

Responses to the Environmental Protection Agency

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



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

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Ref: EPR-N

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RE: Comments for Revised Draft Chapters 1 and 2, Draft Chapter 3, and the Needs and Options Report, Red River Valley Water Supply Project DEIS

Dear Signe:

Enclosed please find our comments on revised drafts of Chapters 1 (Purpose and Need) and 2 (Alternatives) and the Needs and Options Report, for the Red River Valley Water-Supply Project, Draft Environmental Impact Statement (DEIS). We provide a few comments on Chapter 3, "Affected Environment," and will comment further when we have a chance to review it alongside Chapter 4, "Environmental Consequences," when that chapter is available. In addition to our comments on the revised EIS chapters and Needs and Options report, I mention here concerns that we previously have discussed but that I have not provided to you in writing. Briefly, those comments include:

Needs and Options Report. Cost effective provision of safe and adequate water supplies is an objective which EPA fully supports for all communities. Having discussed our concerns earlier with you, our primary concern is defining the Project need as a function of the highest demand during the worst drought conditions results in inflated water needs in the Project's Purpose and Need. Because that is our primary concern, our comments on that Report are encompassed in our enclosed comments on the revised Chapter 1. Particularly, we highlight our position that Need should include water savings from drought contingency measures and substantial water conservation during drought conditions, consistent with Reclamation water supply planning procedures.

Biota Transfer. This is an important issue for EPA. When we began to discuss our involvement in the EIS as a cooperating agency, we understood a primary reason was our responsibilities under the Clean Water Act (CWA) and Boundary Waters Treaty Act of 1909 for biota risks, water quality, and CWA Section 404(b)(1) compliance. Without having had an opportunity to comment during the development of the U.S. Geological Survey (USGS) report regarding biota and the risks of interbasin transfer, or the National Park Service and other analyses on this issue, we could not provide input as a cooperating

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Response to Comment 1

As required by the authorizing legislation, Reclamation quantified the water needs of the Red River Valley that were specified in the Dakota Water Resources Act of 2000 – municipal, rural, and industrial water; aquatic environment; water quality; recreation; and water conservation measures. The comprehensive need of the Red River Valley was quantified in the Needs and Options Report as a water demand ranging from a maximum of 113,702 – 142,380 acre-feet annually. The water demand was not “inflated.” The water demand incorporated water conservation measures, as explained in the Final Needs and Options Report, section 2.5.

In addition to quantifying water demand, Reclamation used a surface water hydrology model to quantify the difference between water demand and available water during a reasonably foreseeable drought. That difference was the predicted water shortage.

Potential water savings, reduction in costs of alternatives, and economic impacts of implementing drought contingency measures were analyzed in the DEIS (draft environmental impact statement), as described on pages 45 - 47. Because of the uncertainties involved in estimating future water demands and future water supplies, drought contingency measures were reserved as an important safety factor that would be implemented if unforeseen events would occur, such as a drought worse than the 1930s.

Response to Comment 2

EPA staff commented on the plan of study for the risk assessment as part of the Technical Team and found it to be acceptable. EPA was invited to attend a workshop on the proposed study that was held on October 28, 2003, but declined to participate.

The reports “*Risk and Consequence Analysis Focused on Biological Invasions Potentially Associated with Surface Water Transfers between the Missouri River and Red River Basins*” and “*Supplemental Report: Risk Reduction Captured by Water Supply Alternatives and Preliminary Analysis of Economic Consequences Associated with Biota Transfers Potentially Realized from Interbasin Water Diversion*” were peer reviewed through standard USGS (U.S. Geological Survey) peer review process. The DEIS incorporated information from these reports into chapter three (pages 103 - 107) and into chapter four (pages 196 – 224).

agency for that issue. We understand that the report you provided on-line is finalized and comments from EPA and others will not be incorporated. Hence, we will describe our concerns on the biota report in the Draft EIS Chapter 4, once we see how the biota information regarding the species, risk, treatment options, and other potential impacts and their mitigation are incorporated in the EIS. We also recommend that Chapter 3, 'Affected Environment,' fully incorporate the biota risk information from the USGS report so that Chapter 4 can establish the environmental consequences from alternatives.

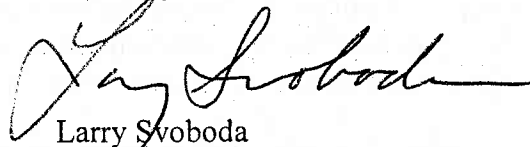
Clean Water Act Section 404(b)(1) Guidelines. Determining compliance with the 404(b)(1) Guidelines is a responsibility that EPA shares with the U.S. Army Corps of Engineers (Corps) under the Clean Water Act. How and when the Corps and EPA will be involved in that compliance, or the importance of 404 issues, remain unclear. The discussion we had on August 30, 2005 was helpful to develop a common understanding among our three agencies regarding what is required under the Guidelines, and we appreciate your role in coordinating and participating in that meeting. We look forward to an EIS that complies with requirements for both National Environmental Policy Act (NEPA) and the CWA 404(b)(1) Guidelines.

