Office of the Governor

State of Montana

Judy Martz
Governor

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January 6, 2004

The Rt. Honourable Herb Gray, P.C., C.C., Q.C.
Chair, Canadian Section
International Joint Commission
234 Laurier Avenue W., 22nd Floor
Ottawa, ON K1P6K6

The Honourable Dennis L. Schornack
Chair, United States Section
International Joint Commission
1250 23rd Street N.W. Suite 100
Washington, DC 20037

Dear Honourable Herb Gray and Dennis Schornack:

In response to your November 25th letter, we have identified three primary reasons for reviewing the 1921 order. First, we do not feel the order satisfies the language in the first paragraph of Article VI of the Boundary Waters Treaty. Second, today's reality is significantly different than that foreseen in 1920 and the order should reflect this reality. Third, there are problems with the administrative procedures that implement the order. The result is that the United States receives considerably less water than Canada and that this discrepancy is worse in drought years. Our concerns are explained briefly below and in more detail in the attachment.

The 1921 IJC Order overlooks the key first sentence of the two sentence paragraph of Article VI of the treaty that defines the apportionment for the Milk and St. Mary Rivers. This sentence directs that the Milk and St. Mary Rivers be combined and apportioned equally as one stream. The 1921 order does not treat the Milk and St. Mary Rivers as one stream; it does not provide for an equal apportionment [as one stream]; nor does it try to rebalance the flows of the two rivers to ensure a more equal apportionment.

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On average, the United States receives about 40 percent of the combined flows of the St. Mary and Milk Rivers and Canada receives about 60 percent. During drought years, when water is critically needed, the United States generally receives an even smaller amount.

Circumstances today are far different than when the order was created in 1921. Back then, The United States projected that it could irrigate 220,000 acres in the Milk River Basin of Montana from the combined St. Mary and Milk River flows. Today, the United States irrigates about 140,000 acres and these acres receive only one-half of a full service supply. Further, Montana's Milk River irrigators experience water shortages in 6 to 7 years out of every 10 years. To complicate the situation, Canadian water use in the Milk River basin is considerably greater today than that identified in testimony before the IJC in the 1915-1920 era.

Also, a number of storage projects that were considered for constructions before 1920 were not built, such as the storage project on Lower St. Mary Lake. This project was to be built and operated jointly by the United States and Canada and would have provided for a more equal distribution of water.

It is also unclear why Lee and Rolph Creeks, two international tributaries of the St. Mary River, were excluded from the apportionment procedures. Before 1920, Canada felt there would be little irrigation development from these tributaries, but today there appears to be extensive irrigation. We believe these streams should be included in the apportionment calculations.

Further, the prior water rights of Native American Tribes in the United States were not known in 1920. Even though the United States Supreme Court created federal reserved water rights for Native Americans in 1908, the court did not define the full extent of these water rights until the 1970s. Native American Tribes reside on four reservations within these two basins and they claim large amounts of reserved water dating back to 1855, especially on the Blackfeet and Fort Belknap reservations.

There are also problems with the administrative procedures that implement the 1921 order. For example, the current apportionment procedures underestimate Canada's water usage in the Milk River Basin and the result is that the United States receives less water then it is entitled to. Further, the apportionment procedures with the criteria that deficits must be made up, but that no credit is given for the loss of surplus flows impedes the United States from using its apportioned share.

As I stated in my April 10, 2003 letter, the evaluation of the 1921 Order is timely as Alberta is considering a storage project on the Milk River in Alberta and Montana and the U.S. Bureau of Reclamation are in the process of rehabilitating the St. Mary Facilities and increasing the capacity of the canal back to its original design of 850 cfs. In dry years, we know that over 90 to 95 percent of the total water usage in the Milk River Basin is from St. Mary water.

In conclusion, I feel the information identified above and that found in the attachment justifies a review of the 1921 order. If you need more information, please let me know and I would be happy to provide it. If you have questions regarding this letter or its attachment, please contact Rich Moy at (406) 444-6633.

