

### North Dakota State Water Commission

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February 1, 2011

Colonel Robert Ruch United States Army Corps of Engineers Omaha District 1616 Capitol Avenue Omaha, Nebraska 68102-4901

Dear Colonel Ruch:

This letter presents my position, as the State Engineer of North Dakota and Secretary of the North Dakota State Water Commission, in response to the December 2010 Surplus Water Report and the appended draft Environmental Assessment for Garrison Dam/Lake Sakakawea.

This letter and attached comments do not imply an endorsement of the December 2010 Surplus Water Report. I consider the entire surplus storage initiative to be an illegal taking of state water rights by an agency of the federal government, and a violation of the Tenth Amendment of the Constitution of the United States.

The actions the United States Army Corps of Engineers (Corps) have taken in the last several months to deny access and charge for access to Missouri River water flowing through Lake Sakakawea are wrong. The upper Missouri River Basin states and tribes have sacrificed greatly in loss of land and resources and suffered personal hardship for the Missouri River Basin. Most of the promised benefits for the upper basin states and tribes have never been realized. Now, to add to the injustice, the Corps presumes to require payment for access to natural flows simply because those flows lie within the boundaries of the reservoirs. The natural flows of the Missouri River belong to the states for the beneficial use of their citizens, and as long as natural flows are sufficient, the reservoirs provide no service to water users and in fact, impede their access to the states' waters.

I am opposed to the Corps requiring payment from water users to withdraw water from the Missouri River within the boundaries of the lands taken for the mainstem reservoirs. The Surplus Water Report maintains that the intent is to charge for "surplus storage" in the reservoirs by requiring water storage contracts as a condition for an easement to construct intake works on Corps property. In so doing, the Corps is obstructing access to and use of Missouri River natural flows, which are the waters owned by the people of North Dakota. As the chief officer of the state agency responsible for the appropriation of North Dakota's waters, I do not believe

the Corps has the legal or Constitutional ability to encumber our appropriations for beneficial uses in this manner.

The Corps, through the Surplus Water Report process, is clearly challenging the State of North Dakota and the upper basin states' rights to access their natural flows. The choice being presented to the regions most impacted by the construction of the reservoirs is either: 1) no water access, or 2) incurring additional costs for water access even when the original benefits of water supply for the State have never been fully realized. Any reference in the report that the State of North Dakota's preferred alternative for water supply is use of "surplus water" is incorrect. The State's preferred option, and we maintain the State's legitimate right, is water supply from the natural flows of the Missouri River, accessed through a Corps land easement.

The Corps first halted access to Missouri River water in North Dakota in May 2010, when it refused to issue an easement to South Central Water District for a drinking water intake. After the Bureau of Reclamation provided an exhaustive briefing of the Garrison Diversion legislative history, which amended the Flood Control Act of 1944, the Corps finally acknowledged the South Central project would not require a water storage contract and an easement was issued. This was the first attempt by the Corps to misapply the need for storage contracts in North Dakota and delay projects that benefit the State.

The Corps has refused to process any further easement applications and issued the Surplus Water Report based on Real Estate Policy Guidance Letter Number 26. That policy states, "...no easement that supports any type of water supply agreement will be executed prior to the water supply agreement being executed by all parties..." The Corps' current assumption is that all requests for easements to Lake Sakakawea need to use stored water. This is entirely wrong. The natural flows are nowhere near being fully appropriated. Due to the availability of natural flows, which North Dakota and the tribes within North Dakota have a pre-existing right to, water storage agreements are not needed. The Corps of Engineers must recognize that any easement requests currently before them do not require the Corps to operate the system to provide the water. Thus, the current real estate policy does not apply and will never apply when the water used is within the natural flows. For these reasons the requested easements should be processed immediately.

The Corps is ignoring both Federal and North Dakota state constitutional rights. The Tenth Amendment of the United States Constitution states, "The powers not delegated to the United States by the Constitution, nor prohibited by it to the states, are reserved to the states respectively, or to the people." Article XI, Section 3 of the North Dakota Constitution states that, "[a]ll flowing streams and natural watercourses shall forever remain the property of the state...." Furthermore, the 1944 Flood Control Act states, "it is hereby declared to be the policy of the Congress to recognize the interests and rights of the States in determining the development of the watersheds within their borders and likewise their interests and rights in water

utilization and control, as herein authorized to preserve and protect to the fullest possible extent established and potential uses, for all purposes, of the waters of the Nation's rivers[.]" Prior to construction of the Garrison Dam, the Missouri River in North Dakota was a free flowing river with natural flows. Accordingly, waters of the Missouri River belong to the public and are subject to appropriation by the North Dakota State Engineer for beneficial use.

Quoting from House Document 325, dated February 4, 1960, which was supporting documentation in the 1965 amendments to the 1944 Flood Control Act:

A large source of additional water is a recognized need everywhere east of the Missouri River in the Dakotas. The Missouri is the only available source of such a supply. On the main stem near Williston N.Dak, at the head of Garrison Reservoir, historic annual riverflows have, since 1898, varied between 25,800,000 and 9,150,000 acre-feet with an average of 17,600,000 acre-feet.

This is a federal recognition that the natural flows in the Missouri River constitutes a large volume of water, some of which can be put to beneficial use by the people of North Dakota.

North Dakota has always maintained its right to use Missouri River water within its boundaries. This was acknowledged in the development of the Garrison Diversion Unit Reformulation Act of 1986, which also amended the 1944 Flood Control Act. Congress declared that one of the purposes of this act is to "preserve any existing rights of the State of North Dakota to use water from the Missouri River." Congress also stated, "[n]othing in this Act shall be deemed to diminish the quantity of water from the Missouri River which the State of North Dakota may beneficially use...." The legislative history has been to protect beneficial use in the Upper Basin states; it has not been to deny, restrict, and obstruct access.

