Testimony before the International Joint Commission
on the Review of the 1921 Order
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There are a number of reasons why the United States and Montana would like to have the IJC review the 1921 Order.

Montana irrigators continue to experience severe water shortages in the Milk River Basin.

The Bureau of Reclamation testified in the 1920s that it could irrigate 220,000 acres, but today it irrigates about 140,000 acres. According to the Bureau's data, water shortages occur in 6 out of every 10 years and almost all Milk River irrigators in Montana receive about ½ of a full-service water supply. The basin has been closed to new appropriations for many years. In dry years, 90 to 95% of the flow in the Milk River is water diverted from the St. Mary River.

New Canadian uses in the Milk River Basin and a proposed Alberta storage project on the Milk River with an additional 33,000 acres of irrigation will only acerbate the existing shortages in the United States portion of the basin.

Alberta testified in the early 1900s that water from the St. Mary River was very important to the Province, but not Milk River water for irrigation. Today, Alberta irrigates over 8,000 acres in the Milk River Basin.

Drought is becoming more prevalent and the Treaty and Order were drafted when there was above average moisture.

Please refer to Figure 1 that shows the cumulative 10-year total precipitation departure from the average for Havre, Montana over the past 100 plus years. Above average precipitation occurred during the first three decades of the 20th century and below precipitation for most of the last seven decades. Notice that above average precipitation occurred during the time the Treaty was drafted and in the 1910s when the Order was created. Notice the decades of the 1930s and every decade after that, except the 1950s, that have below total precipitation. This trend appears to be continuing. This means that the IJC may have over estimated the water yield of the Milk River in the 1920s by using hydrologic data from wetter years. Prairie streams, such as the Milk River have far more variable flows and are more sensitive to drought than mountain generated streams. The data came from the U.S. National Weather Service.

The United States is entitled to far less water under the existing Order than Canada, especially during drought.

Please refer to Figure 2 that shows the percent of the combined flows of the St. Mary and Milk Rivers that the United States and Canada are entitled to between 1950 and 2001.

These data were taken from the annual reports submitted to the IJC from its accredited officers. Notice especially in dry years where the United States is entitled to less than 40 percent of the combined flows and Canada is entitled to more than 60 percent. This is because Canada receives a much larger percentage of St. Mary water while the United States share is never balanced by the erratic, more drought-prone flows of the Milk River.

In almost all years, the United States receives less water than it is entitled under the existing Order and Canada receives more.

Please refer to Table 1 that shows the actual amount of water that the United States and Canada were entitled to receive and the amount that they actually received over the five-year period from 1997 to 2002. Note that in all five years, the United States received less then its entitlement of the combined flows of the St Mary and Milk Rivers. The Order should have addressed the third provision of the first sentence of Article VI of the Treaty that allows each country to use more water from one of the two rivers to ensure an equal apportionment and a more beneficial use to each country.

In each year, the United States almost always receives less water than Canada.

Please refer to Figure 3 that shows the total amount of water in acre-feet that the United States and Canada received. Note the discrepancy in the amount of water the United States receives as compared to Canada for each year.

The Order does not implement the language of Article VI of the Treaty.

The three primary provisions of the first sentence of the first paragraph of Article VI of the Treaty are ignored.

> It states: " …the St. Mary and Milk Rivers and their tributaries (in the State of Montana and the Provinces of Alberta and Saskatchewan)[1] are to be <u>treated as one stream</u> for the purpose of irrigation and power, [2] and the <u>waters therefore shall be apportioned equally</u> between the two countries, [3] but in making such equal apportionment more than half may be taken form one river and less than half from the other river by either country so as to afford a more beneficial use to each."

- The two rivers are not treated as one stream; they are apportioned separately.
- The waters are not apportioned equally as the United States receives considerably less, especially in dry years.
- No attempt was made to implement the third provision of the first sentence. That is, to give more water from one river to one country and more water to the other country to ensured an equal apportionment.

