Manitoba

Water Stewardship

Ecological Services Division
Box 11, 200 Saulteaux Crescent
Winnipeg MB R3J 3W3
CANADA

http://www.gov.mb.ca/waterstewardship/

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VIA E-MAIL (NAWS_EIS@usbr.gov)

Ms. Alicia Waters
Northwest Area Water Supply Project EIS
Bureau of Reclamation
P.O. Box 1017
Bismarck ND 58502 - 1017

Northwest Area Water Supply Project/SEIS Scoping Comments

Dear Ms. Waters:

In accordance with the Notice of Intent published in the *Federal Register* on August 12, 2010 (75 *Fed. Reg*. 48986), we are writing to comment upon the scope of the proposed supplemental environmental impact statement ("SEIS") for the Northwest Area Water Supply Project ("NAWS" or the "Project"). We are pleased to provide these comments which we hope you find helpful and constructive as the scope of the draft SEIS is identified.

NAWS is the first-ever Federal project to artificially connect the Missouri River Basin, which drains south to the Gulf of Mexico, to the Hudson Bay Basin, which drains north to Hudson Bay and in which Manitoba is located. The Missouri River and Hudson Bay watersheds are individually unique and ecologically distinct and are notable for their different species compositions, including pathogenic species such as bacteria, viruses, protozoa, fungi and other microscopic plant and animal parasites. As proposed in 2001, the Project would move about 3.6 billion gallons of water a year from one watershed to the other. In so doing, it would threaten to introduce non-native and potentially destructive organisms into the Hudson Bay watershed and thus, into the Manitoba environment. In these circumstances, as set forth below, the Bureau must undertake the most searching review to ensure that it acts with a full understanding of the risks and consequences of, and alternatives to, the Project.

For well over a decade, Manitoba has participated (a) in public processes related to compliance by the Bureau of Reclamation ("BOR" or the "Bureau") with its obligations under the National Environmental Policy Act, 42 U.S.C. § 4321, *et seq*. ("NEPA"), in connection with the Project, and (b) in litigation challenging such compliance. *See Government of the Province of Manitoba v. Norton*, 398 F. Supp. 2d 41 (D.D.C. 2005) "*Manitoba 1*"); *Government of the Province of Manitoba v. Salazar*, 691 F. Supp. 2d 37 (D.D.C. 2010) ("*Manitoba 2*"). The current scoping process is the direct result of Judge Rosemary Collyer's March 5, 2010 decision in *Manitoba 2*.

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Manitoba has long-standing concerns about inter-basin diversions of water because of the costly, unpredictable, and irreversible economic and environmental damage that may occur. Manitoba has consistently raised such concerns regarding any parts of the Garrison Diversion project, including NAWS, which involve inter-basin transfer of water. The thrust of both the *Manitoba 1* and *Manitoba 2* decisions was that BOR had failed adequately to assess the consequences of biota transfer into the Hudson Bay Basin. In *Manitoba 2*, the Court underscored that "[t]he *consequences* of the release of foreign biota should a breach occur . . . might be catastrophic and should inform Reclamation's course of action." 691 F. Supp. 2d at 50 (emphasis in original). It noted, "When the *degree* of potential harm could be great, *i.e*., catastrophic, the *degree* of analysis and mitigation should also be great." *Id*. (emphasis in original). The Court stressed that, without an in-depth study of consequences, the Bureau "cannot evaluate whether its water treatment proposals sufficiently address and mitigate for such potential consequences as NEPA demands." *Id*. Finally, the Court indicated that an integral part of the Bureau's analysis must be an assessment of impacts "in Canada." *Id*. at 51.

In view of the Court's decision in *Manitoba 2*, the focus of these comments is necessarily on the Bureau's review of the consequences of pipeline breach or failure. Consistent with Judge Collyer's rulings, Manitoba strongly believes that the issue of biota transfer must be comprehensively assessed in order to ensure that the potential for irreversible harm to Canadian waters and ecosystems is fully understood and reduced to a degree acceptable to Manitoba.

Proponents of the Project have repeatedly argued that Manitoba is somehow seeking redundant water treatment. This is not the case. All parties have recognized that, whatever treatment Missouri River water may receive in Minot, an adequate level of treatment must be provided *before* the water crosses the Basin divide, in order to address the "catastrophic" risks acknowledged in Judge Collyer's opinions. This doesn't represent "double" treatment but rather is responsive to the very real risks associated with inter-basin transfers which have been the core of concerns about the Project from the outset.