The Corps' tacit acknowledgement of the legitimacy of states' rights to natural flows was confirmed by the attached letters of Acting Assistant Secretary of the Army Robert Dawson to Senator Quentin Burdick (2 Aug 1985) and South Dakota Congressman Tom Daschle (2 Aug 1985) in reference to a previous attempt by the Corps to charge for withdrawals from Lake Sakakawea and Lake Oahe.

#### From Dawson to Burdick:

As you explained during our meetings on this subject, it is not clear that withdrawals do benefit from the storage pool of Lake Sakakawea.

Because of this uncertainty, the Corps of Engineers has embarked on a study to determine yield thresholds for each of the main stem Missouri River reservoirs at which reliable water supplies would require storage.

Unfortunately, since the study described above involves complex issues and requires extensive coordination with State and local officials, we do

not expect it to be completed prior to the middle of 1987. Because some needs must be met much sooner than that date, we are actively seeking an interim solution within exiting authorities that will allow withdrawals to begin immediately at no cost.

The Dawson letter tacitly acknowledges the states' rights to allocate natural flows, and further acknowledges legitimate doubts about the needs of storage for many uses. In exempting new uses from storage fees until the benefits of storage are defined, the letter also acknowledges the necessity for establishing storage benefits before storage charges can be levied. However, the study promised to Senator Burdick and Congressman Daschle never materialized, nor am I aware of subsequent communication on the matter with the states. Having never resolved the question, the Corps is now attempting to sidestep the issue and take control of the water by limiting land access. The Corps should honor its commitment to complete the natural flow study and allow withdrawals without payment to resume immediately.

The philosophy and policy behind the Surplus Water Report is wrong. However, I do not want my protest of this report to delay current easement applications from being processed. Of the many concerns I have with the report there are a few that stand out and are described below.

I have strong concerns that the Surplus Water Report does not clearly address irrigation. The report recognizes that irrigation has accounted for nearly half of the water usage in the Lake Sakakawea area over the last two decades. The report states that 110 of the 142 water intake easements at Lake Sakakawea will expire over the next 10 years and they <u>may</u> require surplus water agreements prior to renewal. It is misleading to say they "may require" agreements when the report also states that no temporary surplus water agreements can be made for crop irrigation. Charging surplus storage fees for irrigation will most certainly "diminish the quantity of water from the Missouri River which the people of the state may beneficially use," and impair the "existing rights of the State of North Dakota to use water from the Missouri River." The impairment will be even more severe if the storage fees are based on allocated use rather than the usually smaller, actual use.

The construction repayment costs presented in the Surplus Water Report are also of concern. With the Corps Real Estate Policy only enforcing water service contracts for those entities crossing reservoir lands, it is only forcing those nearest and most directly affected by the construction of the dams to repay the costs. Those receiving benefits downstream, including flood control and navigation, are incurring no costs under this policy. Those in the upper basin, who were forced to accept a permanent flood and have not received the full benefits of water supply originally planned, are charged for storage from which they receive no benefit and for works that only impede access to their water. In addition, the Corps is attempting to recover costs for power intake works, levees and floodwalls, and multiple reservoirs. These costs

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are not attributable to the water storage contracts the Corps is now requiring in North Dakota.

The Corps reports that they paid \$59 million in relocation land and damage costs when the dam was constructed. They are now stating those closest to the reservoir, some whose family homes and farms were condemned, need to repay close to \$1 billion to the federal government for these relocations and land costs just to access natural flows to which they are entitled under state appropriation. Further, there was no provision in the 1944 Flood Control Act requiring the indexing of costs of storage contracts from 1949 dollars to 2011 dollars. In doing so, the Corps has escalated the cost by 1500 percent.

In conclusion, the State of North Dakota has the right to allocate and manage both the natural flows of the Missouri River and the originally authorized water diversions from Lake Sakakawea for the people of North Dakota. The State has these rights without storage contracts. The Corps is wrong in its current position. The Corps continues to cause harm to the state's citizens by denying their timely access to the waters of North Dakota and holding water users hostage to surplus storage fees.

Thank you for the opportunity to provide my comments on your draft report. I hope the Corps will reaffirm the states' rights to natural flow and that the Corps' de facto usurpation of water appropriation authority belonging to the states by using real estate easements to prohibit access to natural flows will be reconsidered without requiring litigation.

Sincerely,

Todd Sando, PE

State Engineer

Secretary of the State Water Commission

**Enclosures** 

CC: Governor Jack Dalrymple

Senator Kent Conrad

Senator John Hoeven

Congressman Rick Berg

Attorney General Wayne Stenehjem

North Dakota Water Users Association

Garland Erbele, Chief Engineer, South Dakota Department of Environment & Natural Resources

Mary Sexton, Director, Montana Department of Natural Resources

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> David W. Barfield, Chief Engineer, Kansas Department of Agriculture, Division of Water Resources

> Brian Dunnigan, Director of Natural Resources, Nebraska Department of Natural Resources

David Pope, Executive Director, Missouri River Association of States and Tribes (MoRAST)

TS:KC:mmb/1392

## COMMENTS ON THE DECEMBER 2010 CORPS OF ENGINEERS GARRISON DAM/LAKE SAKAKAWEA DRAFT SURPLUS WATER REPORT AND ENVIRONMENTAL ASSESMENT

Specific comments are outlined below for the draft Surplus Water Report and Environmental Assessment from the Corps of Engineers. These specific comments are offered with the caveat:

These comments are offered in an effort to make the subject report and environmental assessment grammatically and technically correct. These comments do not imply an endorsement of the report by the State Engineer and the North Dakota State Water Commission. The State Engineer and the North Dakota State Water Commission consider the entire surplus storage initiative to be an illegal taking of state water rights by an agency of federal government in violation of the Tenth Amendment of the Constitution of the United States.

