	7.74	9.36	7.77	5.52	3.15	0.36	0.18	39.87
1938	0.16	0.12	0.57	1.28	2.36	4.61	6.45	6.27	4.77	3.10	0.31	0.28	30.28
1939	0.20	0.09	0.34	1.57	2.38	4.39	6.60	7.63	5.52	2.83	0.91	0.47	32.93
1940	0.14	0.24	0.44	1.50	2.91	5.48	5.70	7.84	4.53	3.20	0.32	0.22	32.52
1941	0.16	0.20	0.43	0.94	2.59	4.54	5.43	6.36	4.53	2.50	0.37	0.17	28.21
1942	0.28	0.11	0.47	0.95	2.32	3.49	4.56	4.68	4.78	3.04e	0.38	0.10	25.17
1943	0.08	0.17	0.18	0.86	2.14	3.08	4.50	6.24	4.48	3.08	0.43	0.29	25.53
1944	0.24	0.50	0.18	1.12	1.71	5.07	6.00	6.99	5.07	3.36	0.30	0.26	30.79
1945	0.09	0.20	0.54	1.69	1.71	2.08	4.02	5.72	5.23	2.81e	0.27	0.14	24.50
1946	0.10	0.06	0.53	1.26	2.16	4.14	5.57	6.03	4.71	3.01	0.41	0.10	28.07
1947	0.15	0.04	0.27	1.18	1.36	2.30	4.57	5.77	5.28	3.39	0.23	0.17	24.72
1948	0.16	0.12	0.21	1.53	1.12	3.12	4.89	5.43	5.18	3.03e	0.47	0.15	25.42
1949	0.09	0.06	0.36	1.21	2.38	4.48	5.66	6.14	5.56	2.57e	0.80	0.10	29.41
1950	0.06	0.15	0.23	1.77	1.46	3.69	4.31	5.83	4.71	3.46	0.46e	0.14	26.25
1951	0.08	0.11	0.14	1.33	1.39	3.99	4.87	5.22	4.53	2.69	0.27	0.09	24.71
1952	0.08	0.16	0.26	1.73	1.95	4.53	5.68	6.30	4.88	3.69	0.67	0.14	30.07
1953	0.09	0.15	0.13	1.35	0.95	2.36	4.11	5.27	5.39	3.13	0.79	0.32	24.04
1954	0.11	0.54	0.34	1.87	1.40	2.52	3.88	5.42	5.01	3.58	0.81	0.41	25.89
1955	0.21	0.23	0.32	0.76	2.11	4.43	5.15	6.38	5.84	3.90	0.32	0.17	29.82
1956	0.16	0.22	0.41	1.78	1.49	3.42	4.80	6.08	5.78	3.64	0.57	0.27	28.62
1957	0.15	0.25	0.39	1.30	2.49	4.06	6.31	5.53	5.52	3.30	0.48	0.33	30.11
1958	0.29	0.22	0.56	1.21	3.08	5.38	5.96	6.83	5.45	3.26	0.48	0.20	32.92
1959	0.13	0.23	0.75	1.80	2.92	4.18	6.20	6.36	5.18	2.94	0.43	0.39	31.51
1960	0.16	0.21	0.33	1.33	1.94	4.58	6.55	6.53	5.82	3.62	1.52	0.27	32.86
1961	0.20	0.28	0.59	1.89	2.37	5.85	7.58	9.24	6.97	3.66	0.66	0.17	39.46
1962	0.18	0.11	0.28	1.37	1.68	3.60	6.30	6.75	5.67	3.51	0.80	0.27	30.52
1963	0.20	0.25	0.39	1.28	1.88	3.65	5.11	5.90	5.40	4.33	0.75	0.27	29.41

1921-1941 - correlated from Saskatoon

e - guessed according to daily air temperature

TABLE 6 - QU'APPELLE

Computed Evaporation in Inches from a Free Water or Ice surface using estimated surface temperatures and the Meyer Evaporation Formula for lakes and reservoirs.

Monthly and Annual													
Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Annual
1921	0.26	0.28	0.54	1.26	1.70	3.09	5.54	6.03	5.00	3.08a	0.36a	0.27	27.42
1922	0.19	0.10	0.50	0.82	1.33	4.02	5.23	5.30	4.92	3.03a	0.60a	0.14	26.17
1923	0.20	0.26	0.35	1.29	2.06	3.11	4.04	5.26	4.97	3.44	0.86	0.49	26.34
1924	0.16	0.43	0.38	1.31	2.23	3.12	4.62	5.22	5.17	3.50a	0.43a	0.04	26.63
1925	0.19	0.18	0.48	0.76	2.42	3.95	5.29	5.90	4.73	2.28a	0.60	0.23	27.00
1926	0.34	0.32	0.61	1.52	2.14	4.74	5.12	5.57	4.44	2.46a	0.45a	0.24	27.95
1927	0.22	0.19	0.48	1.17	1.13	3.16	3.57	4.98	4.80	2.59a	0.42a	0.10	22.81
1928	0.28	0.06	0.57	1.00	1.76	3.00	3.70	4.32	4.43	2.28a	0.47	0.19	22.06
1929	0.03	0.11	0.68	0.82	1.00	1.99	6.07	7.12	4.94	2.70	0.31	0.16	25.93
1930	0.07	0.25	0.34	1.02	1.77	2.79	4.69	5.43	4.77	2.36a	0.49	0.28	24.26
1931	0.25	0.22	0.44	1.30	2.68	5.50	6.90	6.03	4.49	3.07a	0.52	0.33	31.74
1932	0.16	0.28	0.25	0.90	2.11	3.51	5.58	6.02	4.98	2.50	0.34	0.23	26.86
1933	0.17	0.22	0.43	1.33	1.56	3.91	5.69	5.62	5.24	2.77a	0.64	0.19	27.76
1934	0.41	0.54	0.96	1.54	3.06	5.14	6.87	7.27	5.21	3.46	0.78	0.29	35.54
1935	0.13	0.53	0.55	1.60	1.70	2.62	4.02	5.89	5.24	3.34	0.49a	0.25	26.35
1936	0.10	0.09	0.58	1.80	1.96	4.25	5.36	6.32	5.09	3.31a	0.38a	0.30	29.54
1937	0.09	0.19	0.52	1.20	2.57	5.74	7.11	7.70	5.35	3.06a	0.60a	0.15	34.28
1938	0.11	0.10	0.57	1.00	1.77	3.46	5.04	5.91	4.66	3.51a	0.40	0.30	26.81
1939	0.20	0.10	0.41	1.24	1.89	4.13	5.64	6.91	5.60	3.09a	1.19	0.64	31.04
1940	0.18	0.24	0.56	1.21	2.10	4.35	5.74	4.30	4.44	3.54	0.37	0.31	27.33
1941	0.22	0.21	0.45	0.80	1.80	3.68	5.48	5.73	5.32	3.31	0.70	0.47	28.18
1942	0.43	0.30	0.58	0.89	1.61	3.21	4.11	5.10	4.70	3.56	0.61	0.24	25.33
1943	0.09	0.79	0.35	1.27	2.30	3.35	4.43	5.71	5.62	3.01	0.88a	0.61	28.42
1944	0.38	0.20	0.33	1.38	1.98	4.08	5.32	6.11	4.72	3.34a	0.50	0.41	28.76
1945	0.24	0.28	0.94	1.68	2.15	2.82	4.54	6.17	5.84	3.39a	0.39	0.25	28.69
1946	0.30	0.27	0.84	1.24	2.01	3.39	5.17	5.70	4.89	3.03a	0.35	0.26	27.45
1947	0.33	0.41	0.38	1.76	1.90	3.26	3.44	6.04	5.13	2.75	0.57	0.31	26.27
1948	0.24	0.18	0.33	1.40	1.21	3.15	5.25	5.05	5.25	3.20	0.77a	0.19	26.22
1949	0.14	0.09	0.30	0.69	2.60	3.77	4.69	5.63	5.44	3.09a	1.00	0.09	27.53
1950	0.03	0.16	0.30	1.56	1.64	3.66	3.97	5.46	4.37	3.26a	0.57a	0.16	25.13
1951	0.08	0.13	0.14	1.15	1.86	3.75	4.82	5.33	4.47	2.72	0.44	0.13	25.02
1952	0.08	0.18	0.24	0.52	2.30	4.62	5.33	5.86	4.58	3.88	0.69	0.15	28.42
1953	0.16	0.18	0.28	1.33	1.01	2.04	4.41	5.24	5.00	2.50	0.88	0.43	23.46
1954	0.11	0.62	0.42	1.55	1.08	2.07	3.33	4.53	4.17	3.06	0.95	0.47	22.36

a - adjusted according to daily air temperature

TABLE 7 - REGINA

Computed Evaporation in Inches from a Free Water or Ice surface using estimated surface temperatures and the Meyer Evaporation Formula for lakes and reservoirs.

