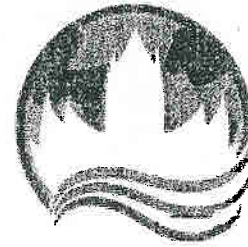


# **Responses to The Council of Canadians**

## **Comments on the Draft Report on the Red River Valley Water Supply Project Needs and Options**



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

October 3, 2005

Re: Draft Report on Red River Valley Water Needs and Options

Thank you for the opportunity to provide input on the Draft Report of Red River Valley's Water Needs and Options. The Council of Canadians is a public interest organization working to protect Canadian sovereignty by promoting progressive and independent national policies on fair trade, clean water, safe food, public health care and other issues of social and economic concern to Canadians.

As population grows, demands for clean freshwater will certainly increase, and informed effective management is critical in meeting the needs of municipalities, agriculture, industry and recreation. North Dakota's concerns about the current and future water supply are very real, and the provinces and federal government of Canada, given their interconnectedness and shared water resources, must voice their concerns. A number of issues related to the options suggested by the US Bureau of Reclamation are discussed below.

1. Given the serious environmental implications of water exportation through diversion, it is necessary to consider the great harm such actions can cause to both the environment and society at large. The risks associated with these water transfers are too numerous and severe to be accepted without giving them a closer look. They include: reduced biological productivity in lakes and rivers due to erosion and increased turbidity; loss of forest, agricultural land and wildlife habitat; destruction of fish habitat and wetlands; harmful changes in water temperature and water quality; ecosystem havoc occasioned by the uncontrolled transfer of fish, plants, parasites, bacteria, and viruses from one drainage basin to another.

# Responses to The Council of Canadians

## Response to Comment 1

The Draft Needs and Options Report is an assessment of needs and an engineering study to develop potential options for the Project (Red River Valley Water Supply Project). The DEIS (Draft Environmental Impact Statement) evaluates and discloses the impacts of the proposed Project.

Large-scale inter-basin transfers of water from the Missouri River to the northwestern parts of the State may introduce non-native or invasive species to a hydrological system that is shared with Canada. The option of diverting water from Lake of the Woods, aside from having obvious political ramifications, also poses serious risks to the integrity of the ecosystem, to fish habitat and to the economic value of the region.

2. The proposed Lake of the Woods alternative outlines suggestions for a diversion of water via a pipeline to the major population centers in the Red River Basin. This proposition must be, first and foremost, subject to approval by the International Joint Commission (IJC). The IJC is mandated by the Boundary Waters Act (1909) to be the proper forum for all trans-boundary water issues between Canada and the United States. As Lake of the Woods is a boundary water system shared by Ontario, Manitoba and Minnesota, automatic referral to the bi-national body is essential.

In addition to the Boundary Waters Treaty, this requirement is further articulated in the Lake of the Woods Convention and Protocol, signed by Canada and the United States in 1925. The recent controversy over the Devil's Lake diversion is a strong reminder that early referral to the International Joint Commission is integral to respecting international law. North Dakota must therefore not go forward with consideration of any option that would contribute to pollution or "to the injury of health or property on the other" party.

3. A very important issue that remains unmentioned in this report is that of climate change. Indeed, climate change is one of the key stressors to the availability of freshwater in lakes and reservoirs. Changes in climate can also indirectly contribute to other related environmental problems such as flooding which poses a series of other risks related to water quantity and quality. Warmer temperatures have led to both increases in the rate of water evaporation as well as to heightened demand for irrigation in the agricultural sector.

By not accounting for the cumulative effects climate change will have on the quantity and quality of water in the Red River Basin water systems, the options listed in the proposal also do not present the risks posed to all stakeholders. North Dakota must identify an adaptation strategy that responds to the increased stress water supplies will face because of climate change *before* any new models for increased water supply are considered.

4. The lack of inclusion of a rigorous conservation strategy is another element that weakens the argument for creating or expanding artificial water diversions to meet the needs of North Dakota. Conservation by all users is key when addressing issues of water shortages, and demand-side management including public awareness campaigns, requirements from agriculture and industry could net significant savings in water usage.

# Responses to The Council of Canadians

## Response to Comment 1a

Water treatment plants to address the import of Missouri River water are described in the Final Needs and Options Report, chapter four, pages 4-6 through 4-9 of the report. Reclamation also produced a study titled *Water Treatment Plant for Biota Removal and Inactivation Preliminary Design & Cost Estimates, Red River Valley Water Supply Project*, which describes these plants in more detail.

All of the alternatives considered in the DEIS that would use Missouri River water include treatment and control systems that would minimize the risk of biota transfer. The U.S. Geological Survey and the National Park Service, under an interagency agreement with Reclamation, have evaluated the risks and potential impacts of interbasin biota transfer for the DEIS. These analyses indicate that the risk of biota transfer through project-related pathways would be very low with the control systems proposed for the Missouri River import alternatives.

Numerous non-project pathways also exist. These competing pathways may be natural or human-mediated. The risk of biota transfer through non-project pathways varies greatly among the biota of concern, and is dependent upon many factors, including life history attributes (e.g., method of reproduction and number of offspring produced), abundance, number of available pathways, and availability of suitable habitat in the receiving watershed.

