



REPLY TO
ATTENTION OF

DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS, OMAHA DISTRICT
106 SOUTH 15TH STREET
OMAHA NE 68102-1618

March 20, 2007

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Planning, Programs, and Project Management Division

Mr. Michael J. Ryan
U.S. Department of the Interior
Bureau of Reclamation
P.O. Box 36900
Billings, Montana 59107-6900

Dear Mr. Ryan:

Enclosed are the U.S. Army Corps of Engineers, Omaha District (Corps) comments on the Supplemental Draft Environmental Impact Statement (SDEIS) for the Red River Valley Water Supply Project. As the scope of the SDEIS spans two Corps of Engineers Divisions and several Districts, the enclosed reflects a consolidation of the comments from those various offices. If the project should move forward, we request that the Bureau of Reclamation coordinate any proposed authorization language and operation plans with the Corps to avoid conflicts with other authorized uses of the reservoir.

Thank you for the opportunity to review the document and provide comments. If you have any questions on these comments, please contact Ms. Kristine Nemec at (402) 221-4628. For a discussion of data and information that we can provide you on the Missouri River system, you may contact Mr. Roy McAllister at (402) 697-2479.

Sincerely,

Larry D. Janis, Chief
Environmental, Economics, and
Cultural Resources Section
Planning Branch

Enclosure

CORPS OF ENGINEERS COMMENTS
RED RIVER VALLEY WATER SUPPLY PROJECT
Supplemental Draft Environmental Impact Statement (SDEIS)

1. Page 21, third bullet – The annual additional Missouri River depletion through 2050 is identified as 557,000 ac-ft, yet on page 44 it is listed as 557,500 ac-ft. Decide which number you want to use and be consistent with it.
2. Page 23, 7th bulleted disadvantage – The problem with timing of releases from Lake Ashtabula occurs for all of the alternatives because it is a source for every one of the five alternatives to No Action for the SDEIS, yet this and the Garrison Diversion Unit (GDU) Import to the Sheyenne River Alternative are the only places this disadvantage is listed. This should be included as a disadvantage for all of the alternatives, including the No Action Alternative.
3. Page 26 - The location for the pipeline discharge point for the GDU Import to Sheyenne River Alternative is 3 miles above the reservoir. This location was also identified on page 2-36 of the SDEIS; however, in most other places the discharge point is identified as “into” Lake Ashtabula. I understand that discussions were held between the St. Paul District staff and your staff on February 14, 2007 to discuss the location “in” the reservoir for the discharge point. The correct location description should be used consistently in the Final Environmental Impact Statement (FEIS).
4. Page 35, Surface Water Quantity – Discussion of the amount of water use seems less appropriate here than the amount of water availability. The use figure is incorrect as the estimated present level streamflow depletion (or use in this case) in the Missouri River Basin in 2002 is identified as 22,133,522 ac-ft in the January 2005 streamflow depletion report by Reclamation (Rick DeVore). This number is the sum of the 2002 values and not the average annual number that you have in the Summary and SDEIS for the 1929-2002 period of analysis of depletions by Reclamation. A more appropriate discussion might be that the inflows into the Missouri River Mainstem Reservoir System since 1998 (adjusted to 1949 level of depletion development) have ranged from 10.7 to 49.0 MAF, and the 73.3-MAF value for System storage (note the change from 73.5 MAF that is on this page twice, with the revised number found in Table 1 of the 2007-2007 Annual Operating Plan for the Missouri River Mainstem Reservoir System) buffers this variation of water into the Missouri River to meet the authorized project purposes for the System. (This diversion would be an authorized Missouri River Mainstem purpose if Congress decides to authorize the use of Missouri River water for the Project following the preparation of the FEIS and subsequent Record of Decision (ROD)). The 1,600 intakes also do not account for the intakes above Fort Peck reservoir and in the Yellowstone River basin; therefore, that number is not used correctly when using 1,600 intakes and 15.4 MAF of depletions together. An attempt here to show a huge depletion due to in-basin uses versus the removal of only 80.2 KAF of water to the Red River Valley is not entirely appropriate. The Missouri River basin covers about 1/6th of the contiguous United States and has adequate water for a considerable amount of irrigation,

which accounts for the bulk of the depleted water. Municipal and industrial uses in the Missouri River Basin deplete a relatively small portion of the 15.4 (or more appropriately, 22.1) MAF of Missouri River water. If the objective is to put the amount of diversion in perspective to water use in the Missouri River Basin, it should be made to this comparable, latter value, whatever it is.