Water Quality. We have not been involved in the USGS study that is being prepared to evaluate water quality impacts in the Environmental Consequences / Chapter 4 of the DEIS. It is unfortunate that EPA was not included earlier in the study so that our water-quality experts could be involved. Nevertheless, we remain committed to provide you with comments on draft Chapter 4 when it is completed and submitted to us.

Finally, we are concerned that substantive comments from EPA and others will have to be resolved after the draft EIS is completed and submitted for public review. We understand that Reclamation's deadlines are a concern. Given your time and other constraints, EPA respectfully provides our comments here on the revised draft chapters, recognizing that our previous comments on the earlier draft chapters were not fully resolved and that we may have to wait until the DEIS is officially completed and submitted for review before you can address them.

Please call (303-312-6004) if you wish to discuss our comments. I will be happy to clarify our concerns as you revise the chapter in response to our and others' comments.

Sincerely,



Larry Svoboda
Director, NEPA

Office of Ecosystems Protection and
Remediation

Enclosures

Responses to the Environmental Protection Agency

Response to Comment 3

We understand that Section 404 of the Clean Water Act requires approval by the U.S. Army Corps of Engineers for discharge of dredged or fill material into the waters of the United States. Reclamation will continue working with the Bismarck Regulatory Office, U.S. Army Corps of Engineers to address Clean Water Act 404(b) (1) compliance for the Project.

Response to Comment 4

EPA has participated in the Red River Valley Water Supply Project as a member of the Technical Team and later as a cooperating agency. EPA staff attended Technical Team meetings in 2001, 2002, 2004, and 2005; were included in Technical Team e-mails from 2001 – 2005 and Cooperating Agency Team e-mails; and were invited to comment on water quality plans of study and draft reports. EPA participated in our January 31 – February 1, 2006, water quality workshop. We agree that your water quality experts should have been more involved at an earlier date, but when to involve them was a decision made by your agency.

Response to Comment 5

Reclamation and co-lead Garrison Diversion Conservancy District carefully considered your comments on preliminary draft chapters of the DEIS and made a number of revisions in the DEIS to address your concerns, as explained in Cooperating Agency Team meetings. Comments on the DEIS will be responded to in the final environmental impact statement.

**U.S. Environmental Protection Agency – Region 8 Comments on Preliminary Draft
“Chapter 1: Purpose and Need” and “Needs and Options Report,” Red River Valley
Water Supply Project, Draft Environmental Impact Statement**

Establishing Project Water Need

EPA remains unclear about how the EIS's demographic projections were established why they are inconsistent with estimates from the U.S. Bureau of the Census, and whether the EIS reflects the work of Reclamation's contractor, Northwest Economic Associates. We understand that population growth projections in the EIS are nearly twice the official Census projections. The demographic projections in the EIS contradict official estimates of population (and by extension water needs or demands). Further, the EIS also uses the much-greater projections of the Valley's municipal water providers with a vested interest in the Project, to establish a "Scenario Two" water demand that significantly exceeds Reclamation's estimates for the service area. Those MR&I water providers are represented on the Technical and Cooperating Agencies teams created to review the EIS studies. Further, the projections for industrial water demand in the Valley are based on projections of industrial growth that exceed population growth estimates, without providing an economic or science-based analysis to establish those industrial demands; industrial jobs nationally have declined over the past four years and are expected to continue to decline as a fraction of the overall economy.

EPA understands that worst-case drought conditions were used to model the maximum shortages of supply. Actual shortfalls could be reduced substantially or possibly eliminated with drought contingency measures that are implemented when demand is anticipated to significantly exceed supply. Such prudent and reasonable measures were not evaluated and used to establish demands in the Project. Lacking that information, the Alternatives chapter and Purpose and Need still do not establish a compelling need for a supplemental water supply as directed by the Dakota Water Resources Act of 2000 (DWRA). We are unsure what is included in conservation measures that were evaluated, but lawn watering and car washing moratoria, constraints on recreation (e.g., golf courses and public parks) water use, and other drought contingency measures alone could meet some or all of the supply shortfall during drought over coming decades.