Monthly and Annual													
Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Annual
1921	0.12	0.17	0.50	1.09	2.02	3.26	4.43	5.85	4.44	3.24	0.31	0.19	25.62
1922	0.97	0.48	1.00	0.70	1.59	4.41	5.14	5.14	5.03	2.91	1.00	0.07	28.42
1923	0.14	0.08	0.30	1.25	2.40	3.36	3.94	5.07	4.94	3.32	0.67	0.34	25.80
1924	0.08	0.30	0.32	1.18	2.50	3.23	5.23	4.85	5.30	3.47	0.48a	0.08	27.02
1925	0.11	0.16	0.38	0.54	1.86	4.07	5.82	5.86	4.02	2.74a	0.50	0.88	26.94
1926	0.22	0.33	0.75	1.52	1.99	5.31	5.64	5.37	4.43	3.68a	0.47a	0.15	29.85
1927	0.15	0.22	0.35	1.01	0.97	3.66	3.73	5.01	4.40	3.06	0.37a	0.07	23.01
1928	0.18	0.28	0.51	0.83	1.83e	3.17	3.65	4.80e	3.73	2.50	0.37	0.10	21.94
1929	0.03	0.07	0.38	0.58	0.98	2.34	7.26	7.96	4.83	3.21	0.37a	0.19	28.21
1930	0.03	0.14	0.28	1.44e	2.19	2.99	5.13	5.25	4.04	2.60	0.40	0.24	24.78
1931	0.17	0.37	0.41	1.65	3.48	7.17	7.91	6.12	4.24	3.23	0.53	0.31	35.58
1932	0.19	0.23	0.20	1.00	2.81	4.28	6.30	6.69	7.80	2.60	0.25	0.16	32.51
1933	0.14	0.19	0.45	1.46	2.05	4.49	7.13	6.56	7.70	3.03	0.63	0.85	34.69
1934	0.38	0.78	1.19	1.93	4.01	5.90	8.51	8.57	5.91	3.71a	0.78	0.27	41.94
1935	0.19	0.43	0.61	1.68	1.74	3.38	3.35	6.96	6.96	3.41	0.27	0.14	29.12
1936	0.09	0.08	0.58	1.64	3.14	5.52	7.44	7.94	6.08	3.25a	0.52	0.40	36.66
1937	0.08	0.08	0.56	1.46	3.47	7.71	9.54	9.52	5.96	3.82a	0.59a	0.14	42.92
1938	0.08	0.06	0.46	0.80	2.24	3.93	5.78	6.73	5.55	3.46a	0.53a	0.26	29.39
1939	0.25	0.26	0.39	1.59	2.74	4.52	7.00	8.23	6.02	3.25a	0.66	0.28	35.18
1940	0.16	0.20	0.49	1.55	2.62	5.46	6.78	9.02	5.25	3.80a	0.50a	0.17	36.00
1941	0.12	0.09	0.29	0.96	1.88	5.49	6.75	5.95	5.77	3.24a	0.50	0.63	31.68
1942	0.20	0.16	0.43	0.81	2.15	4.15	4.04	5.25	4.73	3.07a	0.40	0.12	25.50
1943	0.54	0.15	0.24	1.33	2.52	3.66	4.93	7.23	6.29	3.55	0.54	0.41	31.39
1944	0.28	0.16	0.25	1.18	2.38	4.48	5.21	6.98	5.29	3.91	0.44	0.29	30.84
1945	0.12	0.20	0.71	1.45	2.33	3.10	4.58	6.63	5.49	3.52	0.45a	0.18	28.78
1946	0.17	0.22	0.54	1.80	2.44	4.25	5.44	6.97	5.23	3.09a	0.41	0.12	30.68
1947	0.11	0.09	0.19	1.12	2.19	2.64	5.59	5.74	5.57	3.67	0.38a	0.52	27.82
1948	0.12	0.07	0.27	1.26	1.94	4.11	5.69	6.18	6.06	3.68a	0.60a	0.08	30.06
1949	0.04	0.04	0.16	2.29	3.02	5.44	6.16	6.95	6.11	3.16a	0.79a	0.08	34.25
1950	0.02	0.07	0.19	1.45	1.52	3.52	4.44	5.98	5.13	3.13a	0.37a	0.08	25.91
1951	0.06	0.08	0.08	1.34	2.26	4.26	5.46	5.76	4.77	2.73	0.33	0.07	27.20
1952	0.06	0.15	0.19	0.78	2.18	5.65	5.82	6.35	4.61	3.99	0.74	0.22	30.74
1953	0.12	0.16	0.30	1.39	1.28	2.66	4.91	6.51	6.83	3.68	0.94	0.45	29.23
1954	0.12	0.64	0.52	1.67	1.54	2.47	4.70	5.38	5.08	3.76	1.07	0.48	27.42
1955	0.23	0.21	0.28	0.65	1.31	4.29	4.68	6.26	5.72	3.60	0.31	0.24	27.78
1956	0.23	0.21	0.38	1.52	1.06	4.39	4.38	5.96	5.72	3.29	0.46	0.20	27.80
1957	0.10	0.22	0.46	1.19	2.52	4.43	6.41	6.63	5.97	3.00	0.42	0.37	31.72
1958	0.31	0.26	0.52	1.32	3.52	6.36	6.65	7.89	7.26	4.04	0.56	0.25	38.94
1959	0.13	0.24	0.82	1.73	3.29	4.83	7.38	8.10	6.11	2.89	0.32	0.24	36.08
1960	0.11	0.15	0.24	1.14	2.19	5.13	5.85	6.52	5.58	4.06	0.56	0.28	31.81
1961	0.47	0.26	0.58	1.92	2.70	6.59	8.65	10.03	5.71	3.64	0.71	0.23	41.49
1962	0.20	0.15	0.31	1.04	1.91	3.91	6.11	6.55	6.30	3.58	1.10	0.40	31.56
1963	0.27	0.32	0.67	1.30	1.97	3.34	5.76	6.27	5.25	3.89	0.90	0.29	30.23

a- adjusted according to air temperature

e - guessed

TABLE 8 - SASKATOON

Computed Evaporation in Inches from a Free Water or Ice surface using estimated surface temperatures and the Meyer Evaporation Formula for lakes and reservoirs.