#### **Letter Report:**

Pg 1-1: "Prior to the end of the 10-year study period, it is anticipated that reallocation studies of the six Federal reservoir projects within the Missouri River basin (including the Garrison Dam/Lake Sakakawea Project) will be completed, which will determine if changes to the permanent allocation of storage among the authorized project purposes and modifications to existing Federal water resource infrastructure may be warranted."

Comment: If, for some reason, the reallocation study is not completed within 10 years, will the 100,000 surplus storage reallocation per year continue? Surplus Storage Contracts are not needed because the natural flow of the Missouri River has an adequate amount of water to satisfy any need for water.

Pg 1-2: "[The] Secretary of War is authorized to make *surplus water agreements* with <u>States, municipalities, private concerns, or individuals</u>, at such prices and on such terms as he may deem reasonable, for domestic and industrial uses for surplus water that may be available at any reservoir under the control of the War Department: Provided, That no *surplus water agreements* for such water shall adversely affect then existing lawful uses of such water. All moneys received from such *surplus water agreements* shall be deposited in the Treasury of the United States as miscellaneous receipts." (italics added)

Comment: The quote from section 6 of the 1944 Flood Control is incorrect. The actual quote from the 1944 Flood Control Act as codified as 58 Stat. 887 is:

"[The] Secretary of War is authorized to make *contracts* with States, municipalities, private concerns, or individuals, at such prices on such terms as he may deem reasonable, for domestic and industrial uses for surplus water that may be available at any reservoir under the control of the War department; Provided, That no *contracts* for such water shall adversely affect then existing lawful uses of such

water. All monies received from such *contracts* shall be deposited in the Treasury of the United States as miscellaneous receipts." (italics added)

Note that the quote in the Surplus Water report replaces "contract" with "surplus water agreements."

Pg 1-3 Fifth sentence: "Use of the Section 6 authority *is allowed* only where non-Federal sponsors do not want to buy storage because the need of the water is short term or the use is temporary pending the development of the authorized use." (italics added)

Comment: The quote generated from the Corps own Planning Guidance Handbook has been misquoted. There are several misquotes in this section, but in particular The Planning Guidance Handbook (ER 1105-2-100) has this sentence as: "Use of section 6 authority *should be encouraged* where non-Federal sponsors do not want to buy storage because the need of the water is short term or the use is temporary pending the development of the authorized use. " (italics added)

Pg 2-4: "As shown in Figure 2-2 about 55,000 surface acres of Lake Sakakawea and about 600 miles of its shoreline are included within the boundaries of the Fort Berthold Reservation."

Comment: In this statement the 55,000 surface acres of Lake Sakakawea within the boundaries of the Fort Berthold Reservation is an incorrect number. Based on the GIS data used by the North Dakota State Engineers Office, the number of acres should be 155,000.

Pg 2-13: "In regard to water supply provided by the Bureau of Reclamation from the Garrison Dam/Lake Sakakawea Project, the Dakota Water Resources Act of 2000 (P.L. 89-108) shifted the supply emphasis from irrigation to municipal, rural, and industrial (MR&I) water supply. The Red River Valley Water Supply Project would divert water from Lake Sakakawea via GDU facilities and a pipeline to the Sheyenne River."

Comment: This statement should go on to explain that the Dakota Water Resources Act of 2000 (DWRA 2000) stipulates that the Southwest Pipeline Project (SWPP), Northwest Area Water Supply (NAWS), Red River Valley Water Supply (RRVWS), and other municipal industrial, and rural water systems in North Dakota, and the cost of features constructed on the Missouri River by the Secretary of the Army before the date of enactment of the DWRA of 2000 shall be nonreimbursable.

Pg 2-16 (2.6): "Water permits for competing applications from the same source, where the source is insufficient to supply all applicants, are granted in the following priority order (if they have the same application date:)"

Comment: The phrase "if they have the same application date" needs to be changed to "if they are received by the State Engineer within 90 days of each other."

Pg 2-16: "Surplus water agreements are negotiated agreements between the Army Corps of Engineers and a non-Federal entity for the authorized use of surplus water in a Corps project or facility."

Comment: The Corps seems to have neglected to include any negotiations that were made in the appendices, or make reference to them in 3.7.

Pg 2-16: "Execution of a Surplus Water Agreement may be required from any entity requesting water from the Garrison Dam/Lake Sakakawea Project."

Comment: Lake Sakakawea is operated as part of the Missouri River System. Technically speaking withdrawals at Gavin's Point Dam or anywhere in the watershed could affect the storage in Lake Sakakawea. This statement needs to reference that a real estate easement is the mechanism that enables the Corps to initiate surplus storage agreements.

Pg 2-16 (2.7): "Surplus water agreements, easements, and any necessary permits will be required for any non-Federal entity requesting surplus water from the Garrison Dam/Lake Sakakawea Project."

Pg 2-17 (2.7.4): "As of November 2010, the Corps has only one water supply agreement for Lake Sakakawea." (Basin Electric)

Comment: Based on data recently provided by the Corps there are 36 irrigation agreements (easements) between private parties and the Corps to divert water from Lake Sakakawea. The data provided by the Corps also indicates the duration/term of the agreements are 25 year, 50 year, and perpetual. Before or after these agreements expire, will surplus storage fees be levied by the Corps? Will perpetual agreements be subject to surplus storage fees in the future? Is there language in the 25-year, 50-year, and perpetual agreements that will permit the Corps to levy annual surplus storage fees?