The EIS evaluation of needs and demands are inconsistent with Reclamation's Red River Valley Water Needs Assessment (2000). That study concluded that water shortages were unlikely to occur over the next 50 years and found that if a combination of events – much faster than anticipated population and industrial growth, extended drought, and so forth – occur, several alternatives are available and were described to meet potential shortfalls in the affected area, not including completion of the Garrison Diversion works or diverting Missouri River water to the Red River Valley. Alternatives mentioned for meeting those shortfalls including conservation and drought contingency measures, groundwater development and use, conjunctive use of surface and ground waters, and other measures as mentioned above. The differences in conclusions about demand, future needs, and future supply alternatives between the earlier studies and the EIS studies are not resolved in the revised chapters 1 and 2. Instead, unanticipated

increases in population and water demand are combined with a worst-case drought scenario to project a maximum water demand, to establish substantially higher 'Need' for MR&I water in this EIS. As a result, 37,000 to 53,000 acre-feet of water per year is estimated in Chapter 1 as the maximum water shortage if a 1930s-type drought occurred in year 2050. An explanation would be helpful on how the maximum shortage was determined with demands between 114,000 acre feet (nearly 10 percent greater minimum than the earlier draft projections that Reclamation estimated) and 143,000 acre-feet estimated by the Valley water districts who participate on the EIS technical/cooperating agency teams.

Shortages, as used in the Purpose and Need (e.g., second paragraph on page 1) need to be better defined. The projections of population and water demand used to project shortages are questionable in their interpretation of the reports prepared for this EIS. For example, the first paragraph of Chapter 1 cites the Meridian Environmental Technology, Inc. report, stating that it, "... concluded the Red River Valley would probably experience an extreme drought in the next 50 years." In chapter 3, page 52, the EIS states that the same report concluded that, "... recent research indicates a strong probability of an extreme drought event occurring before A.D. 2050." Those conclusions are unsupported by the report itself, which indicates that there is an 11-percent probability of a drought in the 95th percentile (of severity) before 2030 and does not project the probability of severe drought between 2030 and 2050. Using a (unquantified) possibility of severe drought just before 2050, the EIS combines that uncertainty with inflated population and water demand projections just prior to 2050 to generate a maximum demand. We believe that approach substantially inflates the Project water demand beyond what is actually needed.

Delegation of Authority to Garrison Diversion Conservancy District

Related to questions about the selection of a preferred alternative, we again request that Reclamation and Garrison disclose in the EIS what Federal and State legal authorities were used to delegate the State's co-lead responsibility to the Garrison Diversion Conservancy District (Garrison). The Dakota Water Resources Act of 2000 established the State of North Dakota's role as the co-lead agency for the Red River Valley Water Supply Project EIS. Our questions include:

- (1) What legal authority was used by Governor John Hoeven of North Dakota to designate the Garrison Diversion Conservancy District (Garrison) as its representative to prepare the EIS?
- (2) Does Reclamation have responsibility to determine whether Garrison – an entity with a statutory duty and financial interest to import Missouri River water – can legally represent the State of North Dakota as the co-lead agency in the EIS?

For example, we noted that several contracts for the engineering tasks in the EIS have been awarded to Houston Engineering, which has a contractual history with Garrison and

other water districts whose representatives advocated importing Missouri River water alternatives at the meetings which EPA attended recently. NEPA, 40 CFR 1506.5(c), requires that contractors be chosen, "... to avoid any conflict of interest. Contractors shall execute a disclosure statement prepared by the lead agency, or where appropriate the cooperating agency, specifying that they have no financial or other interest in the outcome of the project." We trust that the disclosure statements have been executed according to NEPA requirements for studies completed for the EIS. We are unsure how such disclosure statements could have been completed with Garrison. Regardless, the appearance of conflict of interest is a concern regarding the contractual relationship among Garrison, its contractors, and studies completed for the EIS.

Based on our concerns, we request that Reclamation address in the EIS our questions about how the NEPA process and State delegation of authority to Garrison comply with the Council on Environmental Quality Regulations for Implementing The Procedural Provisions of The National Environmental Policy Act (40 CFR 1500-1508) and Reclamation's NEPA regulations. As an advocate of the Project and alternatives that would import water from the Missouri River, Garrison is not an unbiased, objective agency that can impartially evaluate all project alternatives.

Water Quality and Needs

The need to meet requirements of the Safe Drinking Water Act is noted in the revised Purpose and Need chapter (e.g., page 4). Please also note clearly that treatment also must meet the requirements of the Boundary Waters Treaty Act of 1909, particularly related to alternatives which would import Missouri River water.

Please note what information is available in the State of North Dakota's and State of Minnesota's Clean Water Act Section 305(b) reports regarding water quality in the Red River of the North basin, particularly if the U.S. Geological Survey's report cited on page 5 does not include that information.

In the section on 'Aquatic Environment,' can instream flows be protected under North Dakota or Reclamation law?

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**U.S. Environmental Protection Agency – Region 8 Comments on Preliminary Draft
“Chapter 2: Alternatives,” DEIS for the Red River Valley Water Supply Project**

Descriptions of Alternatives

The overall features of the alternatives are clearly described. Comments we made in our earlier written and verbal comments regarding the alternatives remain a concern.