Sincerely,

JUDY MARTZ
Governor

Attachments

c: Senator Max Baucus
Senator Conrad Burns
Representative Denny Rehberg
Maryanne Bach, Regional Director, USBR
Bud Clinch, Director, MT DNRC
Bob Davis, MT District Chief, USGS

Reasons to Review the 1921 IJC Order for Apportioning the Flows of the St. Mary and Milk Rivers

December 26, 2003
by
The State of Montana

The Issue

The 1921 International Joint Commission (IJC) order implements the provisions of Article VI of the 1909 *TREATY BETWEEN THE UNITED STATES AND GREAT BRITAIN RELATING TO BOUNDARY WATERS, AND QUESTIONS ARISING BETWEEN THE UNITED STATES AND CANADA*.

Although the 1921 order has been used to allocate waters between the United States of America and Canada for the past 83 years, the effectiveness of the order in meeting the language of the 1909 treaty has never been evaluated. Montana Governor Martz, in her April 2003 letter to Dennis Shornack, the U.S. Co-Chair of the International Joint Commission, asked the IJC to evaluate the order to determine whether it is meeting the intent of Article VI of the treaty. Montana requested the review because it believes that the order is not meeting the language of the first paragraph of Article VI of the treaty and that the current apportionment procedures are unfair and harming water users in the United States. The reasons for this statement are described below.

Analyses of the First Paragraph of Article VI of the Treaty

The first paragraph of Article VI of the treaty was analyzed because it defines the St. Mary and Milk River apportionments between the United States and Canada and is the basis for the 1921 order. The first paragraph has two sentences that state:

> "The High Contracting Parties agree that the St. Mary and Milk Rivers and their tributaries (in the State of Montana and the Provinces of Alberta and Saskatchewan) are to be treated as one stream for the purposes of irrigation and power, and the waters thereof shall be apportioned equally between the two countries, but in making such equal apportionment more than half may be taken from one river and less than half from the other by either country so as to afford a more beneficial use to each. It is further agreed that in the division of such waters during the irrigation season, between the 1st of April and 31st of October, inclusive, annually, the United States is entitled to a prior appropriation of 500 cubic feet per second of the waters of the Milk River, or so much of such amount as constitutes three-fourths of its natural flow, and that Canada is entitled to as prior appropriation of 500 cubic feet per second of the flow of St. Mary River, or so much of such amount as constitutes three-fourths of its natural flow."

Analyses of the First Sentence

The 1921 order, for the most part, ignores the first sentence of the above two-sentence paragraph of Article VI. The first sentence states three very important conditions to be followed in apportioning the flows of the St. Mary and Milk Rivers. 1. First, the "St. Mary and Milk Rivers and their tributaries (in the State of Montana and the Provinces of Alberta and Saskatchewan) are to be treated as one stream for the purposes of irrigation and power." 2. Second, that " the waters thereof shall be apportioned equally between the two countries." 3. Third, "but in making such equal apportionments more than half may be taken from one river and less than half from the other by either country so as to afford a more beneficial use to each [country]."

1. The first phrase of the first sentence states that the two rivers and their tributaries are to be treated as one stream for the purposes of irrigation and power. The key words are "treated as one stream," not separate streams. This means that the flows of these two streams and their tributaries are to be combined as one stream in determining the apportionment. However, the 1921 IJC order treats the two rivers separately and apportions them separately.

2. The second phrase in the first sentence directs that the waters of the two rivers shall be "apportioned equally" between Canada and the United States. This means the waters of the two rivers are to be added together as one stream and then divided equally (split 50/50) between the two countries. However, the 1921 order does not apportion the waters equally as one stream.

3. The third phrase in the first sentence provides for an equal apportionment by allowing more than half of the water to be taken from one river by one country and more than half of the water from the other river to be taken by the other country "so as to afford a more beneficial use to each [country]." The drafters of the treaty realized that the St. Mary River produces considerable more water with far more consistent flows than the Milk River. They knew, as most water users did back then, that the Milk River frequently goes dry in the summer and fall. Therefore, the drafters wanted the IJC order to have the flexibility to adjust the apportionment on the two rivers to better ensure an equal split of the combined flows. Unfortunately, the 1921 order does not try to better balance the apportionment between the two rivers to ensure a more equal division between the United States and Canada.