Monthly and Annual													
Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Annual
1921	0.18	0.20	0.36	1.18	1.45	3.14	5.15	6.38	4.36	2.19a	0.25	0.19	25.05
1922	0.13	0.09	0.32	0.72	0.82	3.68	5.55	4.25	4.51	2.73	0.44	0.10	23.34
1923	0.16	0.18	0.26	1.20	2.18	2.37	3.63	4.33	4.04	2.55a	0.60	0.38	21.87
1924	0.19	0.31	0.33	1.24	1.91	3.25	5.95	4.96	4.59	3.31	0.38	0.09	26.51
1925	0.15	0.15	0.34	0.92	2.23	3.16	4.72	5.64	4.47	2.08a	0.47	0.19	24.51
1926	0.26	0.32	0.68	1.43	1.11	4.50	4.77	5.13	4.46	2.01a	0.43a	0.17	25.27
1927	0.14	0.14	0.37	1.08	1.28	2.74	3.85	4.20	4.41	2.47	0.19	0.08	20.95
1928	0.20	0.29	0.53	1.56	2.51	3.75	4.15	5.76	4.97	2.50	0.45	0.22	26.89
1929	0.03	0.08	0.41	1.00	1.28	3.79	6.18	7.02	4.66	3.03	0.54a	0.12	28.16
1930	0.06	0.18	0.37	0.92e	2.73	3.74	5.15	5.66	4.32	2.35a	0.50	0.32	26.29
1931	0.21	0.46	0.44	1.56	2.69	5.16	5.97	5.57	3.80	2.81	0.47	0.29	29.43
1932	0.16	0.22	0.23	0.98	2.62	4.51	5.97	6.00	4.77	2.40a	0.33	0.21	28.41
1933	0.14	0.20	0.42	1.21	1.76	5.29	7.16	6.86	4.68	2.02a	0.73	0.15	30.61
1934	0.40	0.59	1.02	1.73	3.72	4.87	6.51	6.64	4.90	2.73a	0.69	0.25	34.05
1935	0.09	0.30	0.38	1.59	2.38	4.04	6.56	7.29	5.69	3.48	0.20	0.23	32.22
1936	0.07	0.06	0.52	1.78	3.80	5.99	9.14	8.38	5.90	3.08a	1.01a	0.24	39.96
1937	0.07	0.21	0.49	1.62	3.80	8.34	10.08	8.38	5.94	3.39	0.38	0.20	42.89
1938	0.18	0.14	0.64	1.38	2.55	4.97	6.95	6.75	5.14	3.34	0.53a	0.30	32.85
1939	0.23	0.10	0.39	1.69	2.57	4.73	7.11	8.22	5.95	3.05a	0.96	0.49	35.49
1940	0.19	0.27	0.49	1.61	3.14	5.91	6.15	8.44	4.88	3.45	0.36	0.23	35.12
1941	0.18	0.22	0.48	1.02	2.79	4.90	5.85	6.85	4.88	2.70	0.41	0.19	30.47
1942	0.19	0.12	0.77	1.10	2.13	3.54	4.16	5.05	4.27	3.04a	0.45a	0.11	24.94
1943	0.04	0.11	0.16	0.97	1.90	3.25	4.97	5.91	5.14	3.09	0.48	0.26	26.28
1944	0.14	0.07	0.17	0.57	1.09	4.24	4.77	5.84	4.93	3.16	0.55a	0.21	25.74
1945	0.12	0.15	0.75	1.46	1.81	2.78	5.03	5.75	5.23	2.39a	0.18	0.10	25.75
1946	0.15	0.12	0.70	1.49	2.62	4.74	6.57	6.44	4.76	2.56a	0.48	0.16	30.81
1947	0.22	0.12	0.32	1.24	2.06	4.02	7.42	6.56	5.20	3.53	0.39	0.18	31.26
1948	0.20	0.15	0.24	1.47	1.92	4.21	6.65	7.02	6.21	3.20a	0.50	0.15	31.91
1949	0.12	0.08	0.35	1.38	3.20	5.84	6.10	6.38	5.93	3.08a	0.89	0.09	33.44
1950	0.02	0.10	0.34	1.43	1.97	4.33	4.84	5.60	5.44	2.98	0.23	0.09	27.38
1951	0.05	0.08	0.15	1.45	2.31	5.06	6.21	6.62	5.50	2.90	0.22	0.06	30.61
1952	0.06	0.14	0.22	1.33	2.98	3.98	6.07	7.35	5.71	3.50	0.78	0.15	32.27
1953	0.10	0.16	0.35	1.86	1.84	3.65	6.16	7.23	6.57	2.42	0.95	0.38	31.67
1954	0.14	0.52	0.43	2.11	1.72	3.18	4.95	5.14	5.06	3.87	0.50	0.10	27.72
1955	0.23	0.22	0.29	0.81	2.43	4.75	6.06	7.41	6.18	3.64	0.29	0.12	32.43
1956	0.16	0.19	0.36	1.46	1.92	4.92	5.26	5.67	5.26	3.38	0.53	0.24	29.35
1957	0.17	0.26	0.48	1.25	2.11	4.36	6.95	5.66	5.26	3.08	0.50	0.33	30.41
1958	0.32	0.19	0.43	0.96	2.51	6.22	6.30	7.09	5.93	3.54	0.45	0.22	34.46
1959	0.15	0.26	1.02	1.93	3.27	4.90	7.51	6.65	5.60	2.87	0.55	0.49	35.20
1960	0.18	0.26	0.43	1.43	2.97	5.67	7.16	7.64	8.82	4.66	0.70	0.36	40.28
1961	0.34	0.36	0.78	1.83	2.67	6.70	9.02	9.17	7.23	3.87	0.67	0.16	42.80
1962	0.26	0.14	0.28	1.27	2.75	5.97	7.31	7.64	6.19	4.10	0.80	0.29	37.00
1963	0.18	0.23	0.55	1.25	2.59	4.40	5.76	6.26	4.87	4.16	0.50	0.20	30.95

a - adjusted according to daily air temperature

e - guessed

TABLE 9 - SWIFT CURRENT

Computed Evaporation in Inches from a Free Water or Ice surface using estimated surface temperatures and the Meyer Evaporation Formula for lakes and reservoirs.

Monthly and Annual													
Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Annual
1921	0.48	0.61	0.68	1.38	2.22	5.47	9.08	8.29	7.08	3.66a	0.52	0.46	39.93
1922	0.41	0.24	0.98	1.24	2.09	4.38	5.80	6.40	6.67	3.28a	1.00	0.28	32.77
1923	0.46	0.43	0.76	1.13	2.59	3.58	5.11	6.58	5.85	3.41a	0.91a	0.58	31.39
1924	0.42	1.04	1.00	2.04	2.97	4.09	7.80	6.99	6.34	4.36	1.08	0.26	38.40
1925	0.34	0.38	0.55	0.84	3.45	4.86	6.92	6.92	4.80	2.95	0.88	0.40	33.30
1926	0.44	0.39	1.11	1.69	2.57	5.69	6.75	6.89	5.17	3.20	0.64	0.44	34.98
1927	0.44	0.37	0.92	1.67	2.12	4.61	6.04	6.05	5.88	3.42	0.49	0.20	32.21
1928	0.57	0.84	1.38	2.15	3.42	7.33	7.53	8.60	6.41	3.88a	1.35a	1.03	44.49
1929	0.26	0.50	1.88	2.09	3.19	5.13	9.94	11.32	7.10	4.72	1.15a	0.49	47.75
1930	0.19	0.92	1.30	1.77	4.07	6.88	8.16	8.46	6.81	3.88	1.17	1.02	44.62
1931	1.10	1.41	1.12	0.86	3.52	6.86	9.34	7.46	6.47	4.45a	1.00	0.63	44.24
1932	0.41	0.39	0.81	0.92	2.36	3.04	4.36	4.94	4.58	3.06	0.70	0.34	25.91
1933	0.40	0.34	1.07	1.33	1.69	4.86	8.23	7.34	6.76	3.81a	1.21a	0.27	37.30
1934	0.63	0.80	0.80	0.82	3.93	7.12	8.68	8.48	6.39	3.72	0.95	0.33	42.64
1935	0.21	0.61	0.50	1.26	2.01	3.55	5.33	6.25	5.38	3.74	0.45	0.54	29.83
1936	0.19	0.10	0.68	1.26	2.02	7.60	8.22	8.84	7.57	3.42a	1.11a	0.48	41.48
1937	0.14	0.31	0.86	1.42	3.17	8.79	9.94	11.49	6.91	3.62	0.70	0.37	47.71
1938	0.51	0.30	1.20	1.40	1.73	3.50	6.96	7.89	6.58	3.90a	0.51	0.48	34.97
1939	0.48	0.16	0.62	1.53	2.32	4.03	6.15	8.45	6.50	3.55a	1.77a	1.09	36.65
1940	0.07	0.16	0.56	1.15	2.16	5.08	6.04	9.42	5.12	3.96a	0.44a	0.54	34.70
1941	0.31	0.34	0.62	1.00	2.55	6.54	6.57	7.25	5.47	3.76a	0.91	0.41	35.72
1942	0.67	0.14	0.95	1.42	2.27	3.76	4.98	5.62	5.17	4.26	0.74a	0.23	30.19
1943	0.16	0.41	0.42	1.58	2.35	3.55	7.31	8.51	6.89	4.04	0.65	0.74	36.60
1944	0.60	0.30	0.33	0.64	1.68	4.29	6.31	6.67	5.48	4.22a	0.66a	0.37	31.56
1945	0.26	0.30	1.02	1.60	1.69	3.09	6.81	8.14	6.02	3.80	0.52a	0.14	33.39
1946	0.24	0.38	1.04	1.71	2.68	4.36	6.57	7.19	5.40	3.01a	0.69a	0.31	33.57
1947	0.34	0.17	0.27	1.06	2.22	3.37	6.67	7.14	6.40	3.21	0.67a	0.25	31.78
1948	0.36	0.25	0.28	0.98	1.25	3.90	8.00	7.69	6.54	4.26a	0.70	0.18	34.41
1949	0.21	0.14	0.59	3.32	3.70	7.21	6.96	8.10	7.53	3.81	1.61	0.14	43.32
1950	0.07	0.24	0.30	1.46	1.80	3.90	5.15	5.54	5.80	3.71	0.49	0.20	28.65
1951	0.15	0.18	0.17	1.50	2.04	3.98	5.29	6.41	5.46	3.04	0.48	0.15	28.85
1952	0.11	0.26	0.24	1.39	2.87	5.56	4.00	7.62	5.89	4.50	1.03	0.27	33.75
1953	0.25	0.39	0.38	1.35	1.97	2.97	6.13	8.24	6.50	5.17	1.65	0.76	35.75
1954	0.18	1.14	0.50	2.25	1.82	3.39	6.46	5.40	5.37	4.23	1.63	0.88	33.25
1955	0.31	0.23	0.38	0.99	1.91	4.52	4.89	8.01	6.53	4.73	0.38	0.28	33.16
1956	0.24	0.28	0.54	1.74	2.15	6.01	6.46	6.96	5.88	4.31	1.77	0.53	36.87
1957	0.25	0.45	0.72	1.33	2.55	4.92	6.94	6.81	6.38	3.58	0.64	0.78	35.35
1958	0.62	0.31	0.43	0.91	3.33	5.90	6.98	8.40	6.87	4.40	0.87	0.48	39.50
1959	0.29	0.35	1.32	2.09	2.62	5.16	7.23	9.44	7.66	3.75	0.59	0.83	41.33
1960	0.36	0.33	1.82	1.86	3.08	6.19	8.25	8.48	8.59	5.24	0.77	0.54	45.51
1961	0.59	0.62	1.23	1.97	2.28	7.69	9.49	10.40	8.25	4.55	0.98	0.33	48.38
1962	0.46	0.25	0.46	1.71	2.83	5.95	7.83	8.78	8.05	4.90	1.67	0.81	43.70
1963	0.42	0.57	1.24	1.68	3.14	5.03	8.37	9.09	7.80	6.53	1.70	0.66	46.23

