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MISSOURI RIVER MASTER MANUAL

HEARING

BEFORE THE

COMMITTEE ON INDIAN AFFAIRS
UNITED STATES SENATE

ONE HUNDRED EIGHTH CONGRESS

FIRST SESSION

ON

IMPACT SUFFERED BY THE TRIBES IN THE UPPER BASIN OF THE MISSOURI RIVER

OCTOBER 16, 2003
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MISSOURI RIVER MASTER MANUAL

THURSDAY, OCTOBER 16, 2003

U.S. SENATE,
COMMITTEE ON INDIAN AFFAIRS,
Washington, DC.

The committee met, pursuant to notice, at 10:05 a.m. in room 485, Russell Senate Building, Hon. Kent Conrad (acting chairman of the committee) presiding.

Present: Senators Conrad, Dorgan, and Johnson.

STATEMENT OF HON. KENT CONRAD U.S. SENATOR FROM NORTH DAKOTA

Senator CONRAD. We will bring this hearing before the Senate Committee on Indian Affairs to order.

I want to welcome everyone here this morning. Today, the committee convenes to receive testimony on the impact suffered by tribes in the upper basin of the Missouri River due to the U.S. Army Corps of Engineers' operations of the dams, as well as the treatment of federally reserved Indian water rights in the revisions to the Missouri River Master Water Control Manual.

Before I begin, I want to especially thank Chairman Campbell and Vice Chairman Inouye for agreeing to hold this important hearing, as well as the committee staff for all of their work in preparation for this hearing.

It is fair to say that no group of people in the Missouri River basin has suffered more than the American Indian tribes. The advent of the Pick Sloan Plan with its series of dams and reservoirs along the Missouri River resulted in significant damage to Indian land and resources. Nearly one-quarter of the land taken for the project was Indian land. Entire communities were uprooted. A way of life was destroyed.

Vine Deloria, a well-respected scholar and an enrolled member of the Standing Rock Sioux Tribe, noted that the Pick Sloan Plan was "the single most destructive act ever perpetuated on any tribe in the United States." Even today, nearly 50 years after some of the dams were constructed, the suffering by the Indian people along the river continues. Lake Sakakawea is now 19 feet below normal, and is on track to surpass its all-time low.

In fact, I have just been notified that the water storage in the reservoirs has reached the lowest level since the reservoirs were filled. Marinas around the lake, including those owned by the Three Affiliated Tribes, are dry, and in some cases are more than one-half mile from the lake. It is certainly hard to run a marina

under these circumstances. This is at Fort Stevenson, actually, in North Dakota. I was just there last week. As you can see, the marina facilities are high and dry. There is no water to float boats. The water has receded and is a long way from any of the marina facilities.

In addition, water supplies are at risk. The community of Parshall on the Fort Berthold Reservation is searching for a new water source as their intake is coming up high and dry. This is a story about the town of Parshall perhaps running dry. I was just in Parshall as well this last week. There is a high level of concern about what will happen to that community without a water source.

Lake Oahe, which straddles the North Dakota and South Dakota border, has actually now retreated from North Dakota. So Oahe no longer is in North Dakota. The Standing Rock Sioux Tribe which borders the lake was unable to irrigate crops this summer due to low lake levels, rendering their intakes unusable. Tribal land is also being eroded, exposing important historical sites.

In addition to current operations, the tribes are rightfully concerned about the future operations of the river and whether their rights to utilize the water will be adequately considered and protected in the Master Manual revisions. That is really the focus of this hearing today.

In 1908, the U.S. Supreme Court affirmed that when the Indian reservations were created and reserved, the right of the tribes to use the water was also reserved. The court noted, and I quote, "Fundamentally, the United States as a trustee for the Indians preserve the title to the right to the use of water which the Indians had reserved for themselves." This is a very important court determination that was followed by other court determinations that reaffirmed that basic and fundamental concept.

The Corps of Engineers cannot ignore the clear and indisputable fact that the tribes have a legal right to water in the basin. It is a right that has existed for more than 100 years when the tribes signed treaties with the United States, and a right that was reaffirmed by the U.S. Supreme Court 95 years ago. Those rights were never forfeited and never extinguished.

For 14 years, the corps has been working to revise the Missouri River Master Water Control Manual. I was deeply involved in the initial impulse to revise the manual, putting pressure on the Corps of Engineers, holding up the appointment of the civilian head of the Corps of Engineers for many months, to get agreement to revise the Master Manual. I must say to you, never in my wildest imagination, never, would I have thought 14 years later we still do not have it. This is not a good moment for the Corps of Engineers. It is not a good moment for the functioning of the Federal Government. To take 14 years to revise the manual is just way beyond the pale. None of us can seriously say that this is acceptable performance.

Professor John Davidson has summarized the importance of the Master Manual revisions on the tribes, and I quote, "The final Master Manual may lock in the status of specific river uses with a firmness that is every bit as solid as many Supreme Court equitable apportionments," and based on what we have seen, certainly as long-lasting. The corps has previously stated that an estimated

withdrawal of an additional 7.2 million acre feet of water would prevent it from meeting the current functions along the river, yet the corps has not taken any measurable steps to plan for the use of water by the basin tribes. I think in fairness, other than those who have quantified their water rights, that that statement is correct.

Instead, the corps only recognizes those water rights that have been quantified. Unfortunately, only three tribes out of 30 in the basin have quantified water rights, with one tribal settlement awaiting congressional approval. In my judgment, the corps cannot selectively ignore the water rights of the other 26 tribes in the basin. Doing so would be irresponsible and an abrogation of its management responsibilities. Beyond that, it would be an absolute failure of the trust responsibility that the Federal Government has with those tribes.

The tribes fear, and rightly so, that the corps continues to make commitments to downstream users without regard to their rights, creating a situation that will make it impossible for them to access water for present and future uses.

I look forward to hearing the testimony of the corps on what steps they have and will be taking to address this important issue in the Master Manual revisions. Before we begin with today's witnesses, I want to remind everyone that the hearing record will remain open for 2 weeks for those who would like to submit written testimony. So just as a reminder, the record will remain open for 2 weeks. The committee has received written testimony already from the Mni Sose Intertribal Water Rights Coalition, which has worked to unite tribes in the basin, and the President of the Rosebud Sioux Tribe, that will be included in the record.

With that, I want to call to the witness table, and let me just indicate for the record that Senator Daschle intends to be here to testify. Senator Johnson is already here. I would ask Senator Johnson to make whatever statement he would like to make at this point. While he is doing that, I would ask George Dunlop, the deputy assistant secretary of the Army, to come forward to the witness table and to be joined by Brigadier General William Grisoli, the Commander of the Northwestern Division of the Corps of Engineers.

Senator Johnson, welcome.

STATEMENT OF HON. TIM JOHNSON, U.S. SENATOR FROM SOUTH DAKOTA

Senator JOHNSON. Thank you, Senator Conrad, for chairing this hearing and for your excellent remarks this morning. I am pleased that my senior colleague, Senator Daschle, will be joining us. He has played a very active role in Missouri River and Native American concerns. His input and leadership is essential and I am glad that he is involved in this hearing as well.

There are a lot of individuals who traveled far for this hearing this morning. I want to take particular time to welcome Oglala Sioux President John Yellow Bird Steele. President Steele's presence reminds us that the tribes with an interest in the Missouri River are not just tribes who happen to have an immediate site located on the river, but that our tribes in South Dakota have treaty

rights involving Missouri River water, whether they are a few miles from the river or whether they are on the river.

Standing Rock council member Mike Claymore, welcome. Standing Rock administrative officer Cynthia Moore and Standing Rock BLM director Everett Iron Eyes is here. Additionally, we have several representatives from the Rosebud Tribe, as well as representatives from Mni Sose Intertribal Water Rights Coalition, including Executive Director Elwood Corbine. I want to thank them for their written testimony.

Mr. Chairman, we are also accepting testimony from Chairman Mike Jandreau of the Lower Brule Tribe in South Dakota. I appreciate their important insights on this critically important matter.

I would like to welcome George Dunlop and General Grisoli to the Committee on Indian Affairs. When I last met with General Grisoli, he was a colonel. Congratulations on your promotion and your new position as Commander of the Northwestern Division of the U.S. Army Corps of Engineers. Truly, this is a daunting task, but I know that you will listen and consider carefully the tribal concerns that will be articulated so well here today.

Binding together all of us who care about the future of the Missouri River to a common principle of stewardship and balance is critical to the sustainability of the river. To accomplish that shared goal, earlier this year Senator Dorgan and I introduced legislation to establish a long-term river monitoring program directed at the incredibly diverse Missouri River ecosystem. The legislation will leverage the expertise of the Missouri River Basin States and the expertise of our Indian tribes to monitor the environmental conditions of the river. We fully understand the negative impacts on wildlife, river species, cropland and cultural resources from the construction of the Pick Sloan dams.

What is less understood and therefore urgently needed is a framework for comprehensively examining the success of recovering wildlife and returning portions of the river to a more natural state. The tribes located along the Missouri River and all tribes within the Missouri River Basin, have a keen and undeniably strong understanding that future management decisions not further degrade the river. I envision this bill as binding together tribes, local stakeholders, the States and wildlife experts to give us a complete picture of how we can improve and enhance the Missouri River's diverse ecosystem.

After 14 years of indecision and inaction, I greet with frankly some skepticism the recent pronouncements and promises of millions of dollars in Federal funds to rehabilitate and restore river bottomlands. A monitoring program is needed to give all river users an ability to hold accountable the corps' newfound commitment to restoring the health of one of America's longest rivers.

I look forward to the testimony today. I will be submitting questions for the record in expectation of written responses.

Thank you, Mr. Chairman.

Senator CONRAD. Thank you, Senator Johnson, and thank you for the leadership that you have shown on this issue and so many others that affect Indian country. We thank you for your very active involvement on this committee as well.

With that, we want to again welcome our first panel, George Dunlop, the deputy assistant secretary of the Army for Civil Works, who is accompanied by Chip Smith, the assistant for regulatory affairs, Tribal Affairs and the Environment, the Office of the Assistant Secretary, and Brigadier General William Grisoli, the Commander, Northwestern Division, the Corps of Engineers.

I took with interest the statement of Senator Johnson that when he first met you, you were a colonel. We hope that you do not return to that status after the hearing today. [Laughter.]

Senator CONRAD. That is a joke. [Laughter.]

Senator CONRAD. Welcome, Mr. Dunlop. Please proceed with your testimony.

STATEMENT OF GEORGE DUNLOP, DEPUTY ASSISTANT SECRETARY OF THE ARMY, CIVIL WORKS, ACCOMPANIED BY CHIP SMITH, ASSISTANT FOR REGULATORY AFFAIRS, TRIBAL AFFAIRS, AND ENVIRONMENT, OFFICE OF THE ASSISTANT SECRETARY OF THE ARMY, CIVIL WORKS

Mr. DUNLOP. Thank you, sir. General Grisoli might deserve the Silver Star after this hearing. [Laughter.]

Thank you, Mr. Chairman, and good morning to all of you here and to your other guests. As you have indicated, my name is George Dunlop and I serve as deputy assistant secretary of the Army for Civil Works, and have a responsibility to exercise policy direction and oversight for the civil works activities of the Army Corps of Engineers.

As you also indicated, I am accompanied by Chip Smith, who is an assistant in the Office of the Assistant Secretary. Chip has been instrumental in assuring that the Department of the Army appropriately considers the interests of Native Americans in all the work that we do, and particularly in the matters that are of interest to this committee today, as you have articulated them.

Of course, General Grisoli is the Commander of the Northwestern Division, and ultimately is the chief officer responsible for executing and carrying out the laws that the Congress has provided for in these matters.

General Grisoli and I would request that our formal prepared testimony be submitted for the record, and we will both summarize our remarks today, our joint testimony.

Senator CONRAD. We are happy to make your full statements part of the record, and we are pleased to have you summarize.

Mr. DUNLOP. Thank you, Mr. Chairman.

Before I do summarize, however, I wonder if I could attend to one other ministerial duty. When I last appeared before your committee here, Senator Inouye made a request of the Army. He said:

> Would you all consider appointing a single professional person to be the tribal liaison for the headquarters of the Corps of Engineers in Washington?

I want to report to you, Mr. Chairman, that we did that, and in fact about 6 months ago Dr. Georgeanne Reynolds assumed her position as tribal liaison in the Office of Tribal Affairs at the headquarters USACE. If I could, I would like to introduce Dr. Reynolds to the committee and to your other guests.

Senator CONRAD. Very well. We are pleased to have that bit of business conducted here today, and we very much welcome Dr.

Georgeanne Reynolds. We look forward to working with you, and I am delighted that you have made this decision.

Let me say this. Senator Dorgan has joined us now. I am advised that Senator Daschle will be here in about 5 minutes. I would just ask the indulgence of the panel, and turn to Senator Dorgan for any comments that he might want to make, and then Senator Daschle may very well be here. As you know, the protocol before any committee is to recognize members. Certainly the Democratic leader would be recognized upon his arrival here, and then we would proceed with your testimony.

STATEMENT OF HON. BYRON L. DORGAN, U.S. SENATOR FROM NORTH DAKOTA

Senator DORGAN. Mr. Chairman, thank you very much. I regret I was delayed because of other committee work. Let me just be mercifully brief here. I know that you have probably given a statement and captured all of the relevant issues. The issue of the Missouri River Master Manual and its impact on tribal water rights is a really important issue.

Water policy is controversial and it is controversial because of its importance. I think this is a critically important hearing to hold at this time, because of where the Corps of Engineers is with respect to the rewrite of the Master Manual. They are now under court order to finish that by March of next year, after only 12.5 years. We will see how well the Federal court does. I know how well the Congress has done persuading the court to finish the project, but we will see how well the Federal court does in enforcing this deadline. My hope is that this gets finished and that when it is finished we have a Master Manual rewrite that addresses all of the issues in an appropriate way, and that includes especially the impact on tribal water rights.

So Mr. Chairman, thank you for chairing this hearing.

Senator CONRAD. Thank you, Senator Dorgan.

Why don't we proceed, Mr. Dunlop, with your testimony?

Mr. DUNLOP. And when Senator Daschle arrives, we will withhold.

Senator CONRAD. If you are close to the end, we will continue. If not, we will break.

Mr. DUNLOP. I will be brief also, because I am summarizing my remarks.

Mr. Chairman and other members of the committee, as you all know the Missouri River Master Manual, we call it the Water Control Manual, is the guide that is used by the corps to operate the mainstem of the Missouri River. The first Master Manual was published in 1960. It was revised again in 1975 and 1979, principally to address some flood control issues. Then in 1989, as you all have alluded to, about 14 years ago, going on 15 years, the corps began attempts at further revision to update the Master Manual to accommodate the Missouri River Basin needs and to assure compliance with all of the laws and statutes, including especially the Endangered Species Act, which had come to have an impact in the way the river was operated.

As part of that process, revised a draft environmental impact statement was completed in August 2002. As you know, that EIS

process is thoroughly transparent and involves an extensive series of public hearings, meetings, workshops with all of those people and individuals and interests that have a stake in the operation of the river. And especially, Mr. Chairman, the public consultation process included extensive tribal consultations, hearings, workshops, informational meetings, and tribal summits. Indeed, a tribal summit to consider the new draft biological assessment that the corps is soon to deliver to the Fish and Wildlife Service will be held on October 31 in Rapid City, SD.

Since 1999, in this current cycle of trying to revise the Master Manual, there have been 30 such tribal meetings, the list of which we have incorporated into our formal testimony. Of course, there have been scores of other informal meetings. These tribal meetings affirm the commitment made by President Bush in his November 12, 2001 proclamation attesting to the sovereignty of the tribal governments, and also in accordance with the chief of engineers' Policy Guidance Letter Number 57, which affirms and acknowledges the same and mandates that consultation with tribes prior to this kind of decisionmaking that pertains to the Missouri River Master Manual.

The Army and the corps are committed to fulfill our legal responsibilities to the tribes, and will continue to consult with the tribes and with tribal leaders, as they are the duly elected representatives of tribal people in their sovereign capacity with inherent rights to self-government.

We will do this as we complete the entire process for the revision of the Master Manual. I would underscore what all of you have said about the intention of all the parties involved to arrive at a new Master Manual and to do so by the first of March.

I think it is significant or important perhaps at this point to emphasize that there are several principles that guide this work that we are doing to complete this Master Manual. One, of course, is to carry out the enactments of Congress, the authorized purposes which are provided for in law for the operation of the river; to especially focus on the environmental laws that we are obliged and eager to enforce, including the Endangered Species Act. But also and especially important is the fundamental obligation that we have to do so in consideration of the treaties and the trust responsibilities that are laid forth, and for which we will faithfully carry out and fulfill.

As you know, currently the corps and the Fish and Wildlife Service are in consultations that will inform a final environmental impact statement, and will in turn lead to a final record of decision for a new Master Manual by March.

In addition to the water flow regimes and the balancing of the entire range of issues for which the Master Manual is the guide, the corps is also directing and developing what is called a programmatic agreement with the Missouri River Basin tribes. It is my understanding that there are about 30 tribes involved in this, including about 15 of the reservations that are immediately adjacent to the river and to the lakes. They are working this programmatic agreement between the tribes and the Advisory Council on Historic Preservation to facilitate the compliance with the new

Master Manual and section 106 of the National Historic Preservation Act.

Mr. Chairman, this concludes my summary statement. Mr. Smith and I, of course, will be pleased to respond to any of your questions. But first, if it pleases the committee, Brigadier General Grisoli will now address how tribal reserved water rights are accommodated in our Missouri River Basin.

[Prepared statement of Mr. Dunlop appears in appendix.]

Senator CONRAD. All right. General Grisoli, welcome and please proceed.

STATEMENT OF BRIGADIER GENERAL WILLIAM T. GRISOLI, U.S. ARMY, COMMANDER, NORTHWESTERN DIVISION, U.S. ARMY CORPS OF ENGINEERS

Mr. GRISOLI. Thank you. Mr. Chairman and members of the committee, good morning. As Commander of the Northwest Division of the Corps of Engineers, I am pleased to be here today to discuss our efforts in updating the Missouri River Master Manual, while ensuring our trust and treaty obligations to federally recognized tribes are met.

When the lands were set aside for Indian reservations, whether by treaty, legislation or Executive order, water rights were often not implicitly defined. The courts have long recognized, however, that such reservation of land also reserves by implication unappropriated water related to the land in order to accomplish the purposes of the reservation.

This doctrine of implied reservation of water rights was first articulated in the Supreme Court decision, *Winters* v. *United States.* The court found that an 1888 agreement and a statute which created the Fort Belknap Reservation in North-Central Montana explicitly reserved to the tribe water from the Milk River for irrigation purposes. The nature and extent of these water rights vary based upon the particular Indian reservation, with the objective of making the reservation a livable permanent homeland.

Tribal water rights may be quantified through adjudication, a congressionally ratified tribal-State compact, or by direct congressional action. Most tribes within the Missouri River basin, however, have not yet sought to quantify their reserved water rights under the Winters doctrine, although several tribes in Montana and Wyoming are at various stages of the quantification process. The corps does not have the responsibility to define, regulate or quantify water rights or any other rights that the tribes are entitled to by law or treaty. The corps does not attempt to do so within the current revision of the current Master Manual, although the revision provides some flexibility to accommodate potential changes in water regimes.

The current Master Manual recognizes that streamflow use on the Missouri River is not static, and addresses changes in its use accordingly. For example, when a tribe exercises and establishes water rights through a diversion of water from the mainstem reservoir system for consumption uses, then such diversions are treated as an existing depletion. In this way, the corps incorporates that depletion into its analysis of the overall system depletions. By incorporating such information into its estimates of future depletions,

the corps can anticipate the manner in which depletions of water will affect the overall system, and plan for the amount of water that will be available to move through the system to meet the various project purposes, while complying with applicable law.

The revised Master Manual will likewise incorporate such present and future depletions into its analysis of systems operations. Specifically, the revised Master Manual will be flexible under its adaptive management provisions to account for consumptive of use of the tribes at such time that their rights are quantified and finally established.

Finally, I would like to emphasize that the corps fully recognizes the principles of tribal sovereignty and the Federal Government's trust responsibility to the tribes. The corps will continue to engage in government-to-government consultation in order to take into account the quantified water rights of the tribes in the operation of the mainstem reservoir system.

We appreciate the opportunity to participate in this hearing and look forward to hearing the testimony from the tribal leaders and any ideas they may have regarding the Master Manual revision effort, especially in regard to the overall consultation process and our consideration of tribal water rights, which the Army takes very seriously.

Mr. Chairman, this concludes my testimony. We are pleased to answer any questions you or members of the committee may have.

[Prepared statement of General Grisoli appears in appendix.]

Senator CONRAD. Thank you both for your testimony.

Let me go first to the so-called Winters Doctrine. I would like to ask the two of you, either one of whom can answer, what do you take to be the message of the Winters Doctrine?

Mr. GRISOLI. The message of the Winters Doctrine is that we have an obligation to ensure that tribal reservations have water rights from a given source, in this particular case, the Missouri. So when you take a look at that, we, the Federal Government, have trust responsibilities for tribal reservations. So we take this very seriously, to make sure that whatever document we have includes that particular doctrine.

Senator CONRAD. Let me ask you this. I have noticed that Senator Daschle has arrived. We will go to him immediately. Let me just follow-up on your answer so that the record is complete before we go to Senator Daschle.

As I understand it, in the *Winters* decision, which is a Supreme Court decision in 1908, it stated that when the Indian tribes reserved rights to land, the tribes similarly reserved the right to use an amount of water needed to survive and prosper. Is that your understanding?

Mr. GRISOLI. Yes, sir; that is.

Senator CONRAD. All right. Just to give you a heads up, the next question I am going to go to is the question of the case of *Arizona* v. *California,* and what finding was there. What message did that send us as to Federal policy? Just so you have a heads up on where I am going with my next question.

With that, the Democratic leader has arrived. We welcome Senator Daschle, who is such an important member of this committee. Senator Daschle?

STATEMENT OF HON. TOM DASCHLE, U.S. SENATOR FROM SOUTH DAKOTA

Senator DASCHLE. Mr. Chairman, thank you for holding this hearing, and thank you for your interest in this important issue. I want to especially thank my dear friend and colleague from South Dakota for all of the work that he has put into the question of the problems associated with the management of the Missouri River over the many years. No one has put greater leadership into this effort than the three members of the committee that are currently here. I acknowledge that and thank them for that commitment and for their leadership.

I have a written statement that I will ask unanimous consent that the full statement be submitted as part of the record, Mr. Chairman.

Senator CONRAD. Without objection.

Senator DASCHLE. I wanted to come by and just emphasize how critical I believe this issue is. Unfortunately, I believe the Corps of Engineers' management of the Missouri River has been nothing short of abysmal. I don't know that anybody has felt the brunt of that mismanagement more routinely and more dramatically than the reservations that border the river. It is absolutely essential that we fix the Master Manual, that we revise it this year, and that we do it in a way that accommodates the needs and concerns of our Indian people.

I would argue that no one in the country has probably sacrificed more on the Missouri River than South Dakota's Indian tribes sacrificed in terms of sacred sites, sacrificed in terms of the economic loss, sacrificed in terms of the cultural repercussions of what happened when we built the dams. The acknowledgement of that sacrifice has yet to be made in full. We have begun to build a water system that will serve their needs, and I think that is one small way of beginning to address the extraordinary impact that these dams have had.

I must say, we have a moral and a legal obligation to consult and to work more closely with the tribes. A government-to-government responsibility acknowledges in large measure that those governments have every bit as much right to be at the table as any State or as anybody in the Federal Government. So I know that this hearing acknowledges that realization and again I thank the Chair for making it the priority that I know it is for him.

We have an opportunity here to address these concerns and these needs in the Master Manual, but the only way that is going to happen is if every tribe, every leader is at the table in a way that allows full participation and an airing of these views, and a commitment made by the corps to change their approach and to recognize how important their role can be.

Again, I thank you for giving me the chance to interrupt the testimony and I appreciate very much the chance to be heard this morning.

[Prepared statement of Senator Daschle appears in appendix.]

Senator CONRAD. We especially thank you, Senator Daschle, for coming here and addressing this hearing and sending such a clear message. I think you would not be surprised to find out that the statements of the three of us preceding yours were very closely in

alignment with what you have said and the conclusions you have reached. I think really it is impossible to defend the performance thus far of the corps with respect to management of the river. We understand they are under all kinds of cross-pressures. There are downstream States that have a different take on this.

But look, I really do think this is fundamental. We go to the question I asked to begin with with respect to the *Winters* decision, the so-called Winters Doctrine, going back to a Supreme Court decision in 1908. I think that said very, very clearly that water rights are reserved along with rights to the land.

Then, if I could follow up with Mr. Dunlop and General Grisoli, in the *Arizona* v. *California* decision, what is your understanding of what it said on the question of Indian water rights? This is some 60 years after the *Winters* decision.

Mr. DUNLOP. Mr. Chairman, I have consulted with my colleagues here at the table and none of us are familiar with that case. I have also consulted with Martin Cohen who is from the Office of General Counsel at the Corps of Engineers, the litigation branch, and he advises that this is a complicated case that we would ask that we could provide some written response to you, to give you an analysis of our understanding about that for the record.

In the meantime, though, we would be very interested in being informed about your take on it and your understandings from it.

Senator CONRAD. Let me just say to you, I believe this is an important case. I will welcome your written response. I believe what it said was that the court recognized that the reserved right amounted to the water necessary to satisfy the future, as well as the present needs of the Indian reservations. It went beyond that and said that enough water was reserved to irrigate all of the practicably irrigable acreage on the reservation.

Now, that is a standard often referred to as the PIA standard, practicably irrigable acreage, and that has become a standard for reserved water rights throughout the West.

Now, that takes us to the next question, and that is, in your testimony you said that the corps recognizes the tribes have claims to reserved water rights and will to the extent permissible by law continue to operate the mainstream reservoir system in a way that does not preclude such claims. You say the tribes have claimed to reserved water rights, and the corps will, to the extent permissible by law. Can you identify any existing law that in your view requires the corps to manage this system in a manner that would preclude tribes' claims to reserve water rights?

Mr. DUNLOP. I think each of us might want to take a stab at that, and of course we could elaborate further after we have a chance to give due consideration later. But I think that from the perspective that I would bring to that is that our obligation, the first principle that the corps has, that the Army has when the operation of the river is taken into consideration is to faithfully execute all the laws and statutes. As you indicated in your comments, this creates a circumstance for the corps which is in some ways just almost impossible because there are conflicting interests and uses and statutes that require us to balance all these different laws and statutes, as the Manual is prepared and the river is operated.

That is why when General Grisoli was discussing these matters, he talked about the importance of adaptive management as circumstances change. Within the guidelines of the Manual, we have to adapt to that. I think more specifically even, when we are talking about these reserved rights as you have been discussing, as General Grisoli said in his remarks, in his summary, he said the corps does not have the responsibility to define, regulate, or quantify water rights. Actually, it goes beyond that. They don't have the authority.

So I think that the thrust of the testimony that we have presented today is that once the three methods that may be used to arrive at particular quantifiable rights, that is adjudication or by congressional action, when those circumstances then occur, then yes, the corps will be obliged to operate the flow regimes consistent with those formally adopted under the rule of law for water rights.

That is the philosophy that we maintain in regard to all aspects of operation of the river, that we must faithfully execute the laws that Congress has enacted or its subordinate agreements such as these compacts and adjudications.

General would you care to elaborate?

Senator CONRAD. Let me followup with you, if I could, before we go to General Grisoli, because I want to give him a chance as well, but I do not want to lose the opportunity to discuss, when you say you don't think the corps has the authority, who does have the authority?

Mr. DUNLOP. As General Grisoli testified, there are these three methods, as I understand it, and my understanding may not be perfect on this. I can be better informed, perhaps. But my understanding is that when these water rights are then quantified, that is the operative term, and that there are three ways that tribal entities can have their water rights quantified, and therefore become operative in the way that the corps would write and operate the Master Manual: Through adjudication, through a compact with the States; or by direct congressional action. Once any one of those or any combination of those result in a quantified water right, then that water right would have to be respected. It would take on, I presume, the force of law.

Senator CONRAD. Can I just say this to you, I think that is too narrow a view of the responsibility of the corps. When I look at what you have done here, it appears to me that you have really not done much of anything to protect rights that the U.S. Supreme Court has said are reserved to the tribes, number one; number two, in the follow-up case of *Arizona* v. *California* that we discussed, that they went further in defining what is the reserved right, and that that reserve right includes all practicably irrigable acreage, that gets to be I think a pretty clear signal to us from the United States Supreme Court as to a responsibility that the corps has or anybody else representing the Federal Government in determining what is being reserved.

So when you go through a master manual revision, it would seem to me you have some obligation to go out and try to define what has been reserved based on previous Supreme Court holdings. I do not think it is adequate. The Supreme Court did not say, this is based on what is quantified. It did not say that. They said the

tribes have reserved the right to this water, and then they followed up in the Arizona v. California and they said when you determine what is reserved, it is a broad definition. It is a broad definition.

The fact is, tribes that have not quantified, only three have, you have a fourth on the cusp, out of 30, but all these tribes are using water, are they not? Have you done an assessment of how much water they are using now? Is that any part of this Master Manual review?