Analyses of the Second Sentence

The second and final sentence in the first paragraph of Article VI states:

> " It is further agreed that in the division of such waters during the irrigation season, between the 1st of April and 31st of October, inclusive, annually, the United States is entitled to a prior appropriation of 500 cubic feet per second of the waters of the Milk River, or so much as of such amount as constitutes three-fourths of its natural flow, and that Canada is entitled to a prior appropriation

of 500 cubic feet per second of the flows of St. Mary River, or so much of such amount as constitutes three-fourths of its natural flow."

The 1921 order implements the second sentence of the first paragraph of Article VI of the treaty. Canada argued that the first 500 cubic feet per second (cfs) or 3/4 of the natural flow, whichever is less, of the St. Mary River system belongs to Canada and the first 500 cfs of 3/4 of the natural flow which ever is less of the Milk River system belongs to the United States during the irrigation season. More damaging to the United States is that Canada argued successfully that these waters should not be included in the equal apportionment as stated in the first sentence.

In contrast, the United States argued that all the waters of the two rivers are to be divided equally, and that the prior right that goes to Canada on the St. Mary River and the prior right that goes to the United States on the Milk River should be included in this equal division. The United States based its argument on the combined language found in both sentences of the first paragraph of Article VI.

The IJC disagreed with the United States and accepted the Canadian position as a part of a compromise that is described below. In doing so, the IJC concluded that this prior appropriation amount of water should not be a part of the equal division, but that the only waters to be divided equally are those in excess of this prior amount.

The United States tried to have the IJC change the 1921 order in 1931. The United States argued that the prior appropriation in the context of the second sentence meant that Canada had the first right to use the St. Mary River waters and the United States had the first right to use Milk River waters, but that these specific sub-apportionments do not negate the broader requirement of an overall equal apportionment between the United States and Canada that is identified in the first sentence of the paragraph. The IJC declined the United State' request. It decided that not enough time had elapsed since the order was established in 1921 to initiate a new review. Canada strongly opposed a new review of the order and argued strenuously to preserve the existing language of the order.

The United States' position on the second sentence is consistent with the first sentence of Article VI of the Treaty. For the Canadian argument to have merit, the two sentences should have been reversed and stated as follows: "Canada is entitled to the first or prior appropriation of 500 cfs or up to 3/4 of the natural flow during the irrigation season, inclusive, annually, from the St. Mary River, and the United States is entitled to the first or prior appropriation of 500 cfs or up to 3/4 of the natural flow during the irrigation season, inclusive, annually, from the Milk River. The remaining flows outside of the irrigation season and the flows during the irrigation season that are above the stated prior appropriations shall be divided equally between the United States and Canada." But that is not what the paragraph says. The first sentence in the first paragraph of Article VI is the lead sentence, and it sets the tone and framework of the apportionment and paragraph. The apportionment objectives of the second sentence are

encompassed within the framework of the first sentence. Also, the second sentence begins by stating, " It is further agreed," which indicates that the parties have already agreed to the first sentence in Article VI and can now proceed to the second sentence.

Summary of the St. Mary and Milk River Apportionments under the 1921 Order

Appendix A lists the combined computed natural flow of the St. Mary and Milk River systems for each water year (October 1 to September 30) from 1949 to 2002. Appendix A further lists and graphs (Figure A-1) the percentages of the combined flows that the United States and Canada were entitled to under the existing order, and (2) the actual percentages of water that each country received.

Table 1, which is a statistical summary of the Appendix A data, shows that the United States received an average of 40 percent of the combined flows of the St. Mary and Milk Rivers and Canada received an average of 60 percent. During these 53 years, the United States received, annually, an average of about 181,000 acre-feet less than Canada. This discrepancy is not insignificant; it amounts to about 20 percent of the combined flows of the two rivers.

What is even more disturbing is that, when water becomes scares, the United States received less water (see Table 2 and Table 3). For example, during the 1984 season, when the combined St. Mary and Milk River flows were near the 90^{th} percentile (such that a lower annual flow occurs only one out of every ten years) the United States received only 31.5 percent of the combined flows, while Canada received 68.5 percent. This is a difference of 37 percent. Clearly, this is not an equal apportionment as defined in the first sentence of Article VI of the Treaty.