a - adjusted according to daily air temperature

TABLE 10 - MEDICINE HAT

Computed Evaporation in Inches from a Free Water or Ice surface using estimated surface temperatures and the Meyer Evaporation Formula for lakes and reservoirs.

Monthly and Annual													
Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Annual
1921	0.18	0.32	0.48	0.82	1.54	5.10	9.10	8.49	5.92	4.20	0.59a	0.18	36.93
1922	0.07	0.02	0.24	0.55	1.63	4.75	6.39	7.33	5.26	3.44	0.72a	0.17	30.56
1923	0.31	0.35	0.96	1.26	2.60	4.49	6.11	6.16	5.09	3.22	0.99	0.66	32.19
1924	0.10	0.70	0.37	1.27	2.36	5.02	8.18	6.98	4.58	3.20	0.54a	0.29	33.59
1925	0.30	0.11	0.35	0.60	2.51	5.50	7.76	7.03	4.39	2.69	0.88a	0.44	32.56
1926	0.61	0.61	0.97	0.86	2.95	6.47	7.88	6.51	4.56	3.39	0.55a	0.41	35.77
1927	0.45	0.35	0.63	0.90	1.32	3.18	4.39	5.15	4.47	3.40	0.40a	0.16	24.81
1928	0.35	0.46	0.67	1.02	2.17	3.95	4.75	6.01	4.84	3.23	1.12	0.56	29.13
1929	0.06	0.03	0.85	1.18	1.63	4.38	7.95	8.44	4.94	3.56	0.77	0.30	34.09
1930	0.12	0.85	0.94	1.08e	2.60	5.50	7.03	7.80	5.80	4.10	1.06	1.29	38.16
1931	1.04	1.23	0.94	1.79	3.29	6.17	8.89	7.07	5.22	4.27a	0.63	0.42	40.96
1932	0.22	0.45	0.48	1.15	2.27	5.26	7.93	7.31	5.28	3.35	0.92	0.53	35.14
1933	0.49	0.39	1.13	1.45	2.02	6.56	9.09	7.29	6.11	3.33	1.36	0.24	39.46
1934	0.93	0.92	1.47e	1.58	3.92	7.12	9.33	9.60	5.41	3.78	1.16	0.46	45.69
1935	0.23	0.59	0.73	1.36	2.09	5.33	7.90	8.39	6.79	4.09	0.67a	0.78	38.95
1936	0.14	0.04	0.83	1.00	2.71	7.14	11.30	7.90	5.76	3.68a	1.30	0.53	42.33
1937	0.15	0.30	0.86	1.24	3.10	7.32	8.22	8.16	5.48	3.32	0.71	0.41	39.26
1938	0.52	0.20	1.18	1.12	1.77	4.18	7.48	7.30	5.05	3.79a	1.09	0.67	34.35
1939	0.58	0.19	0.79	1.53	3.20	4.86	8.74	9.08	6.69	3.86	2.25a	1.14	42.93
1940	0.10	0.19	0.69	0.84	2.23	6.18	7.76	8.84	4.79	4.37a	0.58a	0.59	37.17
1941	0.38	0.62	0.85	1.04e	2.73	5.41	6.45	6.96	5.08	3.26a	1.19a	0.72	34.68
1942	0.75	0.17	1.23	1.32	2.75	4.41	5.96	6.00	5.18	3.58a	0.53	0.36	32.24
1943	0.11	0.39	0.43	1.28	3.08	5.79	8.74	8.86	6.26	4.34a	1.15a	1.05	41.49
1944	0.78	0.47	0.54	1.85	3.84	6.60	8.98	7.62	6.18	4.07a	0.65a	0.41	41.99
1945	0.30	0.43	1.38	1.44	2.40	4.32	8.06	8.48	5.33	3.16	0.45	0.30	36.06
1946	0.45	0.45	1.55e	1.78	2.79	4.46	9.08	7.02	5.75	3.49	0.45	0.40	37.68
1947	0.58	0.19	0.38	0.82e	2.59	4.64	9.02	7.09	5.65	4.00a	0.74a	0.41	36.11
1948	0.66	0.18	0.40	1.02e	1.81	5.10	7.22	8.35	6.54	4.12a	1.09	0.22	36.72
1949	0.22	0.16	0.92	1.44	3.68	7.84	9.17	8.93	6.93	3.78	2.10	0.22	45.40
1950		0.52	0.60	2.22	2.74	5.11	7.67	6.41	6.11	3.50a	0.72	0.52	36.12
1951	0.22	0.21	0.26	1.36	2.58	4.71	6.14	6.33	5.01	2.97	1.09	0.48	31.36
1952	0.20	0.38	0.42	1.08	4.61	6.81	6.88	7.27	5.96	4.75	1.51	0.57	40.44
1953	0.31	0.78	0.95	1.27	2.46	4.52	7.48	8.60	6.77	5.69	2.52	1.12	42.57
1954	0.17	1.81	0.67	1.79	2.61	5.40	7.83	6.60	5.52	3.90	2.51	1.15	39.95
1955	0.41	0.40	0.69	1.32	2.61	5.37	6.01	8.55	6.30	4.85	0.45	0.35	37.31
1956	0.26	0.32	0.81	1.58	2.27	6.76	6.43	6.91	6.09	4.74	1.57	0.78	38.52
1957	0.20	0.52	1.43	1.31	3.15	5.97	9.78	7.14	6.20	3.21	1.27	1.61	41.79
1958	0.98	0.30	0.49	1.23	4.09	7.39	7.84	8.64	7.02	4.87	1.09	0.68	44.62
1959	0.33	0.32	1.74	2.07	2.95	6.08	8.90	8.46	6.68	3.83	1.00	1.17	43.53
1960	0.38	0.44	0.83	2.11	3.53	6.79	9.64	8.77	7.23	5.21	0.99	0.59	46.51
1961	0.87	0.89	1.74	2.11	2.59	9.66	9.73	9.53	7.35	4.51	1.48	0.37	50.83
1962	0.61	0.34	0.51	1.65	3.01	7.07	7.66	8.66	6.41	4.70	2.04	0.87	43.53
1963	0.34	0.80	2.51	2.13	4.24	6.76	8.61	8.06	6.95	6.26	1.75	0.65	49.06

a - adjusted according to air temperature

e - vapor pressure saturated or vapor pressure actual was guessed

TABLE 11 - PRINCE ALBERT

Computed Evaporation in Inches from a Free Water or Ice surface using estimated surface temperatures and the Meyer Evaporation Formula for lakes and reservoirs.