Mr. GRISOLI. Yes; we have. And what we have done, Mr. Chairman, we have looked at the larger number also in our analysis, but it is not something that is quantified in the Master Manual at this time.

Senator CONRAD. So it is not quantified in the Master Manual. Well, that is one part of the problem. Look, if you have gone out and done an analysis of how much water is being used, not only by those who have quantified, but also those who have consumptive uses of water, whether it is for household use, commercial use, irrigation, those are, it would seem to me, very clearly things that the previous Supreme Court decisions would have reserved. Would you agree with that or disagree with that?

Mr. GRISOLI. Mr. Chairman, the water that is depleted from the system is acknowledged and is calculated. It is the water that has not been depleted from the system that we have not added to the master manual. If I may, the Master Manual is a guide for the operation of the river, and every year the water flow changes, the amount of water in the system changes. That is why you have to have an annual operating plan. So you have to have this basic plan, but every year it changes. So when you take a look at the water in and the water out, you have to adjust each year as you manage it, whether it is a flood year, a normal year, or drought year.

So when we look at the water rights, we recognize those water rights and we clearly indicate in the Master Manual that those rights are there and that as they are quantified and depletions are withdrawn, we have to modify how we operate the river.

I like to look at three critical things that I always look at. First, are the authorized purposes, authorized by Congress. Second, I have to comply with environmental laws. And third, I have trust and treaty obligations to the Native Americans. So I really look at three critical things.

The water that they have is in the system. There is not going to be any more water in the system. So if *x* number is quantified, that water will be withdrawn from the system and we will have to balance those with the other two to make sure I comply with all Federal laws.

Senator CONRAD. Let me just say to you, that is what raises a lot of concern, concern by tribes, concern by members, because the way you define it to me is too cramped, too narrow a view of the responsibility. You said in your testimony, and I will turn to colleagues after this question. You state in your testimony, the corps, and Mr. Dunlop you repeated this, does not have the responsibility to define, regulate or quantify water rights or any other rights that the tribes are entitled to by law or treaty.

Let me just ask you this, is it your position that the corps in developing a Master Manual need not give any consideration to the existence or magnitude of tribal reserved water rights or to the fact that the existence of those rights may at some future point result in increased on-reservation use of water that would reduce the availability of water to downstream users?

Mr. GRISOLI. I would like to say that the key, Mr. Chairman, is that we recognize their water rights in the document. We also are willing to, and we do work with the tribes and will provide technical assistance to help quantify those water rights, and we do, as I mentioned before, in our overall analysis, we run models. We do take a look at depletions that could be taken from what is already being depleted or possible future depletions from the river itself, the mainstream itself. So we do look at that to see possible outcomes that might happen.

Senator CONRAD. What would happen if in the future the tribes collectively had claims totaling 10 million acre-feet of water? What would that do to your overall plan?

Mr. GRISOLI. I would offer, Mr. Chairman, as I said before, every year the amount of water changes. In a normal runoff year, you have 25 million acre-feet to runoff. That is a significant chunk of water to come out of that 25 million. It would alter the way we would have to manage. So we would have to take a look at that.

Senator CONRAD. But isn't that the point? You are not doing it now in this Master Manual as I understand it. You do not have that water reserved. You have what is in the system, other than those water rights that have been quantified by the three tribes. You do not really have anything reserved for the Indians for the future.

Mr. GRISOLI. As I mentioned, Mr. Chairman, we operate the river yearly. If the water is not being taken out of the system at this time, for us to reserve that water and to impact all of the other congressionally authorized purposes and the environmental impact, is probably not a wise way to run the river at this time. What you want to do as depletions come on, then you have to make those adjustments.

Senator CONRAD. Adjustments.

General GRISOLI. Trying to speculate how we are going to have to manage the other authorized purposes, given *x* number when it is not being withdrawn, is not practical.

Senator CONRAD. I understand exactly what you are saying and there is a logic to it. But do you see that the problem that this logic could lead to? That is, in the future, as commitments are made downstream, a right of the tribes upstream is compromised. In other words, unless you do an analysis now that says, gee, this is potential future water needs and that has to be taken into account as make commitments downstream. You may well find yourselves in a circumstance in the future in which so many commitments are made downstream, you cannot keep the fundamental commitment outlined by the U.S. Supreme Court to the tribes upstream.

As I see it, that is the nub of this problem. I know it presents you with an extraordinarily difficult task, but as I look at what you have done here, I see almost nothing that has been done. My un-

derstanding is that in the environmental section here, there is a half-page devoted to the Indian water rights issue.

Mr. GRISOLI. Mr. Chairman, I would have to go back and look at the exact number, but I believe there is a lot more than that. We have an appendix that talks about water rights on half of a page, but then when you look at the whole picture of the tribal issues, et cetera, there are several pages that try to outline the impacts of the operation of the river.

Senator CONRAD. Quite apart from the number of pages, I think you and I both agree that is not the issue. The issue is, does this document faithfully reflect the commitments made by the Federal Government, both in terms of treaties written by this government and by court interpretations, the U.S. Supreme Court interpretations.

Let me turn to Senator Johnson, who was here first, for any questions that he might have.

Senator JOHNSON. No; I do not have any questions at this point. We may submit some to the corps, but I am pleased that they are now, after not having any meetings with the tribes this year, now do have one planned for this month. I do urge the corps to make an extra effort to be closely consultative with the tribes relative to revamping the Manual. That is my only concern at this point.

Senator CONRAD. Senator Dorgan.

Senator DORGAN. Mr. Chairman, thank you very much. The testimony from the Corps of Engineers is interesting. I understand your point about how you interpret existing law and court decisions and your responsibilities. You, I think, understand our concern about the rewrite of a Master Manual that is long overdue. We feel that when that rewrite is complete, it ought to respond to all of the interests and needs and responsibilities.

The failure to include provisions that would recognize existing rights, obligations and existing treaties with respect to Indian tribes would be a remarkable failure. That, it seems to me, must be a part of this.

Let me ask this question. We recognize that lands were taken from Indian tribes and from individual Indians in pursuit of the Pick Sloan Plan and the development of the reservoir system and the series of dams. Do you not recognize that? The land has been taken from Indian tribes. So as a result of that, did the Federal Government ensure benefits to those tribes? If so, what are those benefits and have the tribes received those benefits? Have the obligations that were caused by the Federal Government and inherited by the Federal Government as a result of taking these lands been met? Tell me your impression of that, Mr. Dunlop, if you would.

Mr. DUNLOP. Yes, sir; I think so. What I would like to do, just so that I am comprehensive and don't leave any particular matter out that would be obvious that I had missed it, and therefore somebody would think we were establishing policy if we could respond to that in a formal way, with a written response.

But yes, sir, I think that virtually everything that you have said, and in fact what the other members and the leader have said, we could concur with in the philosophy and the approach. We have these obligations and responsibilities under the treaties and trust responsibilities. We believe that in fact the path that the corps is

on in its consultations with the other parties, including the public and the Fish and Wildlife Service, all the activities underway to bring about the conclusion of a new Master Manual do incorporate the concerns that you have expressed here, and do make provision for circumstances that might change such as quantified water rights come along.

It might be an overstatement to say this, but I think it picks up the general theme of it, is what Senator Conrad mentioned:

> Well, what if the tribes and the people there were to exercise their rights under the Winters Doctrine and use the water to which they have senior right to the tune of 10 million acre-feet?

Well, what if they took 25 million and used it for these purposes that were provided for in treaty and other things?

Well, then there would be no water left. They have drained it dry. Ultimately, my understanding, which may not be complete, of the Western water law, the Winters Doctrine and things like that, is based upon seniority. It is my understanding that the tribal rights are among the most senior in the country.

So therefore, everything that we do has to take that into account. So ultimately if those consumptive uses obtained and they are quantified and they use those, then the operation of the river will have to accommodate to that.

Senator DORGAN. You are saying that the Master Manual will address that?

Mr. DUNLOP. It provides the procedure, yes. It is my understanding that it takes into consideration the fact that if senior consumptive uses are utilized under the quantified rules that are obtained through these three ways that we described, that they would have to be taken into account.

Senator DORGAN. And if this process is consultative, then are the tribes satisfied that the consultations have addressed the issues?

Mr. DUNLOP. Sir, of course, the tribes would have to address that.

Senator DORGAN. What is your impression of where you are with the consultative process?

Mr. DUNLOP. Well, I am very pleased at the enormous amount of effort that the corps has made. It has been our policy not only in this Administration, but in the previous one, that the corps and other agencies engage in a robust way with the tribes and their elected representatives. The 30 meetings that I mentioned in my testimony, plus scores of other informal meetings, I think are evidence of the fact that we are trying to be faithful to that.

Senator DORGAN. But my question was not whether you are trying to be faithful. My question is where do you think you are with respect to the consultative process. For example, testimony that we will receive from the tribes, among others, says, and I will quote from part of one testimony from the Oglala Sioux Tribe, the region's largest tribe, that they will suffers severe harm as the result of the Corps of Engineers' Master Manual review and update process. And they go on to explain why.

My point is that if tribes have seniority rights here with respect to the consumptive use of water, and you are rewriting a Master Manual you rewrite should reflect that. As you know, the tribes were here long before the Corps of Engineers ever designed a uni-

form. They actually lived on the river long before anybody that represented your forbears even thought of being here.

Mr. DUNLOP. And long before the Congress authorized and directed and appropriated the funds that executed all this.

Senator DORGAN. That is true. So the tribes feel some claim here, and we have a process of harnessing the Missouri River and creating dams. We took their land. We have obligations to them, and you say that in the rewrite of the Master Manual there is a consultative process. I ask you, how is it going, and you say, well, you think the corps is trying hard. My point it, we are having testimony today from the tribes who say that they fear that this is going to cause severe harm. So clearly the consultative process is not working from the standpoint of the tribes. Would you agree with that?

Mr. DUNLOP. No, sir; I really could not associate with that, because I do believe that it is working. Ultimately, I guess it gets down to what is the definition of "consultation." In so much of what we do, we have had to focus that coming to consensus does not always mean unanimity. It means that people are willing to engage and make trade-offs. As long as they are consulted and involved in a substantive and a sincere way that does in a demonstrated way take into consideration people's earnestly held thinking, to measure its success, if any party does not obtain exactly what they want that it is a failure, well, then that is not a fair representation.

Senator DORGAN. But Mr. Dunlop, there is a difference between not obtaining exactly what you want and alleging severe harm from a process.

Let me just ask the question: You say that the corps recognizes that the Feds have obligations to the tribes, but then you also say that those obligations are recognized only if those obligations are quantified; Only at the point that they are quantified are you forced or required to adjust the management of the river itself or the river system. I do not understand. I think that is a discrepancy. Either you recognize obligations or you don't. There is either an obligation or there isn't. You recognize it or you don't. It is hard for me to understand that you are going to create a system to manage the river that you say will ignore potential senior consumptive use of water by those who have the right to it, but at some point when they use that water, you will have an accommodation in the Manual to allow that use. For some reason, it sounds like bureaucratic doubletalk to me.

Mr. DUNLOP. Well, sir, the reason that it is not is what General Grisoli is addressing. That is that there is no such thing as a fixed amount of water in that river or in any river in any given year.

Senator DORGAN. But there is some amount of water, not fixed, but there is some amount of water, right?

Mr. DUNLOP. I would hope so. If we get into a drought of the 1930's, there might not be any, but right now there is some.

Senator DORGAN. And if we agree on that, you also agree that some of that water is owed to the tribes for their use. Agreed?

Mr. DUNLOP. Indeed. They have rights under law and treaty to exercise those. That is the distinction. What I was trying to communicate, and if I am not successful, I apologize, but there is a clear connection in my mind when one says, we are going to make

provision in our guide. We hope this Master Manual lasts another 30 years, for heaven's sakes. We do not want to have to go through what we have gone through every cycle, every year, every 15 years. For a long time, that Master Manual ought to obtain.

So by definition, it has got to be a document that serves as a guide that can be adaptive to changing in different circumstances. So when I assert to you that it is my understanding that is the direction in which we are moving, now the General has not decided yet on this Master Manual. He is the deciding official. He has not put out his record of decision. All of the input we are having today is informative to that and very helpful. But ultimately when a Master Manual is arrived at, it will by definition have to be the kind of guide, the kind of document that can take into consideration the conundrum you have mentioned.

Senator DORGAN. Okay. But my point it, this should not be a conundrum. It ought to be a certainty. There are obligations and rights and they ought to be a product of certainty, not a conundrum. How long have you been in your job, Mr. Dunlop?

Mr. DUNLOP. Only about 20 months, Senator.

Senator DORGAN. And you understand the impatience and the anxiety that we share here on this panel. The same organization—and it is not you personally but the same organization—that says 12 years ago it is going to rewrite the Master Manual and has not done so yet, now comes to this table and says we are going to make provisions for the tribes' water rights.

The question in our minds is, when might one do that? Twelve years from now? Twenty-four years from now? If a person is going to make provisions, it seems to me you deal with certainty. The certainty is that we have an obligation to the tribes with respect to the management of the river, and we do not create a new management plan that says, oh by the way, if at some point there is a withdrawal of water based on rights the tribes have, we will make provisions for that, but we will not assume that will happen.

That is implausible to me. It is not good planning and it is not meeting your obligation to the tribes. That obligation is not some guesstimate. The obligation is in a treaty. It is in the law. And they come here and they say what you are doing will cause them irreparable harm. Why do they do that? Because they are worried you are not going to make provisions for their rights. You are just not going to make provisions.

What you are going to do is you are going to say, well, sometime later if this happens, we will deal with it. "Sometime later" with the Corps of Engineers looks to us like a decade, two decades, three decades. These tribes don't live in the long term, they live this month, this week, tomorrow. And they are trying to make do with this resource which runs right smack through their reservations, and is an enormous resource for them, but one which if managed improperly is a significant liability and detriment.

So that is why they are here. That is why you see this anxiety in their testimony. I was only trying to understand the difference between your rather positive outlook, and again Mr. Dunlop, this is not personal. There are others like you who have sat at this table and had to see the wrath of my colleague Mr. Conrad or mine or others. We do not like what is going on. It is not right. It is not

right for us. It is not right for the tribes, and not right for our States.

You must, it seems to me, address each part of this in a satisfactory way, and there must be certainty with respect to the rights of the tribes. If you do not do that, this Master Manual is not going to work.

Mr. DUNLOP. Yes, sir; I understand and comprehend everything that you and the other senators and members of the committee have said. I appreciate all that.

One final thought that I might offer for your consideration, and again there may be other people who are more informed about these things who could be more articulate. But it seems to me that if the corps were to in a Master Manual make an attempt to do things that it does not have authority to do under law, that is to quantify anybody's rights, that we would actually be mitigating against the interests of people who might have a more rule of law way, I don't know how to say that in words, a way that is more sound and has more legitimacy under the rule of law.

As I indicated, there are three ways that the tribal people can be assured of quantifying their rights, this adjudication process, the process of a compact, or an act of Congress. If an agency of the Government, if people who are civil servants or people who are people like me who are policymakers who pass through our elective process, attempt to do that in a way that might mitigate against their right under law to establish and quantify these things, that might not be the path they really want to go if they considered it. Because the law and the Constitution and the other corpus of our law provides these three means to quantify those things, that is really in our view the best way to protect and defend the tribal rights to their reserve water.

Senator DORGAN. Mr. Chairman, you have been very generous. Let me just make one final observation. I would much sooner fight with the Corps of Engineers, if we have to fight, over the fact that you did something, rather than over the fact that you do nothing. Historically for 1 dozen years I have served in the Congress, you have not moved on the Master Manual.

General, good luck. I would not bet your star on that. I hope that you meet March as a deadline. I hope the Master Manual includes the tribal rights. My point is, you explain why things can't happen. We are trying to say to you that you must make the right things happen, as you construct this. Otherwise even if you meet the March deadline and you do not address this the right way, with all of the component parts of all the stakeholders, a very significant one of which is tribes, then you are destined to fail even if you meet the deadline. That is my point.

Thank you for the time, Mr. Chairman.

Senator CONRAD. Absolutely. Maybe I can go back to this point and try to leave you with perhaps a firmer understanding of why some of us are concerned.

General Grisoli, you talked about a stream flow of something like 25 million acre-feet. That is an average. Let me take you to the next point. Of those tribes that have quantified their rights, and including the one that is on the cusp of quantifying, how much has

been reserved for them? Do you know? How much has been committed?

Mr. GRISOLI. The water is committed as required, all the water. The water that has been identified and quantified is withdrawn from the system.

Senator CONRAD. How much is that?

Mr. GRISOLI. I believe it is about 1-million acre-feet.

Senator CONRAD. I am told it is 1.6-million acre-feet, if you take the three that have quantified, plus the one that is about to have its interests quantified; 1.6 million. Does that sound about plausible?

Mr. GRISOLI. Yes, sir.

Senator CONRAD. Okay. What if all 30 were quantified on the same basis of the four that either have been or are about to be? Do you have any idea how much that would be?

Mr. GRISOLI. I believe it is along the number that you had given to me before, roughly 10 million acre-feet, around that number, et cetera. I do not know off the record. I could come back to you on that.

Senator CONRAD. Okay. Let's do that.

Based on your current analysis, I am told that you have a 7.2-million acre-feet cushion to current operations, to meeting all the commitments that have been made. Is that correct? Is that roughly correct?

Mr. GRISOLI. It is approximately correct.

Senator CONRAD. Do you see the problem that I see?

Mr. GRISOLI. I see a requirement that will grow possibly over time. We recognize that again their water is in the system, and how the water is allocated will have to change each year because if you have a drought, for example, right now, the water flow is about 17-million acre-feet. If we go to 17 million acre-feet, there are no winners on the river. We may have to come back to Congress to ask for how we are going to answer the authorizes purposes, because every year it changes.

I guess that is why I feel very comfortable with saying that we have provisions as water requirements grow on the river, which they will, for not only the tribal reservations, but all the stakeholders, and some of the purposes. As those come in, we have to balance. There are Federal laws that commit a certain amount of water to the Native Americans. We will meet those. We have to meet the environmental piece also, and then whatever at that particular point down the road would be to authorized congressional purposes, that will grow over time.

So if you try to look at it too far out, you get to a point in time where you really cannot have a great vision. But when you look at it close-in, and the amount of water being withdrawn, we can manage that, and we can manage anything in the near-term for a long period of time.

So what I would offer is that as things change, and as one of those three areas authorized quantifications of water rights, we then are obligated to be prepared to manage that. Because first of all, when you do that, you have to be able to withdraw that water. You have to build structures. You have to prepare. That takes time. So even after ratification, it is not an automatic withdrawal.

That time is what we use in consultation because consultation is something that is continuous and needs to happen every year. If it is signed this year, I need to have a tribal summit every year, not just this year, but every year, and I should do that prior to preparing any annual operating plan. When I do that, I then have to adjust.

So when we look at the practical management over time, we can take these changes into effect and then move forward.

Senator CONRAD. You know what it is to have an epiphany? As you were speaking, I had an epiphany and I realized why we are having the problem we are having. You sit on that side of the dais and you are a very good man. I know that. I know something of your record, absolutely well-intentioned, and speaking from the heart.

Mr. Dunlop, you are a good man. I can tell that from your testimony. You are being honest as you can be. The tribes are similarly well-intentioned and well-intended, and they have a totally different view of what is occurring. The epiphany I have had is I understand the difference. You know, where you stand has a lot to do with where you sit. You are in positions of responsibility for a relatively brief time. They have been living with this problem for 100 years. Their experience is so different from what you believe the experience will be. There is the problem.

You know, you think back, in my brief career, I am in my 17th year in the U.S. Senate, and in the 1980's we had this terrible drought. The corps released the increasing amounts of water in the depths of the drought, dramatically drawing down the reservoir. I had a hearing in North Dakota. It was one of the most intense emotional hearings I have ever conducted. People were irate, irate, because they found out, as I did on the very day of the hearing, that the corps was increasing their draw-downs of water in the midst of the worst drought since the 1930's.

General Grisoli, you say and I know you believe it and you intend it to happen, that this is going to be adjusted. Those are words that you have used here, that you have to have a living document, one that adjusts, because water flows change, as indeed they do. The problem is, we started revising the Master Manual 15 years ago.

Now, if I were sitting in your seat testifying then, and somebody asked me when is this Master Manual review going to be done, I would have said, and I think I did say to the public, a year or two. And now here we are 15 years later from when we started the process. I am talking about the entire length of the process.

There is the difference. You know, Indian people are saying to themselves, my God, wait 1 minute. We have only got 1.6 million acre-feet quantified. That is only 4 of the 30 tribes. On average, there is 25 million acre-feet, and in a drought year, 17 million acre-feet, and commitments are going to be made downstream without their rights being fully and completely quantified. You can see why they are worried. They see the possibility in the not-too-distant future, although both of you will be gone. I will probably be gone.

And they will be looking around and they will be looking back at this testimony and they will see General Grisoli saying, with absolute best of intentions, this thing will be adjusted. But they have

a sneaking suspicion that it is going to be adjusted against them; that their full rights will have been compromised by commitments downstream that did not take into account their needs, based on only a small number of the tribes having quantified in the ways that, Mr. Dunlop, you have described.

That, to me, is the gap here in communication and understanding. You have the best of intentions, fully believe that it will happen in a way that is rational and fair. Their experience, unfortunately, is quite different. Their experience is every time they turn around, they get shorted. I tell you, as a representative of four tribes, I can tell you it is pretty much my experience. What is well-intended and what really happens are two very different things.

Senator Johnson.

Senator JOHNSON. No.

Senator CONRAD. We will go to the next panel. Thank you very much, and we will await your written responses to those things that we identified. General Grisoli, thank you very much for being here today.

Mr. DUNLOP. Thank you, Senator. This was all very helpful to us and we are very appreciative for the opportunity to appear before you.

Senator CONRAD. Thank you very much.

Mr. GRISOLI. Thank you, Senator Conrad.

Senator CONRAD. I want to welcome the second panel, including John Yellow Bird Steele, the president of Oglala Sioux Tribe, Pine Ridge, SD; and Michael Claymore, tribal council representative from Standing Rock Sioux Tribe in Fort Yates, ND.

Mr. Claymore, I hope that you will forgive me if we begin with our representative from South Dakota. [Laughter.]

Senator CONRAD. Welcome very much. Please proceed with your testimony.

STATEMENT OF JOHN YELLOW BIRD STEELE, PRESIDENT, OGLALA SIOUX TRIBE, PINE RIDGE, SD

Mr. STEELE. Thank you, Senator.

Mr. Chairman and members of the committee, as president of the Oglala-Lakota Tribe, I wish to express my sincere appreciation for the opportunity to testify before the Senate committee today. I am here today to testify on the Indian water rights in the Missouri River basin and the concerns of the Oglala-Lakota people respecting the Master Manual update by the Corps of Engineers.

I would like to apologize, Senator, for President Charlie Murphy of Standing Rock Sioux Tribe. His mother is dying and he needed to personally transport her to Oklahoma where she is from.

Senator CONRAD. I understand fully. We have been in communication with Chairman Murphy. Chairman Murphy had asked me to hold this hearing and he told me of the family emergency that exists, and we certainly understand. We are glad that Mr. Claymore is here and we appreciate your attendance as well.

Mr. STEELE. Thank you. I would like to especially thank you, Senator Conrad, for requesting and chairing this meeting and for your words, sir, and the quotes you put up there in relation to the operation of the Master Manual. I think you are very knowledgeable about the situation, Senator.

I would like to also thank Senators Campbell and Inouye for their long-time leadership on the Committee on Indian Affairs and their support for the treaty rights of the Oglala Sioux Tribe. These are treaty rights, Senator, that the U.S. Supreme Court has said are to be interpreted as the Indian interpret them. This is a ruling of the U.S. Supreme Court. We say that there are water rights that are being violated right now by the Corps of Engineers in the operation of the Missouri River.

I am also pleased that both Senators Daschle and Johnson can be with us here today to listen to our concerns regarding this important issue. I personally am very proud to call them friends of the Oglala Sioux people and personal friends of mine. I appreciate their support for our efforts to protect our rights against the way the Army Corps of Engineers is operating.

We, the Oglala Sioux people, are extremely proud of our history. Our ancestors exhibited the values of courage, wisdom, generosity, attributes which we strive to practice today. In doing so, we have the legacy of our treaties. Under the Fort Laramie treaties of 1851 and 1868, we retained important legal claims to land and water in the upper Missouri River basin.

The Oglala Sioux Tribe is the largest tribe in our region. Pine Ridge Indian Reservation is our homeland. Rivers and streams that cross our lands and join the Missouri River include the Cheyenne River and the White River. The Oglala Aquifer underlies our reservation. The Mni Wiconi Project, which we thank Congress for, provides drinking water to the reservation and includes a major intake and water treatment plant on the Missouri River that delivers water through a nine-county area of Western South Dakota and to Pine Ridge, Roosevelt, and Lower Brule Indian Reservations. My tribe claims water rights to the Missouri River, its tributaries and aquifers that underlie our lands.

Our water rights have been held since time immemorial, and well before the United States took possession of these rights to the Missouri River basin in the Louisiana Purchase of 1803. I today join the Standing Rock Tribe in claiming prior and paramount water rights for the irrigation of our lands, as well as municipal and industrial fish and wildlife, recreation, aesthetic, mineral and all other purposes for which water can be beneficially used for the general welfare and health of our people.

Collectively, the Indian claims in the Missouri River may exceed more than half of the natural flow of the river as it reaches Sioux City, IA. However, on our reservation, our water remains largely undeveloped.

The Corps of Engineers is developing a new Master Manual for the future operation of the Missouri River mainstream dams. Our tributaries and our aquifers drain into the Missouri River and become a component of the water supply regulated by the mainstream dams. Whether diverted from the Missouri River mainstream, from tributaries or aquifers, our present and future depletions impact the Missouri River.

Conversely, the reliance by others on our unquantified unused water rights adversely impacts our ability to obtain an equitable future adjudication or equitable congressional settlement confirming our invaluable water rights. The Federal Government has ex-

pended considerable resources developing flood control and irrigation projects to supply water that is needed on the Pine Ridge Reservation to non- Indian water users. The Corps of Engineers' Master Manual will change the Missouri River. As of the 2002–03 annual operating plan demonstrates, 12 million acre-feet increase of water in storage is contemplated before the length of the navigation season would be reduced.

This increase from 40 million to 52 million acre-feet would be largely derived from claim of Indian tribes in the Dakotas, notwithstanding claims from those tribes that have already decreed or settled their water rights upstream.

Other interests, including hydropower purchasers, navigation, municipalities, recreation developers, threatened and endangered species, and advocates of habitat improvement, among others, will make investments, commitments and long-term plans based on the new changes in the Missouri River operations. These changes will greatly prejudice the ability of the tribes, including the Oglala Sioux Tribe and the Standing Rock Tribe, to protect, preserve and administer or adjudicate or settle our prior and superior rights to the use of the water as the future unfolds.

The Master Manual carefully avoids any attention to this issue and requests that the Secretary of the Interior address the matter on behalf of tribes has gone unheeded. The Master Manual review and update process has become a tool to lock in existing non-Indian water users such as downstream navigation, fish and wildlife, to the detriment of water users on the Pine Ridge and other Sioux reservations.

The Corps of Engineers' planning documents would render our rights as secondary to the existing users supplied by the corps now, although under Federal law, our rights are prior and superior to non-Indian water users. This is an extreme injustice that must be remedied by Congress. We heard the corps refer to our water rights as superior just before I came up here, but the way the Manual is being written, we see our water rights as being secondary.

The Standing Rock Sioux Tribe has shown convincingly that the corps' analysis of Indian water rights, environmental and cultural and historic impacts are fatally flawed, even though there has been a decade of consultation with the tribes. The most compelling aspect of our argument is that the Corps of Engineers has failed to address the impact of the Master Manual on Indian water rights and failed to mention any impact on the tribal water rights to the Missouri River tributaries.

This is the situation of my tribe, the Oglala Sioux Tribe. The use of water by tribes and non–Indians in the tributaries have as much impact on the depletion of the Missouri River supply as main stem users. Conversely, the Master Manual has impacts upon the water rights of all tribes who have treaties with the United States. It is incumbent upon Congress to ensure that the Corps of Engineers takes no final action to enhance non-Indian water flows downstream without consideration of the water rights of the Oglala Sioux Tribe and the Great Sioux Nation as recognized under the *Winters* Doctrine.

Let me point out another crucial issue, the desecration and destruction of Native American cultural resources and human re-

mains along the Missouri River. The Corps of Engineers' operations are directly responsible for the destruction of tens of thousands of cultural sites of Lakota origin. The Master Manual review and update planning documents completely whitewash this heartfelt matter. There is no compliance with the importance provisions of the National Historic Preservation Act, Native American Graves Protection and Repatriation Act.

Just in the USA Today in the South Dakota portion down there, the Corps of Engineers reminds people to leave these artifacts and human remains alone because of the drought situation now, and the exposure that is happening now, but have they contacted the tribes on any kind of remediation of this or repatriation of these human remains? No, they have not, not the Oglala Sioux Tribe. There can be no greater injury to our people than the destruction of cultural objects and desecration of human remains, yet this is happening now. The Master Manual revision process fails to remedy this or to provide any kind of mitigation.