Pg 2-19: Table 2-4 has two asterisks more than needed under the heading of "Environmental Assessment". The asterisk at the totals for International Western's three sites and the asterisk at the total for Lake Sakakawea and Associates are not needed and should be removed. Furthermore, the Southwest Pipeline Project is funded under MR&I funding through the Bureau and should not be considered as requiring a surplus water agreement.

Pg 3-1: Paragraph 3 "Because of uncertainty in the rate of oil and gas development, and resulting water demand over the 10-year planning period, temporary use of 257,000 acre-feet storage (equivalent to a yield of 100,000 acre feet/year of surplus water is being evaluated."

Comment: It needs to be clearly stated that the allocation of 100,000 acre-feet can be drawn on an annual basis and is not the total amount that will be allocated over the 10-year study period.

Pg 3-2 (3.2.1, Paragraph 2): "The boom in oil and gas exploration in western North Dakota is in large part due to the recent advancement of hydraulic fracturing (also know as hydro-fracing, or fracing) technology which allows for cost-effective extraction of oil and gas from hydrocarbon –rich oil <u>slate</u>."

Comment: In the discussion of hydraulic fracturing in this section, the host rock type is called slate, in 3 instances. Although the hydrocarbons have been thermally altered, the parent formation is still considered shale rather than the metamorphosed equivalent, slate.

Pg 3-4, Fig 3-1: The "Y" axis is titled "Millions of Barrels of Oil." This needs to be clarified. The axis label should be "Millions of Barrels of Oil per month" or "Monthly Oil Production."

Pg 3-4: "In addition to water used for fracing, drilling, and casing of wells, there is additional water required for maintenance of existing wells. Maintenance of existing wells my include another water-intensive activity known as "de-brining."

Comment: This paragraph discusses water occasionally required for maintaining operating oil wells, primarily for "de-brining" in some oils wells. Most of the water use permits granted for brine dilution water have been for oil wells completed in either the Ratcliffe interval, which is near the Charles salt, or the Interlake Formation, which underlies the Prairie salt, the proximity of the bedded salt deposits make the water entrained with produced oil particularly salty. The Bakken and Three Forks oil wells produce little water and do not require brine dilution to keep precipitate from forming on production tubing and equipment. Therefore, a large increase in the number of Bakken or Three Forks wells is not expected to increase the number of oil wells requiring supplemental water in the oil production process.

Pg 3-7: "Table 3-3 shows estimates of 1,500 and 1,800 new wells per year over the next twenty years. This estimated (sic) was obtained from the North Dakota State Water Commission."

Comment: Estimated should be changed to estimate. Furthermore, the estimate of 1,500 and 1,800 new wells per year is originally from the NDIC Oil & Gas Division and is not an independent estimate by the North Dakota State Water Commission.

Pg 3-9 through 3-13: Section 3.2.2. states, "The Corps has issued 142 water intake easements around Lake Sakakawea, only one of which has a water supply agreement (Basin Electric Power Cooperative). Of these 142 water intake

easements, approximately 77% (110), will expire during the 10 year study period. According to the Corps policy, holders of these easements may be required to execute surplus water agreements with the Corps of Engineers as a precondition of re-issuance of their current easements." Paragraph 3, pg 3-12 states, "Therefore, 23,754 acre-feet is used as the estimate of future demand from current Lake Sakakawea small water intake easement holders during the 10-year study period." This annual allocation of 23,754 acre-feet for "small water users" is included in the total 10-year reallocation of 100,00 acre-feet annually.

Comment: According to Section 6 of the 1944 Flood Control Act, surplus water agreements may be for domestic and municipal and industrial uses but not for crop irrigation. On Pg 3-15 (Section 3.3.2 – Planning Constraints), it is stated, "The formulation and evaluation of alternative plans is constrained by the limitations imposed by Congress and Corps policy for temporary reallocation of surplus water. These constraints/limitations include: … No temporary surplus water agreement can be made for crop irrigation."

3-9: "An analysis of all North Dakota state water permits for surface water withdrawals within one mile of Lake Sakakawea shows that there are 115 permits totaling 30,664 acre-feet of allocations for small water users."

Comment: The buffer used for this analysis is misleading. The data should have been analyzed with the criteria that will be used to determine the need for a surplus storage permit. According to State Water Commission records there are 82 water permits within Corps land between the North Dakota/Montana border and Garrison Dam, and 76 water permits between the Williston Intake and Garrison Dam. What is the criterion the Corps is going to use to determine if a surplus storage contract is needed? If surplus storage contracts are only needed in the lake, where does the lake end and river begin? However, Surplus Storage Contracts are not needed because the natural flow of the Missouri River has an adequate amount of water to satisfy any need for water.

Pg 3-9, 3-10: Table 3-4

Comment: Many of the water users listed in this table are through the Bureau of Reclamation or other entities that would not require surplus storage contracts, even under the misguided Corps policy. Furthermore, permit numbers 2179, 1901A and 3688 use the same intake.

If the Corps is using these permit holders for planning purposes only, to allocate surplus storage, the estimates would fall short. The Corps has looked at the average use over the past ten years and the maximum use of the same past ten years. Nowhere were projections for the next ten years studied. Water use under several of these permits is poised to increase greatly in this ten-year time frame and the only allowance the Corps made was the "unidentified demand" that rounded the overall number to 100,000 acre-feet.