Under the regulations of the Council on Environmental Quality, 40 C.F.R. Part 1500 (the "CEQ regulations"), the SEIS must fully explore the "environmental consequences" of the proposed action and its alternatives (40 C.F.R. § 1502.16). There are four elements of this obligation that are especially important in the NAWS context:

a. **Truly Taking a "Hard Look" at Consequences.** The major fault of the Bureau's NEPA review to date, as found by Judge Collyer in both *Manitoba 1* and *Manitoba 2*, has been the Bureau's failure to take any serious look at the environmental consequences of accidental biota transfer. Instead, the Bureau largely dismissed these consequences by characterizing the risks of such a transfer as low. Judge Collyer has twice determined that this was impermissible. Referring to the Bureau's mid-1990s decision to rely on pre-treatment south of the basin divide, she stated in *Manitoba 1*:

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> *"That decision has never been seriously re-visited. Instead, BOR and North Dakota have dedicated themselves to reducing the likelihood of pipeline releases and have refused -- despite EPA's warnings, despite Canada's position, despite Manitoba's TetrES report, and, most critically, despite acknowledging that chloramination will not prevent Cryptosporidium, WD, and other pathogens from crossing the divide -- to change their position. Whether this is the wisest action is not for litigation to decide. What has resulted from this obduracy, however, is a two-fold problem: there has been no study of the consequences of leakage from the pipeline . . . and, therefore, no evaluation of the consequences of failure compared to more complete treatment at the source* (398 F. Supp. 2d at 64)."

The Judge concluded:

> *"Federal Defendants argue that the risks of leakage are low and, therefore, that no further study is necessary. They repeatedly provide varied estimates that more than ninety-nine percent of biota will be disinfected under NAWS. While facially compelling, the argument ignores the fact that certain biota have been identified that may be impervious or highly-resistant to the planned treatment measures. Therefore, even a low risk of leakage may be offset by the possibility of catastrophic consequences should any leakage occur. Without some reasonable attempt to measure these consequences instead of bypassing the issue out of indifference, fatigue or through administrative legerdemain, the Court cannot conclude that BOR took a hard look at the problem* (*Id*. at 65)."

In her most recent decision, Judge Collyer faulted the Bureau for brushing aside biota transfer risks "*under the mistaken impression that it could forego such an analysis because '[g]iven the pipe materials and countermeasures such as cathodic protection incorporated into the pipeline's construction, conveyance risks for each alternative would be considered low*'" (691 F. Supp. 2d at 49). However, as the Court explained, "*The agency cannot avoid taking a 'hard look' at water transmission risks from a pipeline breach simply because the potential for a breach does not vary under the agency's proposed alternatives"(Id*.).

The Bureau now has the opportunity in the SEIS to remedy these deficiencies by undertaking a "*reasonable attempt to measure . . . [the] consequences*" of its actions. The Bureau's analysis in the SEIS should consist of several parts.

First, the SEIS should generally discuss the threat that non-indigenous species pose to ecological integrity, species diversity, rare and endangered species, and the composition and abundance of natural communities, with severe environmental, economic and social consequences. The zebra mussel invasion in the Great Lakes, for example, has caused hundreds of millions of dollars of damage to infrastructure and has caused significant ecological impacts. Similarly, the current threat of Asian carp to the Great Lakes system has been recognized to warrant a major Federal effort to ward off this danger.

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Second, the SEIS should consider the extent to which the Hudson Bay Basin contains different plant and animal species than those found in the Missouri River Basin, including important recreational and commercial species of fish that may not be resistant to non-native, disease-causing organisms. At the same time, it should identify the numerous organisms found in the Missouri River Basin and not found in the Hudson Bay Basin, including viruses, bacteria, rickettsias, protozoa, fungi, and microscopic eggs or larvae of macrobiotic invertebrates, that could cause substantial harm should they be introduced from one Basin to the other. Some of these are discussed in the Bureau's final environmental impact statement (the "FEIS") at 3-5 to 3-10. Many of these are also identified in the August 20, 2001 report of TetrES Consultants Inc. (the "TetrES Report"), submitted to the Bureau in connection with Manitoba's administrative appeal of the Bureau's decision not to prepare an EIS at that time (*see* TetrES Report at 2-5), and they are identified in Section 2 of Manitoba's March 26, 2008 comments on the Bureau's draft environmental impact statement (the "DEIS"). Particular attention should be given, for example, to *Myxobolus cerebralis*, a parasite found in the Missouri River Basin but not in the Hudson Bay Basin. This parasite attacks fingerling trout and other salmonid species, causing fish to swim erratically and have difficulty feeding and avoiding predators and, in severe infections, causing high rates of mortality in young-of-the-year fish (*see* http://www.whirling-disease.org).