Range of Alternatives. On page 10 (first page of Chapter 2), the second paragraph indicates that the primary focus of the chapter is to describe the full range of reasonable alternatives that were evaluated. We believe that a shortcoming of the EIS is that a reasonable alternative that provides water needs if and when they occur is still not considered in the EIS. Such an alternative presumably could save substantial public and users' money and resources throughout the analysis period, until population growth may, if ever, necessitate importing water with a large, centralized water supply project. An alternative that meets demands if and when they occur also can meet DWRA requirements.

Project Yields from Alternatives. We remain unclear about the volumes of water available under various alternatives, particularly No Action. For example, in Table 5 (No Action alternative) and in the accompanying text, there is no description of the potential or expected yield of proposed improvements and projects in the service area and how that addresses future water needs and future projected demands for water during normal or other conditions.

The demands (page 12), as defined by severe, extended drought in Chapter 1 (Purpose and Need), are clearly stated. We presume that the capacities and flow rates in the four alternatives that divert and import water from the Missouri River are sized to fully meet future water demands, by themselves or in combination with current supplies, to match or exceed the total or unmet demands, respectively, in the affected water service area. We also are unclear if, during a severe regional drought, there would be adequate water supplies from the Missouri River to meet the projected water needs in the Red River Valley because of environmental, institutional, ecological, political, and other constraints on diversions from the Upper Missouri River during such a drought. If not, then the rationale for maximizing water demands in the Red River Valley may result in shortages in the Valley markedly greater than what would likely occur if a Red River Valley in-basin alternative were selected for the Project.

While it is our understanding that the capacity of all action alternatives will meet the maximum water demands, based on the information in Chapter 2, EPA remains concerned whether the in-basin alternatives have been developed and evaluated to fully meet all future water demands by themselves or in combination with current supplies. In addition, it is unclear in Chapter 2 whether the No (Federal) Action alternative fully meets future water demands and need.

No Action Alternative Evaluation. Thank you for clarifying which projects in the No Action alternative will be necessary, regardless of action alternatives, and including the costs for all alternatives. We also appreciate your clarifications about actions common to all or several alternatives in the revisions to draft Chapter 2. Concerning the No Action alternative, Table 5 (page 19) lists planned water supply projects through 2050. As stated in the DEIS, this alternative is the future without the RRVWSP. For a fair assessment of the No Federal Action alternative, Reclamation could estimate the earliest RRVWSP implementation date, then remove listed water projects constructed between now and RRVWSP implementation. Water systems that would be constructed prior to or concurrent with RRVWSP implementation should not be considered under a No Action alternative. The remaining projects could be considered projects that may be implemented if there was no Federal action. Determining which water projects would be constructed regardless of RRVWSP implementation may also reduce water shortage and water demand estimates because these systems may supplement existing systems during drought conditions.

Timing of Actions. Given that demands are projected at the end of the planning period, 2050, it is unclear whether localized shortages and other considerations require that the project be built soon versus, say, 10 years before demands begin to approach the existing supplies in the Basin.

The planning period captures all possible future demand and does not size proposals to meet interim demands through staged development or an 'adaptive management' approach that provides future water supplies as demand develops. Such an alternative may be described in the No (Federal) Action alternative, but we did not find information on yields or the timing of those proposed No Action projects. Rather, all of the action alternatives involve large infrastructure projects with high capital construction and O&M costs that largely would have to be borne by Federal taxpayers.

Clean Water Act Section 404(b)(1) Evaluation

We remain concerned about the lack of integration of Clean Water Act Section 404(b)(1) Guidelines (40 CFR, part 230) into the NEPA process and the NEPA decision-making process that is envisioned. Chapter 2 does not address 404(b)(1) compliance as part of the NEPA process. As we and the U.S. Army Corps of Engineers (Corps) have discussed with you on occasion, under the Guidelines only the 'least damaging practicable alternative' can be permitted. The term 'least damaging' includes overall environmental impacts (e.g, biota transfer risk, water quality, human environment, public health, fish and wildlife, cultural resources), not just wetlands. Integrating that process with the Corps and EPA would have the potential to reduce compliance and other issues later in the process.

