

Responses to Garrison Diversion Conservancy District

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



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Dennis Breitzman, Area Manager
Dakota Area Office
Bureau of Reclamation
PO Box 1017
Bismarck, ND 58502-1017

GARRISON DIVERSION
CONSERVANCY DISTRICT
P.O. Box 140
CARRINGTON, N.D. 58421
(701) 652-3194
FAX (701) 652-3195
gdcd@daktel.com
www.garrisondiversion.org

Dear Mr. Breitzman:

In an effort to review the Draft Needs and Options Report, Garrison Diversion has coordinated North Dakota State Agency meetings, employed Houston Engineering to run the model in order to get a better understanding of the parameters used in the sizing of the facilities and taken input from water systems affected by the project. Our findings are that the report is well grounded and represents a full range of options to meet the municipal, rural and industrial (MR&I) water needs of the Red River Valley.

Our comments are broken up into the following primary topic areas:

- Aquatic Needs
- Water Quality
- Legal Concerns
- Cost Estimates
- Demand Calculations
- Hydrology
- Water Conservation

Comments on Aquatic Needs

The Draft Needs and Options Report does not adequately address the water needs of the aquatic environment as required by the Dakota Water Resources Act. In Reclamation's aquatic needs report, there are recommendations for flows at several locations that were not incorporated into a flow regime that would benefit the environment in the alternatives. The Draft Needs and Option Report generally describes aquatic environment water needs as non-consumptive, and as a result, no water demands were estimated for aquatic environment requirements. If the aquatic needs are going to be met, the flows need to be in the river, and that may increase the amount of water needed to meet the consumptive needs. Therefore, this assumption is incorrect.

Garrison Diversion asked the North Dakota Game and Fish Department to give a recommendation on the water need for the environment. Garrison Diversion further verified that this need could be met by obtaining a water permit if "works" were provided. The Red River Valley Water Supply Project (RRVWSP) would constitute the works to provide the water to meet the aquatic needs. The North Dakota Game and Fish Department recommendation is as follows:

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Response to Comment 1

Reclamation conducted additional analysis based on the minimum instream flow recommendations from the North Dakota Game and Fish Department. This analysis is described in the Final Needs and Options Report, chapter four, pages 4-41 through 4-43 and Appendix C, Attachment 10. However, no changes to the alternatives were made based on this analysis.

1. A minimum release of 23 cfs from Baldhill Dam year round.
2. A minimum spring flush of 215 cfs for a period of 48-72 hours from April 6 -10.
3. April flows shall average a minimum of 69 cfs.
4. Year round minimum instream flows of 68 cfs at Fargo on the Red River.
5. Year round minimum instream flows of 23 cfs below the Fargo intake on the Sheyenne River.

Garrison Diversion supports the recommendations by the North Dakota Game and Fish Department to meet the needs of the aquatic environment for the Red River and Sheyenne River as part of the RRWSP.

Comments on Water Quality

It is Garrison Diversion's opinion that the Draft Needs and Options Report does not sufficiently address water quality as required by the Dakota Water Resources Act.

The No Action runs show significant shortages during a drought period like the 1930s. Table 3.7.4 of the Draft Needs and Options Report tabulates these shortages. This table does not point out one very important factor. Users downstream from the Fargo/Moorhead/ West Fargo metro area rely on return flows from these cities to get them through the drought period. Currently, the North Dakota Department of Health regulates return flow during low flow conditions because of water quality concerns. Without these return flows, the cities of Grand Forks and East Grand Forks would show significant shortages. Similar results for the cities of Drayton and Grafton exist. Without return flows from the Fargo and Grand Forks areas, these two cities would show shortages.

The water quality of the Red River during low flow conditions would likely become wastewater effluent dominated. The water quality impacts associated with an effluent dominated streamflow could be significant in terms of both the aquatic environment and the feasibility of existing water treatment processes to meet Safe Drinking Water Standards.

Comments on Legal Concerns

Range of Options

Reclamation's range of options to meet the needs of the Red River Valley is complete, appropriate and represents a comprehensive array of potential alternatives. During the scoping process, the public and governmental bodies posited numerous features and options. Reclamation appropriately screened out features and alternatives that were deemed economically or technically infeasible, largely duplicative of other features in form or function, or whose environmental impacts were patently unreasonable.

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Response to Comment 2

Reclamation addressed wastewater treatment plant impacts on water quality in the Final Needs and Options Report, chapter two, page 2-84. In meetings with Reclamation, North Dakota Department of Health staff have stated that the Fargo wastewater treatment plant could release treated wastewater into the Red River under low flow conditions, so no water quality or release problems were assumed in flow analysis.

Additional water quality analysis to address wastewater treatment plant impacts on water quality will be conducted in the FEIS.

Response to Comment 3

Your comment is noted.

Depth of Discussion of Eliminated Features
(Pages 3-117 through 3-119 and 4-35 through 4-39)

While Reclamation appropriately screened out features and alternatives for appropriate reasons, they should provide more extensive detail of the basis for the elimination of some features and alternatives.