Monthly and Annual													
Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Annual
1921	0.16	0.18	0.28	1.12	1.61	2.89	4.35	4.86	4.34	3.07	0.42a	0.18	23.45
1922	0.07	0.08	0.30	0.80	1.34	3.98	4.88	4.00	3.74	2.64	0.76a	0.09	22.68
1923	0.12	0.19	0.21	0.75	1.47	2.63	4.09	3.67	3.39	2.54	0.54	0.27	19.87
1924	0.09	0.26	0.32	0.57	1.25	2.46	3.29	4.39	3.79	2.52	0.36a	0.10	19.39
1925	0.08	0.10	0.28	0.84	1.37	2.39	3.26	3.31	3.48	2.09	0.46a	0.14	17.80
1926	0.19	0.26	0.47	0.52	1.13	3.64	3.57	3.97	3.79	1.97a	0.29a	0.14	19.93
1927	0.12	0.12	0.36	0.61	0.79	1.62	3.67	4.08	3.64	2.37a	0.26a	0.06	17.69
1928	0.18	0.21	0.40	0.76	1.36	2.07	2.71	3.59	3.49	2.04	0.64a	0.14	17.58
1929	0.03	0.08	0.11	0.63	0.82	1.73	3.82	4.20	4.23	2.10	0.42a	0.10	18.27
1930	0.04	0.04	0.22	0.64	0.95	2.26	3.76	4.08	3.46	1.93	0.38	0.24	18.02
1931	0.16	0.13	0.31	0.39	2.01	3.28	4.64	4.40	3.76	2.56	0.46a	0.21	22.30
1932	0.11	0.14	0.15	0.52	1.14	2.88	3.09	3.70	3.83	1.92a	0.37a	0.12	17.99
1933	0.09	0.04	0.08	0.51	1.23	1.92	3.65	3.82	3.28	2.10	0.36	0.08	17.15
1934	0.12	0.16	0.73	1.21	1.42	3.48	4.65	5.39	3.87	2.55	0.30	0.19	24.07
1935	0.07	0.23	0.24	1.28	1.25e	1.61	2.66	4.45	3.13	2.53	0.28a	0.14	17.88
1936	0.07	0.04	0.40	1.36	1.39e	3.15	4.14	4.64	3.83	2.87	0.54	0.13	22.57
1937	0.06	0.16	0.32	0.78	1.36	4.08	5.74	5.54	3.98	2.36	0.47a	0.12	24.97
1938	0.12	0.13	0.54	1.11	1.48	3.04	4.68	5.25	3.39	2.67	0.37a	0.20	23.00
1939	0.15	0.08	0.25	0.68	1.19	3.05	3.87	5.31	4.23	2.50	0.35	0.19	21.85
1940	0.17	0.20	0.37	1.20	1.67	3.55	4.41	5.78	3.57	2.69	0.50a	0.15	24.27
1941	0.16	0.17	0.38	0.68	1.63	3.48	5.47	5.17	4.03	2.48	0.63a	0.16	24.43
1942	0.17	0.09	0.48	0.69	1.69	2.52	3.63	4.12	3.36	2.80a	0.49a	0.07	20.10
1943	0.03	0.16	0.11	1.06	1.88	2.75	3.79	4.86	4.26	2.66a	0.86a	0.22	22.64
1944	0.17	0.12	0.20	1.13	1.52	3.32	3.82	4.38	3.47	2.35	0.41a	0.16	21.06
1945	0.14	0.19	0.46	1.42	1.56	1.59	5.13	4.87	3.99	2.50	0.36a	0.11	22.31
1946	0.09	0.09	0.54	0.91	1.59	2.72	3.98	4.63	4.22	2.46	0.38	0.09	21.71
1947	0.16	0.11	0.26	1.01	1.17	2.61	4.70	5.00	4.32	2.66a	0.48a	0.07	22.56
1948	0.09	0.08	0.19	1.50	1.48e	2.73	4.24	4.36	4.51	3.12	0.68a	0.10	23.07
1949	0.09	0.07	0.26	1.02	2.35	4.28	4.64	4.81	4.08	2.86	0.90a	0.03	25.41
1950	0.00	0.04	0.26	1.46	1.23	2.56	3.45	4.61	4.45	2.60	0.52a	0.04	21.23
1951	0.03	0.07	0.15	1.35	1.17	3.31	3.85	5.05	4.55	2.60	0.18	0.05	22.36
1952	0.03	0.11	0.17	0.82	2.07	3.91	5.41	6.47	4.38	3.00	0.59	0.10	27.06
1953	0.07	0.17	0.28	1.40	1.58	2.65	4.71	5.34	4.00	3.24	0.74	0.25	24.48
1954	0.13	0.40	0.28	1.93	1.14	2.26	3.48	4.54	4.29	2.96	0.67	0.10	22.18
1955	0.16	0.17	0.23	0.76	1.90	3.69	4.42	5.76	5.18	3.02	0.23	0.13	25.65
1956	0.09	0.16	0.31	1.45	1.57	3.20	4.07	5.09	4.55	2.95	0.49	0.18	24.11
1957	0.15	0.22	0.38	1.36	0.67	3.35	4.93	5.11	4.44	2.76	0.34	0.19	23.91
1958	0.22	0.17	0.38	0.88	2.12	4.52	4.58	5.63	4.88	2.73	0.35	0.17	26.63
1959	0.11	0.22	0.54	1.38	2.37	2.89	5.12	5.25	4.64	2.49	0.33	0.30	25.64
1960	0.11	0.20	0.32	1.29	1.49	3.42	4.70	5.41	5.15	2.97	0.43	0.30	25.79
1961	0.18	0.24	0.39	1.57	2.00	4.11	5.79	6.55	5.24	2.88	0.42	0.14	29.51
1962	0.18	0.14	0.26	1.20	1.87	3.61	5.75	6.12	5.32	3.22	0.54	0.25	28.46
1963	0.21	0.25	0.36	1.26	2.38	3.44	4.28	4.67	4.04	3.18	0.36	0.17	24.60

a - adjusted according to air temperature

e - guessed

TABLE 12 - BATTLEFORD

Computed Evaporation in Inches from a Free Water or Ice surface using estimated surface temperatures and the Meyer Evaporation Formula for lakes and reservoirs.