Because of the number and complexity of competing pathways, empirical data are generally lacking to quantify the risk of biota transfer through non-project pathways. Nevertheless, past experience shows that invasions of the Hudson Bay Basin from the Missouri River Basin or from other adjoining basins are almost certain to occur, whether or not a Red River Valley Water Supply Project is constructed.

## Response to Comment 1b

The Draft Needs and Options Report is an engineering study to develop potential options for the Project. The DEIS is the appropriate document for documenting impacts. We have addressed potential impacts to the Lake of the Woods Alternative in the DEIS. The DEIS includes information on impacts of the proposed action that may affect areas within Canada because of the unique aspects of the Project (including, for example, an alternative that involves a lake straddling the international border).

## Response to Comment 2

This treaty between Canada and the U.S. is entitled “Convention and Protocol between His Britannic Majesty in Respect of the Dominion of Canada and the United States for Regulating the Level of the Lake of the Woods, and of Identical Letters of Reference Submitting to the International Joint Commission Certain Questions as to the Regulation of the Levels of Rainy Lake and other Upper Waters.” We recognize that diversions from the lake must be approved by the United States or Canada within their respective territories and by the International Joint Commission.

## Response to Comment 2a

The Draft Needs and Options Report is an assessment of needs and an engineering study to develop potential options for the Project. The DEIS is the appropriate document for documenting cumulative and environmental impacts. Prior to construction of any water systems authorized under the Dakota Water Resources Act that would deliver Missouri River water into the Hudson Bay basin, the Secretary of the Interior, in consultation with the Secretary of State and the Administrator of the Environmental Protection Agency, must determine that adequate treatment can be provided to meet the requirements of the Treaty between the United States and Great Britain relating to Boundary Waters Between the United States and Canada, signed at Washington, January 11, 1909 (26 Stat. 2448; TS 548) (commonly known as the Boundary Waters Treaty of 1909).

## Response to Comment 3

Reclamation evaluated the effects of climatic cycles on streamflow within the Red River of the North Basin in the Needs and Options Report through an assessment of drought occurrence. This study, *Red River Valley Climate Study On Drought Frequency Investigations of the Red River of the North Basin* describes the nature of drought conditions in the Northern Plains, ranks of droughts over the past century, identifies the minimum threshold precipitation to define 25-, 50-, and 100-year droughts, and establishes a drought scenario that can be used to consider future hydrologic streamflow situations of a severe sustained drought. The study indicates that a drought of the magnitude and intensity of the 1930’s is a realistic and statistically significant representation of an extreme drought, in that it typifies an extreme event that could occur by 2050.

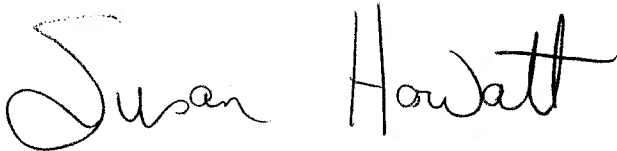
While research has increased our understanding of climate change, uncertainties remain. However, based on the best available information, it is only a matter of time before an extreme drought reoccurs across the Red River Basin. The Needs and Options Report was prepared because Congress directed the Secretary of the Interior to “conduct a comprehensive study of the water quality and quantity needs of the Red River Valley in North Dakota and possible options for meeting those needs” (Dakota Water Resources Act Section 8(b)).

In Canada, the agricultural community alone accounts for 70% of all water usage while the Prairie Provinces account for 75% of all agricultural withdrawals.<sup>1</sup> When considering conservation techniques to minimize demand for water, innovations such as irrigation scheduling, drip irrigation, and the reuse of urban wastewater, are all integral to any sound water management policies.

The Council of Canadians thus urges North Dakota to embrace solutions to water supply that are more sustainable than the options suggested in The Draft Report of Red River Valley Needs and Options. The task of effective management of freshwater supplies in the face of potential drought situations, is daunting but requires long-term integrated policy responses that prioritize conservation and stewardship. We find that the options considered in the Draft Report on Red River Valley Water Needs and Options are unacceptable in that their environmental, social and political implications are too great.

We suggest the State of North Dakota not go forward on the selection process on any of these options but rather address the serious nature of water shortages by finding in-basin solutions and limiting demand. North Dakota should also implement due process, including appropriate negotiations with Tribes and First Nation governments, provincial and federal government agencies in Canada, as well as a transparent public consultation when formulating appropriate strategies to meet the water needs of municipalities, rural water systems, and industry.

Regards,



Susan Howatt  
National Water Campaigner  
The Council of Canadians

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<sup>1</sup> Environment Canada. 2004. Threats to Water Availability in Canada. National Water Research Institute, Burlington, Ontario. NWRI Scientific Assessment Report Series No. 3 and ACSD Science Assessment Series No.1. 128p.