Third, the SEIS should evaluate the treatability of potential biota of concern, in order to understand the effectiveness of treatment alternatives. This issue is discussed extensively in Section 3 of Manitoba's March 26, 2008 comments on the DEIS. These comments, among other things, include a detailed comparison of the effectiveness of alternative treatment systems. BOR needs to examine in depth the various treatment alternatives, *e.g.*, "no action," the FEIS' "preferred alternative," basic treatment," "conventional treatment" and "microfiltration," in order to determine how likely it is that they will be successful in avoiding the potential "catastrophic" consequences of the Project. BOR should particularly assess the possibility that its preferred alternative (chloramination and ultraviolet disinfection) will not inactivate disinfection-resistant protozoa and, for others that may be inactivated but not removed, the inactivation will be temporary because of the ability of some harmful protozoa to repair their DNA and recover.

Fourth, the SEIS should consider the mechanisms by which the Project might introduce alien and invasive species into the Hudson Bay Basin. As outlined in the TetrES Report, these include, among others: (1) catastrophic system failures, both at the treatment facility in the Missouri River Basin and in the transmission pipeline before the water reaches Minot; (2) normal and expected leakage from line joints and connectors; and (3) discharges to the environment of backwash water and residue or sludge from treatment processes at Minot (TetrES Report at 9, 21-24). Human error in both operation and response to system failures adds to the risks. To the extent the Bureau engages in further comparison of Project with non-Project risks, we refer the Bureau to Section 4 of our March 26, 2008 critique of the DEIS. The discussion in the FEIS (at 4-16 to 4-18) must be substantially expanded.

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Fifth, in connection with these mechanisms, the Bureau should endeavor to assess, as was done in the TetrES Report, the potential invasive species likely to be released, on a per-event basis, annually and over the lifetime of the Project. The TetrES Report, for example, estimated that, because one disinfectant-resistant organism can be assumed to occur in each gallon of inadequately treated Missouri River water transferred northward across the basin divide, about *3.6 billion* disinfectant-resistant organisms would likely be transferred each year (TetrES Report at 21). Of these, TetrES estimated that 256,000 disinfectant-resistant organisms would be expected to be lost each year, on average, due to catastrophic failure such as line breakage and an additional 3.6 million disinfectant-resistant organisms would be expected to be lost through routine, undetected and predictable leakages (*id.* at 23). Finally, the TetrES Report estimated that the remaining organisms (approximately 3.596 billion) would be expected to be concentrated in filter backwash and sludge at Minot, North Dakota, water treatment facility and would require handling and potential disposal within the Hudson Bay Basin (*id*. at 9-10). The FEIS (at 2-19) indicates that the ultimate disposition of waste streams from the Minot treatment plant has remained an open question, with the possibility that the waste "would be treated to inactivate disinfectant resistant pathogens, or transported to an appropriate disposal facility in the Hudson Bay basin, or transported for disposal within the Missouri River basin." The Bureau needs to specify as precisely as it can the potential impacts associated with each of these options.