Monthly and Annual													
Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Annual
1921	0.20	0.18	0.36	1.16	1.57	3.97	5.29	5.34	4.19	2.92	0.58	0.19	25.95
1922	0.13	0.09	0.29	0.33	2.02	5.31	6.65	4.62	3.73	2.58	0.42	0.10	26.79
1923	0.13	0.20	0.31	0.84	1.12	3.52	4.62	5.48	3.50	2.88	0.65	0.34	23.61
1924	0.15	0.29	0.30	0.90	0.72	4.02	5.78	5.48	4.58	2.87	0.33	0.09	25.51
1925	0.13	0.13	0.35	0.57	2.02	4.00	5.58	5.46	3.66	2.60	0.41	0.18	25.08
1926	0.25	0.29	0.60	0.96	1.48	4.83	6.22	5.23	3.95	2.54	0.20	0.14	26.68
1927	0.11	0.12	0.41	1.09	1.08	3.30	4.28	4.91	4.19	2.51	0.28a	0.07	22.35
1928	0.22	0.32	0.52	1.60	2.02	3.34	4.52	5.23	4.81	2.90	0.38	0.17	26.05
1929	0.03	0.09	0.38	0.86	0.71	3.40	6.42	7.07	4.52	2.71	0.44a	0.10	26.74
1930	0.03	0.19	0.36	0.92	2.74	4.13	4.69	5.94	4.90	2.57	0.50	0.28	27.27
1931	0.16	0.37	0.38	0.87	1.27	2.88	4.72	5.49	3.67	2.78	0.39	0.20	23.18
1932	0.13	0.21	0.16	1.14	1.49	2.90	4.79	5.08	4.66	2.95	0.28	0.17	23.96
1933	0.12	0.18	0.33	0.89	1.66	4.48	7.20	6.87	4.78	3.05	0.56	0.11	30.23
1934	0.29	0.48	0.91	1.45	3.00	4.78	6.02	6.20	3.98	2.87	0.58	0.19	30.77
1935	0.07	0.20	0.27	1.50	1.91	2.54	4.88	6.02	4.61	2.93	0.26a	0.16	25.34
1936	0.07	0.03	0.45	1.13	1.31	4.99	8.76	6.64	4.71	3.01a	0.48a	0.17	31.76
1937	0.04	0.15	0.34	1.18	2.04	7.26	7.05	6.35	4.36	2.90	0.29	0.15	32.13
1938	0.17	0.10	0.59	1.24	1.26	3.93	5.74	5.88	3.93	2.79	0.40a	0.24	26.28
1939	0.19	0.07	0.27	1.53	1.39	3.60	6.08	5.40	4.86	2.87a	0.69	0.36	27.29
1940	0.15	0.20	0.43	1.43	1.55	4.38	4.77	7.07	4.24	2.98	0.32	0.18	27.70
1941	0.20	0.22	0.48	0.54	1.83	4.56	6.64	6.02	4.39	2.69	0.42	0.19	28.19
1942	0.23	0.11	0.74	0.71	2.57	3.88	4.49	5.39	4.31	3.64	0.50a	0.11	26.68
1943	0.06	0.20	0.19	1.26	2.69	3.42	5.00	6.76	5.61	3.34	0.50	0.29	29.31
1944	0.17	0.09	0.23	0.96	2.43	4.58	5.86	6.08	4.90	3.49	0.39a	0.20	29.39
1945	0.16	0.20	0.89	1.76	2.17	3.25	5.60	6.49	5.34	3.39	0.37a	0.18	29.81
1946	0.09	0.21	0.90	0.86	2.13	4.50	5.56	6.80	5.44	2.46a	0.53a	0.14	29.61
1947	0.12	0.10	0.32	1.29	2.16	4.24	6.89	6.12	4.96	3.09	0.56a	0.11	29.96
1948	0.16	0.08	0.16	1.62	1.97	4.87	7.09	7.40	6.41	3.92a	0.50	0.07	34.25
1949	0.10	0.04	0.28	1.43	2.65	5.71	6.13	5.98	4.88	3.04a	0.97a	0.08	31.28
1950	0.02	0.04	0.23	1.51	1.81	3.75	4.36	5.50	4.69	2.89	0.26a	0.08	25.20
1951	0.03	0.12	0.15	1.20	1.56	4.34	4.14	5.49	4.48	2.71	0.26	0.07	24.55
1952	0.02	0.14	0.20	0.25	2.72	5.42	5.08	5.93	4.76	3.81	0.65	0.11	29.09
1953	0.15	0.20	0.31	1.52	1.60	3.33	5.25	6.32	5.00	4.20	0.87	0.34	29.12
1954	0.14	0.47	0.41	2.03	1.58	2.78	4.35	4.89	4.50	3.53	0.85	0.48	26.01
1955	0.26	0.24	0.32	1.00	2.37	4.57	4.79	6.67	6.13	3.76	0.30	0.21	30.62
1956	0.19	0.24	0.35	1.53	2.12	4.78	5.23	6.22	5.85	3.76	0.84	0.34	31.45
1957	0.22	0.37	0.65	1.49	2.30	4.65	6.58	6.07	5.34	1.16	0.57	0.37	29.77
1958	0.34	0.26	0.52	0.90	3.10	5.79	6.07	7.03	6.20	3.72	0.52	0.31	34.76
1959	0.18	0.28	0.88	1.78	2.79	4.50	7.14	6.15	5.81	2.71	0.63	0.43	33.28
1960	0.13	0.25	0.39	1.39	2.25	4.85	5.62	6.05	5.48	3.42	0.57	0.29	30.69
1961	0.30	0.33	0.54	1.41	2.44	5.59	7.40	7.87	6.10	3.16	0.50	0.17	35.81
1962	0.23	0.14	0.24	0.87	2.08	4.40	5.21	4.97	4.98	3.50	0.58	0.24	27.44
1963	0.20	0.24	0.44	1.30	2.19	4.12	5.33	5.16	4.76	4.15	0.60	0.35	28.84

a - adjusted according to daily air temperature

TABLE 13 - LETHBRIDGE

Computed Evaporation in Inches from a Free Water or Ice surface using estimated surface temperatures and the Meyer Evaporation Formula for lakes and reservoirs.

Monthly and Annual													
Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Annual
1921	0.35	0.34	0.37	1.00	2.29	5.53	7.42	8.13	6.80	4.01a	0.69a	0.47	37.38
1922	0.17	0.08	0.48	1.07	1.95	4.40	5.78	7.16	6.45	3.87	0.94	0.32	32.67
1923	0.56	0.56	1.57	1.04	2.42	4.06	4.71	5.38	4.90	3.46	1.90	1.02	31.56
1924	0.24	1.02	1.07	1.66	2.27	4.22	6.09	6.28	5.35	3.65a	0.59	0.39	32.84
1925	0.47	0.25	0.53	0.82	2.88	4.91	5.98	7.32	4.46	2.71	0.87	0.82	32.04
1926	1.09	1.11	1.22	1.57	3.37	5.38	6.98	6.15	4.49	3.16a	0.75a	0.67	35.96
1927	0.71	0.56	0.90	1.23	1.55	3.06	4.33	6.45	4.81	3.29a	0.47a	0.24	27.60
1928	0.59	0.68	0.90	1.08	2.69	3.91	4.67	5.64	4.93	3.24	1.31	0.62	30.25
1929	0.09	0.10	1.14	1.36	1.76	3.91	6.74	8.09	4.83	3.26a	1.01	0.36	32.66
1930	0.20	1.20	1.10	1.00e	2.44	4.39	5.23	6.11	5.04	2.86a	0.95	1.54	32.05
1931	1.59	1.74	1.13	1.83	2.84	5.04	6.52	6.09	4.61	3.93a	0.72	0.65	36.70
1932	0.37	0.61	0.51	1.18	2.41	4.74	6.90	7.35	5.15	3.22a	1.11	0.72	34.28
1933	0.87	0.68	1.29	1.52	2.13	5.78	7.61	6.14	5.36	3.14	1.81a	0.27	36.59
1934	1.35	1.16	2.21	1.76	4.12	6.05	7.70	7.44	5.04	3.88a	1.35	0.65	42.72
1935	0.36	0.99	0.77	1.57	1.92	4.38	6.79	7.64	6.12	4.04a	0.77	0.90	36.24
1936	0.23	0.21	0.95	1.16	2.66	5.89	8.58	6.82	5.38	3.99a	1.80	0.69	38.36
1937	0.27	0.47	1.02	1.65	3.01	5.77	6.38	7.17	5.06	3.68	0.82	0.63	35.93
1938	0.96	0.16	1.30	1.17	1.71	4.15	6.36	6.59	5.15	3.60a	1.24	1.14	33.52
1939	1.55	0.29	1.15	1.78	3.63	4.48	7.54	8.44	6.28	3.75a	2.52	1.61	43.03
1940	0.40	0.32	1.11	0.93	2.05	5.32	6.49	8.08	4.88	4.02	0.49	1.07	35.15
1941	0.56	0.94	1.20	1.10	3.24	5.70	7.77	6.73	5.55	3.87a	2.15	0.86	39.67
1942	1.73	0.44	1.46	1.47	2.16	4.06	5.52	5.88	5.86	4.32a	0.91	0.61	34.43
1943	0.24	1.42	0.77	1.53	2.99	5.10	7.98	8.14	7.24	4.08	2.11	2.08	43.69
1944	1.76	0.77	0.95	1.39	2.95	6.60	8.21	7.24	5.37	4.28a	0.81a	0.88	41.19
1945	0.69	0.45	1.74	1.57	1.42	3.06	6.05	7.45	5.68	3.71a	0.49	0.42	32.73
1946	1.34	1.06	2.21	1.47	2.71	4.20	7.13	7.64	5.83	3.60a	0.55	0.55	38.31
1947	0.98	0.39	0.41	1.15	2.58	3.76	7.06	6.62	5.56	4.12	0.88a	0.70	34.22
1948	1.36	0.68	0.64	1.12	1.51	3.18	5.88	7.24	6.50	4.54a	1.84	0.40	34.90
1949	0.20	0.18	0.75	1.93	2.91	6.48	7.27	7.43	6.90	3.68a	2.76a	0.22	40.70
1950	0.04	1.01	0.76	1.43	2.74	4.62	5.98	6.76	6.56	3.59a	0.98a	0.91	35.37
1951	0.28	0.44	0.39	1.48	2.49	3.97	4.89	5.24	4.40	2.72	1.14	0.30	27.74
1952	0.28	0.90	0.77	1.62	2.86	7.31	6.39	6.56	5.78	3.50	1.36	1.15	38.48
1953	0.60	1.01	1.10	1.23	2.11	3.68	6.14	7.60	6.33	5.92	2.41	1.23	39.36
1954	0.24	2.22	0.63	1.94	2.30	4.90	6.91	5.74	5.25	3.50	2.72	1.50	37.85
1955	0.77	0.67	0.84	1.62	2.22	4.86	5.32	8.06	6.07	4.99	0.50	0.42	36.34
1956	0.35	0.61	1.38	1.60	1.92	6.68	5.52	6.22	7.48	4.74	1.99	1.63	40.12
1957	0.30	0.73	1.32	1.14	1.94	5.31	8.90	6.55	5.47	3.14	1.83	1.82	38.45
1958	1.51	0.39	0.36	0.90	3.10	5.56	6.50	7.73	7.35	2.71	1.29	1.09	38.49
1959	0.39	0.53	2.23	1.84	2.24	5.03	7.80	8.15	5.56	4.03	1.43	1.85	41.08
1960	0.63	0.79	0.52	1.94	2.30	6.25	8.91	8.36	7.16	5.00	1.25	0.82	43.93
1961	1.19	1.20	1.39	1.53	1.74	6.83	7.27	7.94	5.96	4.03	1.16	0.58	40.82
1962	0.91	0.47	0.66	1.72	2.61	5.97	7.07	8.45	6.06	4.64	1.89	1.14	41.59
1963	0.57	1.20	2.20	1.76	3.45	7.88	7.61	7.30	6.26	6.00	1.82	0.88	46.93