# Responses to The Council of Canadians

## Response to Comment 3a

The potential effects of climate change on basin hydrology are unknown. Existing climate models do not have sufficient resolution to accurately predict how streamflow in the Red River Valley could be affected by global climate change. Therefore, the effects of climate change were considered to be outside the scope of the study; however, a number of communities in the Red River Valley have developed or are in the process of developing drought contingency plans.

## Response to Comment 4

Water conservation is included in all Project alternatives as a feature (see the Final Needs and Options Report, chapter four). Water conservation water savings are based on results of the WCPA (*Water Conservation Potential Assessment, Final Report*) (Reclamation 2004b). The WCPA evaluates potential water conservation measures and identifies reasonable and achievable water reduction activities. The plan of study and the draft report were reviewed by stakeholders and by peer reviewers. The water systems in the Red River Valley have made significant progress in conserving water in the last 10 to 15 years. This is due to actions of water systems in metering service connections, monitoring water use, repairing and replacing pipelines, and providing effective management of their water systems. There are also regulatory requirements that have resulted in the installation of water efficient plumbing fixtures that significantly have saved water. Water savings in the last 10 to 15 years are estimated between 5.0 gpc/d and 37.3 gpc/d or 4.3% to 33.2%, depending on the water system. These existing water conservation savings are the foundation that the WCPA built upon in terms of identifying reasonable water conservation measures to pursue through 2050.

## Response to Comment 4a

See responses to comments 3 and 4 above.

Improving irrigation efficiency is outside the scope of this Project. DWRA (Dakota Water Resources Act) prohibits development of irrigation in the Hudson Bay/Devils Lake Basin. Previous studies of the Red River Valley considered purchase of irrigation surface water rights and concluded that the supply of surface irrigation water would not be reliable in times of drought (see *Red River Valley Water Needs Assessment, Phase II; Appraisal of Alternatives to Meet Projected Shortages*, page 5-11).

## Response to Comment 5

The purpose of the action is to meet the “comprehensive water quality and quantity needs of the Red River Valley” [DWRA (Dakota Water Resources Act) Section 8(c)(2)(a)] through year 2050. The needs are defined by DWRA as MR&I (municipal, rural, and industrial) water supplies, water quality, aquatic environment, recreation, and water conservation measures [DWRA Section 8(b)(2)]. The water conservation savings estimated in the Final Needs and Options Report are reasonable and sustainable.

## Response to Comment 6

The results of the *Water Conservation Potential Assessment, Final Report* (Reclamation 2004b) delineates a plan for Project conservation.

## Response to Comment 7

The purpose of the Needs and Options Report was to develop an assessment of current and future water needs of the Red River Valley in North Dakota. The needs were identified by the Dakota Water Resources Act as MR&I, water quality, aquatic environment, recreation, and water conservation measures. The needs were then used as a basis for formulating options to meet those needs. The options that were developed in the Needs and Options Report became the alternatives evaluated in the DEIS. Although the alternatives may be revised in response to comments received on the DEIS, the Needs and Options Report is the needs assessment and engineering report for our DEIS. The purpose of the DEIS is to evaluate and disclose Project impacts to the human and natural environment. Please refer to the DEIS regarding your concerns about environmental impacts.

## Response to Comment 8

Section 8 of DWRA directed the Secretary and the state of North Dakota to “jointly prepare and complete a draft environmental impact statement concerning all feasible options to meet the comprehensive water quality and quantity needs of the Red River Valley and the options for meeting those needs including delivery of Missouri River water to the Red River Valley...” [Section 8(c)(2)(a)]. Therefore, there is a Congressional mandate to look for options both within basin (the Red River Valley is in the Hudson Bay basin) and outside the basin (Missouri River basin), as directed by DWRA.

The two water demand scenarios used in the Needs and Options Report provide adequate data to understand the relationship between option costs and water demands. Additional sensitivity analyses may be done on water demand as part of the final environmental impact statement. The water conservation savings estimated in the report are reasonable and sustainable.





# Responses to The Council of Canadians

## Response to Comment 9

The Draft Needs and Options Report is an assessment of needs and an engineering study to develop potential options for the Project. A number of Canadian government agencies participated on the Project's Technical Team. Tribes were invited to join the Technical Team or Study Review Team. Members of the team reviewed plans of study and the draft study reports that are summarized in the Needs and Options Report. Members also reviewed preliminary sections of the Draft Needs and Options Report.

A multi-step process was used to identify alternatives for further study in the DEIS. Alternatives were formulated through a systematic process using public involvement, technical information, interdisciplinary and interagency discussions, and professional judgment. NEPA (National Environmental Policy Act) and Council on Environmental Quality regulations require agencies to evaluate a range of reasonable alternatives. To be considered reasonable, an alternative must: 1) meet the identified purpose and need for action, to a large degree and 2) be practical and feasible from a technical and economic standpoint. The Project options (alternatives) meet those standards.

We note that the statutory provisions of NEPA (and the Council on Environmental Quality's regulations implementing NEPA) do not require assessment of environmental impacts within the territory of a foreign country. However, as a voluntary measure, the draft EIS this document includes information on impacts of the proposed action that may affect areas within Canada solely because of the unique aspects of the Project (including, for example, an alternative that involves a lake straddling the international border).