Also demonstrative of the Corps of Engineers' lack of genuine attention to the tribes is the sharp contrast of language in the Master Manual related to trust responsibility. Our treaties are with the President and Congress of these United States. Every Federal Department under the treaties that we have with the U.S. Government have a full trust responsibility.

On the one hand, the Corps of Engineers states that it is striving to fulfill its trust responsibilities to Native American tribes in the Missouri River basin. On the other hand, it states that without a specific duty, the trust responsibility may be discharged by compliance with general statutes and regulations not specifically aimed at protecting tribes. This, I think, Senator Conrad, you sort of quizzed them on, and I did not see an answer coming to you, Senator.

It is for these reasons that we have come before the committee today. I am hopeful that we can work with members of the committee and possibly enact legislation to protect the tribes and to mitigate the damages to our water rights. I would like to thank the committee and you, Senators, especially for your time.

[Prepared statement of Mr. Steele appears in appendix.]

Senator CONRAD. Thank you for your excellent testimony. I have been reading it as you went along as well. You make many excellent points that I think will be very helpful to the committee.

Next, we are going to turn to Michael Claymore, tribal council representative from the Standing Rock Sioux Tribe in Fort Yates, ND. Welcome.

STATEMENT OF MICHAEL CLAYMORE, TRIBAL COUNCIL REPRESENTATIVE, STANDING ROCK SIOUX TRIBE, FORT YATES, ND

Mr. CLAYMORE. Thank you, Mr. Chairman and committee members for holding such an important hearing. Good morning. My name is Michael Claymore. I am chairman of the Tribal Economics Committee. Mr. Murphy was invited to provide testimony, however due to family emergency is unable to be here. He asked me to thank you for holding this very important hearing and to ensure that the Standing Rock Sioux Tribe's testimony would be heard.

Mr. Chairman, I wish to express the sincere and genuine thanks of the Standing Rock Sioux Tribe and its members for your continued work for the tribes in the Missouri River basin. We will never forget your support of the equitable compensation legislation for the taking of 56,000 acres of land on the Standing Rock Indian Reservation by the Corps of Engineers for the building of the dam and reservoir. Without your efforts and other members of the North Dakota delegation, the legislation would not have been possible.

In the past, we came because the corps had taken our lands. We come today because the corps is taking our prior, superior and vested rights to the use of the water of the Missouri River and its tributaries. The Master Manual will adversely affect our future ability to use equitably, adjudicate or settle our invaluable rights to the use of the waters.

Our written testimony documents the pretensions of the Corps of Engineers in the Master Manual to address environmental impacts and draws attention to the complete inadequacy of the scope of analysis and the errors and conclusions. I will list a few instances.

No. 1, the full extent of the environmental analysis is presented for the tribes on the main stem Missouri River only. Impacts are measured on the basis of percentages of change. In wetland habitats, riparian habitats, fish production in the reservoir, fish habitat in the reservoir, flood control, water supply, recreation and historic properties, no impacts on our water rights is measured.

No. 2, the Corps of Engineers measured economic impact of the Master Manual on navigation, hydropower and other purposes, but failed to measure the economic impact on the tribes or the tribes' water rights.

No. 3, there is no quality in the limited analysis of the Standing Rock Indian Reservation. For example, the impact analysis shows flood control benefits from as low as a negative 80 percent to as high as a plus 40 percent for the 11 alternative studies. All the land that can be damaged by flooding are above the taking area line for the Oahe Reservoir and those areas not within the Missouri River floodplain. Therefore, there can be no change in the flood control impact for the alternatives studied by the Corps of Engineers. The analysis is flawed not only with respect to the numerical values presented, but with respect to its sensibility.

No. 4, the impacts on water supplies are shown to vary for the alternative studies in detail from a plus 9 percent to a plus 10 percent. There is virtually no variation. I can tell you, however, that any change in the Master Manual would be much greater benefit than the conditions that exist today. The reservoir levels are so low that the intake for our drinking water is severely threatened. The intake for irrigation has dried up for the second time, to my knowledge, in the 1980's and again today. Our second crop is destroyed. This cannot continue. There must be an end to the Master Manual process and changes must be implemented to stop the draining of the Missouri River water away from the reservation.

No. 5, the depletion analysis does not distinguish between future water use based on State permits and future water use based on Indian reserved water rights. While the Corps of Engineers may conclude that the State water rights do not exist until used, the

same cannot be said for Indian water rights which do not rely on appropriations, but are currently vested and require preservation, protection and mitigation.

No. 6, the Corps of Engineers has consulted for more than 10 years with the Standing Rock Sioux Tribe. We have corresponded, attended meetings and have been visited by officials of the Corps of Engineers, including the Native American coordinator, and all has been to no value to the Standing Rock Sioux Tribe. The Corps of Engineers has proven it cannot analyze our environmental impacts, much less impacts on our invaluable water rights of the Standing Rock Sioux Tribe.

No. 7, the Corps of Engineers in consultation with other Federal agencies has prepared wetland mitigation plans, fishery mitigation plans, plans for protection and preservation of threatened and endangered species, and programmatic agreements for cultural and historic resources. We feel that those plans, particularly the programmatic agreements for cultural and historical resources, is as deeply flawed as the environmental analysis for the Standing Rock. But most damaging, the Corps of Engineers has carefully avoided any plan to protect, preserve or mitigate damages to our water rights, despite considerable correspondence from the tribe on this subject.

In the meantime, we are drying up. I am hopeful, Mr. Chairman, that these points will help underscore the insincere nature of the Master Manual efforts respecting the Indian tribes of the Missouri River basin. Mr. Steele and I believe many other tribes are anxious to work with you, outside the Master Manual, to assure the protection necessary for the preservation, protection and mitigation of the damages to our Indian water rights, our environment, our economy and our cultural and historic resources.

The Indian people have great faith in you, Mr. Chairman, and the congressional delegation in the Dakotas. I am confident we can work towards this to the benefit of many. I thank you for accommodating my testimony.

[Prepared statement of Mr. Murphy appears in appendix.]

Senator CONRAD. Thank you very much, Mr. Claymore. Thank you very much for being here and for your excellent testimony.

Let me ask the two of you, if I could, there is obviously a world of difference between the perspective of the corps and the perspective that you have brought to this committee. This is about as wide a gulf in perspective as I have seen here. What do you think needs to be done? Mr. Steele, what do you think should happen next?

Mr. STEELE. Before I answer your question, I would like to address Senator Johnson on his words in his opening statement, in recognizing the Oglala Sioux Tribe by treaty as just as important as a tribe that sits on the Missouri River. Senator, I hold you in high regard, and just for your words, I trust you so much more and I thank you for being our Senator.

Senator JOHNSON. Thank you.

Mr. STEELE. Sir, as you yourself stated to the corps, the way they have operated over all of the decades on the Missouri River without addressing treaty rights and our water rights in the Missouri River, we see the consultation, they call it, and they will put down as consultation a passing by. Yes, they did hold these meetings and

we did attend them. They take very good notes and they come up with tables. These tables and all jimmied up and it looks like they really have done their homework and they have facts and figures.

No, Senator; they do not. We know this for a fact. We are afraid that the way that they are going to operate that river is for downstream barges, for endangered species, and it is going to be almost impossible to get this water back if ever in the future we have a use for it as a tribe.

I am thinking that we had better get together possibly with the States and the tribes go into recreation and fishing, and utilize our water rights in other ways also. There are other ways we can do this to address this Master Manual. But we would like to work with the Corps of Engineers on a very realistic basis, and have them in their EIS and in their Master Manual to recognize our rights and to really show us that they are serious, and they are not just playing us along and saying, yes, you have superior rights, but we are waiting for statutes or you to quantify before we can really address your water rights. This we believe is totally out of hand.

Senator CONRAD. Mr. Claymore, what do you think should be done?

Mr. CLAYMORE. In all due respect, I am not exactly sure how we should move forward. I know in the consultation process that the corps has had, there are a lot of our elder people who say that regardless of what we say, the corps will do what the corps is going to do. So therefore, I do not know where we go from here. I am really concerned about our water, about the use of our water and the rights that we have. You mentioned that in the Master Manual, we have one-half page addressing water rights for the Native people. I am concerned about that because, again, the corps had mentioned appendix. It is like it is put on the back burner; we need to address that, but let's not put it in the Manual, let's put it as an appendix. I am really concerned about that.

I do think that we need to seriously address our needs, futuristic and current needs. That is about all I have.

Senator CONRAD. Can you tell me, in your testimony you indicated that you believe the corps failed to include an analysis of the economic impact on the tribe's water rights under the revised draft environmental impact statement. Has the tribe completed an analysis of what it believes would be the economic impact?

Mr. CLAYMORE. No; we have not, but I can tell you that our marinas and our irrigation are actually being severely threatened right now. So I guess the future of our economics is in the hands of the corps and how they manage the river right now. I think the tribe would gladly look towards analyzing that economic benefit more thoroughly as we move forward.

Senator CONRAD. Let's talk about things that have already happened, because in your testimony you indicate that the corn crop burned up this year, that was on irrigable land. Is that correct?

Mr. CLAYMORE. Yes, sir; that was at Fort Yates. There are approximately 800 acres of irrigable land there at Fort Yates, eight center pivots. This is not the first time it has happened. It happened in the late 1980's in the drought that you mentioned and the corps dropped the lake levels at that time. So this is the second time that we are without water at Fort Yates irrigation project.

Senator CONRAD. I go back to the testimony that the corps provided. They may wonder why some of us are skeptical about good intentions, however good the people are who have them. I go back to the 1980's and I remember very well finding out just on the day of the hearing, management of the river, that the corps had increased releases in the depth of the drought. You wonder why people are skeptical about assertions that the corps is going to respond and is going to make the changes necessary year by year.

Now, you come before us today and you tell us that the tribe that has 800 acres that they have paid to irrigate, would seem to have a right to that water based on Supreme Court decisions, but the fact is the intake is now high and dry. As a result, you do not have the water to irrigate the corn. As a result, the corn burned up, as a result people have substantial economic losses. Is that correct?

Mr. CLAYMORE. Yes.

Senator CONRAD. It would not be just the corn crop that was adversely affected. It would also be the marina. Do you still have access?

Mr. CLAYMORE. No.

Senator CONRAD. You don't have access to the water?

Mr. CLAYMORE. No; we are about one-half mile from the water.

Senator CONRAD. Your marina is one-half mile?

Mr. CLAYMORE. Maybe a little less, but it is high and dry.

Senator CONRAD. Just like the picture I showed up at Fort Stevenson, then.

Mr. CLAYMORE. Yes, sir.

Senator CONRAD. It really is kind of a startling sight. You go there, and there is no water. You have all the facilities, but there is no water.

Now, I guess what also adds to our skepticism that this is going to be managed in the future in a way that is fair and equitable, is in the 1980's, do either of you gentlemen recall by how much the corps reduced the navigation season downstream in order to respond to the crisis? Do you recall how many weeks the navigation season was shortened by the corps in order to respond to the depletion of the reservoirs?

Mr. STEELE. No, sir; downstream navigation, no we don't.

Senator CONRAD. Would this refresh your memory, that they reduced the navigation season by 5 weeks 3 years in a row, 5 weeks 3 years in a row. Do you know how much they have reduced the navigation season now, when we have a report that the reservoirs have reached the lowest levels ever?

Mr. STEELE. I expect none from the previous way they have operated. I don't know for sure. I think 6 days.

Senator CONRAD. You said 6 days. That is the correct answer, 6 days. In the 1980's, when things were bad but not as bad as they are now, it was 5 weeks; 5 weeks then, 3 years in a row; 6 days now. And they wonder why we are a little skeptical about claims that this is going to be adjusted in the future, and that things are going to be dealt with fairly.

Mr. STEELE. Senator, I just went to Little Rock, AR and to a little town there. All of the people there, southern people, were coming up and saying the Federal Government has really treated you Indians bad in the past, throughout history. They have not kept

their promises, their words. This happens, Senator, wherever we go throughout the United States, that people come up and say this.

I see, Senator, your words, Senator Johnson's, and it seems to me the bureaucracy here that is not keeping their word once again. This is part of history. It is going to affect us, like we say, in our economics, our treaty obligations. The people of America are really upset and they wish that the U.S. Government would act according to keeping their word, but I see where the bureaucracy and the Corps of Engineers in their Master Manual update are the problem, and it is the leaders of these United States that want to keep their word.

I do not know how we would go about it. We need a continued working relationship, Senator, and possible legislation to address this.

Senator CONRAD. I would just say this to you, there is no wonder that people are upset and skeptical. I was just at home, and spent the week break going town to town. The anger is building. I can tell you that. People have a very hard time understanding how it is that the economic analysis that has been done shows that the downstream navigation value is $7 million; the upstream recreational value is $85 million. But when we have the reservoirs at the lowest levels they have been in history, the history of the structures, that the navigation season is reduced by 6 days, when in the 1980's, 3 years in a row, they were reduced by 5 weeks. That does not send a very good signal.

Mr. STEELE. Senator, we want to get that Master Manual completed also. It has been worked on too long here.

Senator CONRAD. Do you think 15 years is too long?

Mr. STEELE. Yes.

Senator CONRAD. We have been assured here that it is going to be adjusted year by year.

Mr. STEELE. Let it be completed, Senator. We have these fears and we see they are not changing their ways today. Or do we drag it on for another 15 years because of our fears, and we see them operating the way they are operating today, just like the 1980's, just like they will in 2015.

Senator CONRAD. Senator Johnson, anything that you would say?

Senator JOHNSON. Yes; thank you, Mr. Chairman. I thank both the witnesses for excellent testimony today and excellent leadership back home.

I would note that Councilman Claymore from Standing Rock Reservation, which of course straddles both North and South Dakota, Mike has exercised the good judgment to live actually on the South Dakota side of the line. [Laughter.]

We are pleased to have his presence here as well.

I am pleased that on top of the water issues that Mr. Claymore has talked about, the economic impact, and President Steele has talked about the problems we have with cultural sites. I have been to White Swan, I have been to a number of places, and it is all up and down the river, literally human remains exposed. Part of the problem is Congress needs to do a better job of providing the corps with the financial resources, but I think the corps also needs to better prioritize their obligations to take care of those sites. It is truly an outrage what has happened to so many cultural sites and

the disrespect that this inevitably visits on the ancestors of native people.

Let me ask President Steele, I think your testimony is excellent, and I do want to reiterate the moral and legal reality that the Oglala, while not having a riverfront geography to its current reservation, nonetheless is party to a treaty which guarantees water rights the same as if they were immediately contiguous to the river.

Let me go to what strikes me as a fundamental question here. My natural inclination is to view things from the perspective of the tribes, but let me be a devil's advocate a bit here, because I think there is a question that we need to do a better job of responding to our colleagues on the committee and in the Senate. That is that the corps says, well, they acknowledge that the Indian rights to the water are superior. They say that is true, but they seem to be suggesting that because there has not been a quantification on the part of most tribes, that they are then not in a position to adequately set aside the amount of water that truly is needed because who knows what it is.

Some would suggest, well, the problem then is with Congress and the tribes for not having, then, quantified at a large level or a small level or at any level, the amount of water that the tribes truly need and are legally required to have. What would you say to that argument about the key problem has been the inaction on the part of Congress and the tribes relative to quantification, rather than the problem of the corps in not setting aside the water? How would you respond to that?

Mr. STEELE. Senator, I would say that the Corps of Engineers, just like any other Federal department, I have said it before, has this full trust responsibility to the tribes under the treaty. There are other tribes that the Supreme Court says that they have trust responsibility on, some Federal departments the Supreme Court says, but they are Executive order tribes, other federally recognized tribes. Treaty tribes are different. I say that the corps does not need to mention quantification as a necessity before they can really recognize water rights. The McCarran amendment that the Supreme Court says that State courts are going to be the adjudication tool to quantify water, we will not use State courts. So that is going to be out.

Senator JOHNSON. If it were to be resolved in a Federal court as opposed to a State court, would that make very much difference in terms of the tribe's inclination or disinclination to quantify?

Mr. STEELE. That is a possibility, Senator, yes. It is just the idea that State courts, who we see have a conflict in adjudication of these rights, that we will not use them. No, no, no, we will not. And so, we see the corps using the quantification issue as something to put our water rights to the back of the burner, when they are in the forefront here according to our treaty.

Yes, we are willing to sit down at some point in time to really look at our needs in acre feet or whatever, but not at this point in time.

Senator JOHNSON. I respect and agree with your point here. I do think that in a perfect world that at some point, some sort of just recognizing that there is a certain use it or lose it dynamic at work that is going on here, and I do worry that about the time we finally

come to some concurrence about exactly how much water is needed, we are going to have to then undo previous commitments and it is going to get very complicated. But I do share your observations about the State courts. Indian tribes are not sub-units of States. They are sovereign nations. They have a government-to-government relationship with the Federal Government and they should not be forced into a legal system that is contrary to the whole underlying sovereignty of the tribes. I appreciate that.

I also thought your thoughts, I appreciate somewhat in passing, but your thoughts about the potential for fish and wildlife agreements with States, so long as it is negotiated as two separate sovereign powers, is intriguing. Again, it would not be for me to tell the tribe or the State exactly how to do that, but wherever common ground can be found and strategies found that would be win-win, and which would indeed recognize the dignity and the sovereignty of the tribes and their treaty rights, that that is an intriguing idea. I encourage you to pursue that as best you can. Anytime we can broaden our coalition of support for a sensible water strategy that retains water where it has the greatest economic impact and wildlife and the natural impact, all the better there. So I appreciate that.

Those are my only thoughts. I appreciate both of you articulating so well the perspective of the tribes. We will work with you.

There are some areas where, while we have heaped a lot of criticism on the corps and much of it deservedly so, I think it is important that Congress look in the mirror at itself a bit as well, and the Administration as well, because there are faults on our side of the dais here as well in terms of politically complicating in some instances the timely pursuit of a revamping of the Master Manual. There have been amendments on the floor of the Senate and we have had some complications there. There also have been funding issues and funding priority problems which are not necessarily of the corps' making, but which come back to rest with us. So I want to acknowledge that the Congress could do better and the White House could do better as well as we deal with these issues.

Nonetheless, the most immediate issue we have is the Master Manual. We want a timely completion of it, but we want a timely completion of a proper manual, of a good manual, and not a quick completion of a manual that is not observant of Native American rights and needs.

So I thank you for what you have done here today to help educate us, our staff, and indirectly the entire Congress, by your testimony. We look forward to working with you and to see that we can advance a manual that best reflects our needs and priorities.

Thank you again.

Senator CONRAD. Thank you, Senator Johnson. Thank you so much for your thoughtful comments on this issue.

And thanks to President Steele, Mr. Claymore. Extend my best wishes to the chairman. I am very sorry about his mother. I want to thank you very much for appearing here today and to your assistance to this committee. I am very hopeful that people are listening.

I want to thank the gentlemen from the corps who stayed to listen. I think that reflects well on their seriousness and their inten-

tions. I believe they are men of good intentions. I hope in the listening that they caught a sense of the frustration here. It is not just a frustration of the last weeks or months. This is a frustration built up over many years.

I hope that they think carefully about how the messages that are sent in this Master Manual review reverberate across not only Indian country, but in other parts of our States as well, that there is a very deep and strong feeling that our part of the country has gotten shortchanged, and has not been dealt with fairly, and that in the real world of experience that people have had, it has not been a happy experience. It has not been one that has led people to have confidence in the future fairness of actions.

I hope that message is received and understood. It is not an attack on an individual or a person or an agency. It is a frustration because of experiences that have been very, very frustrating to people in situations where there was a lot at stake.

I tell you, I will never forget the hearings I have had with people who ran marinas, people whose crops burned up because they could not irrigate land that they thought they had a fundamental right to irrigate as part of a compensation for things that were done years ago, to help the downstream States.

I guess the great irony is these main stem reservoirs were built for the primary purpose of flood control for downstream States. It saved them billions of dollars in flood damage. Those things have been quantified. We know that is the case. We have been good neighbors. We have saved them from enormous losses. So it is especially difficult to accept when there is what is seen by us as a continuing unfairness in the operation of these facilities.

Again, thank you all. Thank you for being here. We will declare this hearing adjourned.

[Whereupon, at 12:08 p.m. the committee was adjourned, to reconvene at the call of the chair.]

APPENDIX

ADDITIONAL MATERIAL SUBMITTED FOR THE RECORD

PREPARED STATEMENT OF HON. TOM DASCHLE, U.S. SENATOR FROM SOUTH DAKOTA

Mr. Chairman, thank you for convening this hearing today on the management of the Missouri River, and specifically the ongoing revision of the Missouri River Master Manual. I especially appreciate this hearing's focus on the effect the Master Manual has on federally reserved Indian water rights. I am grateful for the opportunity to speak before you today to share my insights and experiences in dealing with the U.S. Army Corps of Engineers in South Dakota.

I am pleased that President John Steele, of the Oglala Sioux Tribe, as well as Mike Claymore, council member for the Standing Rock Sioux Tribe, are here to testify on this important topic. They will describe to you the effects the Corps of Engineers' management of the river and this Master Manual revision will have on their tribes. I also look forward to hearing the testimony of General Bill Grisoli to better understand what steps the Corps is taking to respond to tribal concerns, and hope we can work together in a constructive manner to resolve these issues.

Mr. Chairman, the Corps of Engineers' reputation in South Dakota on the management of the Missouri River is tenuous at best. As my fellow Senator from South Dakota, Mr. Johnson, knows, the Corps' management of the Missouri River has long been the source of much division between the upstream and downstream states. Our constituents, many of whom depend on the river for recreation, drinking water, and irrigation, cannot understand why it is that during times of drought, such as the one South Dakota has experienced in recent years, our State's reservoirs are drained to maintain a nearly nonexistent barge industry. To them, it simply flies in the face of commonsense.

South Dakota hosts four of the six mainstem dams. Five South Dakota Indian tribes border the river, and many others have historical and cultural ties to the river. Tribal burial grounds dot the landscape up and down the river, and the fluctuating water levels erode tribal land and expose these burial sites to the environment, leaving many remains and artifacts subject to poaching. Tribes are disconnected from the river that was once central to tribal life. You would think that simply bordering our Nation's longest river, a vital economic lifeline, would provide some benefit to the tribes, but that is often not the case.

When the mainstem dams were built almost 50 years ago, the State and the tribes were assured they would be compensated. Hundreds of thousands of acres of productive river bottom land was lost when the reservoirs filled. The two largest reservoirs formed by the dams, Oahe Reservoir and Sharpe Reservoir, caused the loss of approximately 221,000 acres of fertile, wooded bottomland that constituted some of the most productive, unique, and irreplaceable wildlife habitat in South Dakota.

This included habitat for both game and non-game species, including several species now listed as threatened or endangered. Meriwether Lewis, while traveling up the Missouri River in 1804 on his famous expedition, wrote in his diary, "Song birds, game species and furbearing animals abound here in numbers like none of the party has ever seen. The bottomlands and cottonwood trees provide a shelter and food for

a great variety of species, all laying their claim to the river bottom." The Missouri River tribes did receive payment for the lands they lost to the reservoirs. However, the level of payment was a pittance of what it was worth. In the 1980's, the Joint Federal-Tribal Advisory Committee, or J–TAC, determined that tribes were owed tens of millions of dollars more than they originally received. This committee has held a number of hearings on this issue over the last decade as Congress has enacted law after law to provide additional compensation to affected tribes to adequately compensate them for their losses.

But adequate compensation is more than just paying a fair value for the lost land. Compensation was supposed to come in other forms, such as guarantees that the reservoirs would provide irrigation for farmland, conserve and enhance fish and wildlife habitat, promote recreation along with meeting other important goals. This has never been fully realized. While recreation has become an important economic draw in South Dakota, water levels continue to be subject to the whims of the downstream interests threatening the future of river-based businesses. And Indian tribes have never fully realized the benefits promised them, while they continue to experience the adverse effects of low water levels.

For the last decade, I have watched as the Corps has steadfastly refused to change its management of the Missouri River to reflect the environmental and economic needs of the 21st century. The current operating plan for the agency was written in the 1960's, with the last revision coming in the 1970's. Barge traffic has long been the primary focus of the Corps' management policies on the river, but today that traffic is a mere fraction of what people thought it would be. Yet the Corps continues to support navigation at the expense of all the other uses the river should support. Nearly 14 years ago, the Corps was directed to revise the Master Manual to reflect the modem river and provide a more appropriate balance among the various uses on the river. However, the agency has continually delayed this review to avoid implementing a plan that will bring meaningful change to the management of the river. This will only further jeopardize endangered species, drive river-dependent businesses into bankruptcy, and lead to further erosion of Native American burial and cultural sites along its banks. The Missouri River is important to all of us, especially the Native Americans who share a special kinship with the river and hunted and fished off its banks for hundreds of years before Lewis and Clark. As a senator from South Dakota and as a citizen who appreciates awesome power and beauty of the Missouri, I share the sense of betrayal that so many upstream residents feel watching the Corps' management slowly degrade this once-thriving river.

The Corps has taken a very unbalanced approach in its revision. I continue to see the agency push its preconceived notion of how the Missouri River should be managed, even while it speaks of "inclusiveness" and "compromise." The Corps has shown time and again its unwillingness to work effectively with members of the public, states, tribes, or stakeholders to resolve ongoing challenges. For example, the Corps has stated it will not incorporate more natural river flows, such as the spring rise, in its plan, even though the U.S. Fish and Wildlife Service and the National Academy of Sciences have both stated that these changes are essential to the health of the river system. Someone once told me that when discussing the Master Manual, the Corps has stated people should "think outside the box—just don't change anything." This narrow view leaves out any real hope of compromise, and I sincerely hope that something can be done to change it.

That is why this hearing today is so important. American Indian tribes lost a great deal when the dams were constructed, and they continue to face hardships because of the Corps' management of the Missouri River. With the scarce resources available on the river, it is important that tribes be included in the process to ensure their needs are adequately addressed in the revision of the Master Manual. The Corps now plans on finalizing a Master Manual by March 2004. The agency has waited far too long to finish this work, and it must be completed quickly. However, it is imperative that the Corps revise it the right way, by developing a plan that fairly balances all current and future uses of the river. Only through commonsense, balanced river management can upstream states and Indian tribes fully realize the benefits of the river they were promised so many years ago.

Again, Mr. Chairman, thank you for holding this hearing. I look forward to hearing the views of the other witnesses.

PREPARED STATEMENT OF MICHAEL JANDREAU, CHAIRMAN, LOWER BRULE SIOUX TRIBE, LOWER BRULE, SD

Mr. Chairman, members of the committee, I am pleased to present this statement on behalf of the Lower Brule Sioux Tribe. We are located in central South Dakota along the Missouri River.

Last year, on May 21, 2002, the Lower Brule Sioux Tribe and the Crow Creek Sioux Tribe filed a lawsuit against the Secretary of Defense and the Army Corps of Engineers seeking injunctive relief growing out of their management of Lake Sharpe, which is formed by the Big Ben Dam.

As you know, the Department of Defense, including the United States Army Corps of Engineers, has adopted an American Indian and Alaskan Native Policy that:

Acknowledges Federal trust responsibilities to tribes; B. Commits to a "government-to-government" relationship with Indian tribes; C. Recognizes the obligation of meaningful consultation with federally recognized tribal governments; and D. Agrees to manage lands under Federal jurisdiction in a manner mindful of the special significance tribes ascertain to certain natural and cultural resources.

The plaintiffs filed the action, in short, because the Department of Defense and the Corps was operating in a manner that was inconsistent with their own Policy.

I am pleased to report to the committee that we have just recently settled our litigation with the Department of Defense and the Corps. Under the terms of the Settlement Agreement, the Corps has agreed to maintain an operating level at Lake Sharpe as measured at the gauge on the Big Ben Dam, and adjusted for wind effects, between an elevation of 1419 and 1421.5. Further, when the Corps anticipates that conditions may result in a water level outside of this "normal" operating level, they will contact the tribes and consult with them on a government-to-government basis.

Attached to this statement is the Settlement Agreement and Order signed by Judge Charles B. Kornmann on August 8, 2003.

The Corps is to be commended for signing this Settlement Agreement. It is vital, however, that the Department of Defense's American Indian and Alaskan Native Policy be incorporated into the master manual for the Missouri River. Policy articulated in Washington, DC is very important, but only if it is actually followed at the local level throughout the country. The Army Corps of Engineers has not adequately apprised its employees of the Department of Defense's American Indian and Alaskan Native Policy. The Corps should also conduct training for its employees so that they might become better acquainted with the Department's American Indian and Alaskan Native Policy. Finally, as I mentioned above, the Policy must be formally incorporated into the Missouri River master manual; then, it must be followed. Thank you very much for your consideration.

UNITED STATES DISTRICT COURT

DISTRICT OF SOUTH DAKOTA

CENTRAL DIVISION

FILED

AUG 1 1 2003

LOWER BRULE SIOUX TRIBE, ET AL., CIV 02-3014

Plaintiffs,

v. ORDER OF DISMISSAL

DONALD H. RUMSFELD, Secretary of Defense, ET AL.,

Defendants.

The parties having filed a Settlement Agreement, and the Court having reviewed the agreement, and good cause appearing;

IT IS HEREBY ORDERED that the above-entitled case is dismissed without prejudice.

Dated this 8th day of August, 2003.