Regardless of any of this analysis, the natural flow of the Missouri River is adequate to provide for any of the water needed for all these permits and more.

Pg 3-11: "The total of 130 state permits compares somewhat closely with the Corps' count of 142 intake easements."

#### Comment:

CATEGORY	CORPS EASEMENT	STATE WATER PERMITS
Community waterlines (RURAL WATER) Domestic water well Domestic waterlines Drainage	8 1 69 1	2
Industrial waterlines Irrigation Municipal waterlines	2 35 3	15 39
Municipal Pipeline ROW	2	8
Snake Creek Pumping Plant (SCPP) Terminated Water pipeline	1 8 9	1
Waterline (POWER GENERATION) FISH & WILDLIFE MULTIPLE USE (LESS SCPP)	2	1 6 4
TOTAL	142	76

<sup>\*</sup>It is assumed the Corps Easements are all easements from the North Dakota/Montana Border, and Garrison Dam. The State Water Permits are from the Williston Intake to Garrison Dam.

The data shown does not compare "somewhat closely."

Also included in the Corps 142 easements are eight easements that have been terminated, and 11 easements that are for pipeline crossings easements and not taking water. Based on the Corps' logic, these easements would have to get water storage contracts.

Pg 3-14 (3.3.1): The first sentence, second paragraph states "National water policy states that the primary responsibility for water supply rests with states and local entities, not the Federal government."

Comment: North Dakota is responsible for managing the volume of "natural flow" in the Missouri River. These are the waters of the state. Why is the Corps trying to usurp this responsibility?

Pg 3-14: First sentence, paragraph 4 states, "Planning objectives for this study were developed to be consistent with Federal, State and local laws and policies..."

Comment: The Corps planning objectives for this study are <u>not</u> consistent with state law. Prior to construction of Garrison Dam, the Missouri River in North Dakota was a free (natural) flowing river. Based on Article XI, Section 3 of the North Dakota Constitution, which was ratified by the U.S. Congress, "All flowing streams and natural watercourses shall forever remain the property of the state for mining, irrigating, and manufacturing purposes." North Dakota Century Code Chapter 61-01 provides that waters of the Missouri River belong to the public and are subject to appropriation for beneficial use. The right to use this water must be acquired pursuant to North Dakota Century Code 61-04. Requiring water users in North Dakota to pay "surplus storage fees" for waters of the state (natural flows) is <u>not</u> consistent with state laws.

Pg 3-18 Paragraph 1: "Water users in North Dakota require a permit from the State for groundwater withdrawals in excess of 12.5 acre-feet for any purpose other than domestic or livestock use."

Comment: This is incorrect. The paragraph should read "Water users in North Dakota require a permit from the state for ground water withdrawals for industrial use, withdrawals for irrigation of more than five acres, and for domestic or livestock use in excess of 12.5 acre-feet."

Pg 3-18: Paragraph 2 states that aquifers are "stressed beyond natural recharge rates" and further it is stated that the ground water is "over-stressed."

Comment: Western North Dakota ground water resources are limited but <u>not</u> overstressed or stressed beyond natural recharge ranges. One might incorrectly infer from the paragraph that northwest North Dakota aquifers have been over appropriated. They WOULD be overstressed <u>IF</u> they were used to supply a substantial amount of current oil fields needs. "Beyond natural recharge rates" "and overstressed" should be deleted and "to contribute meaningfully" should be replaced with "meet."

Pg 3-18: Groundwater withdrawals – Paragraphs 3 and 4.

Comment: These paragraphs need to be rewritten. Priority date is not when the permit application is approved, but rather when the Office of the State Engineer receives the permit application. Priority of use is only invoked when competing applications (those filed within 90 days of each other) from the same source and that source is insufficient to supply the competing applicants. Refer to Section 2.6 of the Surplus Water Report North Dakota Water Permit Process (pg 2-15, 2-16) for an accurate, concise description of the North Dakota water permit process.

Pg 3-20: Paragraph 3 states, "Provision of surplus water from Lake Sakakawea is the preferred alternative of the state of North Dakota (as stated in public documents.)"

Comment: Any reference in the report that the State of North Dakota's preferred alternative for water supply is use of "surplus water" is wrong. Water supply from the natural flows of the Missouri River, accessed through a Corps land easement is preferred.

Pg 3-22: Paragraph 2 states, "The cost of only the water required to develop a well ranges from over \$400,000 to over \$4.5 million per well."

Comment: It is unclear where these numbers came from. The footnote on this page states, "Estimate based on range of reported sales costs by ND water providers of \$0.50 - \$1.05 per barrel, multiplied by 2.6 -13.2 acre-feet of water per well (as estimated in Section 3.2.1)." Using this information the cost of water to develop a well would be between \$10,112 and \$107,811.

Pg3-24, Table 3:5: This table states, "Groundwater permit reviews include extensive pressure testing of neighboring wells and consideration of the potential availability of alternative water sources. Permit applications are denied if the allocation from the proposed well reduces head pressure at existing wells."

Comment: That is incorrect. Replace with, "Groundwater permit reviews include projections of the effect of the proposed water use on area water levels and water users. Permit applications are not granted if development of the allocation will unduly affect existing water users with efficiently completed wells."

Pg 3-25, Paragraph 4: "The average annual usage limit is applied to all non-Missouri River/Lake Sakakawea irrigation State permit holders in an effort to mitigate for potential losses of water from the overall aquifer system."