5. Page 35, Aquatic Communities - The characterization of Missouri River fisheries and aquatic resources could be taken to be negative with the use of the word “profound”. The fisheries of the Red River and the region are characterized positively even though Baldhill Dam likely had some adverse effects regarding fisheries in the Sheyenne River. Why not just talk about the diversity of the fish species on the Missouri River without attempting to talk about the effect of the Missouri River Mainstem Reservoir System in the Summary. The objective of the RRWSP EIS is not to characterize the Missouri River fisheries. This can be done to a very limited extent in the Affected Environment chapter of the SEIS itself. Just to say that the System had an effect is enough for the Summary.
6. Pages 38 and 39, table – Some minor comments on this table are 1) Missouri River should be added to Flooding and Erosion category with small “m” for impacts (based on the minor effect on flood control benefits and the effect on the flows for only a few days (totals 8 days, as discussed on page 13 of the September 2006 Northwestern Division report) near the end of several navigation seasons in the 1930s-type drought (This comment also applies to Table 2.24 of the SDEIS), 2) that the line color is wrong between Red River and Missouri River under Water Quality, 3) the large “Ms” should be small “ms” for the Missouri River Import to Red River Valley alternative for the Missouri River and Environmental Justice categories, and 4) the line color may be wrong before Environmental Justice. Also, the headings are not properly lined up because Aquatic Communities, Risk of Transferring Invasive Species, etc. are the same level as Groundwater at the top of Page 39. The last nine bolded headings do not fall under Groundwater. Also, the Minnesota Aquifers should be lined up the same as North Dakota Aquifers or vice versa.
7. Page 42, end of first partial paragraph – Delete “be” and “ed” at the end of the misspelled “reappear”.

8. Page 42, last full paragraph – This paragraph states “simulations reveal a very serious shortage during the winter”. I have seen no discussion in the Summary or the SDEIS of the movement of water down the Sheyenne River in the winter with regards to total icing or ice-jam problems. Reduced flows in the Missouri River occur due to ice jams during periods when extreme cold spells move through when flows are thousands of cubic feet per second (cfs). What happens on the Sheyenne River during these cold spells, many of which are much colder and longer than those on the Missouri River downstream from Gavins Point Dam where flow reductions of up to 10,000 (cfs) (17,000 cfs down to 7,000 cfs) occurred in January of this year at Sioux City? The jam(s) occurred within less than 80 miles downstream from Gavins Point Dam. The reduced flows on downstream set record low stages at St. Joseph and Kansas City, Missouri, where the water users were able to continue to meet their needs via recent changes in case of such situations.
9. Page 43, second full paragraph – Is “very low” the best that can be said about the risk of transferring invasive species? A review of the U.S. Geological Survey (USGS) documentation on risk determined that “very low” is the lowest risk category that the USGS used. The addition of “, which is the lowest risk category used by the USGS in its analyses.” would provide a much higher level of comfort to, at least, this reader.
10. Page 44, second full paragraph – The document by the Corps was prepared by the Northwestern Division of the Corps of Engineers, as stated on the cover and on the first seven pages of the report. There is no Northwest Division in the Corps of Engineers. This same error appears in various places in the SDEIS; therefore, this is not a typographical problem (e.g., Table 5.1 of SDEIS).

SDEIS Comments

1. Page 2-14, Table 2.5 – There is an error regarding Map Index Numbers 3 and 4. There are two “4s” and no “3”. Grafton - Red River Intake Replacement with a “4” is listed twice with two different costs.