Only the second sentence of the first paragraph of Article VI is implemented in the Order.

It states: "<u>it is further agreed</u> that in the division of such waters during the irrigation season, between the 1st of April and the 31st of October, inclusive, annually, the United

States is entitled to a prior appropriation of 500 cfs of the waters of the Milk River, or so much of such amount as constitutes three-fourth or its natural flow, and that Canada is entitled to a prior appropriation of 500 cfs of the flow of the St. Mary River or so much of such amount as constitutes three-fourth of its natural flows."

Our concerns with this sentence are:

- The sentence was included in the Treaty when there was above average precipitation.
- The St. Mary River, a mountain generated stream, produces a more reliable flow than the Milk River.
- The Milk River, a prairie stream, frequently goes dry during the summer while the St. Mary River never goes dry. During drought years, the flow of the St. Mary River can be 10 times greater than that of the Milk River.
- The runoff of the St. Mary River occurs in June when Canada is entitled to the first 500 cfs or ¾ of the flow whereas, the runoff in the Milk River can occur as early as March when the flows must be shared equally with Canada.

Lee and Rolph creeks are international tributaries to the St. Mary River and are excluded from the Order.

Almost all of the flow of these tributaries originates in the United States, but they are not included in the calculations of the U.S. share of the St. Mary River. The average combined flows of these two streams are about 45,000 acre-feet of water.

Other Relevant Points

The Order has not been reviewed in 83 years. The United States tried to have the Order reviewed in 1930, but was unsuccessful. At that time, the IJC said not enough time had elapsed.

A review is timely. United States water shortages are getting worse and Canada continues to use more Milk River water for new irrigation.

Also, a review is timely as we have far more information about the hydrology, water conservation, water use, drought and global warming.

There are also numerous problems with the existing administrative procedures that hurt the United States.

Figure 1.