BY THE COURT:

CHARLES B. KORNMANN
United States District Judge

ATTEST:

JOSEPH HAAS, Clerk

By: DEPUTY
(Seal)

UNITED STATES DISTRICT COURT

DISTRICT OF SOUTH DAKOTA

CENTRAL DIVISION

LOWER BRULE SIOUX TRIBE, ET. AL.	)	
	)	
	)	
V.	)	**CIV 02-3014**
	)	
	)	
DONALD RUMSFELD, SECRETARY, ET. AL.	)	

SETTLEMENT AGREEMENT

This action was commenced on May 21, 2002. The LOWER BRULE SIOUX TRIBE and The CROW CREEK SIOUX TRIBE and their respective Tribal Chairman, MICHAEL B. JANDREAU and DUANE BIG EAGLE, SR., (hereinafter and collectively "the Tribes") sought declaratory and injunctive relief against DONALD RUMSFELD, the Secretary of Defense (in his official capacity), the UNITED STATES ARMY CORPS OF ENGINEERS, and certain named subordinate officers (in their respective official capacities; hereinafter and collectively "the Corps") from exposing and damaging culturally sensitive Indian areas, destroying forage and game fish spawn, and hindering irrigation and drinking water access by releasing excess amounts of water through Big Bend Dam from Lake Sharpe, a federally created and managed Missouri River reservoir located within the State of South Dakota. The Corps opposed the Tribes' claims for relief.

The parties have chosen to resolve this matter without proceeding to trial. Accordingly, this Settlement Agreement sets forth the basis upon which this matter is settled.

1. The LOWER BRULE SIOUX TRIBE and the CROW CREEK SIOUX TRIBE are federally recognized Indian tribes under the treaties and laws of the United States of America.

2. The Corps, an agency of the Department of Defense, is responsible for the operation of the dams on the Missouri River, including the Big Bend Dam and Lake Sharpe pursuant to the Flood Control Act of 1944, as amended.

3. The Department of Defense (and its agencies) has adopted an American Indian and Alaska Native Policy that:

a. Acknowledges Federal "Trust Responsibilities" to tribes;

b. Commits to a "Government-to-Government" relationship with Indian tribes;

c. Recognizes an obligation of meaningful "consultation" with federally recognized tribal governments; and

d. Agrees to manage lands under Federal jurisdiction in a manner mindful of the special significance tribes ascribe to certain natural and cultural resources.

The Policy cited above by its own terms provides that it "is not intended to, and does not, grant, expand, create, or diminish any legally enforceable rights, benefits, or trust responsibilities, substantive or procedural, not otherwise granted or created under existing law. Nor shall this policy be construed to alter, amend, repeal, interpret, or modify tribal sovereignty, any treaty rights, or other rights of any Indian tribes, or to preempt, modify, or limit the exercise of any such rights."

4. The Big Bend Dam created Lake Sharpe by flooding of certain lands of the Lower Brule Sioux Tribe and the Crow Creek Sioux Tribe, and the land flooded included the parts of the

communities of Lower Brule and Crow Creek and religious and cultural sites recognized by the Tribes and the National Trust for Historic Preservation.

5. A significant portion of the Big Bend project is within the exterior boundaries of the Lower Brule Sioux and Crow Creek Sioux Tribal reservations.

6. The Missouri River, including specifically Lake Sharpe, is important to the spiritual, cultural, and economic life of the Tribes and their enrolled members.

7. The Tribes are affected by, and tribal resources impacted by, the operation and maintenance of the Big Bend Dam and Lake Sharpe. These natural, cultural, and economic resources affected by the operation and maintenance of Big Bend Dam and Lake Sharpe are important to the pursuit and preservation of the traditional life ways and practices of the enrolled members of the Lower Brule Sioux Tribe and the Crow Creek Sioux Tribe.

8. The Corps shall consult with the Tribes during any review and revision of the Missouri River Master Water Control Manual in accord with Corps' recognized obligation of meaningful consultation with the Tribes on a Government-to-Government basis under DoD policy, with due regard to the special significance the Tribes ascribe to certain natural and cultural resources.

9. The Corps, acting through the Northwestern Division, U.S. Army Corps of Engineers, shall coordinate the operation of the Big Bend Project and the water level of Lake Sharp with the Tribes through a process of meaningful consultation on a Government-to-Government basis, and with due regard to the special significance tribes ascribe to certain natural and cultural resources, as follows:

a. The Corps will normally strive to maintain an operating level at Lake Sharpe as measured at the gauge on the Big Bend Dam and adjusted for wind effects between elevation 1419 m.s.l. and 1421.5 m.s.l. For the purposes of this settlement agreement and for no other purpose, the parties agree that this operating level shall be referred to as a "normal" operating level. When Lake Sharpe is at a normal operating level, the Tribes, acting through such persons for the Lower Brule Sioux Tribe and for the Crow Creek Sioux Tribe as the Tribes shall designate in writing to the Corps, and the Corps, acting through the Chief, Missouri River Basin Water Management Division, shall use their best efforts to provide notice on an as-needed basis concerning the operations of the Big Bend Project and their impact on Lake Sharpe.

b. Whenever the elevation of Lake Sharpe as measured at the gauge on the Big Bend Dam, and adjusted for wind effects, is expected to, or does, drop below elevation 1419 m.s.l. or exceed elevation 1421.5 m.s.l., the Corps, acting through the Office of the Chief, Missouri River Basin Water Management Division, shall use its best efforts to provide notice on an as-needed basis of the operations affecting pool elevation to such persons for the Lower Brule Sioux Tribe and for the Crow Creek Sioux Tribe as the Tribes shall designate in writing to the Corps.

c. When the Corps anticipates that conditions may result in a water level below 1418 m.s.l. or above 1422 m.s.l., and adjusted for wind effects, or in the event the water level falls below 1418 m.s.l. or rises above 1422 m.s.l., and adjusted for wind effects, the Commander, Northwest Division of the Corps, or such person as the Commander

shall designate in writing to the Tribes, shall immediately contact the Chairpersons of the Tribes or other persons as the Tribes may designate in writing to the Corps to notify them of the situation, the reasons for the situation, and to discuss proposed actions to eliminate the situation. The Commander or the Commander's designee shall use his or her best efforts to continue appropriate ongoing communication with the Tribes until the situation is ended and Lake Sharpe is back to a normal operating level.

10. This agreement may be modified by mutual agreement of the parties. The parties also agree that this agreement will be reviewed periodically, but in any event not less than every five years, to determine whether it should be modified for changed conditions that may affect implementation of the agreement.

11. The instant case, *Lower Brule Sioux Tribe,* et al., *v. Rumsfeld,* et al., shall be dismissed without prejudice. In the event of a breach of the terms of this settlement agreement, either party may move to reopen this case. Each party shall bear their own costs through this stage of the proceedings.

* * *

For Plaintiffs LOWER BRULE SIOUX TRIBE and in his individual capacity

HONORABLE MICHAEL B. JANDREAU
Chairman

For Plaintiff CROW CREEK SIOUX TRIBE and in his individual capacity

HONORABLE DUANE BIG EAGLE, SR.
Chairman

MARSHALL L. MATZ, ESQ.
Counsel for Plaintiffs

For Defendants

BRIGADIER GENERAL DAVID A. FASTABEND
Commander, NW Division
United State Army Corps of Engineers
In his official capacity

~~LIEUTENANT~~ COLONEL KURT F. UBBELOHDE
District Engineer
U.S. Army Corps of Engineers
In his official capacity

FRED DISHEROON, ESQ.
Counsel for Federal Defendants

So ordered. The Clerk shall act accordingly. Done this day of , 2003.

HONORABLE CHARLES B. KORNMANN
United States District Judge

PREPARED STATEMENT OF WILLIAM KINDLE, PRESIDENT, ROSEBUD SIOUX TRIBE

The Rosebud Sioux Tribe [*Sicangu Oyate* or Lakota] thanks the Senate Committee on Indian Affairs for the opportunity to provide testimony on the Missouri River Master Manual update and the state of Indian Reserved Water Rights. Your oversight of this important matter is needed and appreciated.

For others to understand the importance of these issues to the Sicangu Oyate it may be beneficial to share our knowledge and experience. In the very beginning when *Unci Mka* [Grandfather Earth] came to be known as earth and before life forms were created, *Tunkasila Inyan* [Grandfather rock] caused himself to bleed and with the drip of his blood, colored blue, created the bodies of water of this earth.

Among these waters was the *Mni Sose,* or muddy [*sose*] water [*mni*] now known as the Missouri River. The key to understanding our reverence for water is in the translation of the word *Mni.* This word is a contraction of *Miye le un wqni* [I live by this]. Mni is a gift created by *Tunkasila Inyan* and it is crucial for the world to survive physically, mentally, and spiritually. Because water provides healing to the mind, body, and core of human existence it is not by accident that many of the ceremonies taught by White Buffalo Calf Women require its use.

Water is critical for not only humans but also all other life forms and the very earth itself. With this in mind, please listen to our concerns on our Indian Water Rights and the Master Manual Update.

The ancestral homelands of the Sicangu Lakota were collectively shared by all of the other bands of the Lakota Nation. This territory originally embraced a vast area consisting of 100 million acres extending from east of the Missouri River to the Yellowstone River and south through Wyoming and into Kansas and Nebraska. Our homelands were the heart of the Missouri River Basin long before these lands were acquired from France in 1803. To this day, the Sicangu Lakota still own land in the Missouri River on the eastern edge of our "Original Reservation". We are a river tribe and will always be a *Mni Sose* Tribe.

The United States recognized our sovereignty over these lands and, beginning in 1851 entered into treaties with the Great Sioux Nation. Through the Fort Laramie Treaties of 1851 and 1868 and later acts of Congress, our homeland was diminished. Through none of these treaties or acts of Congress did we give up our right to *mni*. Our ancestors knew that water is sacred and essential to life. We reserved our Indian Water Rights.

The U.S. Supreme Court recognized the importance of water to making Indian reservations inhabitable and acknowledged our rights in its 1908 decision in *Winters* v. *United States,* which created the reserved rights doctrine. More recent actions by the courts and Congress are troubling.

The Supreme Court decided that the McCarran amendment establishes State courts as the forum for adjudicating Indian Water Rights. Who asked us if we wanted our Water Rights adjudicated in State courts? We are often at odds with our State government and are under-represented in the legislative, judicial, and executive branches.

We see our worries confirmed in State court decisions involving other tribe's water rights. In the Gila River adjudication, the Arizona Supreme Court has applied a minimalist approach to the quantification of Indian Water Rights based on sensitivity and consideration of existing water users. We believe that the Corps of Engineers proposed revisions to the Missouri River Master Manual further imperil our Indian Water Rights.

The droughts that plagued the Missouri River Basin during the late 1980's provided the impetus for the Corps of Engineers to revise their Master Manual for the operation of the mainstem reservoir system of the Missouri River. Operating the reservoirs under the existing manual prepared in 1979 increased conflicts between competing water users. Bear in mind that tribes have yet to exercise their Indian Water Rights. What will happen when tribes exercise their rights?

The process that was used to update the Master Manual included some, albeit inadequate participation by tribes and Indian organizations. In addition, there is a lack of acknowledgement of how the use of Indian Water Rights would impact the operation of the mainstem reservoirs. This lack of acknowledgement is troubling. Indian Water Rights have the most senior priority date in the Missouri River Basin. There are millions of acres of Indian lands and appurtenant water rights in the Missouri River Basin. To not consider how the use of these rights would impact the mainstem reservoirs is poor planning.

We are also very concerned with the defacto allocation of the flow of the Missouri River [*Mni Sose]* through the Master Manual and Annual Operating Plans. Whether the flows and releases are allocated to recreation, navigation, hydropower, or endangered species, they do not account for Indian Water Rights. As these water uses be-

come "usual and accustomed", we fear that our ability to exercise our Indian Water Rights will be diminished.

An additional concern with the Master Manual Update is the lack of acknowledgement by the Corps of Engineers that the Rosebud Sioux Tribe still owns lands on the Missouri River. To this day, we still own lands bordering the Missouri. The Corps needs to acknowledge this.

While Indian tribes have deferred the use of Indian Water Rights, other interests have benefited and the United States has earned billions of dollars in revenue. We are proposing that a trust fund be established with a principal of between $1,000,000,000 and $2,000,000,000. Proceeds from the trust fund would be used for economic development. The people living on the Indian reservations in South Dakota and elsewhere in the Missouri River Basin are among the most impoverished in the Nation. This level of funding is needed to effect meaningful change.

Mni is sacred to the Sicangu Oyate. We are concerned about our Indian Water Rights for our children and their grandchildren. As competition for water increases, we fear that we will be unable to have a fair adjudication of our Indian Water Rights. We do not believe we will be treated fairly in a State court. Our concerns are compounded by the Corps of Engineers lack of planning for the use of our Indian Water Rights. As others become accustomed to using water that we may need to use in the future, it will be harder for our grandchildren to use what our ancestors reserved for them. We also request compensation for having deferred the use of our Indian Water Rights while others have benefited.

We seek your consideration of these matters and assistance in protecting our rights. We thank you again for this opportunity.

US Senate Committee on Indian Affairs
Hearing on the Missouri River Master Manual

October 16, 2003

Mni Sose Intertribal Water Rights Coalition, Inc.
Elwood Corbine, Executive Director

The Mni Sose Intertribal Water Rights Coalition's Board of Directors appreciates this opportunity to present tribal concerns related to the Army Corps of Engineers' Missouri River Master Water Control Manual to the Senate Committee on Indian Affairs. The Mni Sose Intertribal Water Rights Coalition and its member Tribes have played a pivotal role in enabling the Bureau of Indian Affairs to carry out its mission. The Mni Sose Coalition has been very successful in uniting the Tribes of the Missouri River Basin to speak with one voice as they deal with a variety of federal, state, and other organizations who are involved with the usage and management of Indian reserved water rights. Because of this "one voice" the Coalition has been able to influence decision making to the benefit of the Tribes.

The Mni Sose Intertribal Water Rights Coalition is comprised of 24 of the 28 Tribes located in the Missouri River Basin. The operation of the Missouri River poses a major environmental and economic impact on the 28 Tribal Nations residing in Missouri River Basin drainage. The primary concerns of the Coalition's Directors with the present draft Missouri River Master Mater control manual are the lack of complete data, inadequate support of tribal reserved water rights, and the vague consultation process.

The protection and management of tribal water and land resources in the Missouri River watershed are among the most critical priorities facing the 28 Basin Tribes. Indian Tribes control more than 15 million acres of land within the watershed, geographically distributed from the headwaters in Montana to the mouth of the Missouri River in Kansas and Missouri. These reservations were set aside for use and development as permanent tribal homelands.

The Missouri River and its tributaries are immense natural resources of the Tribes and the Nation. They drain one-sixth of the Nation. The 530,000 square-mile basin is more than 2,300 miles long. Twenty-eight major reservoirs are in the basin, including the third, fourth, and fifth largest in the United States. Seven hydropower plants use the river for power generation, and 17 other power plants use the river for cooling purposes. Nearly four million people use the river for their water supply. Each year, the five million recreational visits to the Missouri River fisheries generate $175 million in revenue.

Despite historical and legal rights to the water, the Missouri River Basin Tribes have not received their fair share of the benefits provided by the Missouri River water resources and its tributaries. Twenty-three percent of the approximately 1.5-million acres taken for the construction of the dams and reservoirs under the Pick-Sloan plan are tribal lands. Although the federal government promised irrigation development and participation in the electricity generation, the Tribes have not received the full benefits of these promises.

Northern Plains tribal leaders have sought legal, administrative, economic, and physical control over their significant water resources as a means to achieve sustainable reservation economies, maintain cultural well being, and exercise sovereignty of tribal people in the watershed. The Mni Sose Intertribal Water Rights Coalition was formed as the mechanism to pursue these goals. The tribal leaders established the Mni Sose Coalition to present the unified tribal concerns regarding the Missouri River Master Water Control Manual. Tribal concerns include the protection and preservation of tribal reserved water rights, federal agencies' adherence to appropriate environmental laws and regulations, and research and analysis of federal policies and laws to Tribes. Tribal leaders foresaw the Coalition as a tribal research center with each Tribe exercising its sovereignty on specific master manual decisions according to their traditions and values.

In August of 2001, the Army Corps of Engineers released the Revised Draft Environmental Impact Statement for the Master Water Control Manual, which identified six alternative operation plans for the dams and reservoirs. The alternatives included the current water control plan, a modified conservation plan, and four options that include changes in Gavin's Point Dam releases. The proposed alternatives are not beneficial to Indian Tribes as each alternative contains negative impacts to tribal lands and economies.

The revised draft Environmental Impact Statement indicates that much of the data and information used to make decisions on the Missouri River Operation is not available or has not been compiled. There is no plan or process on the part of the Army Corps to complete this data collection or analysis and to incorporate the results into the operation plan. Continued collection and analysis must be part of the on-going operation of the Missouri River.

On behalf of the Missouri River Basin Tribes, the Mni Sose Coalition submitted comments to the Army Corps of Engineers in September 1993, September 1994, March 1995, June 1999, September 1999, and February 2002 related to the inadequate treatment of tribal concerns in the Army Corps' Master Manual Revision process.

The Army Corps of Engineers has previously recognized tribal reserved water rights in the Master Manual to control operation of the Missouri River. The manual stated that the Tribes have water rights that have not been adjudicated or legally defined and that this issue remains unresolved until the Tribes are ready to put the water to use. The Revised Draft Environmental Impact Statement states it does not attempt to define, regulate, or quantify water rights or any other rights that the Tribes are entitled to by law or treaty, but rather attempts to set up the framework for future relations for protection of tribal trust resources. The Corps does acknowledge that it has legal and trust responsibilities to the Tribes.

The Army Corps of Engineers' Missouri River Master Water Control Manual must fully recognize the senior water rights of the Tribes and must strongly support tribal reserved water rights. The Master Manual, under the Corps' legal and trust responsibilities, must contain measures to protect and preserve tribal reserved water rights and to assist Tribes to utilize the water rights when the Tribes are ready to put the resource to use for the benefit of the Tribe.

The Army Corps of Engineers proposes to operate the upper Missouri River utilizing an unbalanced system of the three dams. This would permit storage of water in one of the upper lakes on a rotational basis every three years. This practice would have very detrimental impacts on tribal cultural resources located on Missouri River banks. During periods of low water levels, tribal cultural artifacts and sacred sites would be exposed and subjected to vandalism and environmental degradation. The draft Master Water Control Manual does not identify the agency or agencies responsible for the protection of these resources or for the enforcement of cultural resources laws and regulations on the Missouri River.

The operation plan does not indicate that a plan or process is under consideration to mitigate the damages to the cultural resources by the Army Corps of Engineers. The Corps must assure Tribes that there will be efforts to protect and preserve cultural resources during the operation of the river.

The Revised Draft Environmental Impact Statement indicates that five Tribes, well below a majority, have begun the consultation process with the Army Corps of Engineers on the Missouri River Master Water Control Manual. Tribal consultation should be concluded with all affected Tribes before the revision of the Master Water Control Manual is completed to fulfill the purposes of consultation.

Finally, the consultation process implies that participating parties can negotiate changes, deletions, or additions to the proposed plan of action or the completed revision of Master Manual. However, the Missouri River Basin Tribes have not received tangible information on the consultation processes from the Army Corps of Engineers. It is unclear how tribal consultation comments, recommendations, or concerns will be accepted for inclusion in the Master Manual Operation Plan. The Army Corps of Engineers need to inform the Tribes of its consultation goals, objectives, or processes.

Thank you for allowing the opportunity for the Mni Sose Intertribal Water Rights Coalition to provide testimony on the issue of the Missouri River Master Manual.

THE SECRETARY OF THE INTERIOR

WASHINGTON

CITATION

FOR CONSERVATION SERVICE

MNI SOSE INTERTRIBAL WATER RIGHTS COALITION

In recognition of exceptional service and significant contributions to the Bureau of Indian Affairs and 27 member tribes of the Mni Sose Intertribal Water Rights Coalition along the mainstream of the Missouri River.

The Mni Sose Intertribal Water Rights Coalition and its member tribes have played a pivotal role in enabling the BIA to carry out its mission. The Coalition has been very successful in uniting the tribes of the Missouri River basin to speak with one voice as they deal with a variety of federal, state and other organizations who are involved with the usage and management of Indian-reserved water rights. Because of this "one voice" the Coalition has been able to influence decision making to the benefit of the tribes. The Coalition has entered into a formal agreement with the Army Corps of Engineers for coordination and consultation on the development of the Master Manual to discuss tribal issues and concerns and identify tribal impacts and issues related to the future operation of the Missouri River. As a result of the Coalition's efforts, various states now recognize Indian water rights in the Missouri River basin and acknowledge the need to resolve issues with the Coalition and tribes. The Coalition has worked with the Senate Committee on Energy and Natural Resources, the House Resources Committee, and the Western Power Administration to ensure inexpensive hydroelectric power is brought to tribal reservations by the year 2001. Other successes of the Coalition include the development of a Federal Resource Guidebook on water resources and environmental programs to assist tribes in accessing information on water quality, watershed conditions, and adverse environmental programs on tribal lands. The Coalition has formed successful partnerships with the tribes, western states, federal and state agencies, and others in offering solutions to complex problems. For its exemplary contributions toward accomplishing the mission of the BIA, the Mni Sose Intertribal Water Rights Coalition is granted the Conservation Service Award of the Department of the Interior.

Secretary of the Interior

DEPARTMENT OF THE ARMY
OFFICE OF THE ASSISTANT SECRETARY OF THE ARMY (CIVIL WORKS)
AND THE U.S. ARMY CORPS OF ENGINEERS (NORTHWESTERN DIVISION)

PREPARED STATEMENT
OF
GEORGE S. DUNLOP
DEPUTY ASSISTANT SECRETARY OF THE ARMY (POLICY & LEGISLATION)
&
WILLIAM T. GRISOLI
BRIGADIER GENERAL
COMMANDER AND DIVISION ENGINEER, NORTHWESTERN DIVISION

FOR THE HEARING BEFORE THE
UNITED STATES SENATE COMMITTEE ON INDIAN AFFAIRS
ON
MISSOURI RIVER MASTER MANUAL

ROOM 485, RUSSELL SENATE OFFICE BUILDING
10.00 AM; OCTOBER 16, 2003

INTRODUCTION:

Mr. Chairman and Members of the Committee, I am George S. Dunlop and I am the Deputy Assistant Secretary of the Army for Civil Works (Policy and Legislation). Our office has the policy oversight responsibility for the Civil Works activities of the Army Corps of Engineers. I am accompanied by Brigadier General William T. Grisoli, Commander of the Northwestern Division of the U.S. Army Corps of Engineers (Corps). We are pleased to be here today to testify on the matter of reserved water rights and their inclusion in the Missouri River Master Water Control Manual (Master Manual) Review and Update.

The Master Manual is the guide used by the Corps to operate the six dams on the mainstem of the Missouri River: Fort Peck, Garrison, Oahe, Big Bend, Fort Randall, and Gavins Point. The first Master Manual was developed in 1960 as a guideline to help serve the authorized purposes of the mainstem system and was revised in 1975 and 1979. These revisions were undertaken to make needed changes that addressed issues with flood control operations criteria. The Corps is presently in the process of revising and updating the Master Manual to better serve the current needs of the basin, to comply with the current environmental laws, and to serve the congressionally authorized project purposes.

As part of the process to revise and update the Master Manual, a Revised Draft Environmental Impact Statement (RDEIS) was completed in August 2001. The RDEIS analyzed the environmental effects of a set of six alternative operating plans for the

Master Manual. The alternatives ranged from continuing current operations to major changes in the schedule for flow releases from Gavins Point Dam. To ensure effective coordination with stakeholders, workshops and hearings on the alternatives have been held at numerous locations across the basin. Moreover, there has been government-to-government consultation with the Missouri River Basin Tribes. This consultation process included Tribal workshops, and consultation meetings with Tribal chairmen and Tribal members. A listing of those activities from 1999 to the present is provided as Attachment A. We have received comments from Tribes, States, and other stakeholders on the six alternatives.

There are approximately 30 Native American Tribes located in the Missouri River Basin and 13 Tribal reservations located directly on the mainstem reservoirs, the river reaches between the reservoirs, and downstream of the mainstem reservoir system. In accordance with Federal laws and Department of Defense (DOD) policy, consultation with these Tribes has occurred throughout this process. The Corps is committed to continue to fulfill our legal responsibility to the Tribes and to continue to consult with Tribes, as sovereigns. As part of this commitment to ensure effective government-to-government consultation, we are conducting a Tribal Summit Meeting with Tribal leaders on October 31, 2003. In addition, the Corps is developing a programmatic agreement (PA) with the Tribes and the Advisory Council on Historic Preservation for the operation and management of the Missouri River Mainstem for compliance with Section 106 of the National Historic Preservation Act. This PA development process has included frequent meetings with Tribal members and direct input in the PA drafting process.

RESERVED WATER RIGHTS:

When lands are set aside for Indian reservations, whether by treaty, legislation, or executive order, water rights were often not explicitly defined. The courts have long recognized, however, that such reservation of land also reserves by implication unappropriated water related to that land in order to accomplish the purposes of the reservation. The doctrine of implied reservation of water rights was first articulated in the seminal Supreme Court decision, *Winters v. United States*, 207 U.S. 564 (1908). The Court found that the1888 agreement and statute, which created the Fort Belknap Reservation in north-central Montana, implicitly reserved to the Tribe water from the Milk River for irrigation purposes. The nature and extent of these water rights vary based upon the particular Indian reservation with the objective of making the reservation a livable permanent homeland. *Arizona v. California*, 373 U.S. 546, 599 (1963).

QUANTIFICATION OF WATER RIGHTS IN THE MISSOURI RIVER BASIN:

Tribal water rights may be quantified through adjudication, a Congressionally ratified Tribal-State compact, or by by direct Congressional action. Most Tribes within the Missouri River Basin, however, have not yet sought to quantify their reserved water rights under the *Winters* doctrine, although several Tribes in Montana and Wyoming are at various stages of the quantification process. The Corps does not have the responsibility to define, regulate, or quantify water rights or any other rights that the

Tribes are entitled to by law or treaty. The Corps does not attempt to do so in the current revision of the Master Manual, although the revision provides some flexibility to accommodate potential changes in water regimes.

ACCOMMODATING TRIBAL WATER RIGHTS IN THE MISSOURI RIVER BASIN:

Unless specifically provided for by Federal statute, quantification of water rights does not entail an allocation of storage at Corps reservoirs. The Corps recognizes, however, that the Tribes have claims to reserved water rights, and will, to the extent permissible by law, continue to operate the Mainstem Reservoir System in a way that does not preclude such claims.

The current Master Manual recognizes that streamflow use on the Missouri River is not static and addresses changes in its use accordingly. The Manual indicates that the establishment of Indian reservations in the late 19th century induced additional irrigation development, impacting the streamflow within the Basin.

For example, pursuant to the current Master Manual, when a Tribe exercises an established water right through diversion of water from the Mainstem Reservoir System for consumptive uses, then the Corps will treat such diversions as an existing depletion. This means that the Corps incorporates that depletion into its analysis of overall system depletions. By incorporating such information, the Corps can anticipate the manner in which depletions of water will affect system operations now and in the future, and plan for the amount of water that will be available to move through the system to meet the various project purposes while complying with applicable law.

The revised Master Manual will likewise incorporate such present and future depletions into its analysis on system operations. Specifically, the revised Master Manual will be flexible under its adaptive management provisions to account for any consumptive use of the Tribes at such time that their rights are quantified and finally established.

Finally, I would like to emphasize that the Corps fully recognizes the principles of Tribal sovereignty and the Federal Government's trust responsibility to the Tribes. The Corps will continue to engage in Government-to-Government consultation in order to take into account the quantified water rights of the Tribes in the operation of the Mainstem Reservoir System.

We appreciate having the opportunity to participate in this hearing, and look forward to hearing the testimony from Tribal leaders and any ideas they might have regarding the Master Manual revision effort, especially in regard to the overall consultation process and our consideration of Tribal water rights.

Mr. Chairman, this concludes our testimony. We would be pleased to answer any questions you or members of the Committee might have.

ATTACHMENT A
Coordination with Missouri River Basin Tribes (1999 to Present)

Tribal Hearings & Workshops on the RDEIS

1. 10 October 2001 - Poplar, MT – Assiniboine & Sioux Tribes (Ft. Peck Tribes)
   Arlyn Headdress, Chairman, Ft. Peck Tribes

2. 24 October 2001 – New Town, ND – Three Affiliated Tribes
   Tex G. Hall, Chairman, Ft. Berthold Tribal Business Council

3. 30 October 2001 - Lower Brule, SD – Lower Brule Sioux Tribe
   Michael B. Jandreau, Chairman, Lower Brule Sioux Tribal Council

4. 3 December 2001 - Eagle Butte, SD – Cheyenne River Sioux Tribe (Workshop Only)
   Greg J. Bourland, Chairman, Cheyenne River Sioux Tribe

Tribal Hearings on the RDEIS

1. 30 January 2002 - Prairie Nights Casino, Ft. Yates, ND – Standing Rock Sioux Tribe
   Charles W. Murphy, Chairman, Standing Rock Sioux Tribe

2. 13 February 2002 - Eagle Butte, SD – Cheyenne River Sioux Tribe
   Greg J. Bourland, Chairman, Cheyenne River Sioux Tribe

3. 13 February 2002 - Poplar, MT – Assiniboine & Sioux Tribes (Ft. Peck Tribes)
   Arlyn Headdress, Chairman, Ft. Peck Tribes. This hearing also included a question and answer session.