2. Page 2-19 – The discussion regarding chlorination was confusing because of the disjointed manner in which it was written. Perhaps if the discussion would have focused first on the GDU Import to the Sheyenne River Alternative and closed out that discussion first, the statement regarding the higher chlorination level would have made more sense. The higher chlorination would have worked for this alternative because “any disinfection byproducts formed would be eliminated after the water is released into the Sheyenne River” because the treated water “would be exposed to air in a large body of water”. The discussion could then shift to something along the line of “However, Environmental Protection Agency (EPA) staff stated that it did not support the higher chlorine dosages for the two Import Pipeline Alternatives because “potentially harmful levels of disinfection byproducts could be created” and then complete the discussion of what would be best for these two alternatives.
3. Pages 2-19 and 2-20 – The statements regarding the GDU Import to the Sheyenne River Alternative become confusing as the water treatment discussion continues. As stated in the previous comment with the following statement at the end of the second paragraph, “EPA staff also stated that the GDU Import to the Sheyenne River Alternative, which would release water into Lake Ashtabula, **negates any concerns about disinfection byproducts**, because the water would be exposed to air in a large body of water.” Yet on the page 2-20, in the second full paragraph from the bottom in the discussion of this alternative biota WTP, the SDEIS states, “Chloramines would not be used in this alternative, based on EPA considerations. This alternative releases water into Lake Ashtabula after treatment to inactivate microorganisms. **Aquatic life is very sensitive to chlorine, so any residual concentrations would be removed prior to releasing Project water into Lake Ashtabula.**” Residual chlorine is a disinfection byproduct in some minds. There should be additional discussion for those that are not water treatment experts to clarify the entire situation for the chlorination process and what happens to the water after chlorination and to fully identify what you mean by “disinfection byproducts”. Perhaps there is no conflict here, but it is not clear.
4. The confusion this reader went through trying to better understand the treatment processes on pages 2-19 and 2-20 led him to go to Appendix A.5 for any clarification, if it existed. Instead, more confusion was raised as there were some assumptions and terminology that were not appropriate in the furtherance of understanding treatment options and the merits and ranking of them. This extensive comment will be on those conflicts and the other questions that surfaced while reading Appendix A.5.
 - a. Page A.5-2, first paragraph – Change “effecting” to “effective” in the 10th line.
 - b. Page A.5-2, last paragraph – In the first line, drop the “s” from “options” and make “with in” one word in the second line.

- c. Page A.5-3, Table A.5.1 – Where is the footnote for the 1 with MF/UF? Perhaps the footnote would tell the reader what the UF is in MF/UF. The reader was incorrectly informed that MF is microfiltration as part of Figure A.5.5. Perhaps that is the footnote for the table. One still does not know what UF is, however. What is the word “Additional” doing in front of LT2ESWTR? It is difficult to understand what the Total value on the right really means. These numbers are all on the Total Credit line and the SWDA and the LT2ESWTR numbers are identical and the same as the Total number. This is somewhat confusing. Later on the information from this table will be used to establish the risk-reduction credits for the three alternatives transferring water from the Missouri River. Perhaps the table should have been aligned with the alternatives at this point.
- d. Pages A.5-3 through A.5-12 describe a risk-reduction credit process that raises several questions. These questions will be separated out by page in the following comments.
- e. Page A.5-3, last line – The Linder 2006 report describes the “risk-reduction” potential as well as the “failure” potential. It may have been more appropriate to state that the report characterized the “failure and risk-reduction” potential of water treatment and conveyance features.
- f. Page A.5-4, first partial paragraph – In the last sentence (only full sentence in this partial paragraph) change “failure analysis” to ‘risk-reduction credit analysis’. This comment also applies to the next full paragraph. All of the features of the Missouri River transfer alternatives are oriented towards reducing the risk of transferring unwanted biota to the Red River. Why characterize the discussion as a “failure” of the features (negative discussion instead of a more appropriate positive discussion).
- g. Page A.5-4, second heading – Change the heading to “Conveyance Risk Analysis. Also, in the second sentence under this heading, delete “the failure of”. In the second paragraph, instead of “failure is” at the beginning of the first sentence, it may be more appropriate to say “leaks or breaks are”. The pipeline is not going to “fail”, which has a strong, negative connotation that is associated with something bordering on catastrophic. This appendix on biota treatment options should have a relatively positive spin, yet the choice of terminology sounds like Reclamation is trying to discredit the biota treatment and conveyance of the **treated** water. Leakage of treated water from a municipal system is generally not anywhere near a scary situation, and the water usually remains drinkable.