Sixth, the SEIS must closely examine the environmental and economic *consequences* of foreign biota being transferred and establishing themselves in their new environment. As noted above, Judge Collyer found that the introduction of non-indigenous species into the Hudson Bay Basin could cause "catastrophic" harm (691 F. Supp. 2d at 50). Once alien species are established in a new environment, they can produce profound changes in aquatic ecosystems that can include a decline in the abundance of native species, extirpation of rare or endangered species, introduction of new diseases to native populations, alteration of the gene pool of native species and reductions in reproductive success, genetic integrity and biodiversity. In its 1977 report on the broader Garrison Diversion Project, the International Joint Commission (the "IJC") concluded that the introduction of non-indigenous Missouri River Basin species into the Hudson Bay Basin could cause a reduction of 30 % to 75 % of the commercially valuable species found in Lake Winnipeg (*see* IJC, *Report on the Transboundary Implications of the Garrison Diversion Unit* 56 (1977)). Even the Bureau's manifestly inadequate Final Environmental Assessment, dated April 2001, acknowledged (at 70, 117) that the transfer of Missouri River biota as a result of the Project may "*result in replacement of native or other desirable species with less desirable ones*," that the inter-basin transfer of biota is "*[o]ne of the greatest concerns for irreversible commitment of resources*" and that "*[m]ost often, when this [inter-basin transfer] occurs, the damage is not reversible.*" The limited discussion in the FEIS (at 4-9 to 4-16) has been adjudged to be manifestly inadequate. What is now required is a sustained and serious effort by the Bureau to examine in depth the environmental and economic harm that the Project could entail.

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b. **Consideration of Transboundary Effects.** As explained above, the Project poses significant risks to the environment of Canada and even impacts within the United States cannot truly be understood without understanding what consequences may occur within Canada. Judge Collyer's 2010 decision is crystal clear that these impacts must be considered by the Bureau. As Judge Collyer stated, "*NEPA requires agencies to consider reasonably foreseeable transboundary effects resulting from a major federal action taken within the United States. Accordingly, when analyzing the consequences of biota transfer in the Hudson Bay Basin, Reclamation must include in its analysis the impact in Canada*" (691 F. Supp. 2d at 51). The Bureau's Notice of Intent is not explicit in this regard, nowhere mentions the evaluation of impacts in Canada and merely states that it will evaluate impacts in "*the Hudson Bay Basin*" (75 *Fed. Reg*. at 48988, col. 1). In light of Judge Collyer's ruling, we believe that BOR must expressly recognize the appropriateness of broadly defining the geographical scope of its actions to include Canada, and then BOR must proceed to assess potential consequences to the environment in Canada. There is no reason BOR cannot undertake this assessment. Manitoba stands ready and willing to cooperate with BOR and provide available baseline data and information about the Manitoba environment that will assist BOR in preparing an SEIS that properly considers transboundary effects.

c. **Cumulative Impacts.** The SEIS must consider "*cumulative impacts*" (40 C.F.R. § 1508.25(b)(2)). As defined in the CEQ regulations, "'*Cumulative impact' is the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period time*" (40 C.F.R. § 1508.7). In the context of NAWS, consideration of cumulative impacts must at a minimum involve both the Devils Lake outlet and the Red River Valley Water Supply Project (the "RRVWSP"). The North Dakota State-financed Devils Lake outlet was completed in the late summer of 2005 and has operated this year at 250 cubic feet per second (180,993 acre feet per year). The RRVWSP could also involve the transfer of substantial volumes of water (between 113,702 and 142,380 acre feet per year) into the Hudson Bay Basin. Cumulative impacts from these projects could have serious and permanent effects on Manitoba's aquatic environment downstream of the confluence of the Assiniboine River and the Red River and including Lake Winnipeg.

d. **Incomplete and Unavailable Information.** In considering the biota transfer issue, BOR may well encounter "*gaps in relevant information or scientific uncertainty*." For example, relatively little may be known about some of the pathogens found in the Missouri River Basin, the likelihood that they would become established north of the basin divide if they were accidentally released into the environment and the damage that they might cause if such eventualities occurred. The CEQ regulations address this problem in 40 C.F.R. § 1502.22. The regulations specify that, if information is not known and the cost of obtaining the information is not "*exorbitant*," the agency should proceed to develop and include the information in the SEIS. If the information is not known and not obtainable, the agency

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must "*weigh the need for the action against the risk and severity of possible adverse impacts were the action to proceed in the face of uncertainty.*" Further, the Bureau needs to explain how it would intend to deal with information gaps and what it will do if the information gaps cannot be filled.

We hope that these scoping comments are useful to the Bureau. We look forward to working with the Bureau as the NEPA process proceeds. Should you have any questions, please feel free to contact me at any time at the above address, by calling (204) 945-7030, or email at Dwight.Williamson@gov.mb.ca.

Sincerely,

Dwight Williamson
Assistant Deputy Minister