Water quality concerns and other aquatic resource impacts would be part of an overall evaluation of environmental impacts as part of the 404(b)(1) process. Water quality impacts may include not only conventional constituents but also invasive, nonnative species not found in the Sheyenne and Red Rivers that are found in the

Missouri River. Such species have the potential to cause harm greater than conventional pollutants, particularly when introduced into systems without predators or other natural defenses. Aquatic resources include fish and wildlife, riparian lands, landscape impacts, and related impacts that may occur as a result of proposed alternatives. We concur with the comment that you received from the Corps, regarding draft Chapter 2, in April, 2005:

“Chapter 2 identifies eight alternatives. Under Section 404, a discharge of dredged or fill material shall not be permitted if there is a practicable alternative to the proposed discharge which would have less adverse impact on the aquatic ecosystem, so long as the alternative does not have other significant adverse environmental consequences. The applicant must demonstrate that an alternative is least damaging to the aquatic ecosystem; the Corps does not select an alternative, but denies the permit if it results in non-compliance with the Section 404(b)(1) guidelines. Determination of the least damaging practicable alternative is based upon direct, indirect, and cumulative impacts.”

The Corps further noted that in the Final EIS, the least damaging practicable alternative(s) must be identified that meets the project purpose with one method and population scenario to calculate water demand. If “Scenario One” meets the Purpose and Need, Scenario Two (MR&I water users’ population and water demand projections) should be discarded in the EIS.

Water Demands

Chapter 2 begins by framing the questions of how much water is needed in the future and how much water is available to fulfill that need. While the Chapter answered the first question regarding how much ‘demand’ is expected based on projected population and industrial growth, it still does not rigorously evaluate ‘need’ nor address the second question regarding how much water is available to fulfill demand or need.

As we stated in the first draft of Chapter 2, key information that is to be provided in other chapters not yet written made it difficult to comment on some issues. Included among those issues was the ‘maximum annual water shortage,’ for which the estimation was promised to be more fully explained in Chapter 3. We did not find that explanation in draft Chapter 3, “Affected Environment,” of the EIS. There is discussion of that issue in the ‘Needs and Options’ report, but it did not resolve our concerns about how the demands are justified for this project (see comments on revised draft Chapter 1, “Purpose and Need”).

Meteorological and Hydrologic Assumptions. A question that needs to be addressed (and perhaps is planned for another chapter), is, what assumptions are used to establish the meteorological and hydrologic bases for future water demands? A description of those assumptions still is not provided to understand the maximum shortages in Chapter 2 (as opposed to Chapter 1, where it is undefined and cites information in the ‘Needs and Options’ report). Will that report be included in the EIS,

as an appendix or elsewhere for public disclosure? If not, we recommend that you include that report in the appendices that are distributed with the EIS and further suggest that you briefly summarize the meteorological and hydrologic assumptions that were used to project the large increases in water demand and use that are included in the EIS. For example, explain how a worst-case intensity and duration of drought was used to establish the meteorological basis that produces the maximum shortages and water demands that are presented in Tables 3 and 4 of Chapter 2. Then explain the hydrologic assumptions about flow in the Missouri River to meet those Red River Valley water demands under those assumptions.

The "maximum annual water shortage" is estimated to be 43,000 to 60,000 acre-feet (AF). The shortfalls in future supply reported in Chapter 2 appear to be based on demand, not need. There should be drought contingency plans that would substantially reduce water use during a severe drought, to better meet ecological and environmental needs and deliver an amount of water that addresses actual needs in a drought but sized in a manner that is economically and financially responsible.

Please state the assumptions that were used to establish demands and potential shortfalls in supply, and also describe the period of the assumed historic trend, in the EIS itself for public disclosure of the Reclamation's assumptions which increase water use in the Red River Valley water service area during a severe drought, particularly in 2050 or other late part of the analysis period.

Devils Lake Outlet(s) Operations. An all-time wet period and all-time drought are unlikely to occur simultaneously in the adjacent Devils Lake and Red River Valley basins. We believe a prudent evaluation of water needs and management, particularly concerning any planned use of the Sheyenne River, should evaluate the relationship that Devils Lake has with the Red River Valley and the capacity to use the Sheyenne River as a conduit during the summer for transporting Missouri River and/or untreated Devils Lake water to the Red River. This concern that we previously expressed is enhanced now that the State of North Dakota has begun operation of the State Devils Lake outlet. Biota transfer to the Red River basin is a particular concern for both proposed uses of the Sheyenne, in addition to riparian, wetland, and other impacts.

Logistical and Institutional Issues. We anticipate that if any alternative which imports Missouri River water is selected as the Preferred Alternative, the project will be challenged by downstream interests, based on recent opposition and legal actions on other projects that propose to move water with nonnative biota from outside the Red River Basin (e.g., the State's Devils Lake emergency outlet, the Corps of Engineers' Devils Lake outlet, and the Bureau's Northwest Area Water Supply). Operation and maintenance costs also could rise markedly in the coming decade and beyond if energy costs rise.