Response: This paragraph does not cite the main reason for the "average annual use limit." The average annual usage limit is applied to all non-Missouri/Lake Sakakawea irrigation permit holders to protect from severe groundwater overdraft. Irrigation allocations are generally based on an 18-inch per acre annual application. The 18-inch annual application is expected to be used only during severe drought periods. On average, over the long-term, and depending on climate zone, about half this application (9 or 10 inches) is actually pumped. If a large number of irrigation permit holders were to temporarily convert to industrial use from a more limited water source, the water source could become over appropriated because the permit holders would likely pump their full 18-inch annual allocations for industrial use. The elimination of irrigation "return flows" as cited in this paragraph is also a consideration in applying the average use amount that can be diverted for industrial use.

Pg 3-36 (3.6.2): Proposed Action – Use of Surplus Water – Paragraph 1 "The Proposed Action would also allow for the execution of surplus water agreements with holders of current easements for existing water intakes at Lake Sakakawea, pursuant to current policy."

Comment: As stated before, existing irrigation water users cannot enter into surplus water agreements based on Section 6 of the 1944 Flood Control Act.

Pg 3-43 (3.7.2.1): This section is attempting to explain the derivation of the storage-yield ratio.

Comment: This section needs to be rewritten. It is confusing. Furthermore, references need to be provided for the formulas that were used in the derivation of the ratio. If there is no explicit guidance on the computation of this factor, the methods used to derive it, should be negotiated. Although, this may not be needed because the natural flow of the Missouri River has an adequate amount of water to satisfy any need for water.

Pg 3-52 (3.7.3): Paragraph 3 – The cost of water sold is shown as "per gallon." These should be shown as "per barrel."

Pg 3-53: Table 3-30

Comment: The category "From GD/LS existing intakes" considers the cost of the Corps charges only. The cost of any needed infrastructure construction was not included. Using only Corps costs may be applicable for one or two existing industrial intake sites, but the majority of existing sites are not for industrial use. Infrastructure needs to be included to make the comparison being made in the table analogous.

#### **Environmental Assessment:**

Pg 2: "[The] Secretary of War is authorized to make *surplus water agreements* with <u>States, municipalities, private concerns, or individuals</u>, at such prices and on such terms as he may deem reasonable, for domestic and industrial uses for surplus water that may be available at any reservoir under the control of the War Department: Provided, That no *surplus water agreements* for such water shall adversely affect then existing lawful uses of such water. All moneys received from such *surplus water agreements* shall be deposited in the Treasury of the United States as miscellaneous receipts." (italics added)

Comment: The quote from section 6 of the 1944 Flood Control is incorrect. The actual quote from the 1944 Flood Control Act as codified as 58 Stat. 887 is:

"[The] Secretary of War is authorized to make *contracts* with States, municipalities, private concerns, or individuals, at such prices on such terms as he may deem reasonable, for domestic and industrial uses for surplus water that may be available at any reservoir under the control of the War department; Provided, That no *contracts* for such water shall adversely affect then existing lawful uses of such water. All monies received from such *contracts* shall be deposited in the Treasury of the United States as miscellaneous receipts." (italics added)

Note that the quote in the Surplus Water report replaces "contract" with "surplus water agreements."

Pg 3: "Use of the Section 6 authority *is allowed* only where non-Federal sponsors do not want to buy storage because the need of the water is short term or the use is temporary pending the development of the authorized use." (italics added)

Comment: The quote generated from the Corps own Planning Guidance Handbook has been misquoted. There are several misquotes in this section, but in particular The Planning Guidance Handbook (ER 1105-2-100) has this sentence as: "Use of section 6 authority *should be encouraged* where non-Federal sponsors do not want to buy storage because the need of the water is short term or the use is temporary pending the development of the authorized use. " (italics added)

Pg 9, 2.1, paragraph 3: The first sentence is incomplete.

Pg 11, 2.1.2 paragraph 1: "According to Corps policy, holders of these easements may be required to execute surplus water agreements with the Corps of Engineers as a pre-condition of re-issuance of their current easements."

Comment: Some of these intake easements are for irrigation and according to Section 6 of the 1944 Flood Control Act, surplus water agreements may be for domestic and M&I uses, but <u>not</u> for crop irrigation. How can the COE execute water supply agreements for irrigation?

Pg 12, 3.1 paragraph 1, sentence 1: "....whether providing surplus water from Project the is...."

Comment: Move "the" in front of "Project".

Pg 14: Contains an additional bullet that is not needed. The last bullet point under the second paragraph of Section 3.2, Planning Constraints, should read: "Temporary Surplus water reallocations are time limited and can be granted for a period of up to 5 years, with one 5-year renewal option (for a total period of 10 years)

Pg 17: The first sentence of the third paragraph under "Groundwater Withdrawals" contains the phrase: "...and are already being stressed beyond natural recharge rates." Western North Dakota ground water is limited but <u>not</u> currently overstressed. They WOULD be overstressed <u>IF</u> they were used to supply a substantial amount of current oil field needs. "Beyond natural recharge rates" "and overstressed" should be deleted an "to contribute meaningfully" should be replaced with "meet."

Pg 17, 3.3.2.1: paragraph 4, sentence 1: Water rights are allocated according to the date the water permit application is received at the Office of the State Engineer and not the date the water permit is approved. In addition, sentence 3 is incorrect. Water permits are only considered subordinate to higher priority uses when there are competing applications from the same water source and the water source is insufficient to provide water to all water permit applications. Competing applications are those filed within 90 days of each other.

Pg 17, 3.3.2.1 paragraph 5, sentence 1:The first sentence is incorrect. Only higher priority of use is invoked under the conditions described above, not in all cases.

Pg 23: Includes two typographical errors, both of which are the reference citations at the conclusion of paragraph two and the quotation immediately following paragraph two. The citations are missing the correct number of parenthesis. Each citation should read as: "(NDSWC, 2010a)".