Thompson-Acker Allocation (3-80 and 3-96)

If Lake Ashtabula is utilized as a feature of the RRWSP, the water storage allocations pursuant to Thompson-Acker of the cities of Fargo, Grand Forks, Valley City, West Fargo and Lisbon will be impacted. Reclamation proposes, "Thompson-Acker was turned off for all project options." It is unclear how Reclamation intends to cut off these stakeholders' rights to the water storage in Lake Ashtabula. The water users and the state of North Dakota should provide input to Reclamation regarding this issue.

Riparian Rights (Page 3-4)

After the sentence in the second paragraph that reads "...the owner of land containing a natural stream or abutting a stream is entitled to receive the natural flow of the stream limited only by the equal rights of the other riparian owners..." Reclamation should add "...subject to reasonable use and public welfare."

In the third paragraph, the Red River is measured at "Moorhead, North Dakota" should read, "Moorhead, Minnesota."

Buffalo Aquifer (Page 3-22)

The discussion of the Buffalo Aquifer indicates that it is a potential source of between 200 and 10,000 gpm and indicates a potential for expanded development. The Report surmises that this development should be limited to Moorhead Public Service and not available for RRWSP. Since the Minnesota Groundwater Alternative seeks groundwater a significant distance from the municipalities, Reclamation should give further detail as to why the Buffalo Aquifer is different from the other Minnesota aquifers that are being studied and included in that Alternative.

Conversion of Existing Use (Page 3-25 through 3-26)

After the sentence on 3-25, "North Dakota Century code provides for conversion of a water permit to a "higher beneficial use"... Reclamation should add "...subject to approval by the State Engineer."

On page 3-26, Reclamation addresses the possibility of purchasing irrigators' groundwater rights if a willing seller is found in areas of interest. Reclamation should also recognize the possibility of Lake Agassiz Water Authority utilizing its

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Response to Comment 4

Reclamation is satisfied that a full range of reasonable water supply features was considered. The “alternatives eliminated from consideration” section in Draft Needs and Options Report, chapter four was not included in the Final Needs and Options Report, because it is more appropriate to include this discussion in the draft environmental impact statement.

Response to Comment 5

To maximize effective use of Lake Ashtabula storage, the Thompson-Acker water allocation was not incorporated into hydrologic modeling. Reclamation recognizes that any changes to existing allocations would require concurrence from the North Dakota State Water Commission and from permit holders. Reclamation may consider this comment further prior to completing the final environmental impact statement.

Response to Comment 6

The suggested change has been made.

Response to Comment 7

The correction has been made.

Response to Comment 8

The Buffalo Aquifer has limited expansion potential. Given the aquifer’s limited potential, its current use by the City of Moorhead, and the size of Moorhead’s permit to draw more water than they are currently using, Reclamation has concluded that the future use of the Buffalo Aquifer is limited to the city of Moorhead (see the Final Needs and Options Report, chapter three, pages 3-22 through 3-23).

Response to Comment 9

The sentence has been revised to indicate approval by the State Engineer is required.

Response to Comment 10

No change was made, but your comment is noted.

powers of eminent domain to take water rights. (NDCC 61-39-05.) That said, any new municipal permitting of the taken water allocations would be subject to permitting by the State Engineer.

Website Identification (Page 3-73)

In the fourth paragraph on this page, Reclamation directs the reader to a website for permit data in North Dakota, then comments, "Minnesota permit data can be obtained from MNDNR." Reclamation should also include the MNDNR permit website: www.dnr.state.mn.us/permits/water

Aquifer Storage and Recovery (Page 3-124)

North Dakota lacks statutory authority or regulations restricting or guiding aquifer storage and recovery. A water use permit is required by the State Engineer to appropriate the water from the aquifer, but no state regulatory authority governs the amount, quality or procedure for surface or treated water to be injected.

Comments on Cost Estimates

It is Garrison Diversion's opinion that the estimates are adequate as a basis for alternative comparison and selection of the preferred alternative.

Comments on Demand Calculations

The total water demand identified in the Draft Needs and Options Report provides a sufficient range of options to meet the region's MR&I needs during the planning period.


Comments on Hydrology

The hydrology model selected and developed by Reclamation is sufficient to evaluate the water needs in the Red River Valley.

Comments on Water Conservation

The identified water savings reported in the Final Water Conservation Potential Assessment (WCPA) Report and used to calculate water demands as part of the Draft Needs and Options Report appear to be reasonable and attainable.

Sincerely,


Dave Koland
General Manager

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Response to Comment 11

The Minnesota Department of Natural Resource's web site address was included in the Final Needs and Options Report.

Response to Comment 12

Your comment is noted. Additional descriptions of the technical and legal concerns with aquifer storage and recovery are provided in the Final Needs and Options Report, chapter three, pages 3-29 through 3-40.

Response to Comment 13

Your comment is noted.

Response to Comment 14

Your comment is noted.

Response to Comment 15

Your comment is noted.

Response to Comment 16

Your comment is noted.