Cost effective provision of safe and adequate water supplies is an objective which EPA fully supports for all communities. The region is described as increasingly urbanized and scoping materials indicated that the capability (both ability to pay and

willingness to pay) of local communities to repay MR&I water service costs would be evaluated for Red River Valley water users. Not having been part of the cooperating agency process, we remain unaware of that information. That information is a key to determine which action alternatives are financially feasible. Therefore, we remain unable to comment about financial feasibility, technical feasibility (e.g., consistent with Clean Water Act Section 404(b)(1) Guidelines), and logistical feasibility (e.g., legal, administrative, and political constraints) for all of the alternatives. Also, no information is available that describes which project features are reimbursable or not by water users and beneficiaries, the legal constraints from the DWRA regarding what water is reimbursable and when, and other information on financial commitments that would be required by water users and how much of the costs would be borne by Federal taxpayers. That information is essential to understand the feasibility of the alternatives to meet Purpose and Need, the distributional impacts that are likely for project beneficiaries and other stakeholders, and so forth. That information should be included for disclosure in the EIS prior to its distribution for public review and comment.

Definitions of Water Demand, Use, and Need. Thank you for attempting to resolve the differences between 'water demand,' 'water need,' and 'water use' on page 10. We remain unclear about the distinction on page 10 between 'need' and 'demand.' Please further describe if and how need (from the 'Needs and Options Report, which we are unsure will be provided for the public to review as part of the EIS) differs from water 'demand,' which is defined as quantified amounts of water to meet the water "requirements" of the service area. We presume based on those definitions that they are used as the same. Is that correct? Again, we would define water demand as an economic concept, based on available supply and prices.

Our lack of understanding of how water "demand" differs from "use" is not a semantic one. The EIS, with its water "needs" based on extreme drought and no drought contingency planning and use reductions, does not develop any relationship between price and either use or demands. The EIS presumes that all demands will be met by sizing the project to meet maximum water demands during extreme drought conditions in the year 2050. EPA believes that the economic, environmental, and financial feasibility of proposed alternatives would be enhanced if there were price-use/price-demand relationships that would size a project to meet actual needs over time. Such analysis that looks at the timing and sizing of alternative to meet actual needs also would assist the Bureau and Garrison to develop a least environmentally-damaging, practicable alternative that is consistent with requirements under the 404(b)(1) Guidelines.

Water Conservation and Drought Contingency Planning

Water conservation has potential to substantially reduce water demand and hence need. While average per-capita use in the Red River Valley is reasonable and conservation measures have been established, recent experiences in other cities and basins affected by long-term drought indicate that drought planning and management – including penalty pricing, water restrictions, and so forth – can meet a substantial part of the shortfall in water supplies during both short and longer drought periods. With water

demands up to 143,000 acre-feet per year, conservation measures in the EIS (4,300 ac-ft per year) that are proposed during severe drought are modest at less than three percent of maximum total demands that are derived by maximizing use during that severe drought.

Drought contingency planning should be considered as a component for all alternatives, and the Bureau and the State can provide technical and other assistance to communities for that planning and its implementation. EPA does not believe it is prudent to size a water supply that meets all water demands during an all-time extended drought, for many environmental, economic, and other reasons discussed earlier, including the stress on an already-depleted Missouri River in a severe, long-term regional drought.

We believe that alternatives which meet the region's needs with in-basin water supplies have the potential to: (1) achieve aquatic sustainability goals; (2) minimize private and public costs; (3) meet Clean Water Act Section 404(b)(1) Guidelines for the least environmentally damaging practicable alternative; (4) minimize the risks of nonnative biota transfer and other significant concerns in North Dakota, Minnesota and Canada; (5) address other financial, social, and environmental objectives; and (6) develop a politically- and economically-feasible water supply that meets the long-term needs of human and natural communities in the Red River Basin.

Preferred Alternative Selection

We remain concerned about statements that a Preferred Alternative may not or is unlikely to be selected by Reclamation in the Draft EIS – as currently written in the preliminary draft of Chapter 2 – but that Garrison will select a Preferred Alternative in the Draft EIS. Garrison is a longtime proponent of completing the Garrison Unit and importing water from the Missouri River, consistent with its charter and mission. In particular, we are concerned whether Reclamation's deference on selecting a Preferred Alternative to Garrison meets requirements under 40 CFR 1502.14(e) and is consistent with 40 CFR 1505.1 and Reclamation's NEPA implementing regulations promulgated under 40 CFR 1507.3. EPA believes that selection of a Preferred Alternative in the DEIS is under the purview of the Federal lead agency to do so or to defer selection of a Preferred Alternative until the Final EIS. Otherwise, further appearance of bias may be in the Draft EIS, should the co-lead agency/project proponent selects a Preferred Alternative and the Federal lead agency fails to select one.