Pg 23, 3.3.2.2: The fifth paragraph does not cite the main reason for the "average annual useage limit." The average annual usage limit is applied to all non-Missouri/Lake Sakakawea irrigation state permit holders to protect from severe groundwater overdraft. Irrigation allocations are generally based on an 18-inch per acre annual application. The 18-inch annual application is expected to be used only during severe drought periods. On average, over the long-term, and depending on climate division, about half this application (9 or 10 inches) is actually pumped. If a large number of irrigation permit holders were to temporarily convert to industrial use from a more limited water source, the water source could become over appropriated because the permit holders would likely pump their full 18-inch annual allocations for industrial use. The elimination of irrigation "return flows" as

cited in this paragraph is also a consideration in applying the average use amount that can be diverted for industrial use.

Pg 26, 4.2 paragraph 1, number 2: "....new water supply easements and, and" – remove the first and second "and."

Pg 45: Condition 5 of the "Typical USACE Easement Conditions" describes the minimum pool elevation that "will best serve the authorized functions of the Project."

Comment: The elevation listed is 1854 ft msl, which is the maximum elevation of the exclusive flood control zone. Would not the minimum elevation to best serve the authorized functions of the Project be 1837.5 ft msl, the maximum elevation of the Carryover and Multiple Use Zone?

Pg 45: Based on the preceding Letter Report, Condition 6 should be modified. The three references to a "water supply agreement" should be modified to "water storage agreement."

Pg 47: A word is missing from the fourth sentence of the first paragraph under Section 5.1.2, "Indirect, Cumulative, and Growth-Induced Effects". The fourth sentence should read: "The indirect effect of these actions would include changes to the water surface elevation in Lake Sakakawea <u>and</u> changes to the releases from Garrison Dam."

Pg 51: The second full paragraph has an incorrect reference to Table 4 in the first sentence. The correct reference should be Table 5.

Pg 69, Section 6.4.1, Groundwater: The occurrence of groundwater in western North Dakota is better described by replacing the three paragraphs in the section by:

"Groundwater supplies approximately 60% of North Dakota's drinking water and 97% of the rural population's drinking water (USACE, 2007). Groundwater in western North Dakota occurs in glacial deposits (drift) and in bedrock sediments. The unconsolidated glacial sediments include sorted outwash deposits and glaciofluvial valley-fills that are typically less than one mile wide. Though highly transmissive, glacial aquifers are commonly too small to store sufficient quantities of water to supply large industrial users."

"Groundwater in bedrock aquifers in western North Dakota occur in fine-grained and lenticular sediments deposited on an aggrading continental landmass of Tertiary and late Cretaceous age, or in the underlying beach/delta deposits of the Fox Hills-Hell Creek aquifer. The bedrock sediments overlying the Fox Hills Formation are usually too clayey and lenticular to supply more than five or ten gallons per minute to individual wells. The Fox Hills Formation, occurring between about 1,000 and 2,000 feet below land surface in much of the central Williston basin,

is the deepest fresh water aquifer in western North Dakota and can yield 100 or more gallons per minute to wells, but recharge to the aquifer is very low. The Fox Hills-Hell Creek aquifer is laterally continuous, extending southwest to higher elevations, which gives the aquifer a pressure head above land surface in low-lying parts of the Missouri and its tributary river valleys. The flowing pressure head is a valuable asset to ranchers in that electrical power does not have to be provided in remote pasture locations. The large number of Fox Hills' wells and the low recharge rate has resulted in a declining pressure head of one to two feet per year in the central Williston basin. Eventually the wells will stop flowing as the pressure head declines below land surface. So as to not increase the rate of pressure head decline, water users in the central Williston basin that require a permit are now directed to other sources."

Page 129: There is an incorrect spelling of an individual's name attending the Agency Coordination Meeting in Bismarck. The name *Dan Farren* should be changed to *Dan Farrell*.



### DEPARTMENT OF THE ARMY OFFICE OF THE ASSISTANT SECRETARY

WASHINGTON, DC 20310-0103

2 AUG 1985

Honorable Quentin Burdick United States Senate Washington, D. C. 20510

Dear Senator Burdick:

This is in response to your June 28, 1985, letter concerning proposed charges for water withdrawals from Lake Sakakawea.

As we have discussed, it is especially important in this time of national fiscal concern for the Department of the Army to conscientiously pursue recovery of past water project investments from project beneficiaries as required by law. However, as you explained during our meetings on this subject, it is not clear that withdrawals do benefit from the storage pool of Lake Sakakawea.

Because of this uncertainty, the Corps of Engineers has embarked on a study to determine yield thresholds for each of the main stem Missouri River reservoirs at which reliable water supplies would require storage. In addition, current and future demands are being identified for comparison to the yield thresholds. This information will enable us to determine which withdrawals, if any, benefit from the presence of the projects and will assist in identifying the impacts of withdrawals on other project purposes. This, in turn, will assist us in determining if any of the water users should be charged a fee.

Unfortunately, since the study described above involves complex issues and requires extensive coordination with State and local officials, we do not expect it to be completed prior to middle of 1987. Because some needs must be met much sooner than that date, we are actively seeking an interim solution within existing authorities that will allow withdrawals to begin immediately at no cost. We intend to keep in close contact with you as we develop this interim solution. We also plan to work very closely

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with you in developing a long term policy for water and storage sales from the main stem reservoirs after the results of longer term study are received in 1987.

I appreciate your continuing concern in this matter and feel confident that we will find a solution satisfactory to all parties.