Tribal Consultation Meetings

1. 27-28 July 1999 – Prairie Nights Convention Center on the Standing Rock Reservation – This Master Manual Study consultation meeting included participants from the Standing Rock Sioux Nation, Rosebud Sioux Nation, Crow Creek Sioux Nation, and the Commander and staff from the Missouri River Region of the Northwestern Division

2. 6 August 1999 - Spotted Bull Center on the Fort Peck Reservation – The Fort Peck Assiniboine and Sioux Tribes and the U.S. Army Corps of Engineers held a Master Manual consultation meeting on the Fort Peck Reservation.

3. 24 August 1999 – Fort Yates, ND – A Standing Rock Sioux Tribe – District of Fort Yates Master Manual consultation meeting was held with representatives from the Northwestern Division and the Omaha District Corps of Engineers attending.

4. 26 August 1999 – The Crow Creek Sioux Tribe and representatives from the Northwestern Division and Omaha District Corps of Engineers participated in a Master Manual consultation meeting.

5. 13 February 2002 - Poplar, MT – Ft. Peck Tribes and Master Manual Team had a government-to-government consultation on the RDEIS and the Spring Rise. The Fort Peck Tribes were to have representation from M.R.&I.Water Pipeline Dept., Environmental Protection Agency, Fish & Game Department, and Water Resource Department.

6. 29 April 2002 - Macy, NE – Omaha Tribe and the Master Manual Team had a government-to-government consultation meeting on the RDEIS.

Consultation Information Meetings

1. 14 May 1998 – Rapid City, SD – Coordination and consultation meeting between the Mni Sose and Corps representatives from the Northwestern Division and the Omaha District.

2. 10 September 1998 – Mni Sose Intertribal Water Rights Coalition Board of Directors meeting with 23 Tribes represented and the Commander and staff from the Missouri River Region of the Northwestern Division.

3. 16-18 June 1999 – Flandreau, SD – Mni Sose Intertribal Water Rights Coalition Board of Directors meeting was held with representatives from the Northwestern Division participating.

4. 13-14 September 1999 – Mandan, ND – The Mni Sose Intertribal Water Rights Coalition Board of Directors held an information meeting and the Commander of the Missouri River Region of the Northwestern Division provided an update on Master Manual.

5. 22 November 1999 – Oglala Sioux Tribe and the Corps meet to discuss Government-to-Government consultation with the Tribe on the Master Manual Study. The Commander of the Missouri River Region of the Northwestern Division provided the Tribe with information on the study. The Oglala Sioux Tribe did not consider this meeting to be a consultation meeting.

6. 15-17 February 2000 – Aberdeen, SD – Great Plains Tribal Leaders – Federal Agency Conference – The Omaha District Commander, a representative from the ASA(CW), and staff from the Northwestern Division participated in a conference sponsored by the Great Plains Regional BIA to exchange information and to develop strategies to improve services to Basin Tribes.

7. 7-8 August 2000 – Fort Peck Reservation – Corps representatives held an information and consultation meeting with the Fort Peck Assiniboine and Sioux Tribes.

8. 11 September 2000 – Bismarck, ND – Chairmen of the Standing Rock Sioux and Three Affiliated Tribes met with the Commander of the Northwestern Division to discuss operation of the Mainstem Reservoir System.

9. 29 November 2000 – Omaha, NE – The Commander of the Northwestern Division met with the Chairman of the Three Affiliated Tribes to discuss issues identified by the Fort Peck Tribe, Standing Rock Sioux Tribe, Yankton Sioux Tribe, Crow Creek Sioux Tribe, Winnebago Tribe, Omaha Tribe and the Fort Berthold.

10. 6 December 2000 – Prairie Nights Casino, Ft. Yates, ND – Great Plains Regional Tribal Leaders Council meeting

11. 27 June 2001 – Bismarck, ND – Information and Listening Meeting with the Basin Tribes, Corps representatives including the ASA(CW), Northwestern Division Commander and Omaha District Commander, USFWS, and BIA.

12. 12 September 2001 - Bismarck, ND – Tribal Master Manual Orientation Conference

13. 8 January 2002 - Rapid City, SD – Mni Sose Intertribal Water Rights Coalition Annual 2002 Board of Directors meeting, attended by COL Kurt F. Ubbelohde.

Tribal Summits

1. 23-24 February 1999 – Rapid City, SD

2. 27 June 2001 – Bismarck, ND

3. 16 April 2002 – Rapid City, SD

CHEYENNE RIVER SIOUX TRIBE
OFFICE OF THE TRIBAL CHAIRMAN

PREPARED STATEMENT OF HAROLD C. FRAZIER, TRIBAL CHAIRMAN

FOR THE HEARING BEFORE THE
UNITED STATES SENATE COMMITTEE ON INDIAN AFFAIRS
ON THE MISSOURI RIVER MASTER MANUAL

ROOM 485, RUSSELL SENATE OFFICE BLDG.
10:00 A.M.: OCTOBER 16, 2003

Mr. Chairman and Members of the Committee, my name is Harold C. Frazier. I am the Chairman of the Cheyenne River Sioux Tribe. Thank you for the opportunity to submit our written testimony on the Missouri River Master Manual and Indian reserved water rights.

The Cheyenne River Sioux Reservation lies in north-central South Dakota. It encompasses approximately 2,806,914 acres. Lake Oahe, one of the largest reservoirs on the Missouri River, lies within the eastern boundary of our Reservation. The Army Corps of Engineers' management of Oahe and the other Missouri River mainstem dams directly and significantly impacts the Cheyenne River Sioux Tribe. As a result, the Tribe has a vested interest in the Corps' Master Water Control Manual (Master Manual). I appreciate the Committee's providing this forum for the Tribes who depend on the River to present their positions to Congress on the proposed revisions to the Master Manual currently being studied.

My comments today will address two issues: Indian reserved water rights, and the impact of Corps of Engineers' management of the Missouri River Mainstem Reservoir System on the Cheyenne River Sioux Tribe. The latter discussion will detail the problems caused by lake level fluctuation, including destruction of cultural historic properties, impaired water quality near the Tribe's drinking water intake and propagation of noxious weeds.

RESERVED WATER RIGHTS

The Cheyenne River Sioux Tribe is comprised of the Minniconjou, Itazipco, Siha Sapa and Oohenumpa bands of the Lakota Sioux, one of three divisions of the Great Sioux Nation that originally occupied essentially all of the northern Great Plains – from the Republican River in Kansas up into Canada, and from the Mississippi River to the Rocky Mountains. The Tribe recognizes that when it entered the Ft. Laramie Treaties of 1851 and 1868, it reserved to itself sufficient water to satisfy the purposes for which the Reservation was created. The U.S. Supreme Court articulated this doctrine in the case, *Winters v. United States*, 207 U.S. 564 (1908). To date, the Tribe's reserved water rights remain unquantified. The Cheyenne River Sioux Tribe's Rights to water predate the Treaties, and the Treaties guaranteed that Right to the Cheyenne River Sioux Tribe.

The Cheyenne River Sioux Tribe is not unique in holding unquantified reserved water rights. Many tribes across the United States have yet to undertake the daunting task of quantification. This is true in spite of the fact that the rights are valuable because they are superior to state water rights and predate statehood which occurred in 1889. Today Tribes are unable to capitalize on their water rights because several obstacles stand in the way.

First, quantification of Indian reserved water rights requires adjudication, an expensive endeavor. Moreover, under the McCarren Amendment, adjudication takes place in state court, a foreign forum.

While the Corp of Engineers may conclude that state water rights do not exist until used, the same cannot be said for Indian Water Rights, which do not rely upon appropriations but are currently vested and require preservation, protection and mitigation.

If tribes wish to avoid litigation and opt for negotiation of a compact or settlement, they are faced with the political reality that taking water from non-Indian users is not something that either the state or federal government will be happy to accommodate. While litigation may be expensive, negotiation inevitably results in tribes' giving up water to which they are legally entitled because of politics.

In either forum, adjudication or negotiation, the legal standards for quantifying water rights are applied to determine the strengths or weaknesses of the tribes' claims. In recent years, these standards have changed, and continue to do so.

For many years, the only standard for quantifying Indian reserved water rights was the practicably irrigable acreage (PIA) standard. Under this standard, a tribe was awarded an amount of water that would enable it to irrigate all land on its reservation that could be practicably, *i.e.*, economically and feasibly, irrigated. The PIA standard arose from the mindset that, once settled on reservations, Indians would become farmers like everyone else settling the West in the 1800's and early 1900's. Courts have begun to recognize that the PIA standard is inappropriate for many reservations because, as with much of the West, agriculture is neither economical nor feasible.

In a 2001 decision, the Arizona Supreme Court rejected the PIA standard and adopted a new one for quantifying Indian reserved water rights. In stating the new standard, known as the homeland standard, the Arizona court first concluded that the purpose of any Indian reservation is to establish a homeland. It then determined that the measure of the water right for a homeland is specific to the needs, wants, plans, cultural background and geographic setting of the particular reservation. *In re Gen. Adjudication of All Rights to Use Water in the Gila River Sys. & Source*, 35 P.3d 68, 79-80 (Ariz. 2001). While this standard appears to be much more suitable to quantifying tribal reserved water rights today, its newness and the paradigm shift it represents have rendered this area of the law confusing and unstable.

This, in fact, is what is happening on the Missouri River. Only 3 of the 28 Tribes in the basin have quantified their reserved water rights. At the same time, Corps of Engineers management of the mainstem reservoir system serves non-Indian purposes. As the litigation between the upper and lower basin states demonstrates, these uses are not just entrenched, they are dug in deep. Congress must assure that the United States Corp of Engineers Missouri River Master Manual include the protection of **all** Indian Water Rights quantified or unquantified.

MASTER MANUAL

Executive Order 12,898, issued by President Clinton in 1994, states in pertinent part:

> *To the greatest extent practicable and permitted by law, . . . each Federal Agency shall make achieving environmental justice part of its mission by* ***identifying and addressing****, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations in the United States. . . .*

(emphasis added). Operation of the Missouri River is an action of the Corps of Engineers requiring compliance with E.O. 12898. Preparation of the Revised Draft Environmental Impact Statement for the Missouri River Master Manual (RDEIS), requires the Corps to comply with the National Environmental Policy Act (NEPA). The combination of E.O. 12898 and NEPA creates a process in which the Corps must not only *identify* the impacts of its operation of the Mainstem Reservoir System which disproportionately and adversely affect the basin tribes, it must also come up with ways to *mitigate* those impacts. To date, the Corps has done little to mitigate the impacts of its operation of the Missouri River dams on the tribes in the basin. As a result, the Corps has failed to comply with the intent as well as the letter of the law.

Water level fluctuations in Lake Oahe have severe impacts on the Cheyenne River Sioux Tribe, eroding the western shoreline of Oahe and destroying tribal cultural and historic sites at an alarming rate. Water quality is also negatively affected by lake level fluctuation and ice movement near the intake for the Tribe's main drinking water supply. In addition, water level changes increase the propagation of noxious weeds, hurting the Tribe's livestock industry, the foundation of the reservation economy.

Drawing down river contributing to standing water causing mosquito breeding and infestation creates increased health hazards. West Nile Virus caused illness both human and livestock and resulted in death for some livestock on the Reservation.

Unfortunately, lake level fluctuation is perpetuated under all six plans for operation of the Mainstem Reservoir System being considered by the Corps in the RDEIS process. For that reason and others, the Cheyenne River Sioux Tribe does not endorse any of the alternatives under consideration.

HISTORIC PROPERTIES

Title 36 of the Code of Federal Regulations § 800.4 requires the Corps to gather information from Indian Tribes and "take the steps necessary to identify historic properties within the area of potential effects." The Corps must make a "reasonable and good faith effort to carry out appropriate identification efforts, which may include background research, consultation, oral history interviews, sample field investigation, and field survey. The agency official shall take into account past planning, research and studies, the magnitude and nature of the undertaking and the degree of Federal involvement, the *nature and extent of potential effects on historic properties, and the likely nature and location of historic properties within the area of potential effects.*" 36 C.F.R. § 800.4(b)(1) (emphasis added).

The Cheyenne River Sioux Tribe acknowledges that the Corps has met with it concerning historic properties. However, the Tribe lacks the capacity to adequately respond to Corps inquiries because it lacks the funding and manpower to undertake a comprehensive survey of historic properties on the shoreline of Lake Oahe.

True Consultation has **not** taken place with the Tribes. Moreover, while the Corps has apparently conducted studies of historic properties in the Missouri River basin, those studies do not constitute a systematic, comprehensive survey. Such a survey is needed. In 2000, more than 150 previously unrecorded traditional and cultural properties were found by the Cheyenne River Sioux Tribe's Preservation Office in the course of surveying recreational lands slated for transfer from the Corps to the Tribe under the Terrestrial Wildlife Habitat Restoration legislation (known as "Mitigation"). These recreation areas constitute a small percentage of Oahe's western shore within the Cheyenne River Sioux Reservation. If the numbers are extrapolated to the entire western shoreline, then many more sites could be added to the Corps' list of "known sites" based on this relatively small survey alone. It is unlikely that the newly found sites were utilized by the Corps in calculating its historic properties index values for Lake Oahe in the RDEIS. The properties are not listed in the Omaha District's Historic Properties Database File, attached as Exhibit A to the historic properties technical report. This is not surprising, since the date of the Database file is 1993, and the date of the technical report is 1994. Tribes like ours have cultural resource officers who can assist the Corps with better and more recent information.

If these newly discovered sites were not included in Corps' evaluation of the impacts of the proposed alternatives on historic properties, then certainly the as-yet undiscovered sites on the remaining lands on the western shore of Lake Oahe were not considered. The Corps clearly states in the RDEIS that its evaluation of the impacts of its operation of the Mainstem Reservoir System is based upon known sites only. In section 5 of the RDEIS, the Corps states that " long-term potential for erosion at each *known site* was evaluated based on the monthly water level in each of the three upstream lakes and Lake Sharpe." (RDEIS p. 5-13 7) It states at p. 7- 183 that "only the effect to *known sites* is considered in the historic properties index. . . ." Given "*the nature and extent of potential effects on historic properties*, and the likely nature and location of historic properties within the area of potential effects," the Corps' efforts to date do not constitute a "reasonable and good faith effort to carry out appropriate identification efforts, which may include background research, consultation, oral history interviews, sample field investigation, and field survey." 36 C.F.R. § 800.4(b)(1) (emphasis added) Cheyenne River Sioux Tribe requests f unds for a study and funds for technical assistance for the 28 Tribes to meet on the Missouri River Master Manual to be included in the Corp Funding and contracted to the appropriate Tribe.

It is a foregone conclusion that operating the Mainstem Reservoir System on the Missouri River is a federal undertaking of vast magnitude under 36 C.F.R. § 800.4(b)(1). So is changing that operation. The Corps' level of effort in identifying historic properties on the shorelines of the Reservoirs is also driven by the nature and extent of the potential effects of River operations on historic properties. 36 C.F.R. § 800.4(b)(1). The Corps recognizes that properties located within the reservoir zone are subject to annual fluctuation, and properties located within a few vertical feet up or down from that zone, are likely to receive a wide range of severe impacts. Given the magnitude of the Corps' undertaking and the extent of the potential effects on historic properties, a high level of effort is required of the Corps to identify tribal historic properties that could be destroyed by waves and erosion.

The Corps' obligation with regard to historic properties does not stop there, however. In addition to identifying historic properties and assessing adverse effects on them, Corps officials must develop measures *in the RDEIS* to avoid or mitigate such affects. 36 C.F.R. § 800.8(c)(4). The Corps acknowledges this obligation at p. 12 of its technical report on historic properties,

where it states: "Procedural compliance [with the National Historic Preservation Act and NEPA] further requires description, evaluation of, and agreement upon, any measures proposed to mitigate the adverse effect, or selection of an alternative to the Federal undertaking in question." The Corps quickly rules out the idea of developing an alternative that would not include the existing dams, or an alternative for operating the reservoir system that would not adversely impact historic properties. Instead, it concludes that mitigative measures to lessen the severity of impact may be the only means of compliance.

Unfortunately, the Corps has failed to include mitigation measures that would satisfy the requirements of Section 106 of the National Historic Preservation Act in the RDEIS. The Corps claims that lake level fluctuations and wave action are inevitable in the operation of the Mainstem Reservoir System. It states that "Known historic properties, which include but are not limited to prehistoric sites, Tribal cultural resources, and historic sites, are adversely affected by all the alternatives. Increased conservation during droughts is likely the primary factor leading to this result." RDEIS p. 7-23 3. The Corps then points to the bank stabilization efforts undertaken in the lower basin as evidence of its attempts to mitigate the adverse impacts of Reservoir operations on historic properties. Table 3.15-1 at p. 3-171 of the RDEIS details these efforts. Only 21 bank stabilization projects are listed for a total expenditure of $1,759,000 over 23 years. Repatriation of Native American remains under the Native American Grave Protection and Repatriation Act adds little to the Corps' column. When compared with the millions of dollars being spent or sacrificed to mitigate the adverse impacts of River operation on three listed species in the basin, the Corps' efforts to address the destruction of irreplaceable historic properties would be laughable if the situation were not so serious. It is a classic case of a minority population bearing the burden of a policy decision that benefits the general public.

This is ironic, because Sioux Nation Tribes have encountered difficulty over the low tide exposure of cemeteries and human remains. This has impacted Sioux Nation Tribes and other Tribes along the Missouri River to whom the U.S. promised it would relocate and reestablish Indian cemeteries, tribal monuments and shrines in laws authorized under of the Flood Control Act of 1944, ch. 665, 58 Stat. 887. For example, the 1954 law involving the Cheyenne River Sioux Tribe states:

> **"The United States further agrees to appropriate, and the Secretary of the Army is authorized and directed to make available from the sums so appropriated** to be charged against the cost of construct of the Oahe project, **further additional appropriations for the special purpose of relocating and reestablishing the Indian cemeteries, tribal monuments and shrines within the taking area for said reservoir described in Part II of this Act as the Tribal Council of said Indian Tribal shall select and designate,** which sums shall be expended on the recommendation of the Tribal Council with the approval of the Secretary of Interior."

Public Law 83-776, 68 Stat. 1191, at Section 3 (Sept. 3, 1954) (Emphasis in bold is added). Remains have been relocated, the job was not done well and some remains have appeared along tribal grounds within the Missouri in recent years. The Army Corps of Engineers must acknowledge that mistakes or oversights may have happened in carrying out these statutory duties. If such mistakes appear, the Corps should be required to use these laws and request "further additional appropriations" as needed for these purposes. The Army Corps must be also

responsible to request more funding in the event that more graves are exposed by drought and lowering of the Missouri River water level.

This is ironic, especially for the Sioux Nation Tribes in light of specific statute provisions to ensure its historic properties technical report, the Corps advises that measures to mitigate the loss of value inherent in historic properties involve either site protection or information retrieval (archaeology). Either measure, says the Corps, requires substantial investment of money and manpower, both of which have historically been in short supply compared with the legislative compliance requirements. The Corps concludes its discussion of mitigation requirements for historic properties at § 7.20.1 of the RDEIS with a remarkable statement:

> Because the Corps has **existing** programs to address the protection of sites or their documentation if protection cannot be accomplished, **new efforts** to mitigate the effects of the operation of the Mainstem Reservoir System on known sites **are not required** Continued efforts to protect the sites are necessary to limit the adverse effects of the exposure or loss of the known sites. Clearly, the Corps failed to make a good faith effort to meet its obligations under Treaties, Executive Orders, NAGPRA, and NHPA.

Finally, NEPA and the National Historic Preservation Act require the Corps to not only develop measures to avoid, minimize or mitigate adverse effects on historic properties of operation of the Mainstem Reservoir System, but to include a binding commitment to such measures in its Record of Decision on the Master Manual.

The near-nonexistent status of the Corps' mitigation measures for historic properties raises the question, "binding commitment to what?"

In sum, historic properties are as priceless and threatened as the least tern, piping plover and pallid sturgeon. The entire River System is being altered to address the plight of these animal species. The Cheyenne River Sioux Tribe is requesting that the Corps give the same consideration to its endangered historic properties. The Cheyenne River Sioux Tribe **rejects** the RDEIS as inadequate and urges Congress to reject the document also and assure that the Corps conduct an accurate and complete RDEIS.

WATER QUALITY

In the water quality portions of the RDEIS, the Corps tells us that problems exist. "Elevated concentrations of arsenic, manganese, iron and beryllium have been monitored in Lake Oahe and its inflows." RDEIS p. 3-56. In 2000, state water quality standards for mercury, phosphorus, sulfate and iron were exceeded at Lake Oahe. Arsenic commonly exceeds state water quality standards in Missouri River Lakes. Mining in the Black Hills has contaminated the Cheyenne River with high levels of mercury.

The importance of good water on our Reservation is magnified because studies show millions of tons of gold-mill tailings entered Reservation waters which are directly downstream of the Homestake Gold Mine. See Cherry et al 1986; Goddard 1987; Marron 1992; Rahn et al 1996; U.S. E.P.A. 1989; U.S. E.P.A. 1990; U.S. Geological Survey 1989a; U.S. Geological Survey 1989b. An 18-mile stretch of Whitewood Creek became the United States' first

Superfund Cleanup Site on September 8, 1983. Whitewood Creek flows into the Belle Fourche River, and that flows into the Cheyenne River, providing about 60% of the volume. The Cheyenne River flows into the Missouri along the Southern part of the Reservation.

It has been estimated that 99% of these tailings are downstream of the actual Superfund Site. Marron 1992; U.S. E.P.A. 1989. In other words, these gold mine tailings are still in the Wakpa Waste' (Lakota for Good River, now called the Cheyenne River) and in the Missouri River/Lake Oahe. These downstream receiving waters area is still designated as a CERCLIS clean-up area under the 1980 Superfund Cleanup Law, CERCLA. 42 USC §§ 9601-9675. The 18 mile site stopped upstream of the Tribe's waters, but the Tribe believes it should have been extended into the Missouri River. Unfortunately the U.S. Government did not notify the Tribe of the Superfund Site until about December 1996. That was years after many important decisions were made without Tribal consultation. Since 1996, the Tribe has devoted resources monitoring conditions of water and life along the *Wakpa Waste'* and *Mni Sose.* Therefore, it should be no surprise that the Tribe has reasons to mistrust agencies of the U.S. Government. The Cheyenne River flows into Lake Oahe along the southern boundary of the Cheyenne River Reservation.

In addition, sediment is being eroded, transported, and deposited in the Missouri River reservoirs. This is a normal process — sediment was continually moved by the Missouri River even before it was dammed. Now, sediment is settling out in the reservoirs and at the mouths of the tributaries flowing into them. Significant sediment deposition is apparent at the mouths of the four major tributaries that flow into Lake Oahe -- the Cheyenne, Moreau, Grand, and Cannonball Rivers. The sediment in these deltas contains arsenic, cadmium, selenium, and other metals. Arsenic, cadmium and selenium are of particular concern to the Cheyenne River Sioux Tribe, because the intake for the Tribe's main public water supply system is located in the Cheyenne Arm of Lake Oahe. That drinking water system serves three rural counties in South Dakota in an area larger than the States of Connecticut, Rhode Island and Delaware. If drought conditions worsen, or the Army Corps lowers the level of Lake Oahe, mine tailings may become exposed and/or released into the public water supply, and may cause environmental damage. If so, the Army Corps may become liable for damages under CERCLA for those actions.

Wave action, lake level fluctuation and ice movement stir up sediment. According to Tables 5.4-1 and 7.4-1 in the RDEIS, "wave action erodes and agitates the lake sediments during low lake levels, potentially causing elevated dissolved arsenic concentrations in the water column." These " arsenic concentrations during low lake elevations and drought conditions may affect domestic water use (requiring additional treatment prior to domestic use) and cause chronic effects to aquatic life in lakes." The adverse effects are greatest during droughts, when lakes are drawn down and bottom sediments are exposed to wave action. RDEIS pp. 5-26-28, 7-26-28.

Both Oahe Dam releases and lake levels vary considerably. In its water quality technical report supporting the RDEIS, the Corps states, "[R]eleases have been extremely variable since the project became fully operational." Daily outflows range from less than 1,000 cubic feet per second up to 55,000 cubic feet per second. Regarding lake levels, the technical report states, "Much fluctuation has occurred throughout the history of the reservoir." Corps 1994t, p. 19.

Several years ago, the Missouri Basin States Association asked the Corps to sample and analyze delta sediment to test the hypothesis that raising and lowering lake levels result in

sediment resuspension, potentially adding contaminants to the reservoir and degrading water quality. Sampled pollutants included mercury, cadmium, lead, chromium, zinc, selenium, arsenic, nickel, and pesticides. Significantly, *arsenic consistently showed significant increases sometimes exceeding a factor of 10.*

Moreover, the finer the sediment, the greater the arsenic concentrations. Finer sediment is generally more chemically active. Thus, disturbances such as wind-wave action can result in chemical changes associated with the transfer of materials from an anaerobic environment in the sediment to an aerobic environment in the water. It is also suspected that storm events and high winds, which are common in the Missouri River basin, cause high metal concentrations in the water.

The Corps emphasizes that the stirring of bottom sediments in shallow areas of the reservoir is going to occur no matter what the pool elevation. It is simply a natural, on-going process which occurs at all reservoirs with relatively soft bed sediments.

Arsenic exists in the sediment of the deltas of tributaries flowing into Lake Oahe. Wave action, lake level fluctuation and ice movement stir up the arsenic-bearing sediment and suspend it in the water column. None of the alternatives being considered by the Corps in the RDEIS will change this fact of reservoir operations. The Corps' solution? Test and treat your drinking water, because the stirring of sediment in shallow areas is inevitable no matter what the Corps does. RDEIS Tables 5.4-1 and 7-4.1. This suggestion is hardly encouraging to the Cheyenne River Sioux Tribe, whose intake for its main public water supply system is located in the Cheyenne Arm of Lake Oahe. That drinking water system serves three rural counties in South Dakota in an area larger than the States of Connecticut, Rhode Island and Delaware. If drought conditions worsen, or the Army Corps lowers the level of Lake Oahe, mine tailings may become exposed and/or released into the public water supply, and may cause environmental damage. If so, the Army Corps may become liable for damages under CERCLA for those actions.

Turning to mercury, this pollutant is everywhere in the Missouri River Basin. However, more mercury was added into Lake Oahe from mining operations upstream in the Black Hills. Home Stake Mine operations resulted in South Dakota having the United States' first Superfund clean-up site designated by the USEPA. This occurred in the early 1980's after about fifty cattle died from eating corn off the ground that was contaminated with arsenic from the mine tailings, along Whitewood Creek. Although much of the mining activity has ceased, Cheyenne River sediment remains contaminated and continues to be deposited into the Cheyenne River Arm of Oahe. While observed mercury levels are below EPA drinking water standards, the Corps advises that the presence of mercury and its variable concentration suggests that it should be monitored by municipalities which use the lake as a water supply. U.S. Army Corps of Engineers 2000 Annual Report, RDEIS Appendix B, p. B-497. Fish tissue samples collected by the South Dakota Department of Game, Fish & Parks and the Cheyenne River Sioux Tribe in 2000 in the Cheyenne River, Moreau and Grand Rivers and these arms of Lake Oahe contained sufficient mercury to warrant a consumption advisory on fish caught in waters on and adjacent to tribal lands. This is in addition to the mercury warning issued and posted by the South Dakota Department of Health on June 1, 1973, which also remains in effect. A copy of that warning is attached to these comments. The Tribe has posted warning signs and its advisory remains in effect. The Tribe continues to perform scientific tests and studies to monitor environmental conditions and water quality in the Cheyenne and Missouri Rivers. The Tribe's experiences with

the Superfund Site show that it has been left out of discussions involving the cleanup and the warnings issued by other governments. This makes the Tribe skeptical of the efforts of other governments in protecting the rivers and their environment especially since the Corp is responsible for maintaining quality along the river.

As with Historic Properties, the Corps' identification and assessment of water quality problems in the Missouri River Basin have been less than stellar. "There is limited information regarding how water quality has changed since the construction of the Mainstem Reservoir System," says the Corps in Section 3.5.7 of the RDEIS. Although monitoring information is gathered by the Corps, the basin states, the U.S. Geological Survey and EPA, no monitoring program exists that integrates and evaluates all the information. "Spatial variability prevents our monitoring program from being a reliable indicator of the conditions which exist at the water supply intakes." RDEIS Appendix B, p B-497.

The Corps suggests that personnel responsible for water quality sampling should be updated in sampling techniques. The Cheyenne River Sioux Tribe agrees.

The Tribe also agrees with the Missouri River Natural Resources Committee and the Biological Resources Division of the U.S. Geological Survey that more science is needed. The Missouri River Environmental Assessment Program is good start. The purpose of the Program is to provide the scientific foundation for Missouri River management decisions. The Program hopes to expand current state and federal monitoring efforts and start new ones. It will establish a system-wide database containing information on fish, wildlife, habitat, water quality, and define the baseline of current river conditions. The Tribe is pleased to learn that the public as well as government agencies will have equal access to this database. The Environmental Assessment Program will also conduct long-term monitoring of river resources and focused investigations of the cause and effect relationship between river operations and the River's response. Of course, the Program is entirely dependent upon funding and the fact that tribal drinking water is at stake. The Cheyenne River Sioux Tribe recommends funding for the Assessment, a system-wide database and monitoring of the River and the funding to the Corps be contracted to the Tribes.