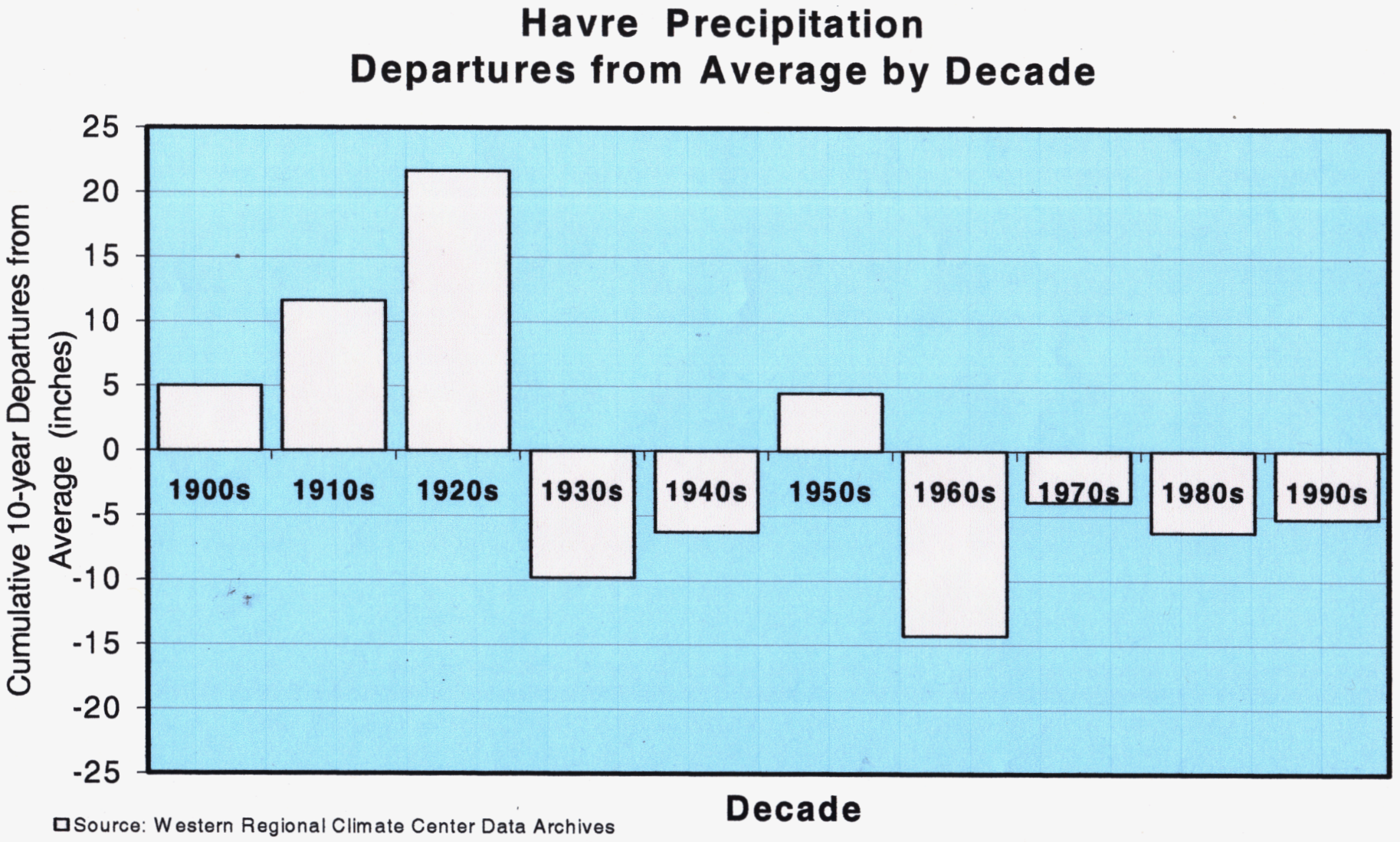

Havre Precipitation
Departures from Average by Decade
Cumulative 10-year Departures from Average (inches)
25
20
15
10
5
0
-5
-10
-15
-20
-25
1900s
1910s
1920s
1930s
1940s
1950s
1960s
1970s
1980s
1990s
Decade
Source: Western Regional Climate Center Data Archives

Figure 2.