A review of the *Report to the IJC on the Division of the Waters of the St. Mary and Milk Rivers for the Year 2001* illustrates the discrepancies between the 1921 order and the actual language found in the first paragraph of Article VI of the treaty. During this dry year, when flows were critically needed, the calculated natural flow of the St. Mary River was 365,157 acre-feet, and that of the Milk River was 33,070 acre-feet (includes the eastern tributaries of Lodge and Battle Creeks and the Frenchman River). Importantly, note that the annual flow of the St. Mary River was over 11 times greater than that measured and calculated for the Milk River. Under the existing 1921 order and associated apportionment procedures, Canada was entitled to 59.9 percent of the combined St. Mary and Milk River flows, and the United States was entitled to 40.1 percent. However, the United States received only 36.1 percent, and Canada received 63.9 percent. The end result was that the United States received 110,603 acre-feet less water and only 57% of what Canada received. Clearly, this is not an "equal apportionment" or a 50/50 split of the combined flows of the two rivers as mandated in the lead sentence of Article VI of the treaty. It is during these dry years, when water is most critically needed, that the 1921 order most harms United States water users.

Even during wet years, such as 2002, the United States received considerably less than Canada (from *Report to the IJC on the Division of the Waters of the St. Mary and Milk Rivers for the Year 2002)*. In 2002, the combined flows of the St. Mary River (851,339 acre-feet) and Milk River (269,842 acre-feet) were 1,121,181 acre-feet. The United States received 408,311 acre-feet or 36 percent of the combined flows, and Canada received 712,870 acre-feet or 64 percent. Overall, the United States received 304,559 acre-feet less water and only 57 percent of what Canada received.

Table 1. Statistics for the combined Milk/St. Mary River flows for the 1949-2002 water years.

Type of Year	Combined Flow in acre-feet
Average	907,390
Median	925,135
10th Percentile*	1,249,079
20th Percentile	1,116,986
40th Percentile	956,384
60th Percentile	831,741
80th Percentile	706,038
90th Percentile	545,403

Table 2. Percent U.S. and Canada shares of combined Milk/St. Mary River flows by existing apportionment procedures by type of water year.

Type of Year	U.S. Share	Canada Share
Average	44.9	55.1
Median	45.5	54.5
10th Percentile*	48.2	51.8
20th Percentile	46.9	53.1
40th Percentile	45.9	54.1
60th Percentile	45.1	54.9
80th Percentile	42.1	57.9
90th Percentile	41.8	58.2

Table 3. Percent of combined Milk/St. Mary River flows received by the U.S. and Canada by type of water year.

Type of Year	U.S. Share	Canada Share
Average	40.0	60.0
Median	43.3	56.7
10th Percentile*	40.0	60.0
20th Percentile	36.4	63.6
40th Percentile	40.8	59.2
60th Percentile	47.4	52.6
80th Percentile	40.1	59.9
90th Percentile	36.8	63.2

* The 10^{th} Percentile flow is a high flow that is equal to or is exceeded in only 10 percent of the years. In all other years, the flows are less (equal to or is less in 90 percent of the years.)

How the Order Should Have Been Implemented Based on the First Paragraph of Article VI of the Treaty

Considering the three phrases of the first sentence together, the IJC order should have included the following provisions. First, the flows of the St. Mary and Milk Rivers should have been combined and treated as one stream, which means that the flows of the two rivers are to be added together and treated as one flow from one stream. Second, the IJC order should then have taken the total combined flow and divided this number equally between the United States and Canada to determine the 50/50 split. Lastly, the IJC order should have determined how best to divide the flows to ensure a more beneficial use to each country. This could have been accomplished by providing the United States with more water from both rivers outside of the irrigation season and more water from the St. Mary River when the flows exceed the prior amount (500 cfs) described in the second sentence of Article VI during the April 1 to October 31 irrigation season.