Neither has the Corps developed viable mitigation measures for the water quality issues raised in the RDEIS. Although the Corps acknowledges that resuspension of arsenic and mercury from delta sediments and bioaccumulation of metals in fish tissues are concerns of tribes in the basin, RDEIS 7-33 and 7-34, the Corps' solution is NOT development of mitigation measures to address these issues. Rather, the Corps advises local governments to test and treat their water before drinking it, thus, again, imposing the burden of its management of the system on minority and low income populations.

Along the same lines, we are told in the RDEIS that the MCP leaves more water in the three upper mainstem lakes during drought and reduces lake level fluctuation. The increased volume improves water quality by diluting pollutants. The GP options will improve water quality even more because they will leave even more water in the lakes than the MCP. RDEIS p. 7-3 3. However, none of the alternatives limits the suspension of metals into the water column and the accumulation of toxic elements in fish tissue in Lake Oahe. RDEIS 7-33 to -34. Thus, neither the CWCP nor any of the RDEIS alternatives being considered by the Corps mitigate the water quality issue of greatest concern to the Cheyenne River Sioux Tribe.

The Corps is not necessarily the source of pollutants entering the Missouri River. Neither does it regulate water quality in the Basin. States, tribes and the federal Environmental Protection Agency (EPA) manage water quality under the Clean Water Act and Safe Drinking Water Act. That the Corps is not the source of water pollution or the regulator of water quality, however, does not relieve it of its responsibility to satisfy the environmental justice principles of Executive Order 12,898 by identifying and mitigating water quality problems created or exacerbated by its management of the Missouri River Mainstem System.The Levels of Arsenic, mercury and other contaminants is unacceptable. So far, no solutions have been offered. What about dredging and removing the contaminated delta sediment? What about capping it? What about moving the intake for the Tribe's public water supply system away from the Cheyenne River delta? The Cheyenne River Sioux Tribe recommends funding for Clean-up of the Arsenic, mercury and other Contaminants in the water.

The recent drought has increased the urgency of addressing the water quality issue in the Cheyenne River Arm. Lower water levels have concentrated the contaminated sediment in the main channel of the Cheyenne River. The channel is carrying the plume further downstream and dangerously close to the tribe's intake.

The Cheyenne River Sioux Tribe rejects this portion of the RDEIS and urges Congress to Reject it also.

HYDROPOWER

The Cheyenne River Sioux Tribe is very concerned about increased electricity rates for tribal members.

It is the Tribe's understanding that all of the alternatives being considered in the RDEIS process would increase overall hydropower economic benefits for the reservoir system. The drought conservation measures of the MCP and the GP options would leave more water in the reservoirs. This held-back water, known as "head," constitutes the capacity of the dams to produce hydropower. As the water is released and run through the turbines in the dams, power is generated. In this way, GP1 528 would produce the greatest hydropower benefits. The CWCP produces the least. The other alternatives fall in between. The difference between GP1 528 and the CWCP, however, is only 2.3%.

In spite of the fact that the MCP and GP options increase the capacity of the mainstem dams to generate hydropower, all of the GP options decrease hydropower revenues, by releasing water from the dams other than during summer and winter peak demand periods, when the hydropower is most valuable. The higher the demand for power, the greater its value. Because demand is greatest in summer and winter, energy produced during these seasons is of greater overall value than energy produced in the spring and fall. When water is released from the dams other than during these summer and winter peak demand periods, revenue is lost. In this way, GP1528 and GP2028, the two GP options which release only enough water in the summer to maintain minimum navigation service, decrease annual hydropower revenue by an average of $8 to $9 million when compared with the CWCP. The GP options which split summer season releases and release the least amount of water during the summer peak demand period, GP1521 and GP2021, have about a $30 million average annual adverse impact on hydropower revenues. RDEIS p. 7-228. These revenue losses translate into increased electricity rates for customers who

purchase power from the Pick-Sloan Project through the Western Area Power Administration (WAPA).

The magnitude of the impact of these increased rates depends on the amount of power a particular customer purchases from Pick-Sloan. WAPA estimates that basin Tribal Customers purchase 60 percent of their total power from Missouri River hydropower. The increase in power costs incurred by basin tribes under the Gavins Point options will range from two percent for GP1528 to ten percent for GP1521 and GP2021. These increases will adversely impact affordable housing for tribal members.

NOXIOUS WEEDS

In an effort to accommodate the paradigm shift from the multiple uses originally established for the Pick-Sloan Project to increased emphasis on environmental protection, the Corps has proposed alternatives aimed at protecting three threatened or endangered species – the interior least tern, the piping plover and the pallid sturgeon. In 2000, the U.S. Fish & Wildlife Service issued a Biological Opinion (BiOp) for the Missouri River, which included a Reasonable and Prudent Alternative for operation of the Mainstem Dams to avoid jeopardy to the three species. The Gavins Point alternatives discussed in the RDEIS embody the Corps' efforts to incorporate the Reasonable and Prudent Alternative into the Master Manual.

The Reasonable and Prudent Alternative in the BiOp calls for flow enhancement, habitat restoration, creation and acquisition for the three listed species, and adaptive management. It also calls for unbalancing of the water levels in the three upstream reservoirs — Ft. Peck, Lake Sakakawea, and Lake Oahe. Unbalancing would consist of lowering the level of one of the three lakes by three feet to allow vegetation to grow around the rim. The unbalancing would rotate among the three lakes on a three-year basis. In the first year, the water level would be lowered in one of the lakes. The lowered level would be held constant the second year, and then raised back up to normal the third year. RDEIS p. 6-3.

This unbalancing plan is anticipated to greatly benefit the listed species inhabiting the reaches between the three lakes, as high flows are good for native river fish and for clearing vegetation from islands and sandbars. The subsequent low flows will expose the cleared islands and sand bars, which the least tern and piping plover use for nesting. Lake fisheries will also benefit, as the vegetation growing on the lake perimeters for two years will be inundated the third year, becoming spawning and hiding habitat for young-of-the-year fish.

Unfortunately, little mention is made in the RDEIS of the type of vegetation that will grow on the lake perimeters when unbalancing takes place. Noxious weed infestations have reached crisis proportions on Cheyenne River Sioux Tribe reservation lands. Canada thistle has exploded within the past two years, and leafy spurge has been reported in several new locations. Noxious weeds are beginning to take over the Lake Oahe shoreline, posing a serious threat to native grasses. Even without unbalancing, wetlands at Oahe are flooded and emerge as lake levels fluctuate. The water disperses seeds. Canada thistle predominates in these emergent wetlands. When working to establish habitat on Corps land within the Reservation, tribal Game Fish & Parks employees encounter Canada thistle nearly 75% of the time when the soil is disturbed. The Tribe's Game, Fish & Parks and Prairie Management agencies, the BIA and

several South Dakota counties consider Lake Oahe to be the primary source of Canada thistle, a water loving plant.

Livestock production is the prime source of income for the Cheyenne River Sioux Tribe. Noxious weeds are extremely detrimental to this agricultural economy. They substantially reduce the productivity of grazing lands by competing with valuable native grasses. This reduction in range quality adversely impacts livestock production. The Cheyenne River Sioux Tribe is working with Dewey, Ziebach, and neighboring South Dakota counties to eradicate noxious weeds. Control programs are costly.

For years, the Corps has funded spraying of noxious weeds on state lands on the shoreline of Lake Oahe. However, Reservation lands have been largely ignored. Unless the entire shoreline is addressed, the battle with noxious weeds will be lost.

The Cheyenne River Sioux Tribe is very concerned that unbalancing will worsen the serious noxious weed problem along the shores of Lake Oahe, with potentially devastating effects on the Reservation. Recent drought conditions have only heightened our concern. Lower lake levels caused by the drought have resulted in noxious weeds proliferating all the way up drainage basins. Addressing the devastation caused by the draught is one thing. Addressing devastation caused by Corps management of the reservoir system for the benefit of endangered species is another. The Cheyenne River Sioux Treaty and Environmental justice demands that the Tribe not bear a disproportionate burden. The Cheyenne River Sioux Tribe requests funding from the Corp for spraying of noxious weeds on the Reservation shoreline and Reservation Lands.

CONCLUSION

Corps of Engineers management of the Missouri River Reservoir system for authorized purposes has seriously and adversely impacted the Cheyenne River Sioux Tribe in many ways, from destruction of tribal historic properties to threatening the Tribe's water rights, drinking water supply, agricultural economy, and way of life. We ask the Committee to ensure that the Army Corps fulfills its trust responsibility, help us protect the resources of our Reservation and our people, and Protect our future ability to use our Water.

The Cheyenne River Sioux Tribe joins Standing Rock Sioux Tribe, the Oglala Sioux Tribe and the other Members of the Great Sioux Nation in urging the Committee on Indian Affairs to intervene in the Army Corps of Engineers Missouri River Master Manual Review and amend the update because it does not comply with Federal Laws, will adversely impact the Cheyenne River Sioux Tribe, and because it arbitrarily undermines the rights of Cheyenne River Sioux Tribe and other affected Tribes. The Corp should not be permitted to finalize the Missouri River Master Manual Control Plan in the absence of full and meaningful consultation with Tribes.

Oglala Sioux Tribe

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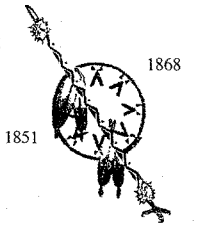

John Yellow Bird Steele

STATEMENT OF JOHN YELLOW BIRD STEELE

PRESIDENT, OGLALA SIOUX TRIBE

BEFORE THE UNITED STATES SENATE

COMMITTEE ON INDIAN AFFAIRS

OVERSIGHT HEARING ON ARMY CORPS OF ENGINEERS

MISSOURI RIVER MASTER MANUAL

October 16, 2003

Chairman Nighthorse Campbell and members of the Committee on Indian Affairs, my name is John Yellow Bird Steele. I serve as President of the Oglala Sioux Tribe of the Pine Ridge Indian Reservation. I thank Chairman Nighthorse Campbell, Senator Inouye and the members of the Committee on Indian Affairs for conducting this oversight hearing on the Army Corps of Engineers Missouri River Master Water Control Manual.

There is no more immediate threat to the water rights and treaty rights of the Oglala Sioux Tribe than the Army Corps of Engineers. The Corps of Engineers consistently and completely disregards the reserved water rights of the Oglala and other Sioux Tribes in its operations of the Missouri River. The Corps disregards the need to accommodate the present and future water needs of our Reservation, in the Master Manual revision process.

The Master Manual Review and Update process has become a tool to lock-in existing non-Indian water uses, such as downstream navigation and fish and wildlife, to the detriment of water uses on the Pine Ridge and other Sioux Reservations.

Consequently, the Corps of Engineers' planning documents would render our water rights as secondary to the existing water users supplied by the Corps, although under federal law our water rights are prior and superior to non-Indian water rights.

As the region's largest Tribe, the Oglala Sioux Tribe suffers severe harm as a result of the Corps of Engineers Master Manual Review and Update process. We have pervasive land and water rights under the 1868 Fort Laramie Treaty, extending throughout a large part of the upper Missouri River basin. We have the most to lose at the hands of the Corps of Engineers. For this reason, today I ask the Committee on Indian Affairs to consider a legislative solution to the water rights and treaty violations of the Army Corps of Engineers.

The Corps of Engineers has proven that, left to its own devices in the Master Manual Review and Update, it shall violate the 1868 Fort Laramie Treaty, ignore the reserved water rights of the Sioux Nation, circumvent the National Environmental Policy Act, violate Executive Order 13175 on Consultation with Indian Tribes, and destroy valuable Native American cultural resources along the Missouri River. This is the legacy of the Corps of Engineers' Missouri River operations. My testimony shall focus on these areas, and emphasize the need for the Committee on Indian Affairs to consider a legislative solution to this problem.

The Corps of Engineers Proposes to Abrogate the Treaty Rights of the Oglala Sioux Tribe Under the Fort Laramie Treaty of April 29, 1868

The Oglala Sioux Tribe retains unresolved off-Reservation claims under the Fort Laramie Treaty of April 29, 1868. Article II of the 1868 Treaty defines the boundaries of the Great Sioux Reservation, as follows -

> The United States agrees that the following district of country, to wit, viz: commencing on the east bank of the Missouri River, where the forty-sixth parallel of north latitude crosses the same, thence along low-water mark down said east bank to a point opposite where the northern line of the State of Nebraska strikes the river, and along the northern line of Nebraska to the one hundred and fourth degree of longitude west from Greenwich, thence north on said meridian to a point where the forty-sixth parallel of north latitude intercepts the same, thence due east along

> said parallel to the place of beginning; and in addition thereto, all existing reservations of said river shall be, and the same is, set apart for the absolute and undisturbed use and occupation of the (Sioux Nation)... (15 Stat. 635, 636).

The Sioux Nation rejected the judgment award that was affirmed by the United States Supreme Court in *United States v. Sioux Nation of Indians*. (448 U.S. 371, 100 S. Ct. 2716 (1980)). Consequently, we retain our claims under the 1868 and 1851 Fort Laramie Treaties.

Article II of the 1868 Treaty makes clear that our land claims extend from the 104th parallel to "the east bank of the Missouri River." (15 Stat. 636). Clearly, the Missouri River and the river bed of the Missouri are defined in the 1868 Fort Laramie Treaty as Sioux Country.

Nevertheless, this is reflected nowhere in the planning documents of the Army Corps of Engineers, in the Missouri River Master Manual Review and Update. Our treaty rights are completely ignored by the Corps of Engineers. By establishing long-term plans for Missouri River water flows in the Master Manual Review and Update and disregarding our Treaty claims in the planning process, the Corps of Engineers seeks to establish *de facto* abrogation of our rights.

Our Treaty rights are not an historical anomaly. They exist today. In the case of *Worcester v. Georgia*, the United States Supreme Court stated –

> The constitution, by declaring treaties already made, as well as those to be made, to be the supreme law of the land, has adopted and sanctioned the previous treaties with the Indian nations, and consequently admits their rank among those powers who are capable of making treaties. The words "treaty" and "nation" are words of our own language, selected in our diplomatic proceedings, by ourselves, having each a definite and well understood meaning. We have applied them to Indians as we have applied them to other nations of the earth. They are all applied in the same sense.

31 U.S. (6 Pet.) 515, 559-60 (1832).

Thus, our Treaties remain in effect, today. The Corps of Engineers ignores our rights, however, and prepares to finalize long-term water allocations in the Missouri

River that divert Indian water to non-Indian water uses, in violation of our treaty right to the use of water.

The Corps of Engineers Proposes to Allocate Indian Water to Supply Non-Indian Water Uses and Threatens and Diminishes the Water Rights of the Oglala Sioux Tribe

Under the principles enunciated by the Supreme Court in *United States v. Winters* (207 U.S. 564 (1908)), our reserved water rights stem from our treaties with the United States. Our reserved water rights are extensive, including all of the water that is reasonably needed for our present and future water needs. (*Arizona v. California*, 373 U.S. 546 (1963)). As stated above, the Oglala Sioux Tribe is the largest Tribe in the Missouri River Basin. Accordingly, our reserved water rights to the Missouri River and its tributaries are of substantial magnitude.

The Corps of Engineers' *Missouri River Revised Draft Environmental Impact Statement* proposes water allocation alternatives which utilize water subject to Indian claims, to supply non-Indian water uses. It is bureaucratic architecture for the theft and confiscation of our water.

The Corps of Engineers agreed to review the current Master Water Control Plan ("Master Manual") for the Missouri River, in 1991. University of South Dakota Law Professor John Davidson has explained the importance of the Master Manual Review and Update to Tribes such as the Oglalas, as follows –

> ...the final Master Manual may lock in the status of the specific river uses with a firmness that is every bit as solid as Supreme Court apportionments. Any given process is as important as the finality and enforceability of the final decision, be it judicial, legislative or administrative. For Missouri River water users, the Master Manual process may be as important as the litigation in *Arizona v. California* was to Colorado River water users.

(John H. Davidson, *Indian Water Rights, the Missouri River, and the Administrative Process, What are the Questions?* 24 American Indian L. Rev. 1 (2000)).

The region's water rights experts thus warn us that the allocation of Missouri River water flows by the Corps of Engineers in the Master Manual Review and Update, shall lock in water uses for the foreseeable future. In the *Revised Draft Environmental*

Impact Statement, Missouri River Master Water Control Manual Review and Update, released in August 2001, the Corps outlines numerous alternatives for the future management of Missouri River water flows. These alternatives provide for varying levels of spring rise below Gavins Point Dam and varying levels of navigation service in the lower Missouri. Adaptive management and drought conservation measures are also proposed.

However, none of the alternatives in the *Revised Draft EIS* contemplate future consumptive water uses on the Pine Ridge and other Sioux Reservations. The Corps of Engineers has given no consideration to Indian water needs to the Missouri River and its tributaries.

Nevertheless, the Corps has indicated that depletions totaling 7.1 million acre-feet annually closes down the computer model used to calculate the impacts of various water management alternatives. If there is a diversion of water of this magnitude, the existing uses are shut off.

A study conducted by the United Sioux Indians Tribes estimated the irrigation water requirements of 11 Sioux Reservations at twice the amount of water determined by the Corps to close down its computer models. As the largest Sioux Tribe, the water requirements of the Oglala comprise a substantial portion of the overall Sioux water needs. (United Sioux Indian Tribes, *Missouri River Basin Water Supply and Water Requirements of United Sioux Indian Reservations* (February 1979), Table 3-1.) Yet even partial irrigation service on the Sioux Reservations would close down the computer model used by the Corps of Engineers for water flow management in the Missouri River.

All of the assumptions used by the Corps of Engineers in developing the alternatives contained in the Revised Draft Environmental Impact Statement depend on the Oglala and other Sioux Tribes not exercising our reserved water rights. The finalizing by the Corps of the Environmental Impact Statement and the implementation of a new Water Control Plan will lock-in water allocations in a manner that relies upon the Indians to not use our Treaty-protected water rights in the future.

The Corps of Engineers state in the *Revised Draft EIS* at page 3-105 – "In no way do (the non-Indian water uses supplied by the Corps) attempt to define, regulate or quantify any treaty water rights…" However, by exclusively providing water flows to

non-Indian uses and excluding Tribal water needs, the Corps of Engineers essentially has the effect of locking in water flows for the identified uses. There is no water managed by the Corps for the supply of Tribal water needs, now or in the future.

Moreover, the *Revised Draft EIS* considers Indian water rights as existing only if they are quantified through an adjudication or an act of Congress. The *Revised Draft EIS* states at pages 113 –114,

> Certain Missouri River Basin Indian Nations are entitled to water rights in streams running through and along their Reservations under the Winters Doctrine... Currently, Tribal Reservation-reserved rights have not been quantified in an appropriate legal forum or by compact, except in four instances (citing Fort Peck, Wind River, Northern Cheyenne and Rocky Boys)...Potential Tribal rights associated with (other) uses were not considered....

The reserved water rights of the Oglala Sioux Tribe have not been adjudicated or quantified. We oppose this, because of the Supreme Court's interpretation of the McCarran Amendment (43 U.S.C. §666), that Indian reserved water rights may be adjudicated in state courts. (*Arizona v. San Carlos Apache Tribe*, 463 U.S. 545 (1983)). Our unquantified water rights are nevertheless present, vested property rights. (*Arizona v. California*, 373 U.S. 546).

The Corps of Engineers suggests that there is some vagueness to our ownership of our property rights, because they are unquantified. In the water allocation alternatives outlined in the *Revised Draft EIS* , the Corps ignores our rights altogether, in order to supply the maximum amount of water to existing non-Indian water uses.

In the *Missouri River Revised Draft EIS*, the Corps of Engineers establishes future water allocation plans that undermine Indian water uses in order to provide water flows for non-Indian uses. All of the current alternatives provide water for varying levels of service for enumerated non-Indian water uses. No stored water is identified for Tribal water rights. Accordingly, the region's non-Indian economy is to be propped up at the expense of the Indian economy, which shall remain undeveloped because our resources are allocated to non-Indians under the Master Water Control Manual. The Congress cannot permit this to happen.

The Corps of Engineers Routinely Destroys Native American Cultural Resources and the *Revised Draft EIS* Contains No Mitigation or Other Compliance Plan as Required Law

No agency of the federal government has destroyed more cultural resources or desecrated more Native American human remains than the Army Corps of Engineers, in its Missouri River operations. Yet the *Missouri River Revised Draft EIS* contains no mitigation or other compliance plan as required under the National Historic Preservation Act. (16 U.S.C. §470a et seq.)

The National Historic Preservation Act requires the Corps of Engineers to evaluate the impact of its "undertakings" on historic properties along the Missouri River. (NHPA §106, 16 U.S.C. §470f). The federal courts have determined that wave action caused by water releases at the Missouri River dams are "undertakings" requiring compliance with the NHPA. (*Yankton Sioux Tribe v. Army Corps of Engineers*, 83 F. Supp. 2d 1047 (D.S.D. 2000)).

Indeed, the Corps of Engineers had a programmatic agreement with the Advisory Council on Historic Preservation, outlining the agreed-upon procedures for compliance with section 106 of the NHPA, when wave action of the Missouri River impacts cultural sites at the water's edge. However, on July 17, 2000, the Advisory Council terminated the agreement, informing the Corps –

> The Omaha District's handling of this matter evidences a serious lack of understanding of Federal historic preservation laws and regulations, a lack of commitment to fulfill historic preservation legal responsibilities, and an unwillingness to seek and consider the views and recommendations of State officials, tribal governments, and the Council....
>
> The PA was intended to allow the Corps greater flexibility in how it met its obligations under Section 106 while fostering better long-term planning for and stewardship of historic properties... (T)he Omaha District has disregarded commitments it made in the PA and the resulting (negative) consequences it has had for irreplaceable resources under its care. The Council is forced to conclude that the Corps is unable, or unwilling to carry out the terms of the PA.

(Letter of Carolyn Buford Slater, Chairperson, Advisory Council on Historic Preservation, to Secretary of the Army, dated July 17, 2000).

Thus, the Advisory Council points out that the Corps of Engineers has failed in its responsibility of stewardship for sacred Native American cultural resources along the Missouri River. The Corps disregarded its commitments under the Programmatic Agreement, which was consequently terminated by the Advisory Council. The Revised Draft EIS contains no provisions for the protection of the identified cultural sites in the future, or mitigation of damage that is caused by wave action. There is no corrective action, period.

The Corps of Engineers has developed a new Programmatic Agreement for Cultural Resources. The Omaha District has sent form letters to me concerning this, and held several inter-Tribal meetings on it. However, there was no effort to communicate with the Oglala Sioux Tribe on a government-to-government basis, or address the concerns expressed by our Tribe, as required in the NHPA and Executive Order 13175 on Consultation With Indian Tribal Governments. (65 Fed. Reg. 67250, November 6, 2000). Indeed, of all of the federal agencies that I work with, none gives less effort toward government-to-government consultation than the Corps of Engineers. The new draft PA is inadequate, substantively and procedurally.

With respect to cultural resources, Native American human remains are entitled to special protection under the Native American Graves Protection and Repatriation Act. (NAGPRA) (25 U.S.C. §3001 *et seq*). Yet the Corps has completely disregarded its obligation to avoid disturbance of existing grave sites, and to properly repatriate human remains upon inadvertent unearthings due to wave action of the Missouri River.

These legal requirements are extremely important to our Tribe. Under NAGPRA, Indian Tribes enjoy presumptive rights of ownership and repatriation of human remains and cultural objects that are unearthed within its aboriginal territory, as adjudicated by the Indian Claims Commission. (25 U.S.C. §3002). As stated above, the Oglala Sioux Tribe retains treaty and aboriginal claims throughout an extensive area, including the bed of the Missouri River and the lands adjacent to the Missouri. Consequently, our Tribe enjoys rights of ownership and repatriation under NAGPRA on lands along the Missouri River.

The wave action caused by COE water releases for hydropower generation and downstream navigation causes erosion and the destruction of cultural resources of Lakota and Arikira origin, along the Missouri River. This violates the NHPA and NAGPRA. Yet the Corps of Engineers continues these actions, and is now finalizing long-term plans which fail to address them.

The failure of the Corps of Engineers to comply with the National Historic Preservation Act and Native American Graves Protection and Repatriation Act directly and adversely impacts cultural resources and human remains of Lakota origin along the Missouri River. For this reason, also, I implore the Committee on Indian Affairs to entertain legislation for enhanced management of water flows and the establishment of a development fund for the Missouri River Basin Indian Tribes, as proposed by my colleague Standing Rock Sioux Tribal Chairman Charles Murphy.

Conclusion – There is an Urgent Need for Legislation for the Protection of Indian Rights and Claims to the Missouri River

The Army Corps of Engineers has a terrible record violating the water rights and treaty rights of the Sioux Nation in its Missouri River operations under the Pick-Sloan program. The Advisory Council on Historic Preservation has terminated the Programmatic Agreement with the Corps for the mitigation of impacts on cultural resources, due to the agency's "lack of commitment to fulfill historic preservation legal responsibilities." The *Missouri River Revised Draft EIS* illustrates that the Corps is finalizing plans to continue the violation of our rights, well into the twenty-first century.

We need sufficient water supplies on the Pine Ridge Reservation to survive. This was guaranteed to us in the 1851 and 1868 Fort Laramie Treaties.

Yet, today, the Corps of Engineers proposes to administer water flows to supply water for navigation and fish and wildlife in the lower Missouri Basin. The Corps has proven its lack of concern for the rights of the Oglala Sioux Tribe. The only question that remains, at this point, is whether the Congress shall permit the Corps to get away with it.

I urge the Committee on Indian Affairs to intervene in the Army Corps of Engineers Missouri River Master Manual Review and Update on an urgent basis. The Corps of Engineers should not be permitted to finalize the Master Water Control Plan, in the absence of full implementation of Indian water rights and treaty rights in the upper Missouri River basin.

Standing Rock Sioux Tribal Chairman Charles Murphy and I have proposed legislation to address this. I urge you to fully consider our proposal. Thank you.

TESTIMONY OF CHARLES W. MURPHY, CHAIRMAN
STANDING ROCK SIOUX TRIBE
and
JOHN YELLOWBIRD STEELE, PRESIDENT
OGLALA SIOUX TRIBE

Before
SENATE SELECT COMMITTEE ON INDIAN AFFAIRS

ON THE INDIAN WATER RIGHT AND OTHER ISSUES PRESENTED BY THE MISSOURI RIVER MASTER MANUAL UPDATE

1. Introduction

The Missouri River Master Manual Review and Update allocates the waters of the Missouri River to special *purposes* in the Basin including navigation, threatened and endangered species, recreation, fish and wildlife habitat, navigation, power supply, water storage and others. The Tribes of the Missouri River Basin will receive some indirect benefits from low-cost hydropower and limited water supplies from storage for small amounts of irrigation and for municipal, rural and industrial purposes.

The water supplies that the Missouri River Master Manual Review and Update rely upon, however, are claimed in large part by the Tribes as superior, vested water rights dating from time immemorial and are based upon an unbroken chain of title stemming from the full use and dominion over the lands, rivers and other resources of the Missouri River Basin well before the Louisiana Purchase in 1803 when the United States first acquired rights in the territory from France.

The virtual allocation of Missouri River water by the Master Manual will significantly damage the water right claims of the Tribes. No future state court can fairly adjudicate and no future Congress can fairly settle the water right claims of the Tribes that were carefully studied and intentionally omitted from the narrative in the Master Manual Update, the most recent of many encroachments upon the water rights of the Tribes dating from the 1851 Treaty at Fort Laramie and continuing through the Pick Sloan era to date. To fairly adjudicate or fairly settle the Tribes' water rights in the future would be to undo the investments, mortgages, releases and other reliances that will derived from a presumption that the new Master Manual has allocated storage and set the operational procedures of the River to serve settled purposes. The impact on a future non-Indian economy of adjudicating or settling the Tribes' rights will chill any future effort of the courts or a future Congress to act fairly.

1.1 2002/2003 Annual Operating Plan Increases Water in Storage from 40 to 52 million Acre Feet

Too clear for question is the fact that the Master Manual Update contemplates major changes in the operation of the mainstem reservoirs to re-formulate old and new purposes of the Pick Sloan project, namely navigation, hydropower, water supply, recreation, threatened and endangered species, habitat and others. Operational changes are addressed in the 2002/2003 Annual Operating Plan (AOP).

