

**Responses to Manitoba Water Stewardship  
Comments on the  
Draft Report on the Red River Valley Water  
Supply Project Needs and Options**



Water Stewardship

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October 3, 2005

Red River Valley Water Supply Project  
Bureau of Reclamation  
P.O. Box 1017  
Bismarck ND 58502 - 1017

## Draft Report on Red River Valley Water Needs and Options

Dear Sir or Madam:

Thank you for the opportunity to review and provide comments on the Draft Report on Red River Valley Water Needs and Options (the Draft Report). Manitoba clearly understands that the focus of this project is to provide a high quality and sufficient water supply to citizens of the United States living in the North Dakota and Minnesota portions of the international Red River valley. Manitoba also has an interest in this project and wishes to be involved in discussions throughout the process since several of the potential options, if selected, could cause significant injury to our aquatic resources and environment. Article IV of the Boundary Waters Treaty of 1909 between the United States and Canada states that "...waters flowing across the boundary shall not be polluted on either side to the injury of health or property on the other". In 1975, the United States and Canada jointly referred the Garrison Diversion Unit project to the International Joint Commission for assessment of the transboundary implications related to Article IV of the Treaty. Following this assessment, the International Joint Commission reported to governments in 1977. Its recommendation #2<sup>(1)</sup> is equally applicable today for the Red River Valley Water Supply project component of the original Garrison Diversion Unit project as it was in 1977 and which states:

*"That, if and when the Governments of Canada and the United States agree that methods have been proven that will eliminate the risk of biota transfer, or if the question of biota transfer is agreed to be no longer a matter of concern, then the construction of that portion of the Garrison Diversion Unit which would affect waters flowing into Canada may be undertaken provided the following conditions are met:*

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(1) Page 121, Transboundary Implications of the Garrison Diversion Unit, an International Joint Commission Report to the Governments of Canada and the United States.



# Responses to Manitoba Water Stewardship

## Response to Comment 1

Reclamation agrees that the potential for biota transfer is a significant issue. Any alternative which is ultimately selected for implementation will fully comply with the requirements of the Boundary Waters Treaty.

- (a) *Any agreed modifications or other measures required to resolve the interbasin transfer issue are incorporated into the Project."*

The essence of this recommendation is that either (1) biota transfer becomes no longer an issue of concern or (2) Canada and the United States agree on the methods necessary to eliminate the risk of biota transfer and that these are incorporated into the project. Concerns with biota transfer are greater now than in 1977, a point well-established as fact that requires no further argument.

Of the seven identified options in the Draft Report, four have the potential to significantly impact the aquatic resources and environment in Manitoba. These are the Lake of the Woods supply option and three of the four Missouri River interbasin transfer supply options. It is noted that the Lake of the Woods is defined as a "boundary water" under the Boundary Waters Treaty of 1909 and therefore, implementation of this option would require an Order of Approval from the International Joint Commission following its review and assessment.

With regard to the Missouri River interbasin transfer supply options, there are a number of deficiencies with the water demand scenarios presented in the Draft Report that may overestimate future water needs and thus, may be used to erroneously justify the need for one of the interbasin transfer options. Since this is a draft report, it is suggested that other, more realistic scenarios also be developed for presentation and discussion in the final report. Furthermore, the United States Bureau of Reclamation's accompanying report titled "Risk and Consequence Analysis Focused on Biota Transfers Potentially Associated with Surface Water Diversions Between the Missouri River and Red River Basins" significantly underestimated the risks and consequences of biota transfer through the use of inappropriate approaches and assumptions. Technical deficiencies on both issues have been provided on the Draft Report by Environment Canada's David McGovern in his comments on October 3, 2005.

In the absence of established water treatment standards to minimize the risks of biota transfer, it is eminently reasonable to rely upon standards established for the provision of microbiologically safe drinking water to humans, since the goal is similar - to effectively and reliably remove or inactivate organisms of concern.

It has already been well established<sup>(2)</sup> that there are numerous organisms of concern found in the Missouri River basin that are not present in the Hudson Bay basin including the disinfection-resistant agent for whirling disease (*Myxobolus cerebralis*). So too, has it been established beyond question that some organisms are resistant to disinfection, and for others,

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- (2) Administrative Appeal dated August 20, 2001 and filed before the Great Plains Regional Director of the Bureau of Reclamation on July 13, 2001 by Canada and Manitoba on the related Garrison Diversion Unit's Northwest Area Water Supply Project.
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# Responses to Manitoba Water Stewardship

## Response to Comment 2

Your comment is noted. If the Lake of the Woods Alternative is identified as the preferred alternative, Reclamation will seek an Order of Approval from the International Joint Commission.