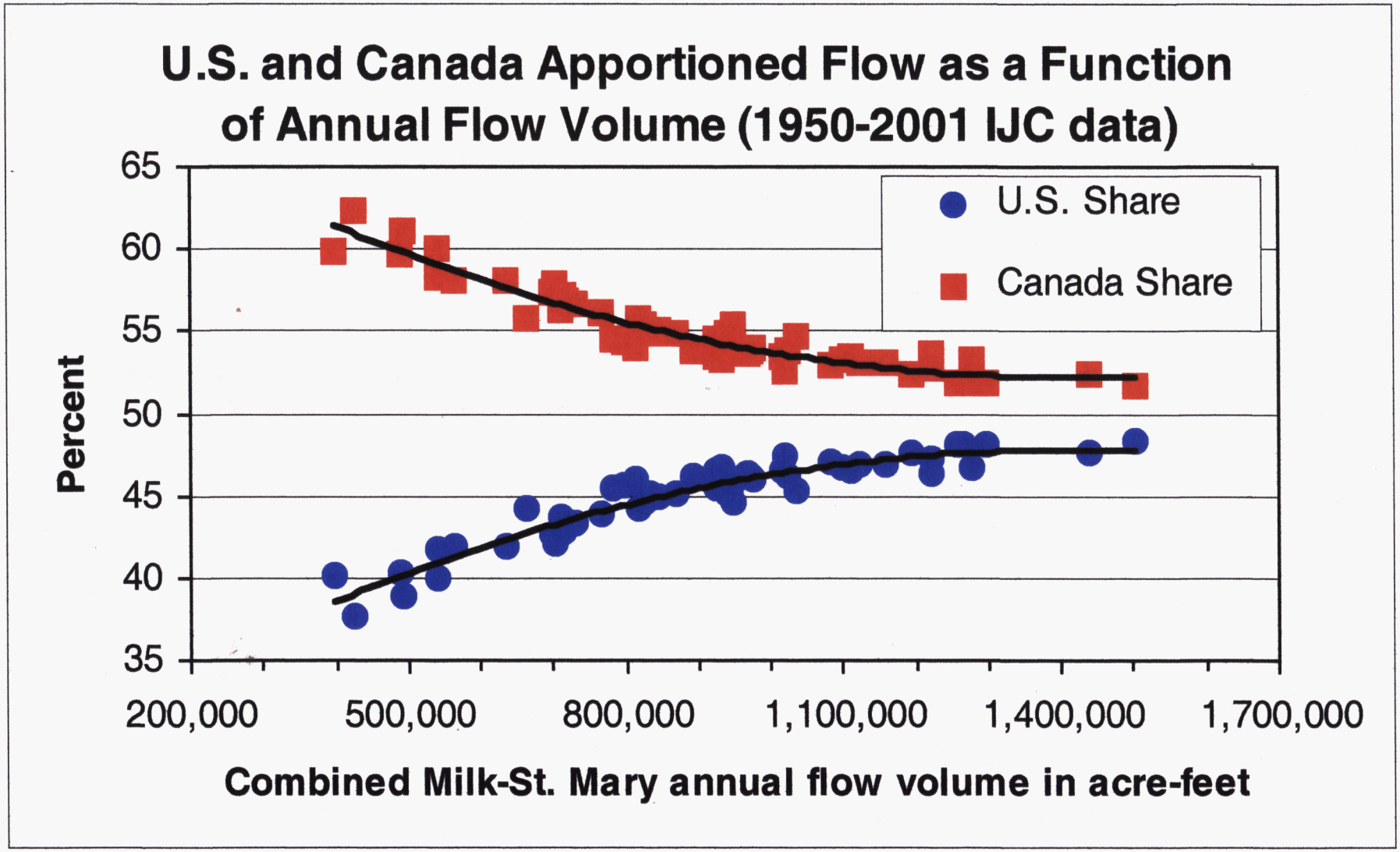