> *... additional water conservation measures, beyond the specific technical criteria published in the current Master Manual, may be required to meet the operational objectives of the current Master Manual, if System water-in-storage (storage) is below 52 MAF on July 1 of any year...*(Corps of Engineers, January 2003, *Missouri River Mainstem System, 2002-2003 Annual Operating Plan 2002-2003*, p. 5)

The "current Master Manual" (1979) provides that the navigation season will not be shortened during drought if water in storage on July 1 of any year is greater than 40 million acre-feet (MAF). By the change proposed in the 2002/2003 AOP, an additional 12 million acre-feet of storage would be made available, and the shortening of the navigation season would be caused more frequently than in the past. Our concern, not in defense of navigation, is that this change, the creation of an additional 12 million acre-feet of water supply for reallocation to old and new purposes (from 40 to 52 million acre-feet), will create a completely new set of reliances by participants in the Missouri River water supply. Our property rights and our ability to adjudicate or settle our rights will be adversely affected. Others, absent property rights in the Missouri River, are likewise deeply concerned with the changes proposed by the Corps of Engineers as evidenced by the case of *Blaske Marine et al.* v *Gale Norton, Secretary of Interior, et al.*, Civil No. 03:CV 0142, U.S. District Court for Minnesota, involving 9 plaintiffs and 8 federal and state defendants.

1.2 Failure to Protect Indian Water Rights

The Corps of Engineers and the Secretary of the Interior have both failed to make provisions for the protection and preservation of our water rights in contemplation of major federal changes in the operation of the Missouri River mainstem reservoirs. To this we strenuously object. No plan for preserving, protecting or mitigating impacts on Indian water rights has been proposed even though such plans are proposed for other resources and assets considered important by the Corps of Engineers.

1.3 Failure to Consider Future Indian Depletions

The Master Manual Update EIS has failed to distinguish future Indian depletions from future non-Indian depletions and only addresses a limited future depletion of 3.2 million acre-feet annually combining those two, disparate and competing interests. While considerable economic analysis of alternatives is presented in the EIS, albeit of questionable validity, no

alternatives were formulated that would cover the range of probable future depletion caused by our exercise of Indian water rights and no economic analysis was performed that would document the impact on Indian water rights and the future Indian economy of greater reliance by others on changed operations of the Missouri River, including an increase in system storage by 12 million acre-feet annually during drought years. These actions will severely impact the ability of the Tribes to adjudicate or settle their water rights at equitable levels, and the economic impact on the Tribes of loss of water right will be significant. No effort has been made by the Corps of Engineers to address these impacts or by the Secretary of the Interior to propose protections of Indian water rights under the circumstances.

1.4 State Court Revision of Winters' Doctrine

The Standing Rock Sioux and Oglala Sioux Tribes, among others, have considerable lack of faith in the ability to equitably adjudicate their water rights in a future state court proceeding with the proposed changes in the operation of the Missouri River mainstem dams. As time passes, we believe the ability to obtain an equitable adjudication will diminish. We base this on marked change in Indian water right concepts since the *Ahtanum* decision (Ninth Circuit) in 1956,

> "*...the Indians were awarded the paramount right regardless of the quantity remaining for the use of white settlers...*" (See Section 2)

and since *Arizona vs. California* (U. S. Supreme Court) in 1963.

> "*...The aggregate quantity of water which the Master held was reserved for all the reservations* [5 reservations along the Colorado River] *is about one million acre-feet to be used on around 135,000 irrigable acres of land...*" (Section 2).

Since those decisions there has been a studied denigration of Indian water rights beginning with the U.S. Supreme Court interpretation of the McCarran Amendment giving sole and exclusive jurisdiction to the state courts to adjudicate Indian water rights.

In December 2000 the Arizona Supreme Court, citing *Martinez v. Lewis*, (861 Pacific 2d 235, 238) decided to the detriment of all tribes that

> *...The court's function is to determine the amount of water necessary to effectuate this purpose* [irrigation], *tailored to the reservation's minimal need. We believe that such a minimalist approach demonstrates appropriate sensitivity and consideration of existing water users water rights...* (Interlocutory Issues 3, Gila River Adjudication)

The Arizona court comments that

> *...another concern with PIA* [practicably irrigable acreage] *is that it forces tribes to pretend to be farmers in an era when "large agricultural projects...are risky, marginal enterprises. This is demonstrated by the fact that no new federal project planned in*

accordance with the Principles and Guidelines...has been able to show a positive benefit/cost ratio in the last decade (1981 to 1991)...."

From the late 1950s to present, there has been a significant deterioration in the concepts of law surrounding our invaluable rights to the use of water. If the adjudication process has become untenable, the federal settlement process is subject to equal or greater flaws.

1.5 Water Right Settlements Do Not Offer Equitable Solutions

The Arizona Water Rights Settlement Act, S. 437, typifies current water right settlements. It is intended to provide for adjustments to the Central Arizona Project in Arizona, to authorize the Gila River Indian Community water rights settlement, and to re-authorize and amend the Southern Arizona Water Rights Settlement Act of 1982. But the thrust of the settlement is to concentrate virtually all remaining water supplies in Arizona, from the Colorado River mainstem (through the Central Arizona Project) and other sources in the Salt River Valley surrounding Phoenix. No future sources of *physical water supply* are available to settle the water right claims of the Navajos, Hopis and the Apaches, who rely upon the Salt River, the Colorado River and the Little Colorado River. Nor are any likely future sources of funding available to implement water projects for the Navajos and the Apaches because the future deposits to the Lower Colorado River Development Fund are fully dedicated by the Arizona Water Rights Settlement Act to a limited number of tribes and to the exclusion of tribes not part of the settlement. There can be no equity in a water rights settlement that excludes the possibility of a future equitable adjudication or equitable settlement for others because all physical sources of water have been committed elsewhere and all likely sources of future funding for water development have likewise been committed elsewhere.

Past settlements of water rights of Indian tribes in the Colorado River Basin and in other major western river basins have a similar record of success. A few Tribes have benefitted, but there has been a failure to balance equities for the remaining unsettled tribal interests.

1.6 Guidance to Testimony

In section 2 the full extent of the Corps' analysis of impacts on various Indian resources along the mainstem Missouri River is presented. There is no analysis of Indian water rights or impact on Indian water rights. The Corps analyzes future economic impacts on various purposes in the Basin but not economic impacts on the Tribes' water rights or other resources.

The distinction between water rights appropriated under state law and Indian water rights has been overlooked. Section 3 provides considerable detail showing that the Tribes have held title to land, water and other resources since before the Louisiana Purchase and that the *Reservations* are a retention of that title by the *Indian tribes*. Title has not been granted by the United States. The title has never been held by the United States or others. State water rights are

not perfected until the waters are appropriated, but Indian rights are vested and exist, whether used or not. Therefore, the depletion analysis described in section 2.3 must distinguish between future Indian water uses, for which there is an existing water right, and future water uses based on the doctrine of appropriation. A detailed narrative of the nature of Indian water rights is presented as those rights developed through history as well as the order of magnitude of potential Indian claims.

Section 4 presents the history of the ill-treatment of Indian water rights from the initiation of Pick Sloan in 1944 to date.

Section 5 describes the adverse effect that the McCarran amendment has had on the adjudication of Indian water rights leaving the Tribes with little protection. The Master Manual fails to provide any water right protection.

Some Tribes feel that Congress is the only available forum to bring equity and restore an economy lost over a century and a half before. Section 6 presents concepts directed at the development of an Indian economy. It is recognized that these concepts require refinement, debate and discussion; but legislative solutions fashioned along these lines can vastly improve the Indian economy while benefitting the region and the nation.

2. Brief Review of Master Manual on Indian Water Rights

The Master Manual provides the following general observations on impacts to the environmental and economic resources of all Tribes.

> *To "Finally, data specific to many of the basin Tribes will be presented. This effort was incorporated into this chapter as the Corps strives to better fulfill its Trust responsibilities to the Native American Tribes in the Missouri River basin."* (p. 5-1, RDEIS, emphasis supplied)

> *"Although the emphasis is on change in economic performance of each use, it is useful to note that of the total NED benefits, the largest portion of the benefits is provided by hydropower, followed by water supply, flood control, recreation, and navigation. Tribal benefits are discussed under each of the economic resources and are not accumulated here because Tribal benefits cannot be directly added for all the economic uses."* (p. 5-131, RDEIS)

> ***"5.16 SUMMARY OF IMPACTS OF SUBMITTED ALTERNATIVES TO NATIVE AMERICAN TRIBES***
>
> *The individual sections of this chapter discuss the impacts to the various environmental resources and economic uses analyzed for the Study on the 13 Tribal Reservations along the Mainstem Reservoir System and Lower River (see Figure 1.5-1 for locations). In the introduction to Chapter 5, readers were encouraged to consider the relative effects among the alternatives, not the absolute values presented for the various resources or uses. This section of Chapter 5 synopsizes the impacts in 12 tables, one for each Reservation except for the Iowa and Sac and Fox Reservations, for which impacts are addressed on a single table because individual tables for these two Reservations would be identical."* (p. 5-159, RDEIS)

2.1 Corps of Engineers' Analysis of Impacts on Standing Rock Indian Reservation

Each of the Indian reservations was analyzed in section 5.16 in a manner similar to the Standing Rock Indian Reservation for alternatives submitted by others than the Corps:

TABLE 1
(From Table 5.16-3)

STANDING ROCK INDIAN RESERVATION
IMPACT SUMMARY FOR SUBMITTED ALTERNATIVES
(Units are % Change)

Resource	MLDDA	ARNRC	MRBA	MODC	BIOP	FWS30
Wetland Habitat	80	21	-7	-35	-45	-22
Riparian Habitat	3	-38	3	1	-21	1
Tern and Plover Habitat	--	--	--	--	--	--
Reservoir Young Fish Production	5	-2	2	7	-1	1
Reservoir Coldwater Fish Habitat	-3	14	5	6	12	12
River Coldwater Fish Habitat	--	--	--	--	--	--
River Warm water Fish Habitat	--	--	--	--	--	--
Native River Fish Physical Habitat	--	--	--	--	--	--
Flood Control	40	-80	0	-20	-60	-16
Water Supply	-6	18	9	10	12	10
Hydropower	--	--	--	--	--	--
Recreation	2	10	7	7	5	10
Navigation	--	--	--	--	--	--
Historic Properties	2	-5	-2	-2	-4	-4

Missouri Levee and Drainage District Association	MLDDA
Missouri River Basin Association	MRBA
American Rivers and Missouri River Natural Resources Committee	ARNRC
Missouri Department of Conservation	MODC
U.S. Fish and Wildlife Service – Biological Opinion Alternative	BIOP
U.S. Fish and Wildlife Service – 30-kcfs Spring Rise Alternative	FWS30

Negative Impact
Positive Impact

and in section 7.16 for alternatives studied in detail:

TABLE 2
(From Table 5.16-3)

STANDING ROCK INDIAN RESERVATION
IMPACT SUMMARY FOR ALTERNATIVES SELECTED FOR DETAILED ANALYSIS
(Units are % Change)

Resource	MCP	GP1528	GP2021	GP1521	GP2028
Wetland Habitat	-10	-62	2	-40	-59
Riparian Habitat	2	5	-9	-14	1
Tern and Plover Habitat	--	--	--	--	--
Reservoir Young Fish Production	2	-3	0	2	2
Reservoir Coldwater Fish Habitat	6	8	10	10	7
River Coldwater Fish Habitat	--	--	--	--	--
River Warm water Fish Habitat	--	--	--	--	--
Native River Fish Physical Habita	--	--	--	--	--
Flood Control	-20	-20	-40	-40	-20
Water Supply	9	10	10	10	10
Hydropower	--	--	--	--	--
Recreation	7	12	7	7	12
Navigation	--	--	--	--	--
Historic Properties	-2	-5	-4	-4	-4

Modified Conservation Plan	MCP
Gavin's Point 15,000 cfs spring rise and 28,000 cfs navigation	GP1528
Gavin's Point 20,000 cfs spring rise and 21,000 cfs navigation	GP2021
Gavin's Point 15,000 cfs spring rise and 21,000 cfs navigation	GP1521
Gavin's Point 20,000 cfs spring rise and 28,000 cfs navigation	GP2028

It is respectfully submitted that the foregoing analysis, assuming some level of validity, which is denied, does not address any economic impact on the Tribe's resources or on the impact of the plan on the Tribe's water rights. Moreover, the validity of the plan is highly questionable. How, for example, could there be any change in flood control benefits on the Standing Rock Indian Reservation depending on alternative as given in Tables 1 and 2? The entire eastern side of the Reservation is bounded by Oahe Reservoir and no lands within the Reservation are dependent on the operation of the reservoir for flood control. The values for flood control in Tables 1 and 2 are meaningless.

2.2 Core of Engineers Basin-Wide National Economic Development

The national economic development (NED) benefits in millions of dollars are set out in Table 3 for "alternatives selected by others" and in Table 4 for "alternatives studied in detail":

TABLE 3
(From Table 5.16-3)

BASIN-WIDE
AVERAGE ANNUAL NATIONAL ECONOMIC DEVELOPMENT BENEFITS
(Units are million dollars)

Resource	CWCP	MLDDA	ARNRC	MRBA	MODC	BIOP	FWS30
Navigation	7.0	6.7	4.6	6.9	6.9	4.8	4.5
Recreation	84.7	85.2	87.1	88.0	87.7	86.6	87.7
Flood control	410.3	410.5	406.7	407.8	407.3	407.2	406.7
Water Supply	610.1	611.4	600.8	610.4	610.1	608.6	608.4
Hydropower	741.5	737.4	750.5	747.1	749.4	755.3	755.5
Total	1,853.6	1,851.2	1,849.7	1,860.2	1,861.4	1,862.5	1,862.8

Current Water Control Plan	CWCP
Modified Conservation Plan	MCP
Gavin's Point 15,000 cfs spring rise and 28,000 cfs navigation	GP1528
Gavin's Point 20,000 cfs spring rise and 21,000 cfs navigation	GP2021
Gavin's Point 15,000 cfs spring rise and 21,000 cfs navigation	GP1521
Gavin's Point 20,000 cfs spring rise and 28,000 cfs navigation	GP2028

Clearly, as analyzed by the Corps of Engineers, the alternatives with greatest national economic development (NED) benefits are GP1528 ($1.870 billion annually) and GP2028 ($1.868 billion annually).

With alternative GP1528, hydropower benefits are $759 million annually, the greatest ofall purposes. Water supply benefits are $611 million annually, and flood control benefits are $406 million annually. Recreation falls into a distant fourth place at $88 million annually, and navigation is the lowest of the benefits at $5.3 million annually.

TABLE 4
(From Table 7.13-1)

BASIN-WIDE
AVERAGE ANNUAL NATIONAL ECONOMIC DEVELOPMENT BENEFITS
(Units are million dollars)

Resource	CWCP	MCP	GP1528	GP2021	GP1521	GP2028
Navigation	7.0	6.9	5.3	4.7	4.8	5.3
Recreation	84.7	87.9	88.5	86.6	86.6	88.7
Flood control	410.3	408.0	405.8	407.7	406.3	405.4
Water Supply	610.1	610.4	611.1	608.5	608.6	611.0
Hydropower	741.5	747.4	758.8	754.8	755.4	758.0
Total	1,853.6	1,860.6	1,869.5	1,862.3	1,861.7	1,868.4

Current Water Control Plan	CWCP
Modified Conservation Plan	MCP
Gavin's Point 15,000 cfs spring rise and 28,000 cfs navigation	GP1528
Gavin's Point 20,000 cfs spring rise and 21,000 cfs navigation	GP2021
Gavin's Point 15,000 cfs spring rise and 21,000 cfs navigation	GP1521
Gavin's Point 20,000 cfs spring rise and 28,000 cfs navigation	GP2028

2.3 Corps of Engineers Depletion Analysis

The Corps of Engineers also conducted an analysis of the impact of future depletions (section 7.19). Data points were established for 0.8, 1.6, 2.4 and 3.2 million acre-feet of future depletion, whether stemming from Indian development or non-Indian development. The data points were then correlated with losses in national economic development (NED) benefits to determine economic losses for each one million acre-feet of future depletion. Table 5 presents the results.

TABLE 5
(From Table 7.13-1)

BASIN-WIDE
AVERAGE ANNUAL NATIONAL ECONOMIC DEVELOPMENT BENEFIT LOSSES
(million dollars per 1,000 acre-feet of annual depletion above current level)

Resource	CWCP	GP1528	GP2021
Navigation	-0.41	-0.35	-0.19
Recreation	-1.64	-1.26	-0.84
Flood control	1.74	2.20	1.99
Water Supply	-3.29	-2.74	-1.84
Hydropower	-16.49	-13.44	-15.07
Total	-20.09	-15.59	-15.95

Current Water Control Plan	CWCP
Modified Conservation Plan	MCP
Gavin's Point 15,000 cfs spring rise and 28,000 cfs navigation	GP1528
Gavin's Point 20,000 cfs spring rise and 21,000 cfs navigation	GP2021
Gavin's Point 15,000 cfs spring rise and 21,000 cfs navigation	GP1521
Gavin's Point 20,000 cfs spring rise and 28,000 cfs navigation	GP2028

It was determined, for example, that navigation benefits would total $7.0 million annually without any future depletion and would decline to $5.7 million annually with 3.2 million acre-feet of future depletion for the current water control plan (CWCP). Therefore, a decline of $1.3 million annually for 3.2 million acre-feet of future depletion is a decline of $406,000 annually (-$.41 million annually as given in Table 5).

The Corps of Engineers did not attempt to identify the sources of future depletion (Indian or non-Indian). However, in the tribal appendix (p. A.-4, A-7 Water Rights), the Corps of Engineers states that the depletion analysis "*...does provide some insight into the economic benefits of Missouri River water...*"

2.4 Corps of Engineers Trust Responsibility Allusions are Insincere

The treatment of Indian trust responsibility by the Corps of Engineers in the Master Manual is addressed in the tribal appendix as follows:

> "*...unless the law imposes a specific duty on the Federal government with respect to Native Americans, the trust responsibility may be discharged by the agency's compliance with general statutes and regulations not specifically aimed at protecting Tribes...*"

despite the language on p. 5-1 of the Master Manual cited in the first quotation to this section:

> "*This effort* [presentation of tribal data] *was incorporated into this chapter as the Corps strives to better fulfill its Trust responsibilities to the Native American Tribes in the Missouri River basin*"

There is a clear need to determine if the Corps of Engineers is denying or accepting a trust responsibility on the part of the agency where the governing statute is the 1944 Flood Control Act. It appears that the Corps of Engineers feels that presenting data describing impact on the Tribes, as part by NEPA but not required by the 1944 Flood Control Act, is the limit of the "trust responsibility."

The treatment of Indian water rights by the Corps of Engineers in the Master Manual is also addressed:

> "*Until such time as the Tribes quantify their water rights and consumptively withdraw their water from the Mainstem Reservoir System, the water is in the System. As a responsible public entity, the Corps must operate the System to reflect the fact that the water is in the System.*"

2.5 Summary of Corps of Engineers Failure to Address Impacts on Indian Water Rights

The Corps of Engineers has failed in the Master Manual to identify the impact of Corps alternatives on the water rights of the Tribes. The Tribes water rights are vested. They exist,

irrespective of the fact that they have not been quantified. The following are a list of factors not taken into account by the Corps of Engineers that impact on Indian water rights:

- The depletion analysis addresses future depletions up to 3.2 million acre-feet annually. The Tribes have not quantified their water rights or their water right claims, but the water requirements for the irrigable acreage of tribes in the Dakotas (not all acreage entitled to a water right) exceeds 13 million acre-feet annually with a depletion of approximately 7 million acre-feet annually. A single Tribe in Montana has a compact with the State for roughly one million acre-feet of water right and an unknown level of associated depletion. The Corps has not taken the level of future irrigation depletion into account for the Indian reservations on the Missouri River Basin.

- The Corps of Engineers has not taken into account additional depletions by non-Indian interests in the Missouri River. It is not possible to determine the portion of the 3.2 million acre-feet annually that is allocated to Indian and non-Indian depletions.

- The Corps of Engineers was able to relate economic impact to future depletions ranging from 0 to 3.2 million acre-feet annually. Yet, the Corps of Engineers found that it could not consider any data points that would bracket the future consumptive use of water by Indian tribes in the Missouri River Basin. If reasonable assumptions could be made with respect to the level of future depletions, it is clear that assumptions could also be made with respect to the contribution of Indian uses to those future levels of depletions.

- Analysis of impacts on future Indian *uses* does not provide any information master manual alternatives of the impacts on vested, unquantified Indian *water rights*. The Master Manual process will end with reliance on an operating plan for the Missouri River by a diverse group of interests adverse to quantification of significant amounts of water rights for Missouri River basin tribes. The Standing Rock Sioux Tribe has prepared a resolution in support of this statement. What protection does the Standing Rock Sioux Tribe have from those interests concerned with the greatest NED benefit (Table 5), namely hydropower? Those interests will rely on the water control plan adopted at the end of the Master Manual process and will oppose the quantification of Indian water rights of any magnitude (7.6 million acre-feet of depletion annually or 1 million acre-feet annually, for example) on the basis that hydropower benefits would be reduced by approximately $13 million annually for each one million acre-feet of Indian depletion aside from any non-Indian depletion. Similarly, the greatest opposition to a significant quantification of Indian water rights may come from those interests that rely on the water control plan for navigation irrespective of the fact that each million acre-feet of future depletion results in as little as $0.4 million in reduced annual NED benefit, according to the Corps of Engineers.

The Corps of Engineers is entirely silent on the "chilling effect" (or in NEPA terms, the impact) of a future water control plan on the future quantification of Indian water rights in a state court forum or in a congressionally authorized settlement, a chilling effect caused by the reliance of others on the benefits presented in the Master Manual. The Tribes will be fully prejudiced by the reliance of others on hydropower, water supply, recreation, navigation and environmental

maintenance or enhancement. On the other hand, if the Corps of Engineers had addressed the issue, Congress or other policymakers could take action to address the issue before reliance by others is placed on a new water control plan. This issue is ripe for consideration by the Council on Environmental Quality from a NEPA perspective. This issue is ripe for consideration by Congress from a vested property right perspective.

It is asserted here that the analysis of impacts in the Master Manual on Indian water rights is missing completely and the analysis of impacts on Indian resources is unquantifiable. It is based simply on percentages of enhancement or degradation, and there was no effort to identify economic impacts on the Tribes.

3. Dominion, History and Source of Title to Rights to Use of Water by Indian Tribes in the Missouri River, Its Tributaries and Its Aquifers.

In the narrative that follows, the tribes set out the history of their use and proprietorship of the lands, rivers and other resources of the Missouri River basin well before and during the initial encroachments by Americans of European descent. The favorable Indian law protecting the tribes' water rights through the 1960s is also presented. This view of our water rights is held by the Standing Rock and Oglala Sioux Tribes.

The changes in that favorable law that are removing all Indian protections for future adjudications, equitable settlements and damage claims for constitutional takings are also set out. The systematic approach and unwritten policy of the agencies of the United States to discount Indian water rights over the past century are described as well as the continuation of that approach and policy by the Corps of Engineers in the Master Manual Update.

The tribes cannot countenance the implementation of the Master Manual Update absent the proper, fair and equitable treatment of our water right claims. Because such treatment is not possible in the current atmosphere in the State Courts and in the federal agencies, the Tribes make a proposal for legislative action that would permit tribal participation in the economy of the Missouri River without resolving the magnitude and extent of the water rights of the Tribes and without prejudicing a future resolution. (See Section 7).

3.1 Early History to 1889

In 1803 when Lewis and Clark began to explore the Louisiana Purchase and use the Missouri River as their principal route of ingress and egress, the tribes held full dominion within the basin. They were the full possessors and owners of *...all Rivers belonging to the region and all the soil, plains, woods, mountains, marshes, lakes, with the fish and wildlife of every kind, within the said limits, all mines of whatsoever kind, and were invested with all the Rights, Jurisdictions, Privileges, Prerogatives, Liberties, Immunities, and Rights and Temporal Franchises whatsoever....* (see Kilty quote, p. 16, *infra)*

Then came the American Fur Company, the Rocky Mountain Fur Company and others. The wealth of the Missouri River basin was mined for the benefit of the worldwide beaver trade. The Indians were major participants in this industry and greatly assisted the beaver economy in

the 1820s through the 1840s. St. Louis became the gateway to the West, a major trading center, source of supply for the fur trade and home of the great fur companies whose beaver pelts drove a significant part of the national economy in these early years. The Indians interacted extremely well with the fur traders and mountain men and participated heavily in this economy. So taken with the Indian way of life were many, that they adopted Indian values even when returning to homelands as far away as Europe.

But by 1833 storm clouds rose over the fur trade. The world market was beginning to decline as felt was being manufactured from less expensive materials and silk was replacing beaver in the worldwide fashion industry. DeVoto reports that by the 1840s the big companies were living on buffalo robes and other trade, and the beaver were supplied primarily by small companies for manufacturing of coats and other apparel. (Devoto, *Across the Wide Missouri*).

The Missouri River was the principal trade route for the Indians and the trappers during these decades, and trading centers, such as Fort Pierre, Fort Union and Fort Benton brought some change in life style to the Indians and the region but not changes in dominion by the Tribes over the full extent of their ancestral lands and resources.

Trade brought tragedy in 1837 when smallpox invaded the Tribes, carried, at least in part, on the Missouri River vessel, *St. Peter's*. While Europeans had evolved with a degree of resistance to smallpox, the Indians had not been exposed during their North American evolution, and smallpox was devastating. Complete tribes and bands were virtually annihilated by the disease. The Mandans, for example, were reportedly reduced from 1,600 members to less than 100 members between summer 1837 and spring 1838. Others that survived did so by migrating in small bands to the hills to avoid contamination. Still, the Tribes maintained dominion over the basin of the Missouri River and its resources. The exact toll on population numbers and human suffering cannot be fully understood or appreciated. Smallpox combined with the loss of the buffalo, the mainstay of the traditional Indian economy, were to viciously devastate the Tribes for the remainder of the century.

The Louisiana Purchase west of Minnesota Territory was not open to white settlement until the passage of the Kansas-Nebraska Act in 1854. The area, then known as Nebraska Territory, was organized to include parts of present North and South Dakota, Montana, Wyoming, Nebraska and Colorado. The House passed a bill in early 1853 for the organization of Nebraska Territory. The bill contained no mention of slavery or the Missouri Compromise, and it was generally assumed that slavery would be forbidden north of 36 degrees 30 minutes as provided in the Missouri Compromise. The Senate failed to pass the measure. Southerners provided the opposition. But settlers were moving across the Missouri River into what had recently been called "permanent Indian country."[1]

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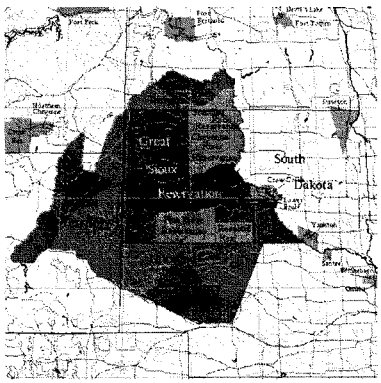
[1]Fehrenbacher, Don E., 1978, *The Dred Scott Case*, p. 179.

Stephen Douglas reported a bill on January 4, 1854, for the organization of Nebraska as a single large territory stretching from 36 degrees 30 minutes (the line dividing North from South on the slavery issue in the Missouri Compromise) to the Canadian boundary. The bill incorporated the slavery "nonintervention" provisions of the Utah and New Mexico territorial acts. The formation of Nebraska territory was designed by Douglas to favor his presidential candidacy and to secure southern votes in the elections of 1856. The rationale was that "nonintervention" by the federal government on the question of slavery or "popular sovereignty" by the territorial inhabitants was more favorable to the southern voters than "prohibition" of slavery north of the Missouri Compromise line, the rule that had operated since 1850. Nebraska territory, as proposed by Douglas, would greatly extend the area of future settlement to the north of the Missouri Compromise where, through "nonintervention" the inhabitants would be permitted, not Congress, to decide the slavery question. To permit inhabitants to decide the slavery question, required inhabitants; and settlement was encouraged in the Missouri River basin, known to some as the "Great American Desert." Encroachment on the dominion of the Missouri River basin Tribes was, for the first time, beginning on a large-scale. The transient trappers and missionaries were being replaced by permanent settlers.

Also, a factor impacting the dominion of the Tribes in the Missouri River basin was the decision to locate a Pacific Railroad north of the Missouri Compromise line rather than to the south. The Union Pacific would be built into Omaha although the decision to build would be several years in the future.

It was now time for protection against the Indians. The 1851 treaty at Fort Laramie (1) established a territory of each of the tribes in the Missouri River basin, (2) provided for the construction of roads by the United States through the area, (3) called for the end of depredations upon white settlers by the Indians and (4) compensated the Tribes for damages in recognition of their dominion over their lands and resources. The area provided for the Sioux, covering parts of five states, is shown on the following map.



By 1868, the Territory of the Sioux was significantly diminished by Treaty establishing he Great Sioux Reservation as shown by the map above. The Great Sioux Reservation "...set ıpart [the lands, resources and continued dominion over the lands] for the absolute and ındisturbed use and occupation..." of the Indians. With the enabling of South Dakota as a state n 1889, the Great Sioux Reservation was diminished by act of Congress to the boundaries of 'eservations shown on the map in South Dakota.

These lands were set aside as a "permanent homeland." Within these boundaries, subject o further acts of Congress as may apply, the Tribes of the said reservations have undiminished itle and retain *...all Rivers belonging to the region and all the soil, plains, woods, mountains, marshes, lakes, vith the fish and wildlife of every kind, within the said limits, all mines of whatsoever kind, and were invested with ıll the Rights, Jurisdictions, Privileges, Prerogatives, Liberties, Immunities, and Rights and Temporal Franchises vhatsoever....*within the present boundaries.