- h. Page A.5-5, second paragraph – The sentence “Since the water is intentionally released into the Red River Basin watershed, a pipeline failure would have no additional affect (should be “effect’) on the transfer of biota.” is absolutely correct. However, giving the GDU Import to the Sheyenne River alternative a value of zero is not appropriate. All of the water transferred to the Red River Valley from the Missouri River eventually is released to the Red River. Why is this alternative any different in terms of increasing the transfer of biota to the Red River and eventually into Canada and Hudson Bay? It is water that meets SDWA requirements for the Biota listed in Table A.5.1. Assuming that the use of a “zero” was appropriately used in Appendix A.5, Reclamation is giving credence to what Linder 2006 states on page 7-62, “reliance on Sheyenne River for open conveyance may be a (sic) unacceptable condition.” This should not be the message Reclamation wants to make for its preferred alternative. The risk reduction credits presented in Linder 2006 are more appropriate. Why were they not followed for Appendix A.5? Also, the title of Table A.5.4 should more appropriately be “Average Conveyance Risk Reduction Credits”.
- i. Page A.5-6, Tables A.5.5 and A.5.6 - The first table should be titled, “Summary of Conveyance Risk Reduction Evaluation”, and the second table should have a log inactivation credit of 2.5 instead of 3.5, as shown in Table A.5.1, and should not have a footnote.
- j. Page A.5.8, Plant Cost Ranking discussion – How does a lower cost of treatment reduce the risk of biota transfer? Linder 2006 discusses costs of treatment, yet this paper does not indicate that the lower the cost the greater the risk reduction. Linder 2006 clearly states on page 7-59 that the reduction or minimizing of risks can be considered within the context of their efficacy, feasibility, and efficiency. Regarding efficiency, the authors go on to clarify this aspect as the actions must be cost effective, which requires that the costs of the action must be low compared to the costs if no action were taken. The authors do not indicate anywhere in the report that lower costs lead to reduced risk or should be combined with risk reduction credits in some sort of ranking format. This lower-cost-is-better assumption was used to develop Table A.5.8 on the next page. The ranking numbers from this table were then used to give a combined “score” in Table A.5.10 on page A.5-11. To many readers that have been trying to follow the logic of this appendix, the higher the “score” the better (clearly indicated as so in footnote to Table A.5.11). This is definitely not true. The alternatives that fare poorer from a risk reduction credit system of numbers now “score” highest in Table A.5.10 when the risk reduction “score” (instead of credit) is added to the

cost ranking. Finally, why were the Linder 2006 risk reduction credits presented in Table 7.6 not used in Appendix A.5? The ranking present in Table 7.6 supported the identification of the GDU Import to Sheyenne River alternative as the preferred alternative.

- k. Page A.5-10, Table A.5.9 – The values for the Treatment Risk are incorrect in this table. They should be 3, 4, and 4 for each Import Alternative. This error carries on through the rest of the table in which the total risk reduction score is used. Table A.5.10 needs column 3 and 5 corrected. Table A5.12 needs columns 3, 4, 5, and 6 corrected.
 - l. Page A.5-11, Table A.5.11 – How were the Adequate and Very Best numbers computed for this table for both categories? The terminology of good to very best is questionable as it leads to the basic treatment process being combined with the GDU Import to Sheyenne River alternative being rated as “best”(somewhat misleading). This treatment process was apparently abandoned as being “the best” because filtration has been added or else the in-filter DAF option will be combined with this alternative (negates the process that was followed in Appendix A.5), as discussed on page 26 of the SDEIS Executive Summary and likely elsewhere in the SDEIS (e.g., page 2-36).
 - m. From experience with the Missouri River Master Manual litigations, the litigants look for errors on which to discredit the effort put into a NEPA document. This appendix contains a large number of errors. Again, the large number of errors in the tables suggests that the Linder 2006 Table 7.6 should have been used in this appendix.
5. The water from the treatment plant would go directly into some sort of clearwell prior to pumping into the pipeline, according to Table 2.12 on page 2-37. Would not that allow for some form of continuous monitoring of water quality before placement into the pipeline and some reduction in the risk of biota transfer? Why was this not considered in the risk reduction analysis? The effectiveness of this step in the conveyance portion of the plan would depend on the size of a single clearwell or the use of multiple clearwells, which could lead to a shift to another clearwell if inadequately treated water were to contaminate a single clearwell.