Robert K Dawson

Acting Assistant Secretary of the Army (Civil Works)

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United States Senate C5070309

COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS WASHINGTON, DC 20510

June 28, 1985

Mr. Robert Dawson Acting Assistant Secretary of the Army (Civil Works) Room 2E570 The Pentagon Washington, D.C. 20310

Dear Mr. Dawson:

It is my understanding that the Army Corps of Engineers will be working with the North and South Dakota Congressional Delegations on the proposed water user service charge for the Missouri River and Lake Sakakawea reservoir. I further understand that the Corps is preparing a plan to submit to the delegations following the current recess, which ends July 8.

I am, of course, vitally interested in this issue and wish to be informed in a timely manner of all scheduled meetings and developments regarding these proposals. Please have your staff or the Congressional Liaison office contact Paulette Hansen at the Environment and Public Works Committee at 224-6844, or Laurie Boeder of my personal staff at 224-2551.

Thank you for your cooperation and interest in working toward an equitable solution for all concerned in this matter.

With kind regards, I am

Sincerely,

Ouentin N. Burdick

QNB:11b



# DEPARTMENT OF THE ARMY OFFICE OF THE ASSISTANT SECRETARY

WASHINGTON, DC 20310-0103

2 AUG 1985

Honorable Tom Daschle House of Representatives Washington, D. C. 20515

Dear Congressman Daschle:

This is in response to your recent letter concerning the proposal by the Corps of Engineers to begin charging the WEB Water Development Association in South Dakota a fee for the withdrawal of water from Lake Oahe.

It is Corps policy to charge when water is withdrawn or storage for water is reserved in one of its The Corps has two general authorities upon which to base this charge. One of these, Section 6 of the Flood Control Act of 1944, authorizes the Secretary of the Army to make contracts with non-Federal interests, at such prices and on such terms as the Secretary may deem reasonable, for domestic and industrial uses for surplus water that may available at any reservoir under the control of the Secretary. The other general authority is the Water Supply Act of 1958. This Act authorized the Secretary of the Army, among other provisions, to reallocate reservoir storage for domestic and industrial uses at any reservoir under the control of the Secretary provided that the reallocation does not seriously affect the purposes for which the reservoir was authorized and non-Federal interests agree to pay for the cost of the storage allocated to water supply.

We feel that it is especially important in this time of national fiscal concern for the Department of the Army to conscientiously pursue recovery of past water project investments from project beneficiaries as required by law. However, as indicated in your letter, it is not clear that the WEB Project does benefit from the storage pool of Lake Oahe.

Because of this uncertainty, the Corps of Engineers has embarked on a study to determine yield thresholds for each of the main stem Missouri River reservoirs at which reliable water supplies would require storage. In addition, current and future demands are being identified for comparison to the yield thresholds. This information will enable us to

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determine which withdrawals, if any, benefit from the presence of the projects and will assist in identifying the impacts of withdrawals on other project purposes. This, in turn, will assist us in determining if any of the water users should be charged a fee.

Unfortunately, since the study described above involves complex issues and requires extensive coordination with State and local officials, we do not expect it to be completed prior to middle of 1987. Because the needs of the WEB Project must be met much sooner than that date, we are actively seeking an interim solution within existing authorities that will allow withdrawals to begin immediately at no cost. We intend to keep in contact with you as we develop this interim solution. We also plan to keep in contact with you as we develop a long term policy for water and storage sales from the main stem reservoirs after the results of longer term study are received in 1987.

I appreciate your continuing concern in this matter and feel confident that we will find a solution satisfactory to all parties.

Sincerely,

(Signed)

Robert K. Dawson
Acting Assistant Secretary of the Army
(Civil Works)

Cf: SASG

DAEN-CW-SA (file)

DAEN-CWZ-X/CWP

SACW (read, signer)

Doc. #119, 61,5

1s, 7/31/85

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### Congress of the United States House of Representatives Washington, D.C. 20515

June 13, 1985

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Mr. Robert K. Dawson Principal Deputy Assistant Secretary Army Civil Works 2813 Central Avenue Alexandria, VA 22302

Dear Mr. Dawson:

I am writing with regard to the Army Corps of Engineers proposal to begin charging the WEB Water Development Association in South Dakota a fee for the drawing of water from Lake Oahe.

It is my understanding that this proposal came from the District Office in Omaha. I would appreciate your advising me if this proposal is consistent with the National Office's interpretation of current law?

If it is determined that this is to be the policy of the Corps in the years to come, I would like to pose some additional questions to you.

- 1) Does the: Corps have any plans to similarly begin charging a fee to navigational, flood control, or independent irrigation interests in downstream states who enjoy many of the benefits of the federal dams you are asking WEB and a selected few other projects to pay for?
- 2) Does the Corps also have plans to begin charging this fee to rural water systems who draw their water from federal resevoirs or is the policy limited to WEB?
- 3) Is the Corps of Engineers aware of the fact that the WEB project is not dependent, in whole or in part, on the existence of federal project facilities? If you accept this as fact, aren't you, in effect, charging the citizens of South Dakota for their own water?
- 4) Is the Corps of Engineers willing to conduct both public and private meetings in the impacted area to obtain input from municipal water users who will ultimately bear the brunt of this new policy? Would you also be willing to withdraw your proposal to WEB until such hearings are conducted?

Page Two Mr. Robert K. Dawson

As you can see, Mr. Dawson, there are many unanswered questions in my mind and in the minds of my constituents concerning this new policy of the Corps. I would very much appreciate it if you could advise me of the Corps' position on these critical issues at your earliest convenience.

With best wishes, I am,

Tom Daschle

Member of Congress