Other Questions and Clarifications

- On page 11, can the minimum release of 13 cfs from Baldhill Dam, mentioned as part of the analysis in the EIS and the 'Needs and Options Report,' be legally protected?
- On page 12, Reclamation's and water users' population estimates are mentioned to develop maximum water demands in tables 3 and 4. Please indicate in the EIS what the U.S. Bureau of Census and State Demographer's estimates are for

population and whether the estimates used in the EIS are consistent with those official government estimates of population.

- Please discuss how “peak-day deliveries” are being used on page 14. We are unsure how that term is being used and applied.
- Please explain why an alternative was developed to replace “all MR&I water supplies in the service area with imported Missouri River water” (e.g., page 16 and 28).
- Please explain for public disclosure on page 21 why the North Dakota in-basin alternative would capture Red River flows downstream of Grand Forks and recirculate flows back to Lake Ashtabula. Also, please explain operations criteria (e.g., only during drought or seasonal pump back?) for this element of the North Dakota in-basin alternative.
- For GDU import alternatives and the Missouri River import to the Red River Valley alternative, there should be a brief discussion of measures that are proposed to comply with the Boundary Waters Treaty of 1909.
- Please clarify that biota treatment costs are incorporated in the alternatives that include importation of Missouri River water and what that treatment includes. Another clarification that is needed is who pays for biota treatment, and whether the costs are reimbursable by water users.
- Quantify the irrigation water rights on page 36 that are described as minimal for meeting MR&I needs during a drought. Conversion of rights or leasing of agricultural water rights is common elsewhere in Bureau of Reclamation projects. Please describe why this alternative would be infeasible as part of both No Action and action alternatives.
- When and where will mitigation costs be incorporated for alternatives? Mitigation for some alternatives may be substantially greater and more costly than for other alternatives and affect the criteria to select a Preferred Alternative.

Costs and Benefits

We did not see discussion of the uncertainty and likelihood for cost overruns (or overestimates) for construction and future OM&R for the affected communities, as we requested earlier in our comments on the first draft Chapter 2. Actual construction cost estimates for large water projects, in our experience with large supply projects in recent years, generally are substantially greater than estimated costs because of risk and uncertainty associated with costs for energy, construction material and fuel, and other inputs and because of unanticipated technical, legal, and other costs and any associated delays in project completion.

Reimbursability of Costs

The forthcoming selection of a preferred alternative and other decisions about the Project will be strongly affected by projected costs and their distribution (reimbursable to water users versus reimbursable by Federal taxpayers, i.e. "nonreimbursable"). Allocation of costs to various Project purposes and uses will determine which costs are reimbursable by Project beneficiaries in the service area and which costs will be borne by Federal taxpayers. Our understanding of DWRA is that the non-Federal share of construction costs will be 25 percent. Normally, such reimbursement is to the U.S. Treasury, but language in DWRA is unclear whether reimbursement would be to the U.S. Treasury or to the State of North Dakota's MR&I program (and consequently be made available for further MR&I development in North Dakota).

Further, DWRA requires only repayment for an amount that is, "... commensurate with the percentage of the total capacity of the project that is in actual use during the payment period." Our concern is that a financial bias exists to select an alternative that provides the maximum amount of water/delivery capacity because repayment by water users would be based only on the percentage of water that is delivered and used during a given payment period. Because all alternatives in the EIS are designed to meet MR&I water demand during a severe drought in 2050, the full capacity of a Missouri River importation alternative may never be used. Consequently, rather than promoting, and indeed requiring, realistic and responsible analyses of future MR&I water needs in the Red River Valley and options for meeting those needs, the DWRA instead establishes a powerful incentive—confirmed by the Scenario Two population and industrial growth projections developed for the Draft Red River Valley Water Needs and Options Report by the Red River Valley municipalities—for the State, the Garrison Diversion Conservancy District, and allied water development interests such as the municipal water providers/agencies, to seek the Red River Valley Water Supply Project with the greatest delivery capacity possible, because water users will not have to pay for it until or unless it actually is used.

It is further our understanding that the costs of complying with the Boundary Waters Treaty Act of 1909 are non-reimbursable Federal costs. These costs may be substantial if an alternative is selected to import water from the Missouri River and provides substantial disincentive to select an economically efficient in-Basin alternative that can meet the needs of the Red River Valley without the nonnative biota and other risks presented by a Missouri River alternative. In addition, we are uncertain how O&M costs for the Garrison Diversion Unit are determined and how operations are connected with alternatives that use the Unit to deliver Missouri River water to the Red River Valley for MR&I uses, but presumably those costs also would be based on the amount of capacity actually used for MR&I use. Hence, there also would be potential conflicts of interest if an alternative that completes elements of the Unit is selected for a Red River Valley Water Supply Project.