6. Do any of the water treatment plants need to be expanded or treatment measures added to them for the GDU Import to Sheyenne River alternative. If so, this would be a disadvantage of this alternative to be added to Table 2.27 of the SDEIS and any other corresponding tables (e.g., page 27 of the Executive Summary), because the other two transfer alternatives would take a high level of treated water, likely drinkable, into the Fargo and Grand Forks areas.
7. Page 2-69 – The derivation of the \$22 billion figure needs to be clarified. Later on this page, does not Reclamation mean that the “benefit/cost ratio is greater than 1.0”? Also reverse cost benefit to benefit cost in the next sentence.
8. Page 2-70, second paragraph under ‘Reliability of Water Sources’ – In the next to last sentence, add “,with approximately 26 million acre-feet of this water stored in the upper three, larger reservoirs”.
9. Page 3-5, last paragraph – It appears that some of the 5,000 acre-feet of storage loss by 2050 comes from the flood storage zone. If so, you may want to confirm or reaffirm that the St. Paul District would allow any loss of flood storage space, which would normally be sized based on extreme runoff from the upstream tributary drainage area.
10. Page 3-14, Table 3.2 – The numbers presented in this table are as identified at the heading of the column of numbers, the average annual values over the 74-year period from 1929 to 2002 from the present-level depletions developed by Reclamation. However, they are not the 2002 values, which total about 22.1 million acre-feet. Based on the narrative on page 3-17, perhaps the best way to “fix” this table is to remove “Current (2002)” from the title. The column description is correct, as stated above.
11. Page 3-14, Table 3.3 – The Flood Control benefits for the reservoirs should 0.0 instead of the 0.1 shown in the table.
12. Page 3-113, Missouri River System Hydropower – Rewinding of the generators at Garrison Dam in recent years increased the total generation capacity of the Missouri River Reservoir System from 2,436 megawatts to 2501 megawatts (to be corrected in future Corps documents such as the Annual Operating Plans).

13. Page 3-113, Missouri River System Navigation – Add the following to, or following, the discussion in the second paragraph: “Commercial tonnage on the Missouri River has declined since 2000 due to continued drought and resulting reduced navigation flow support (reduces allowable draft of the barges and season lengths). This reduced flow support makes navigation less economically feasible during extended drought periods. As a result, the estimated commercial tonnage moved in 2006 dropped to an estimated 0.3 million tons.” Also, change the next paragraph to include “2003 to 2006” as years with shortened seasons.
14. Page 4-31, end of third paragraph – Bankfull flow has a recurrence interval of 1.5 years on which river and which reaches? For example, this is not a likely recurrence interval for the reaches on the Sheyenne River for some miles downstream from Baldhill Dam.
15. Page 4-38, last paragraph of Introduction – The total System storage is now 73.3 MAF, as listed in Table 1 of the 2006-2007 Annual Operating Plan for the Missouri River Reservoir System.
16. Page 4-38, last paragraph – Total 2002 depletions are 22.1 MAF as discussed in a prior comment. (Same change should be made to page 4-44.)
17. Page 4-43, end of first paragraph – The percent changes are 0.1% and 0.2 %, respectively.
18. Page 4.45, Cumulative Impacts – Based on the current depletions being 22.1 MAF, the percentages vary from 0.2% to 0.4%.
19. Page 4-107, Table 4.41 – Lake Francis Case was included in the analysis of Young Fish Production impacts.
20. Page 4-109, Tables 4.44 and 4.45 – The percent Change from No Action Value should be over three columns in both tables. The use of colors appears to have no purpose in the percent change columns. In the report by the Corps, there was a purpose to the colors of the percent changes. Did you have a purpose in mind for these two tables? You also changed the order of the alternative columns from those with the raw values (Tables 4.42 and 4.43). It would be more appropriate to stick with the order you have used throughout the SDEIS. Finally, four of the values are incorrect in Table 4.45. The Reservoir Coldwater Fish Habitat changes from No Action are all three -1% when appropriate rounding is used, and the Riverine Warmwater Habitat values are 0, 1, and 1 for the order that the alternatives are currently listed in the table.