a- adjusted according to daily air temperature

e- guessed

TABLE 14 - CALGARY

Computed Evaporation in Inches from a Free Water or Ice surface using estimated surface temperatures and the Meyer Evaporation Formula for lakes and reservoirs.

Monthly and Annual													
Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Annual
1921	0.38	0.56	0.51	0.99	1.94	4.68	6.50	6.35	6.50	3.93	0.73	0.48	33.54
1922	0.49	0.29	0.62	1.04	1.55	4.34	5.95	5.17	5.58	4.05	1.00a	0.14	30.21
1923	0.58	0.82	1.14	1.83	2.36	4.42	5.47	5.41	4.25	3.03	0.74	0.44	30.49
1924	0.13	0.95	0.50	0.64	2.21	4.59	5.66	5.48	4.98	2.99	0.37	0.12	28.61
1925	0.24	0.21	0.67	0.86	2.87	3.99	5.35	5.83	4.28	2.10a	0.99	0.94	28.33
1926	1.02	0.94	1.50	0.60	2.24	4.19	4.67	5.11	4.77	2.54	0.66a	0.30	28.54
1927	0.23	0.29	0.38	1.29	1.43	2.86	4.44	5.32	4.51	2.80	0.26	0.12	23.93
1928	0.48	0.52	0.61	0.93	2.46	3.44	3.37	4.13	4.26	3.02	1.25	0.47	24.93
1929	0.08	0.09	0.72	0.75	0.92	2.75	7.14	6.90	5.00	2.30	0.55	0.36	27.57
1930	0.34	0.54	0.54	1.04e	1.74	4.20	5.18	6.16	3.83	2.70	0.83	0.59	27.68
1931	0.60	1.33	1.03	1.88	1.79e	3.33	4.80	6.33	4.74	3.00a	0.57	0.34	29.80
1932	0.26	0.32	0.23	0.70e	0.70	2.80	3.92	5.05	4.96	2.70	0.31	0.21	22.15
1933	0.22	0.26	0.57	0.77	1.12	4.06	5.46	6.27	5.28	3.15	1.61	0.22	28.99
1934	1.09	1.15	1.84	1.65	1.92	3.92	4.82	5.88	5.08	3.21	1.12	0.74	32.43
1935	0.33	1.19	0.73	1.64	1.63	3.01	4.73	6.04	5.57	3.07a	0.66	0.88	29.46
1936	0.24	0.08	1.00	1.45	2.26	4.54	6.55	6.26	5.15	3.79	1.54a	0.63	33.48
1937	0.34	0.50	0.89	1.48	2.66	4.68	4.52	6.16	5.06	3.05a	0.73	0.66	30.72
1938	0.87	0.30	1.45	1.44	1.80	3.22	4.97	5.97	4.73	3.06a	0.90	0.67	29.39
1939	0.76	0.23	0.62	1.80	2.67	3.25	4.89	6.86	5.81	2.79a	1.82	0.53	32.02
1940	0.34	0.30	0.62	1.04	1.84	4.62	4.32	7.08	4.11	3.07	0.53	0.63	28.51
1941	0.56	0.70	0.72	1.24	2.38	3.59	5.23	5.94	4.83	3.21	0.89	0.53	29.81
1942	1.18	0.51	1.26	1.48	1.59	3.21	3.76	4.80	4.31	3.59	0.45	0.35	26.50
1943	0.27	0.94	0.63	1.14	2.16	3.29	5.47	6.26	5.92	3.49	1.59	1.51	32.64
1944	0.98	0.57	0.86	1.30	2.33	4.67	5.62	6.08	5.31	4.02	0.92	0.87	33.52
1945	0.63	0.73	1.40	1.50	1.40	2.94	4.66	6.39	5.66	3.23	0.46	0.37	29.37
1946	0.87	0.76	1.46	1.46	2.39	3.45	5.18	6.46	5.58	3.03a	0.67	0.65	31.97
1947	0.94	0.45	0.63	1.54	3.01	3.73	6.47	6.42	5.91	3.08a	0.64	0.74	33.56
1948	1.16	0.36	0.51	1.50	1.63e	3.25	5.98	6.36	6.24	3.61a	1.56	0.36	32.52
1949	0.29	0.16	0.81	1.77	3.26	6.80	6.36	7.61	7.12	3.09a	2.04a	0.26	39.57
1950	0.10	0.58	0.43	1.64	2.61	4.27	4.56	5.38	5.82	3.23	0.58	0.39	29.59
1951	0.38	0.41	0.51	2.08	2.82	4.09	4.06	5.66	5.01	2.84	1.05	0.41	29.42
1952	0.23	0.51	0.46	1.30	2.60	4.36	4.86	5.47	5.43	3.66	1.33	0.86	31.07
1953	0.33	0.79	0.93	1.47	2.17	2.49	4.37	5.62	5.08	4.24	1.45	1.12	30.06
1954	0.21	1.39	0.59	1.95	1.26	3.26	5.01	4.99	5.18	3.50	1.96	1.47	30.77
1955	0.72	0.56	0.62	1.53	1.53	4.06	4.94	6.73	5.26	3.95	0.05	0.04	29.79
1956	0.25	0.45	0.75	1.49	2.24	4.83	4.79	5.83	5.35	3.39	1.58	0.97	31.93
1957	0.28	0.84	1.80	1.40	2.08	3.92	5.71	5.58	5.43	3.18	1.10	1.02	32.34
1958	0.91	0.30	0.34	1.25	3.27	4.87	5.52	6.83	6.54	4.36	1.00	0.96	36.15
1959	0.37	0.0	1.67	1.87	2.39	3.85	6.41	6.22	5.37	3.85	0.84	1.17	34.51
1960	0.50	0.46	0.71	1.93	2.62	4.52	6.15	7.00	6.16	4.18	1.07	0.81	36.10
1961	1.17	0.97	1.15	1.72	1.85	5.79	6.34	6.49	5.88	3.74	1.01	0.43	36.54
1962	0.72	0.33	0.68	1.58	2.08	4.80	5.41	6.94	5.69	3.98	1.45	0.75	34.41
1963	0.44	0.77	1.53	1.51	2.86	4.62	6.48	6.90	6.00	4.93	1.10	0.63	37.77

a - adjusted according to air temperature

e - guessed

TABLE 15 - EDMONTON

Computed Evaporation in Inches from a Free Water or Ice surface using estimated surface temperatures and the Meyer Evaporation Formula for lakes and reservoirs.