## Response to Comment 3

Reclamation used the best available information to estimate future demands, and believes that the estimates are reasonable and supportable. All of the options described in the Needs and Options Report, including the in-basin options, would meet these estimated demands. The two water demand scenarios used in the Needs and Options Report provide adequate data to understand the relationship between alternative costs and water demands. Additional water demand sensitivity analyses may be presented in the final environmental impact statement.

## Response to Comment 4

Reclamation believes that the risk analysis conducted by United States Geological Survey used appropriate methodologies and assumptions, and accurately portrays the risk of interbasin biota transfer associated with the Red River Valley Water Supply Project. The consequence analysis is intended to provide a context for interpreting the risk. It is not intended to address all potential consequences.

## Response to Comment 5

Your comment is noted.

## Response to Comment 6

Your comment is noted. The Missouri River Import to Red River Valley Alternative would withdraw water from a series of horizontal wells in the sediments underlying the river. These sediments would act as a sand filter, greatly reducing the turbidity. The other three import alternatives would withdraw water from the McClusky Canal.

disinfection is rendered ineffective and unreliable without proper control of turbidity in advance of disinfection. Furthermore, numerous routes have been identified for the loss of surviving organisms in the Hudson Bay basin through catastrophic failure, routine and expected pipeline leakage, plus others<sup>(ibid)</sup>. It is acknowledged in the Draft Report that turbidity levels of Missouri River water are elevated and characterized by high turbidity spikes, mainly occurring during the summer time.

A United States court has recently examined a number of these relevant issues with regard to the related Garrison Diversion Unit's Northwest Area Water Supply project. On February 3, 2005, Judge Collyer concluded that organisms avoiding removal or inactivation could have "...catastrophic consequences..." if released to the Hudson Bay basin.<sup>(3)</sup>

For drinking water systems in the United States, the standards for turbidity control prior to disinfection and the standards for performance of removal and disinfection technologies are enshrined in the Safe Drinking Water Act and its implementing rules and regulations. Only one of the interbasin transfer options (*i.e.*, Garrison Diversion Unit Water Supply Replacement Pipeline) proposes to meet these established standards for turbidity prior to disinfection and for removal and disinfection performance prior to pumping Missouri River water to the Hudson Bay basin. The other proposed interbasin transfer options will not effectively and reliably provide an adequate level of treatment to remove or inactivate species of concern in the Missouri River.

I wish to close by clearly indicating that:

- (a) if a water supply option is selected that involves the interbasin transfer of water from the Missouri River;
- and
- (b) if agreement has not been reached on the level of treatment to satisfactorily eliminate the risk of biota transfer as intended by the International Joint Commission in its report to the governments of the United States and Canada in 1977 on the Garrison Diversion Unit project;
- then
- (c) Manitoba will request the governments of Canada and the United States to refer the Red River Water Supply Project to the International Joint Commission for review

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(3) Memorandum Opinion, February 3, 2005. Judge Rosemary M. Collyer. Government of the Province of Manitoba versus Gale A. Norton, Secretary, United States Department of the Interior *et al.* United States District Court for the District of Columbia.



# Responses to Manitoba Water Stewardship

## **Response to Comment 7**

Your comment is noted.

## **Response to Comment 8**

Your comment is noted. The Garrison Division Unit Replacement Pipeline Alternative would supply potable water. The proposed treatment for the other three import options is intended to fully comply with the requirements of the Boundary Waters Treaty.

## **Response to Comment 9**

Your comment is noted.


and assessment in light of contemporary knowledge of issues and concerns surrounding invasive species and current standards for effectively and reliably removing or inactivating microbiological species of concern,

and

- (d) that if the Lake of the Woods option is selected, its implementation would require an Order of Approval from the International Joint Commission since this is a boundary water as defined by the Boundary Waters Treaty of 1909.

Thank you again for the opportunity to comment on the Draft Report. Manitoba looks forward to participating in other phases of this project.

Sincerely,



Dwight Williamson, Director  
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Peter Fawcett  
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**Manitoba**



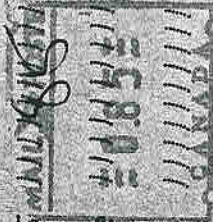
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