21. Page 4-135, last paragraph – Even though the title of Linder et al. 2006 includes the word failure, it also includes “associated risks and consequences”. Much of my reading of this document has been on the risk aspect of the report and the reduction of the risk of biota transfer. The document is viewed by this reader as an “updated risk analysis” more than a failure analysis. Discussion of biota transfer is a sensitive topic for many, and the characterization of any aspect of this topic is important. “Failure” is not an appropriate characterization of the topic. Use of the word “failure” has an extremely negative connotation. Because this section of the SDEIS is going to focus on risk reduction, why refer to the 2006 report as only a failure analysis every time it is mentioned. It is appropriate to use the word “failure” in discussing certain aspects of the report, but the entire analysis was not just a failure analysis. This terminology was used earlier in this section of the SDEIS and continues on page 4-136. The use of the word “failure” was also questioned earlier (on Appendix A.5) in this set of comments.
22. Page 4-136, third full paragraph – All of the Import Alternatives eventually deliver water that will be returned to either the Sheyenne River or the Red River. According to the list of advantages for the GDU Import Pipeline Alternative and the Missouri River Import to Red River Valley Alternative, both of these alternatives would provide supplemental water that would be conveyed directly for distribution without additional treatment. This means that water could enter the Red River as runoff from lawn watering, car washing, and other activities that do not result in wastewater treatment, and the water that is used that eventually goes through the wastewater treatment facilities would not received appropriate treatment for reducing the risk of unwanted biota from entering the Red River and eventually going to Lake Winnipeg and Hudson Bay. There would be no additional capacity in Fargo or Grand Forks to provide treatment should a “failure” occur to the treatment processes prior to pumping and conveying the water to these two cities. Continuing to discredit the preferred alternative for reasons that it should not be discredited is questioned.
23. Page 4-137, Table 4.58 – Errors in this table were expected based on the comments made on Appendix A.5. The treatment failure risk values are incorrect. They should be 3, 4, and 4 for each Import Alternative. This in turn requires that the total risk reduction score be revised. Based on the required revisions to the last column, some people will wonder how Reclamation can justify identifying a preferred alternative with a total risk reduction score of 6 versus values of 9 for the other two alternatives? To some people, the risk reduction of biota treatment would appear to be 1.5 times greater for the other two Import Alternatives. The SDEIS even states above the table that “As the total risk reduction score increases, the amount of risk associated with that alternative decreases. The selection of the data to present on risk reduction in the SDEIS and its Appendices discredits the preferred alternative when it would not be discredited if Table 7.6 of Linder 2006 et al and its accompanying discussion had been used. This reviewer encourages

you to rely on the input of the experts and to not modify this input without explaining why it was modified. Use of this table would support the conclusion reached in the SDEIS on page 4-123 where it clearly states, “The GDU Import to Sheyenne River Alternative includes treatment and a combination of piped and open water conveyance. The analysis shows that treatment is more important than the means of conveyance in terms of risk reduction. Thus, this alternative should present risks similar to the “piped and treated” category.” This category includes the other two Import Alternatives.