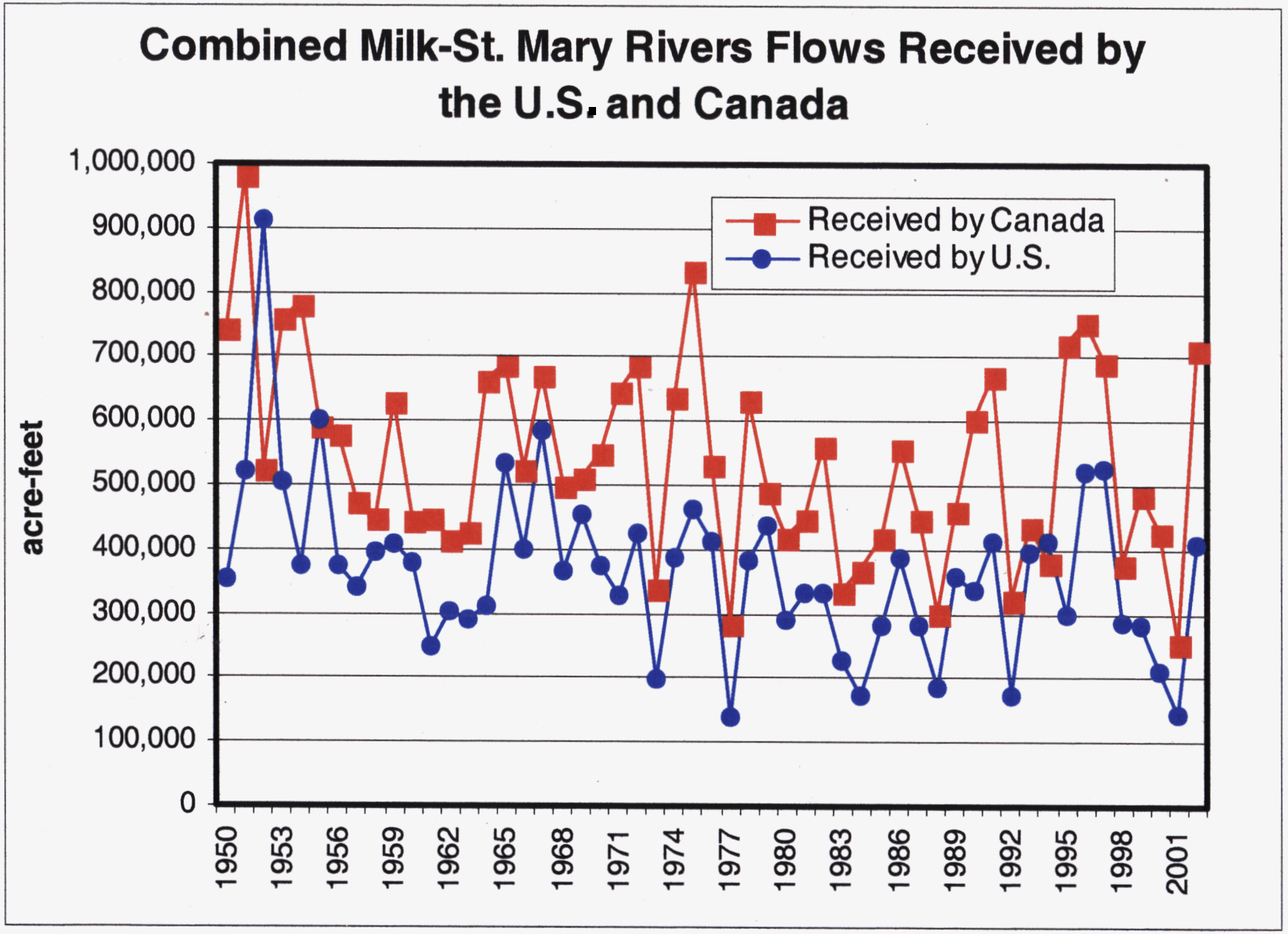