Description of the Compromise Reached in 1921

The IJC held numerous and very contentious hearings between 1915 and1921 on the measurement and apportionment of the waters of the St. Mary and Milk Rivers and their tributaries. Two major issues of disagreement between Canada and the United States rose to the surface and affected the final outcome of the 1921 order. The IJC appeared to compromise on these two issues, favoring the United States on one issue and Canada on the other. After living with the 1921 order for 83 years, it is clear that Canada came out far better than the United States and received considerably more water from the issue favoring it than the United States obtained by prevailing on the other issue. The two issues are described below.

The Meaning of "the St. Mary and Milk Rivers and their Tributaries"

The first issue deals with the interpretation of the phrase of the first sentence of Article VI that states "The St. Mary and Milk Rivers and their tributaries (in the State of Montana and the Provinces of Alberta and Saskatchewan)." Canada argued that the two rivers and all their tributaries had to be included in the apportionment. Canada argued further that the treaty includes all the waters of the Milk River and its tributaries to its confluence with the Missouri River, even those tributaries that originate in and remain solely within Montana.

For a number of reasons, the United States believed that the treaty language applied to only the international tributaries that cross the boundary. At that time, the international waters were the only waters that were contentious and discussed in the negotiations of the treaty. Further, the United States felt that it would have been a significant expenditure, and maybe physically impossible, to include the non-international Milk River tributaries in the apportionment formula. More importantly, the United States believed that the IJC has no jurisdiction over non-international waters, or those waters that originate in one country and never come in contact with the other country. The IJC agreed with the United States on this issue.

It is interesting to note that many of these non-international Milk River tributaries stop flowing or produce very little water during the summer and fall in average and low flow years. According to the U.S. Geological Survey and the U.S. Bureau of Reclamation figures, the total combined natural flow from all of these non-international Milk River tributaries at the 90 percentile flows is 45,000 acre-feet. This amount was calculated with flow data for the years between 1930 and 1989 and did not include the many drought years that have occurred in the 1990s and into the 21st century.

Ironically, the IJC excluded Lee and Rolph Creeks, which are two international tributaries of the St. Mary River, from the apportionment of the St. Mary River. These two tributaries originate in the United States and cross the international border into Canada. Canada argued in the early 1900s that these waters were not used to sustain beneficial uses such as irrigation and, therefore, should not be included in the apportionment. This is not the case today, because these streams, especially Lee Creek, like the St. Mary River produce sufficient quantities of water and are now heavily used for irrigation. For example, the average annual discharge of Lee Creek as measured at Cardston, Alberta is 42,900 acre-feet per year for the 1921-1990 period. The annual seasonal discharge during the irrigation season of Rolph Creek at Kimball, Alberta, averages 5,070 acre-feet for the 1936-1990 period.

It is also interesting to note that over 90 percent of the flows of the St. Mary River at its confluence with the Belly River in Canada originates in the United States, and a significant majority (60 to 80 percent) of the flow of the Milk River at the eastern crossing originates in the United States. Yet, the United States received an average of only about 40 percent of the combined flows from these two rivers.

"Equal Apportionment" versus "Prior Appropriation"

The second major issue deals with "prior appropriation" or the "priority" usage of the St. Mary and Milk Rivers. Canada argued that the treaty recognizes, but does not apportion, the priority water. This is the water that is identified in the second sentence of the first paragraph of Article VI. Canada believed that this water is to be subtracted before the remaining waters are to be divided equally. Canada argued that the two provisions of "prior appropriation" and "equal apportionment" are contradictory in nature, and that it is not possible to satisfy both conditions.

The United States disagreed and argued that the priority waters are included in the equal apportionment as stated in the first sentence. The IJC agreed with Canada. Primarily because of this decision, the United States tried to reopen the order in 1931, but as noted earlier, the IJC felt that not enough time had lapsed since the order was finalized in 1921 to begin a new review.

The drafters of the treaty knew what they were doing when they crafted the first two-sentence paragraph of Article VI of the treaty--especially, where they stated in the last phrase of the first sentence that the IJC could give more water to one country from one river in order to ensure an equal apportionment. They knew that the flows of the St. Mary River system were larger and more stable than those in

the Milk River system. The IJC order could have compensated for this discrepancy and still abided by the allocation of the prior waters as identified in the second sentence of the first paragraph.