24. Page 4-139, last paragraph – After the “setback” in understanding risk reduction, the SDEIS clearly states, “With this level of treatment, storage in Lake Ashtabula and conveyance down the Sheyenne River would present similar risks of transferring invasive species as other import alternatives that are fully contained in pipes.” This statement clearly supports the position that this reviewer has had throughout the review of the SDEIS and Appendix A.5. Much has been said, and these SDEIS comments reflect this, that tend to downplay the biota transfer risk reduction capabilities of the GDU Import to Sheyenne River Alternative. Negativism surfaces in many ways, and this very positive statement has to overcome considerable negativism, which may not be possible in some skeptics’ minds.
25. Page 4-147, GDU Import to Sheyenne River Alternative – Insert “best” after second in the first sentence. If the reader did not look at and understand Table 4.62, ranking second could mean the second highest impacts. This addition to the text just saves some time having to go back to the table and better understanding how the index was computed and determine that the lower the better. Similarly, you could insert “best” after fourth in the first sentence of the GDU Import Pipeline Alternative narrative. A similar change is also merited for the third Import Alternative.
26. Page 4-149, GDU Import Pipeline Alternative – This alternative does not rank first among the action alternatives. It ranks “second best” at best and the least best of the Import Alternatives (other two tie for first best at zero impact).
27. Page 4-150 and 151 – Insertion of “best” would help here too. This is the first time in the SDEIS that a ranking system was used where the lower number was better. For example, for the risk reduction analysis, a higher number in the table was better. This is a problem when all of the analyses are not set up to have results in which the higher the number the better the effect. Any clarification can help the reader.

28. Page 151, GDU Import Pipeline Alternative – Why did you change the numbering convention for only this alternative that you have used for the impacts for all of the other Natural Resource Lands. It should have been identified as “ranked fourth among the action alternatives” (Use of “fourth best among all the action alternatives” would be even better as discussed in the previous comment.).
29. Page 4-238, first full paragraph – The combined plant capacity of the Missouri River dams was increased to 2,501 megawatts following the completion of the rewinds at Garrison Dam.
30. Page 4-240, first full paragraph – The rd was left off of the 3rd.
31. Page 4-240, Impacts to Missouri River Hydropower Thermal Capacity and Energy discussion – First of all, impacts to Hydropower **and** Thermal Capacity and Energy were included in the Corps 2006 report. The discussion in this section focuses on the combined hydropower and thermal values. The narrative should be revised to indicate this. Hydropower impacts were the lesser of the two types of power generation impacts by a wide margin, and that may be worth mentioning as well. The percent change for the No Action Alternative is slightly wrong at 136%. The corrected value would be 134%.
32. Page 4-243 and 244 – The characterization of recreation impacts for the three Missouri River Import Alternatives is not appropriate. The impacts of the 1930-1941 drought period should not be lumped together with the 1930-2002 impacts, as has been done when the range of impacts are used in these three paragraphs.
33. Page 4-244, Other Missouri River Impacts – Include “and recreation” at the end of the first sentence.
34. Appendix G comments:
 - a. Page G.1-7, second bullet – The thoughts expressed in the last two sentences before Table G.1.3 are the same as those in the two sentences following the table. Suggest picking the one you like best and removing the other.
 - b. Page G.1-8, third bullet – The first acronym is incorrect in that it should have been MRRIP; however, the Corps currently refers to the Missouri River Recovery Implementation Plan as the Missouri River Restoration Program (MRRP). This current name and acronym should be used in the RRVWSP NEPA documents in the future. The former acronym and name is in other places in the SDEIS.

- c. Pages G.1-9, first paragraph – This summary paragraph should also list the recovery actions of the Corps to clear vegetation and create new sandbars that are listed in the first bullet on page G.1-7.
 - d. Pages G.1-10 through 12 – The above comments also apply to the piping plover narrative.
35. Has an Operational Management Plan (OMP) been developed for the project that would be adhered to once the project is developed? Any discussion on this topic would be beneficial.
36. Under what circumstances would the water delivery system be operational? Only during a drought situation, year-round, monthly, etc.? At what capacity would the system be operated?