U.S. and Canada Apportioned Flow as a Function of Annual Flow Volume (1950-2001 IJC data)
Percent
65
60
55
50
45
40
35
U.S. Share
Canada Share
200,000
500,000
800,000
1,100,000
1,400,000
1,700,000
Combined Milk-St. Mary annual flow volume in acre-feet

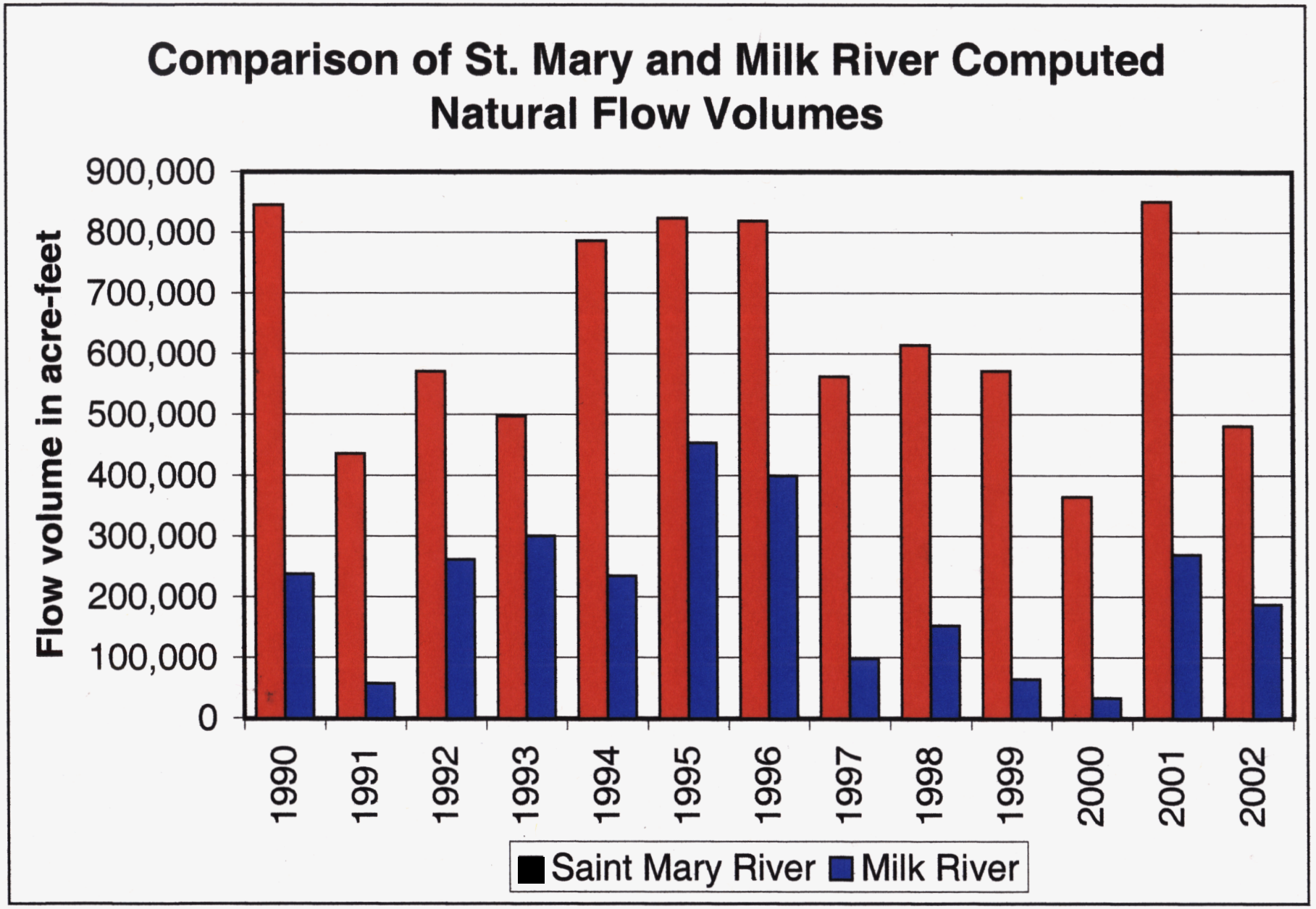
Table 1. Milk-St. Mary Rivers Entitlements and Received Water for Five Recent Years