More specifically, the IJC should have used the treaty phrase, "but in making equal apportionment more than half may be taken from one river and less than half from the other by either country so as to afford a more beneficial use to each", to better balance the waters of these two rivers. It should have given the United States almost all the natural flow of the Milk River system at the eastern crossing, and the ability to keep the St. Mary Canal full during its normal operation season. In testimony before the IJC on reopening the order in 1931, Canada stated, "Canada had very little available storage and the erratic flow of the Milk River could never have been of great value for Canadian irrigation." Based on Canada's testimony, more Milk River waters should have been apportioned to the United States to provide for a more equal apportionment. If in 1921, the IJC had implemented the provisions of the first sentence, the apportionment might not be equal, but it would be a lot closer than it is today.

The IJC felt that it forged a compromise when it limited the apportioned waters to those rivers and tributaries that cross the international boundary (except for the international tributaries of the St. Mary) and did not include the first 666 cfs as a part of the 50/50 split. In other words, the IJC accepted the Canadian position that the provision of "prior appropriation" in the second sentence is the dominant factor in the treaty, and not the "equal apportionment" provision found in the first sentence. The IJC also believed that its 1921 order would provide an equal division of the waters. However, history and the actual flow records have shown that this is not the case and that Canada clearly came out ahead.

Changing Circumstances and Other Reasons for Reviewing the Order

There are other good reasons for reviewing the 1921 order that were not known or anticipated when the order was created. They are described below.

Prior Water Rights of Native Americans Tribes in the United States Were Not Known in 1921

Federal water rights of Native American Tribes in the United States with very early priority dates were not known when the Boundary Waters Treaty was negotiated in the early 1900s. Even though the United States Supreme Court created prior or reserved water rights for Native Americans in 1908 with the Winters Case, the court did not define the full extent of these federal reserved water rights until the 1970s.

Tribes on four Native American reservations located within the Milk and St. Mary River basins of Montana have prior federal water rights dating back to 1855. To date, federal reserved water right claims have been settled with the Tribes on the Fort Peck, Rocky Boy's and Fort Belknap Reservations in the Milk River drainage. For example, in the Fort Belknap Compact, the Tribes are entitled to divert and use up to 645 cfs of the natural flow of the Milk River and its tributaries upstream of the reservation with a priority date of October 17, 1855. The

negotiation of the reserved water right claims of the Blackfeet Tribe for significant amounts of water from the St. Mary and Milk Rivers and their tributaries is ongoing. We know that the Native American Tribes on these reservations are entitled to large amounts of water. With the settlement of these prior water rights, existing Milk River irrigators downstream of the reservations will incur even more water shortages.

Water Supplies in the United States Were Overestimated in 1921

The reliability and amount of water available for use in the Milk River Basin were overestimated at the time the order was approved. Testimony in the record by the United States before the IJC in the early 1900s stated that the flows of the Milk River and the designed flows from the St. Mary Diversion Project could supply waters to irrigate 220,000 acres within the U.S. Bureau of Reclamation's Milk River Project in Montana. Today, this is not the case. The U.S. Bureau of Reclamation's Milk River Project irrigates about 109,000 acres with an additional 11,500 acres under contract for project waters. The bureau's water rights for the Milk River Project date back to 1905.

Even more critical is that Milk River Project irrigators in the United States experience water shortages in 6 to 7 years out of every 10 years and no project irrigator receives more than about one-half of a full service supply. This is because the water supplies in the United States portion of the Milk River basin are limited even with the existing St. Mary water. In dry years, over 90 to 95 percent of the water supply in the United States portion of the Milk River Basin comes from St. Mary water that is diverted through the St. Mary Canal. During average years, St. Mary water accounts for about 70 percent of the water supply in the Milk River basin. The St. Mary water is essential for Milk River Project irrigators and for Montana's overall economy as this basin produces about 10 percent of the hay and 10 percent of the cattle raised in the state.

Storage Projects Contemplated in 1921 Were Not Built

A number of storage projects were proposed for construction back in the early 1900s, but were not built, especially on the U.S. side of the border. One was the 240,000 acre-foot Chain-of-Lakes storage project on the Milk River mainstem. Another was a dam on Lower St. Mary Lake. In a letter dated October 6, 1921, the IJC recommended to both federal governments that the governments of the United States and Canada enter into an agreement for the construction of a reservoir on Lower St. Mary Lake in Montana. This project was not built.