If construction and O&M costs are reimbursable to water users in the Red River Valley, there is further concern about whether the costs would exceed their ability to pay

for the proposed project. Hence, with reimbursement potentially very small to very large, EPA believes that an informed decision about a preferred alternative from the existing alternatives, all of which are highly costly and impose substantial costs on either users and/or taxpayers, information about Project funding and the reimbursable and nonreimbursable costs are needed in the EIS, for both public disclosure and to inform decisions in the EIS.

Other information that is needed to make informed decisions about reimbursable costs have to do with how much of the costs will be allocated to fish and wildlife purposes, recreation, or other nonreimbursable functions. In light of the biota risks from Missouri River alternatives and likely changes to the Sheyenne and Red Rivers and their aquatic ecosystems, EPA would appreciate clarification in the EIS about Reclamation's expectations regarding cost allocations and reimbursability of those and other project purposes.

[Intentionally blank]

U.S. Environmental Protection Agency – Region 8 Comments on Preliminary Draft “Chapter 3: Affected Environment,” DEIS, Red River Valley Water Supply Project

EPA offers a few preliminary comments and questions about the preliminary draft of the ‘Affected Environment’ chapter, Chapter 3 of the Draft EIS.

Water Quality

For the water quality discussion that begins on page 58 of Chapter 3, are there any segments of streams listed under Section 303(d) of the Clean Water Act, commonly referred to as “TMDLs” (Total Maximum Daily Loads), in either North Dakota or Minnesota? If so, please list them and describe the actions that have been implemented to improve those the quality of those waters and to bring them into compliance with State water quality standards.

Please describe the specific water quality objectives for the Red River on pages 61 to 63.

Water Quality

In the discussion of groundwater resources that begins on page 65, please provide some information about the quantity of groundwater recharge, net depletions, or other information that would inform whether these aquifers are adequate to meet the water needs of the MR&I service populations which they currently serve and potentially could serve.

Aquatic Communities

In the discussion of aquatic communities beginning on page 77, please identify the number of species or otherwise characterize those communities regarding whether species are native or introduced/nonnative to the aquatic systems. At minimum, please identify which species of fish are introduced.

Fisheries are highly important to the Native American communities around Lake Winnipeg. Please briefly discuss the dependence of local populations on that fishery on page 81. Also, please discuss under the environmental justice (EJ) section (page 116) the potential effects on those populations, or address the legal or other reasons that international EJ impacts are not considered in the EIS.

Biota of Concern and Interbasin Transfer

Overall, EPA is concerned about the lack of scientific or quantitative rigor that is disclosed in the Draft Chapter 3 to describe the risks of biota transfer from an interbasin water transfer. The section begins on page 84 and concludes on page 87.

Please address any genetic differences of species that are noted to occur in both basins. Also, if the States of North Dakota and Minnesota have developed lists of “species of concern,” we suggest that those lists be compared to the species listed in the DEIS as species of concern.

Please describe the scientific foundation for the ordinal (0 to 1.0) ranking scale used by the U.S. Geological Survey (USGS) to evaluate the risks of nonnative biota being transferred from the Missouri River to the Red River Basin in the event of an interbasin water transfer or other pathways for those species’ transfer. How valid is that ranking approach for measuring the

probabilities or risks of biota transfer? We are unfamiliar with such an approach (the ordinal ranking) used elsewhere to assess the risks of biota transfer.

On page 86 is a statement, "Thus, the most invasive species probably either have or will become established in the Hudson Bay Basin with or without an interbasin water transfer by this Project." Please substantiate that statement with citations and other information from the scientific literature, including the USGS study that was completed or other literature used to make that statement. When "probably" is used, does Reclamation purport that there is a greater than 50-percent risk of transfer, for example, without the Project for those species with a high ordinal ranking in the USGS study?

Also on pages 86 to 87, pathways for biota transfer are discussed. Natural pathways are mentioned at the bottom of page 86. Please describe which Missouri River Basin species, particularly species that present a high probability of natural transfer with or without an interbasin water transfer, are likely to reach the Red River Basin via natural pathways such as tornados/major storms, wind dispersal, animal transport, wind dispersal, and major floods. What are the probabilities/likelihood of that dispersal versus human-caused pathways, particularly in context of an interbasin water transfer?

Human activities are described on page 87 as providing pathways for nonnative biota from the Missouri River Basin to the Red River Basin. Please describe the probabilities of such transfers of biota in context of the probabilities and risks associated with an interbasin water transfer.

Wetlands

In the discussion of Wetlands, beginning on page 87, please note that extensive drainage of wetlands has occurred in the Red River/Sheyenne Basins. Historical wetland acreage should be included as part of establishing the baseline, for evaluating both environmental consequences and potential mitigation.

Protected Areas

On page 107, please verify that the Valley City National Fish Hatchery is currently rearing pallid sturgeon. It was our understanding that an EIS currently is underway that proposes production of pallid sturgeon.

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