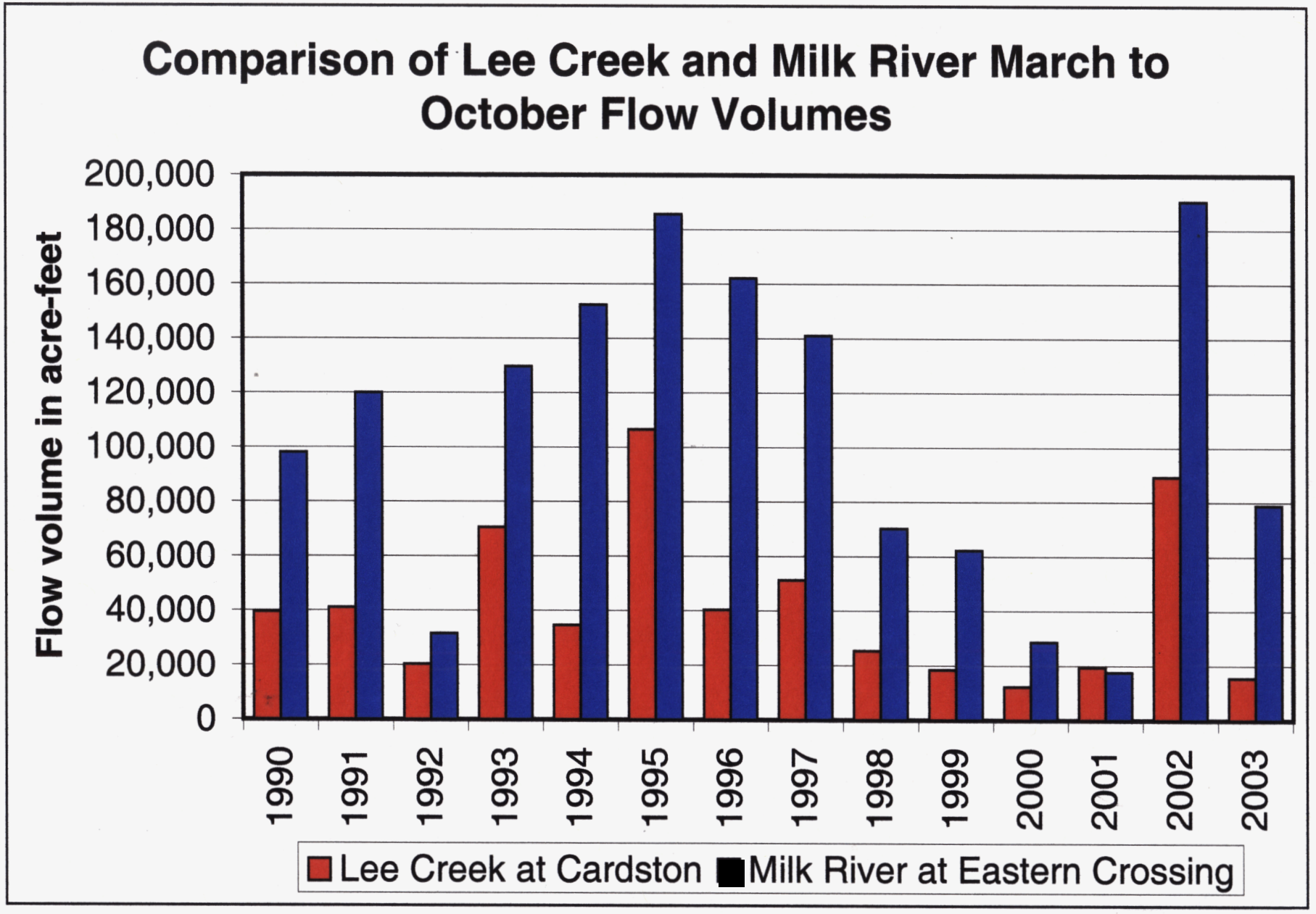
(Source: Accredited Officers reports to the IJC)

Year	United States		Canada	
	Entitlement	Received	Entitlement	Received
1997-98	44.2%	43.0%	55.8%	57.0%
1998-99	43.9%	36.4%	56.1%	63.6%
1999-00	41.9%	32.9%	58.1%	67.1%
2000-01	40.1%	36.1%	59.9%	63.9%
2001-02	46.9%	36.4%	53.1%	63.6%

Figure 3.


Combined Milk-St. Mary Rivers Flows Received by the U.S. and Canada
acre-feet
1,000,000
900,000
800,000
700,000
600,000
500,000
400,000
300,000
200,000
100,000
0
1950
1953
1956
1959
1962
1965
1968
1971
1974
1977
1980
1983
1986
1989
1992
1995
1998
2001
Received by Canada
Received by U.S.


Comparison of St. Mary and Milk River Computed Natural Flow Volumes
Flow volume in acre-feet
900,000
800,000
700,000
600,000
500,000
400,000
300,000
200,000
100,000
0
1990
1991
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
Saint Mary River
Milk River


Comparison of Lee Creek and Milk River March to October Flow Volumes
Flow volume in acre-feet
200,000
180,000
160,000
140,000
120,000
100,000
80,000
60,000
40,000
20,000
0
1990
1991
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
Lee Creek at Cardston
Milk River at Eastern Crossing