Existing Apportionment Procedures Hurts the United States.

The 1921 order apportions the flows daily and allows either country to make up deficits in the apportionment, but it does not allow credit for surplus waters lost to the other country. What this means for the United States, with its lack of storage in the St. Mary River basin, is that it will continue to lose a considerable amount of its share of water to Canada during the spring freshet and that it will not be able to keep the St. Mary Canal full during the irrigation season, when the flows are below the United States' apportioned share. Nowhere is it documented that

the State of Montana or the U.S. Bureau of Reclamation approved the apportionment procedures or the language associated with making up deficits, and not surpluses. This decision has placed the United States at a clear disadvantage.

Besides this issue, there are very few years that the United States has been able to receive its full entitlement of water even with the 1921 Order. Over the past 50 plus years, the United States has received about 89 percent of its entitlement and much less than half of the total flow.

Canadian Water Use in the Milk River Basin is Considerably Greater than Anticipated in 1920

As noted earlier, Canada did not feel that the Milk River basin provided much promise for irrigation in 1921 and at that time emphasized the importance of using most of the flows of the St. Mary River. This is no longer the case. Besides using a large portion of the St. Mary River flows, Canada's water use in the Milk River basin of Alberta is significant and may be expanded. Alberta's *Milk River Basin Preliminary Feasibility Study, Draft Report* dated October 15, 2003, indicates that Canadians irrigate 3,138 hectares (8,601 acres) with Milk River water. The report further suggests that, if a new storage project were built on the Milk River in Alberta, it might provide water for up to an additional 13,500 hectares (37,003 acres) of irrigation. This would further reduce the percentage of water received by the United States and would worsen the already significant water shortages that are occurring on the United States' side of the border.

Current Apportionment Procedures Underestimate Canada's Water Usage in the Milk River Basin

Even more significant is that the current apportionment procedures for implementing the IJC order underestimate Canadian water use in the Milk River basin. This error lowers the amount of water the United States is entitled to under the current apportionment procedures. The existing procedures assume Milk River water use by Canada of 5,158 dam^3 during average and higher flow years, and 3,925 dam^3 during dry years. However, in its *Milk River Basin Preliminary Feasibility Study, Draft Report* dated October 15, 2003, Alberta Environment characterizes Canada's annual Milk River use at 8,900 dam^3 during the irrigation season, about twice as much water as is being used in calculating the apportionments. In this same report, it also is implied that 3,138 hectares (8,601 acres) have been licensed for irrigation with Milk River water in Alberta. In contrast, current apportionment procedures assume 1,810 hectares (4,961 acres) of Canadian irrigation with Milk River water. If the accredited officers are underestimating actual Canadian water usage in the Milk River basin, which appears to be the case, this means the United States is receiving considerably less of its entitlement under the existing apportionment procedures.

Conclusion

The IJC has not reviewed the 1921 order for the past 83 years. A number of the assumptions that were made in 1921 have not come to fruition or are not true today. The 1921 order gave Canada considerable more water than the United States, which has clearly harmed water users in the United States.

A new review of the order is very timely considering the new projects being proposed and studied in both Alberta and Montana. Montana and the federal government are planning to rehabilitate the St. Mary diversion structure, siphon, and canal works and, possibly, enlarge Fresno Reservoir. Alberta is evaluating a storage project on the Milk River in Alberta. The outcome of the deliberation over the 1921 order could have a significant effect on the viability and economics of these proposed projects.

The 1921 order should be revised to better reflect the actual language of the treaty in light of what is known today about the two rivers. Specifically, the order needs to include the first sentence of the two-sentence paragraph of Article VI of the treaty into the apportionment procedures. For all practical purposes, this sentence was ignored by the IJC in its 1921 order.

Further, both Canada and the United States know far more today about the hydrology of these two rivers, allocation procedures, existing water uses including federal reserved water rights, water supplies, water conservation techniques, and water management than they did in 1921.

In conclusion, the IJC should revise both the 1921 IJC order and the apportionment procedures to make it fairer based on the language of the treaty and what is known about the hydrology and uses in the St. Mary and Milk River basins.