Monthly and Annual													
Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Annual
1921	0.34	0.32	0.56	1.35	1.82	3.96	4.88	4.92	4.12	3.10	0.86	0.33	26.55
1922	0.24	0.18	0.48	0.46	2.30	5.22	5.76	4.43	3.78	2.82	0.66	0.15	26.48
1923	0.24	0.34	0.51	1.00	1.32	3.62	4.42	5.02	3.60	3.07	0.92	0.54	24.60
1924	0.25	0.48	0.50	1.07	0.90	4.00	5.20	5.01	4.40	3.06	0.53	0.18	25.58
1925	0.24	0.24	0.55	0.72	2.30	3.97	5.08	5.00	3.72	2.84	0.74	0.29	25.67
1926	0.42	0.48	0.87	1.15	1.70	4.57	5.48	4.84	3.94	2.80	0.36	0.25	26.85
1927	0.19	0.22	0.63	1.28	1.28	3.43	4.18	4.62	4.12	2.74	0.31	0.12	23.12
1928	0.38	0.51	0.78	1.83	2.30	3.46	4.35	4.82	4.55	3.10	0.58	0.28	26.94
1929	0.06	0.18	0.60	1.04	0.88	3.52	5.61	6.03	4.35	2.92	0.54	0.17	25.92
1930	0.06	0.31	0.57	1.10	2.96	4.08	4.47	5.31	4.64	2.82	0.74	0.47	27.53
1931	0.27	0.57	0.58	1.04	1.49	3.09	4.50	5.02	3.75	3.00	0.61	0.33	24.25
1932	0.24	0.36	0.28	1.33	1.71	3.10	4.54	4.75	4.45	3.15	0.47	0.29	24.66
1933	0.20	0.29	0.51	1.06	1.90	4.32	6.12	5.90	4.53	3.22	0.83	0.20	29.09
1934	0.49	0.74	1.21	1.67	3.20	4.55	5.35	5.47	3.98	3.08	0.84	0.33	30.90
1935	0.12	0.36	0.42	1.72	2.18	2.78	4.60	5.36	4.42	3.11	0.28	0.28	25.62
1936	0.12	0.06	0.70	1.32	1.52	4.68	7.12	5.76	4.50	3.20	0.66a	0.29	29.93
1937	0.08	0.24	0.54	1.38	2.31	6.15	6.02	5.57	4.24	3.10	0.49	0.25	30.38
1938	0.37	0.18	1.03	1.79	2.95	4.14	4.92	5.99	4.42	3.26	0.62	0.28	29.75
1939	0.31	0.13	0.48	1.66	2.00	3.62	4.56	6.04	4.62	3.05	0.77	0.55	27.76
1940	0.14	0.16	0.44	0.93	2.09	4.08	3.64	5.60	4.17	2.80	0.36a	0.20	24.61
1941	0.20	0.49	0.52	0.90	1.92	4.00	4.45	4.88	4.65	2.78	0.86	0.32	25.98
1942	0.42	0.53	1.02	1.60	2.28	3.54	3.68	4.83	4.04	3.54	0.55a	0.10	26.14
1943	0.13	0.45	0.37	1.01	2.27	3.79	4.37	5.01	5.54	3.19	0.79a	0.71	27.62
1944	0.39	0.29	0.66	1.35	2.56	5.33	5.17	5.22	4.74	3.59	0.45	0.37	30.12
1945	0.28	0.41	1.00	1.69	2.49	4.38	5.67	5.45	5.13	3.49	0.31a	0.14	30.44
1946	0.24	0.18	0.96	1.33	2.80	3.61	4.94	5.80	4.51	3.49	0.73	0.18	28.79
1947	0.36	0.13	0.39	1.10	2.76	3.78	4.99	5.16	4.63	3.61	0.59a	0.31	27.81
1948	0.52	0.13	0.37	1.24	0.92	3.70	4.95	4.77	4.22	2.99a	0.66	0.19	24.64
1949	0.21	0.10	0.66	1.49	3.24	6.50	5.75	6.39	5.54	3.57	0.89a	0.13	34.47
1950	0.02	0.23	0.46	1.84	2.61	4.68	5.94	6.42	5.51	2.84	0.24	0.14	30.92
1951	0.11	0.17	0.26	1.51	2.26	4.77	4.26	5.30	4.76	2.68	0.34	0.10	26.61
1952	0.07	0.33	0.37	2.08	2.94	4.96	4.79	5.37	4.26	3.51	1.04	0.32	30.04
1953	0.14	0.51	0.55	1.58	2.08	3.69	4.23	4.96	4.98	3.49	0.92	0.57	27.70
1954	0.14	0.73	0.71	2.05	1.34	3.10	4.58	4.48	4.52	3.73	1.09	0.72	27.20
1955	0.38	0.44	0.54	1.15	2.46	5.10	4.88	6.25	5.42	3.47	0.30	0.24	30.63
1956	0.14	0.29	0.55	1.34	2.79	4.83	5.14	5.45	4.47	3.36	1.28	0.35	29.99
1957	0.25	0.36	0.55	1.15	2.35	4.77	6.09	5.35	5.03	2.01	0.75	0.56	29.22
1958	0.45	0.27	0.52	1.15	3.18	5.32	5.54	5.68	5.08	3.57	0.79	0.41	31.96
1959	0.19	0.43	1.38	1.83	2.68	3.99	5.71	5.98	5.21	2.91	0.75	0.70	31.76
1960	0.28	0.35	0.38	1.62	2.60	4.35	5.20	5.63	5.17	3.36	0.61	0.42	29.87
1961	0.45	0.47	0.71	1.83	2.21	5.56	6.00	6.31	5.54	3.10	0.72	0.17	33.07
1962	0.32	0.14	0.38	1.28	2.01	4.20	4.77	5.26	5.34	3.38	0.85	0.44	28.37
1963	0.33	0.36	0.74	1.43	2.69	4.30	5.12	5.53	4.90	4.00	0.53	0.40	30.33

1921-1937 - correlated from Battleford

a - adjusted according to daily air temperature

PRAIRIE PROVINCES WATER BOARD

REPORT NO. 5 - SUPPLEMENT B

EVAPORATION FROM LAKES AND RESERVOIRS
ON
THE CANADIAN PRAIRIES

Prepared by: Hydrology Division
PFRA
Regina, Saskatchewan

November, 1968

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Computed evaporation in inches from a free water or ice surface using estimated surface temperatures and the Meyer evaporation formula for lakes and reservoirs (monthly and annual values).

<u>No.</u>	<u>Station</u>
1.	Winnipeg
2.	The Pas
3.	Rivers
4.	Broadview
5.	Yorkton
6.	Qu'Appelle
7.	Regina
8.	Saskatoon
9.	Swift Current
10.	Medicine Hat
11.	Prince Albert
12.	Battleford
13.	Lethbridge
14.	Calgary
15.	Edmonton

EVAPORATION FROM LAKES AND RESERVOIRS

ON THE CANADIAN PRAIRIES

A supplement extending the tables of estimated large-lake evaporation contained in P.P.W.B. Report No. 5 - Supplement A, to cover the period January 1951 to April 1968.

TABLE 6 - QU'APPELLE

Computed Evaporation in Inches from a Free Water or Ice Surface using Estimated Surface Temperatures and the Meyer Evaporation Formula for Lakes and Reservoirs

Monthly and Annual													
Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Annual
1951	0.08	0.13	0.14	1.15	1.86	3.75	4.82	5.33	4.47	2.72	0.44	0.13	25.02
1952	0.08	0.18	0.24	0.52	2.30	4.62	5.33	5.86	4.58	3.88	0.69	0.15	28.42
1953	0.16	0.18	0.28	1.33	1.01	2.04	4.41	5.24	5.00	2.50	0.88	0.43	23.46
1954	0.11	0.62	0.42	1.55	1.08	2.07	3.33	4.53	4.17	3.06	0.95	0.47	22.36
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Data not available after 1954