Appendix A: Summary of St. Mary-Milk River Flow Apportionments 1950-2002.

Year	Combined Milk and St. Mary River Flows (acre-feet)	US Share by Existing Apportionment Procedures (percentage)	Canada Share by Existing Apportionment Procedures (percentage)	Total U S Share Received (percentage)	Total Canada Share Received (percentage)
1949-1950	1.098.188	46.6	53.4	32.2	67.8
1950-1951	1.504.040	48.3	51.7	34.7	65.3
1951-1952	1.440.291	47.6	52.4	63.4	36.6
1952-1953	1.264.822	48.2	51.8	40.0	60.0
1953-1954	1.159.067	46.9	53.1	32.4	67.6
1954-1955	1.193.948	47.6	52.4	50.5	49.5
1955-1956	953.777	45.9	54.1	39.2	60.8
1956-1957	812.396	46.1	53.9	41.8	58.2
1957-1958	846.477	44.9	55.1	46.6	53.4
1958-1959	1.035.892	45.3	54.7	39.2	60.8
1959-1960	825.399	44.6	55.4	46.0	54.0
1960-1961	698.172	42.5	57.5	35.5	64.5
1961-1962	715.808	42.9	57.1	42.0	58.0
1962-1963	718.325	43.2	56.8	40.5	59.5
1963-1964	975.034	46.1	53.9	32.1	67.9
1964-1965	1.220.549	47.3	52.7	43.6	56.4
1965-1966	925.135	45.5	54.5	43.3	56.7
1966-1967	1.256.211	48.2	51.8	46.5	53.5
1967-1968	867.817	45.1	54.9	42.2	57.8
1968-1969	966.812	46.3	53.7	47.1	52.9
1969-1970	923.286	46.5	53.5	40.6	59.4
1970-1971	972.472	46.1	53.9	33.6	66.4
1971-1972	1.110.694	46.5	53.5	38.1	61.9
1972-1973	539.128	41.8	58.2	36.8	63.2
1973-1974	1.022.559	46.2	53.8	37.6	62.4
1974-1975	1.294.873	48.1	51.9	35.6	64.4
1975-1976	945.855	45.4	54.6	43.7	56.3
1976-1977	423.673	37.6	62.4	32.6	67.4
1977-1978	1.014.389	46.5	53.5	37.5	62.5
1978-1979	930.325	46.8	53.2	47.2	52.8
1979-1980	711.004	43.7	56.3	40.9	59.1
1980-1981	782.575	45.4	54.6	42.4	57.6
1981-1982	894.430	46.2	53.8	37.2	62.8
1982-1983	565.613	42.0	58.0	40.4	59.6
1983-1984	540.351	39.9	60.1	31.5	68.5
1984-1985	702.727	42.1	57.9	40.1	59.9
1985-1986	947.405	44.5	55.5	41.0	59.0
1986-1987	730.662	43.3	56.7	38.4	61.6
1987-1988	488.708	40.3	59.7	38.2	61.8
1988-1989	819.043	44.1	55.9	43.6	56.4
1989-1990	941.224	45.0	55.0	35.6	64.4
1990-1991	1.083.510	47.0	53.0	37.9	62.1
1991-1992	492.961	38.9	61.1	34.6	65.4
1992-1993	833.327	45.1	54.9	47.4	52.6
1993-1994	798.168	45.6	54.4	51.9	48.1
1994-1995	1.021.153	47.4	52.6	29.4	70.6
1995-1996	1.277.819	46.7	53.3	40.9	59.1
1996-1997	1.219.697	46.4	53.6	43.2	56.8
1997-1998	661.547	44.2	55.8	43.0	57.0
1998-1999	767.836	43.9	56.1	36.4	63.6
1999-2000	637.094	41.9	58.1	32.9	67.1
2000-2001	398.227	40.1	59.9	36.1	63.9
2001-2002	1.121.181	46.9	53.1	36.4	63.6

Appendix A, Figure A-1. Percent of total combined Saint Mary/Milk River flows that were apportioned to and received by the United States by annual flow volume for years 1950-2002.