3.2 Character of Claims to Indian Water Rights within 1889 Reservation Boundarie

Table 6 is not endorsed by any Indian Tribe individually or collectively. No Tribe ıntends to make a claim to waters of the Missouri River, its tributaries or its aquifers as part of :his document.

Without input or participation by the Tribes, the Bureau of Indian Affairs funded the development of a report entitled "Missouri River Basin Water Supply and Water Requirements of United Sioux Indian Reservations" dated February 1979. Table 6 is taken from p. 3-2 of that document and is presented here as a measure of the collective magnitude of claims that could potentially be made by Tribes to the waters of the Missouri River, its tributaries and its aquifers based upon the land-base within the diminished reservation boundaries where dominion over retained lands and resources has continued with unbroken chain of title.

In addition to water requirements for irrigation, the tribes have valid claims to water for municipal, rural and industrial; livestock; minerals; hydropower; environmental; cultural and all

TABLE 6

SUMMARY OF IRRIGATION WATER REQUIREMENTS
FOR SIOUX INDIAN RESERVATIONS

Reservation	Unit Water Requirement (af per acre)	Total Irrigable Acreage	Irrigation Water Requirement (af per year)
Standing Rock	4.35	303,650	1,320,878
Lower Brule	4.94	38,246	188,935
Spirit Lake	3.94	142,465	561,312
Flandreau	4.13	2179	8,999
Rosebud	4.85	445,474	2,160,549
Santee	4.68	31,822	148,927
Crow Creek	4.94	81,561	402,911
Pine Ridge	4.51	670,549	3,024,176
Cheyenne	4.80	377,860	1,813,728
Sisseton	4.25	605,902	2,575,084
Yankton	4.68	273,023	1,277,748
Total	4.54	2,972,731	13,483,246

other purposes consistent with the arts of civilization. When combined with irrigation claims, the accumulated totals could exceed 14 million acre-feet annually as contrasted with the natural flow of the Missouri River at Sioux City, Iowa, of 28 million acre-feet annually. Table 6 clearly demonstrates a significant potential claim to water by Indian tribes within the existing reservation boundaries. Not included are additional claims for water in the 1851 and 1868 Treaty areas outside the 1889 boundaries of the respective Reservations. It should be noted that the values presented in Table 6 do not include all Indian reservations within the Missouri River basin, but only selected reservations in North and South Dakota. The nature of our claim is presented in the following narrative.

The right of the Crown of Great Britain to the territory of North America was derived from the discovery of that continent by Sebastian Cabot, who in 1498 explored a greater part of the Atlantic Coast under a Commission from King Henry VII and took formal possession of the continent as he sailed along the coast. Those commissioned by the Crown to settle in North America were cognizant of the rights, titles and interests of the original possessors. In the proprietary of Maryland, granted to George Calvert, Lord Baltimore, in 1632, for example, it was recognized by English law evolving over a period of 1,500 years prior to the discovery of America that the rights of the ancient possessors were specific and could not be ignored by a just occupier. The following was the rationale:

> *The roving of the erratic tribes over wide extended deserts does not form a possession which excludes the subsequent occupancy of immigrants from countries overstocked with inhabitants. The paucity of their numbers in their mode of life, render them unable to fulfill the great purposes of the grant [by the King to the Proprietary of Maryland]. Consistent, therefore, with the great Charter to mankind, they (Tribes) may be confined within certain limits. Their rights to the privileges of man nevertheless continue the same: and the Colonists who conciliated the affections of the aborigines, and gave a consideration for their territory, have acquired the praise due to humanity and justice. Nations, with respect to the several communities of the earth, possessing all the rights of man, since they are aggregates of man, are governed by similar rules of action. Upon those principles was founded the right of emigration of old: upon those principles the Phenicians and Greeks and Carthagenians settled Colonies in the wilds of the earth.... In a work treating expressly of original titles to Land it has been thought not amiss to explain... the manner in which an individual obtaining from his Sovereign an exclusive licence, with his own means, to lead out and plant a Colony in a region of which that Sovereign had no possession, proceeded to avail himself of the privilege or grant, and to reconcile or subject to his views the people occupying and claiming by natural right that Country so bestowed... in particular, an history, already referred to, of the Americans settlements, written in 1671, after speaking of the acquisition of St. Mary's continues 'and it hath been the general practice of his Lordship and those who were employed by him in the planting of the said province, rather to purchase the natives' interest... than to take from them by force that which they seem to call their right and inheritance, to the end all disputes might be removed touching the forcible encroachment upon others, against the Law of nature or nations... When the earth was the general property of mankind, mere occupancy conferred on the possessor such an interest as it would have been unjust, because contrary to the Law of Nature, to take from him without his consent: and this state has been happily compared to a theatre, common to all; but the individual, having appropriated a place, acquires a privilege of which he cannot be dispossessed without injustice'. ... the Grant [to Lord Baltimore] comprehended 'all Islands and Islets within the limits aforesaid, and all Islands and etc. within ten marine leagues of the Eastern Shore, with all Ports, Harbors, Bays, Rivers, and Straits, belonging to the region or Islands aforesaid, and all the soil, plains, woods, mountains, marshes, Lakes, Rivers, Days, and Straits, with the fishing of every kind, within the said limits'; all mines of whatsoever kind, and patronage and advowson of all Churches. Lord Baltimore ... was invested with all the Rights, Jurisdictions,*

Privileges, Prerogatives, Royalties, Liberties, Immunities, and Royal Rights and Temporal Franchises whatsoever, as well by sea as by land, within the Region, Islands, Islets, and limits aforesaid...(Source: John Kilty. *Land Holder's Assistant and Land Office Guide.* Baltimore: G. Dobbin & Murphy, 1808. MSA SC 5165-1-1). and;

The Proclamation of 1763 by King George III was consistent with the foregoing and recognized title to the land and resources reserved by the American Indians of no lesser character or extent than the Charter to Lord Baltimore:

And whereas it is just and reasonable, and essential to our Interest, and the Security of our Colonies, that the several Nations or Tribes of Indians with whom We are connected, and who live under our Protection, should not be molested or disturbed in the Possession of such Parts of Our Dominions and Territories as, not having been ceded to or purchased by Us, are reserved to them, or any of them, as their Hunting Grounds -- We do therefore, with the Advice of our Privy Council, declare it to be our Royal Will and Pleasure, that no... Governor or Commander in Chief in any of our other Colonies or Plantations in America do presume for the present, and until our further Pleasure be known, to grant Warrants of Survey, or pass Patents for any Lands beyond the Heads or Sources of any of the Rivers which fall into the Atlantic Ocean from the West and North West, or upon any Lands whatever, which, not having been ceded to or purchased by Us as aforesaid, are reserved to the said Indians, or any of them. And We do further declare it to be Our Royal Will and Pleasure, for the present as aforesaid, to reserve under our Sovereignty, Protection, and Dominion, for the use of the said Indians, ... all the Lands and Territories lying to the Westward of the Sources of the Rivers which fall into the Sea from the West and North West as aforesaid. And We do hereby strictly forbid, on Pain of our Displeasure, all our loving Subjects from making any Purchases or Settlements whatever, or taking Possession of any of the Lands above reserved, without our especial leave and Licence for that Purpose first obtained. And We do further strictly enjoin and require all Persons whatever who have either wilfully or inadvertently seated themselves upon any Lands within the Countries above described. or upon any other Lands which, not having been ceded to or purchased by Us, are still reserved to the said Indians as aforesaid, forthwith to remove themselves from such Settlements. And whereas great Frauds and Abuses have been committed in purchasing Lands of the Indians, to the great Prejudice of our Interests. and to the great Dissatisfaction of the said Indians: In order, therefore, to prevent such Irregularities for the future, and to the end that the Indians may be convinced of our Justice and determined Resolution to remove all reasonable Cause of Discontent, We do, with the Advice of our Privy Council strictly enjoin and require, that no private Person do presume to make any purchase from the said Indians of any Lands reserved to the said Indians, within those parts of our Colonies where We have thought proper to allow Settlement: but that, if at any Time any of the Said Indians should be inclined to dispose of the said Lands, the same shall be Purchased only for Us, in our Name, at some public Meeting or Assembly of the said Indians, to be held for that Purpose by the Governor or Commander in Chief of our Colony respectively within which they shall lie: and in case they shall lie within the limits of any Proprietary Government, they shall be purchased only for the Use and in the name of such Proprietaries, conformable to such Directions and Instructions as We or they shall think proper to give for that Purpose....

Given at our Court at St. James's the 7th Day of October 1763, in the Third Year of our Reign.

After the American Revolution and consistent with the foregoing, the United States Supreme Court by 1832 relied upon the ancient concepts of its predecessor Great Britain and recognized the property rights of Indians in the classical case of *Worcester v. the State of Georgia:*

America, separated from Europe by a wide ocean, was inhabited by a distinct people, divided into separate nations, independent of each other and of the rest of the world, having institutions of

their own and governing themselves by their own laws. It is difficult to comprehend the proposition, that the inhabitants of either quarter of the globe could have rightful original claims of dominion over the inhabitants of the other, or over the lands they occupied; or that the discovery of either by the other should give the discoverer rights in the country discovered, which annulled the pre-existing rights of its ancient possessors. (6 P 515, p. 543)

... This principle, acknowledged by all Europeans, because it was the interest of all to acknowledge it, gave to the nation making the discovery, as its inevitable consequence, the sole right of acquiring the soil and making settlements on it. It was an exclusive principle which shut out the right of competition among those who had agreed to it; not one which could annul the previous rights of those who had not agreed to it. It regulated the right given by discovery among the European discovers; but could not affect the rights of those already in possession, either as aboriginal occupants, or as occupants by virtue of a discovery made before the memory of man.....

... This soil was occupied by numerous and warlike nations, equally willing and able to defend their possessions. The extravagant and absurd idea, that the feeble settlements made on the sea-coast, or the companies under whom they were made, acquired legitimate power by them to govern the people, or occupy the lands from sea to sea, did not enter the mind of any man. They were well understood to convey the title which, according to the common law of European sovereigns respecting America, they might rightfully convey, and no more. This was the exclusive right of purchasing such lands as the natives were willing to sell. The Crown could not be understood to grant what the Crown did not effect to claim; nor was it so understood.
(6 P 515, p. 544-545) (Emphasis supplied); and

The principles in the case of *Worcester v. Georgia* are ancient as shown above and are the foundation of the principles announced by the U. S. Supreme Court three quarters of a century later relating to the Yakima Indian Nation in the case of *United States v. Winans (198 U.S.* 371). Title of the Indians in their property rights was fully acknowledged, and the Treaty was interpreted as a grant of property to the United States in the area not reserved by the Tribe to itself.

The right to resort to the fishing places in controversy was a part of larger rights possessed by the Indians, upon the exercise of which there was not a shadow of impediment, and which were not less necessary to the existence of the Indians than the atmosphere they breathed. New conditions came into existence, to which those rights had to be accommodated. Only a limitation of them, however, was necessary and intended, not a taking away. In other words the Treaty was not a grant of rights to the Indians, but a grant of rights from them - a reservation of those not granted.
(Emphasis supplied); and

The U. S. Supreme Court case of *Henry Winters v. United States* (207 US 564) found that reservation of water for the purposes of civilization was implied in the establishment of the Reservations:

The Reservation was a part of a very much larger tract which the Indians had the right to occupy and use and which was adequate for the habits and wants of a nomadic and uncivilized people. It was the policy of the Government, it was the desire of the Indians, to change those habits and to become a pastoral and civilized people. If they should become such the original tract was too extensive, but a smaller tract would be adequate with a change of conditions. The lands were arid and, without irrigation, were practically valueless.

... That the Government did reserve them we have decided, and for a use which would be necessarily continued through years. This was done May 1, 1888, [at Fort Belknap] and it would

be extreme to believe that within a year later [when the state of Montana was created] Congress destroyed the Reservation and took from the Indians the consideration of their grant, leaving them a barren waste - took from them the means of continuing their old habits, yet did not leave them the power to change to new ones." (207 U S 574, p. 576 577); and

The case of *United States v. Ahtanum Irrigation District* (236 Fed 2nd 321, 1956) applied the *Worcester-Winans-Winters* concepts on Ahtanum Creek, tributary to the Yakima River and northern boundary of the Yakima Indian Reservation:

The record here shows that an award of sufficient water to irrigate the lands served by the Ahtanum Indian irrigation project system as contemplated in the year 1915 would take substantially all of the waters of Ahtanum Creek. It does not appear that the waters decreed to the Indians in the Winters case operated to exhaust the entire flow of the Milk River, but, if so, that is merely the consequence of it being a larger stream. As the Winters case, both here and in the Supreme Court, shows, the Indians were awarded the paramount right regardless of the quantity remaining for the use of white settlers. Our Conrad Inv. Co. Case, supra, held that what the non-Indian appropriators may have is only the excess over and above the amounts reserved for the Indians. It is plain that if the amount awarded the United States for the benefit of the Indians in the Winters Case equaled the entire flow of the Milk River, the decree would have been no different. (236 F. 2nd 321, p. 327) (Emphasis supplied); and

These concepts were further advanced in *Arizona v California*, 373 U.S. 546, 596-601 (1963):

The Master found as a matter of fact and law that when the United States created these reservations or added to them, it reserved not only land but also the use of enough water from the Colorado [River] to irrigate the irrigable portions of the reserved lands. The aggregate quantity of water which the Master held was reserved for all the reservations is about 1,000,000 acre-feet to be used on around 135,000 irrigable acres of land....

It is impossible to believe that when Congress created the Great Colorado River Indian reservation and when the Executive Department of this Nation created the other reservations they were unaware that most of the lands were of desert kind -- hot scorching sands -- and the water from the River would be essential to the life of the Indian people and to the animals they hunted and crops they raised. We follow it [Winters] now and agree that the United States did reserve the water rights for the Indians effective as of the time Indian Reservations were created. This means, as the Master held, that these water rights, having vested before the Act [Boulder Canyon Project Act] became effective on June 25, 1929, are present perfected rights and as such are entitled to priority under the Act. We also agree with the Master's conclusion as to the quantity intended to be reserved. He found that water was intended to satisfy the future as well as present needs of the Indian reservations.... We have concluded, as did the Master, that the only feasible and fair way by which reserved water for the reservations can be measured is irrigable acreage. The various acreage of irrigable land which the Master found to be on the different reservations we find to be reasonable.

4. The Missouri River Master Manual Review and Update Expressly Fails to Consider Indian Water Rights and Perpetuates the Long-Standing Policy to Not Develop Indian Water for the Benefit of the Indians

The United States Army Corps of Engineers makes the following statement describing how the Corps fails to recognize or consider Indian water rights in its Master Water Control Manual for the future operation of the Missouri River, thereby committing Missouri River water to operational priorities and creating an insurmountable burden for the future exercise of the rights to the use of water by the Tribes as reserved from time immemorial:

> *The Missouri River basin Indian tribes are currently in various stages of quantifying their potential future uses of Mainstem System water. It is recognized that these Indian tribes may be entitled to certain reserved or aboriginal Indian water rights in streams running through and along reservations. Currently, such reserved or aboriginal rights of tribal reservations have not been quantified in an appropriate legal forum or by compact with three exceptions.... The Study considered only existing consumptive uses and depletions; therefore, no potential tribal water rights were considered. Future modifications to system operation, in accordance with pertinent legal requirements, will be considered as tribal water rights are quantified in accordance with applicable law and actually put to use. Thus, while existing depletions are being considered, the Study process does not prejudice any reserved or aboriginal Indian water rights of the Missouri River basin Tribes.* (PDEIS 3-64).

The United States, acting through the Corps and with the acquiescence of the Secretary of Interior and the Department of Justice, fails to recognize or properly consider the vested rights of the Tribes, which serves the purpose of making irretrievable commitments to (1) navigation in the lower basin, (2) maintenance of reservoir levels in the upper basin and (3) fish, wildlife and endangered species throughout the upper and lower basins. These commitments are violations of the constitutional, civil, human and property rights of the Tribes and are a continued encroachment on the Tribes' dominion over their lands and resources included in the litany of events described above and beginning in 1803.

We now briefly review the Post-WWII policy adopted by the Bureau of Reclamation and the Corps of Engineers in carrying forward the provisions of the Pick-Sloan plan approved by Congress in the 1944 Flood Control Act..

On the Standing Rock Indian Reservation, the Pick Sloan Plan contemplated the development of the Grand River:

> *Although 66,680 acres in the Grand River basin in South Dakota was found to be adapted to irrigation, full regulation of the water supply will permit development of only 28,500 acres, which will be accomplished by creating the Shadehill Reservoir of a capacity of 134,000 acre-feet, and by serving 13,000 acres by a gravity canal diverting from the river at the reservoir. Return flow from land irrigated with water from this reservoir will be picked up in the Blue Horse Reservoir some 28 miles downstream, where a capacity of 50,000 acre-feet will be provided to serve 16,500 acres of land and 46 smaller pumping units, ranging from 85 -- 1,285 acres each. Much of the land below the Blue Horse Reservoir is within the Standing Rock Indian Reservation, and is owned by Indians, while practically all of the land above the Blue Horse Reservoir is in private white ownership.* (Senate Doc. 191, p. 76).

The Bureau of Reclamation constructed the Shadehill Irrigation Project, but no Indian land was ever developed within the Standing Rock Indian Reservation. In connection with the Shadehill project, the Indian Service wrote as follows at the time of the project implementation:

> *Under the authorities, the waters involved in the cases arising from interference with waters on, bounding, or flowing through Indian reservations are not open to appropriation by individuals to the detriment of the Indian wards of the United States who may require such for agricultural and domestic uses, even though there is no present great water use because of the failure of the trustee, the United States, to foster or permit irrigation on or for the Indian lands ... the Indian lands on the Standing Rock Reservation, state of South Dakota, enjoy prior reserved rights for the use of the waters of the Grand River and its tributaries for (1) the lands in Tribal ownership and (2) allotted lands. This property right was retained by the provisions on the Treaty of April 29, 1868 ..., subsequent acts of Congress and in proclamations of the President of the United States which further defined the area of the Standing Rock Sioux Tribe...* (Walter J. Turnbull, February 10, 1949, U.S. Bureau of Indian Affairs, Billings, Montana).

Following the building at Shadehill, the U.S. Army Corps of Engineers built the Bowman-Haley project with a capacity of 93,000 acre-feet on the North Fork of the Grand River (1966). The project followed 60 years of investigation by the Bureau of Reclamation and Corps of Engineers and was intended to irrigate 2,200 to 8,000 acres. This project further encroached on the physical capability of the Standing Rock Sioux Tribe to develop irrigation within the Reservation, irrespective of the Tribes prior and superior water rights.

Numerous other examples of encroachment on the water rights of the Indian tribes in the Missouri River basin can be cited. The Pine Ridge Indian Reservation in the southwest corner of South Dakota relies upon the White and Cheyenne Rivers as sources of *Winters* doctrine rights to the use of water. However, the Whitney Irrigation Project has dominated the flows of the White River since the 1920s. The Bureau of Reclamation wrote as follows in 1968:

> *All of the water resources of the White River arising in Nebraska have already been utilized by the Whitney Irrigation District, an area of some 10,000 acres, served by an inland reservoir of 15,000 acre-foot capacity. A supply canal for this reservoir diverts a spring flow in the White River, which is markedly uniform throughout the year. In South Dakota, the remaining watershed produces an exceedingly erratic run-off, with high discharges from summer rain storms, which fall on the prairie area and on a large area of shale badlands, that produce quick and heavily silt-laden run-off. A reservoir of 70,000 acre-foot capacity at the Rocky Ford site* [Pine Ridge Indian Reservation] *about 25 miles upstream from the town of Interior, will furnish an adequate water supply for 42,000 acres of small units, scattered from the reservoir site to the mouth of the river, all of which must be served by pumps. Power to operate pumps will be imported into the basin. The available water supply will serve less than half of the area of land in the basin which is adapted to irrigation.* (Senate Doc. 191, p. 78).

Thus, it was well-known by the Bureau of Reclamation and Corps of Engineers as they developed the Pick Sloan Plan that the prior and superior water rights of the Oglala Sioux Tribe of the Pine Ridge Indian Reservation were adversely impacted by the Whitney Irrigation Project and that a physical solution was possible by building the Rocky Ford Dam and irrigating Indian land within the Pine Ridge Indian Reservation. Subsequent investigations by the Bureau of Reclamation identified the Slim Butte Reservoir as an alternative storage site. Reclamation described that project as compatible with the present level of water resources development in Nebraska, immediately south of the boundary of the Pine Ridge Indian Reservation. As late as

1977 the Bureau of Reclamation acknowledged the prior and superior rights of the Oglala Sioux Tribe but proceeded nevertheless to assist, financially and otherwise, the Whitney irrigation Project with rehabilitation and upgrading of its facilities:

> *On September 13, 1973, the regional loan engineer and chief, water and land of the Missouri-Oahe Project office, met with members of the District, board members and District's Attorney to discuss the potential project. Representatives on the Fish & Wildlife Service, Soil Conservation Service, and Nebraska Department of Water Resources participated in the meeting. Based on discussions with the Bureau, the District subsequently requested the Bureau for an opinion on the water rights of the Whitney irrigation district, particularly with respect to the downstream Indian Reservation.* (Bureau of Reclamation, 1977).

> *Please be advised that we have examined the report* [of the Whitney Irrigation District] *and believe it to be legally sufficient. The sponsor is an irrigation district organized, qualified, and under State law to, among other things, enter into contracts with the United States, acquire lands and interest in lands and hold water rights.* (Bureau of Reclamation, 1977).

The governor of Nebraska, on January 10, 1977, confirmed that the State of Nebraska recognized the water rights on the Whitney Irrigation District:

> *The application for a Small Reclamation Project Loan submitted by the Whitney Irrigation District appears to be financially feasible. In addition, water rights claimed by the applicant are adequate and valid. Therefore, I would recommend that the loan application of the Whitney Irrigation District be forwarded to the Secretary of the Interior for consideration.* (Exxon, 1977).

It is clear that the United States knew that the Whitney Irrigation Project dominated the dependable water supplies of the White River and that additional storage facilities were needed (with upstream diversion by the Whitney Irrigation Project) on the Pine Ridge Indian Reservation to accomplish irrigation using the water rights retained and held by the Oglala Sioux Tribe. Nevertheless, the United States did not proceed to resolve the water right conflict between the Oglalas and the claimants to the water rights of the Whitney Irrigation District. Reclamation assisted the District as recently as 1977 in the rehabilitation of its project. Both the Oglala Sioux and the Rosebud Sioux tribes remained affected by the Whitney Irrigation Project and the actions of the United States respecting the White River.

The plans for the development of the Cheyenne River in the Pick Sloan Plan were as follows:

> *... Cheyenne River is the largest tributary of the Missouri in South Dakota... one other Reclamation Project has been authorized, namely the Angostura project in the southwest part of the Cheyenne River watershed, whereby the construction of Angostura Reservoir with a capacity of 160,000 acre-feet water can be supplied by gravity to a 16,000 acre project in the vicinity of Hot Springs, South Dakota, and to 25,300 acres in 49 scattered pumping units along the lower reaches of the River...* (Senate Doc. 191, p. 76).

The Cheyenne River is a source of Indian water rights of the Oglala Sioux Tribe of the Pine Ridge Indian Reservation and the Cheyenne River Sioux Tribe of the Cheyenne River Indian Reservation. Despite the potential for Indian development identified in the Pick Sloan Plan for the Pine Ridge and Cheyenne River Indian reservations, the Angostura project was

constructed exclusively on non-Indian lands, upstream from both the Pine Ridge and Cheyenne River reservations.

For the past century there has been a consistent pattern of developing Bureau of Reclamation projects throughout the Missouri River basin that rely upon Indian land and water. The physical supplies available to the Tribes (both quantity and quality) have been diminished to the point that they are presently unusable in some instances by the Tribes. Currently, the Indian tribes of the Missouri River basin, particularly in Montana and Wyoming are being required to adjudicate their water rights in hostile State Courts. These adjudications are for the purpose of confirming that the Bureau of Reclamation and private irrigation projects can continue at their present level of development without interference by the Tribes. Technical criteria have been developed by the United States Departments of Justice and Interior that place unworkable barriers on the Tribes in State/McCarran Amendment adjudications. At no time has the Bureau of Reclamation or the Corps of Engineers been required to face the burdens of proof imposed by the criteria developed by the Departments of justice and Interior for justifying non-Indian projects.

In North and South Dakota there was a considerable taking of Indian land for building the mainstem dams required by the Pick Sloan plan. All of the main stem reservoirs in North and South Dakota, Lake Sakakawea, Lake Oahe, Lake Sharpe, Lake Francis Case and Lewis and Clark Lake, are bordered, in part, by Indian reservations. The affected reservations from upstream to downstream include Fort Berthold, Standing Rock, Cheyenne River, Lower Brule, Crow Creek, Yankton, Rosebud and Santee. The 1868 Treaty established the east bank of the Missouri River as the eastern boundary of the Great Sioux Reservation. This underscored the importance of the Missouri River to the Sioux Tribes. They wanted their Reservation to embrace the full channel of the River at a time when common practice would have set the boundary at the middle of the River or the western bank. When gold was discovered in the Black Hills after the Treaty of 1868, the United States lost interest in preserving the "permanancy" of the Great Sioux Reservation promised by the Treaty of 1868:

> *... the United States agrees that the following District of Country... shall be... set apart for the absolute and undisturbed use and occupation of the Indians herein named....* (Kappler, 1904, quoted from 1868 Treaty establishing the Great Sioux Reservation, p. 998).

The division of the Great Sioux Reservation into nine smaller parts by the 1889 acts of Congress, included the above named reservations.

While the Tribes contemplated development of parts of their retained resources (title to which was unbroken) as authorized by the Pick Sloan plan, they were quickly disappointed. The Summary Forward of the Pick Sloan Plan provided that all planning would be coordinated, and such planning necessarily required consideration of the Tribes' rights to the use of water, but no such coordination was undertaken; and, as shown, there was a studied avoidance to address Indian water rights. To the contrary Indian lands were taken for the construction of the dams and reservoirs needed for the Pick Sloan plan, and the nine foot navigation channel below Sioux City was constructed across the reservations of the Omahas and the Winnebagos. The Bureau of

Reclamation and Corps of Engineers proceeded to develop non-Indian projects as previously described. A total of 349,566 acres of Indian land were taken by subsequent acts of Congress to build the main stem reservoirs in North and South Dakota. This included 55,994 acres taken on the Standing Rock Indian Reservation. The taking acts were dated from 1949 through 1962. The taking of Indian lands amounted to 23% of the total 1,499,759 project acres required for the dams and reservoirs.

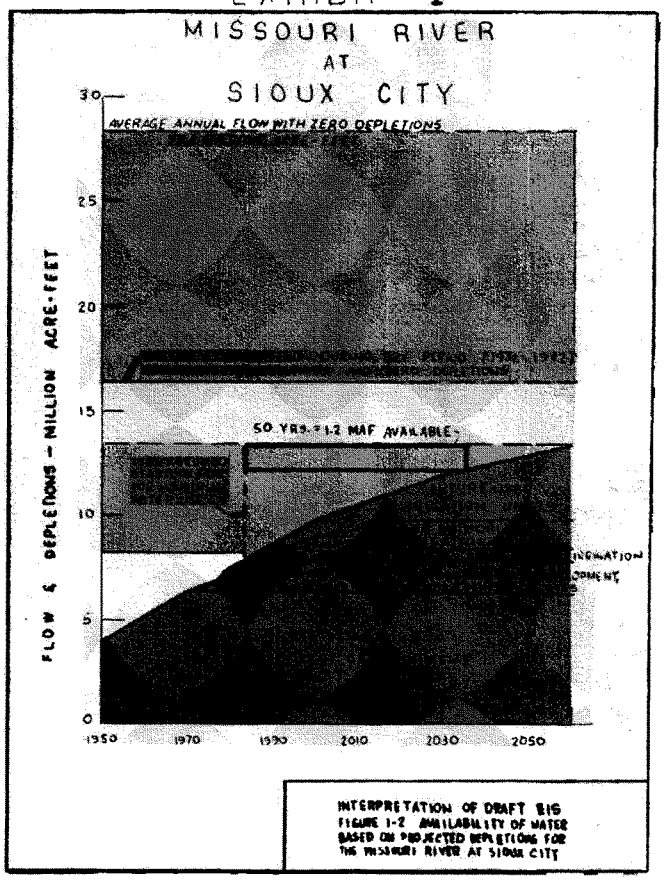
It was shown in Table 6 and the accompanying narrative that the Tribes can present a valid and dignified claim for Missouri River water based on an unbroken chain of title and stemming from their original dominion over all the lands, rivers and resources of the basin of 14 million acre-feet annually from a natural flow of the Missouri River at Sioux City, Iowa, of 28 million acre-feet annually. To further demonstrate that the policy of the Corps of Engineers in the Master Manual Update is long-standing, Exhibit 1 is presented to display the conclusions of the Secretary a Interior in concert with the Corps of Engineers in the mid-1970s when the Secretary was proposing to market 1 million acre-feet annually to the states of Montana, North Dakota and South Dakota for industrial purposes, namely the development of coal. The Draft Environmental Impact Statement on water marketing provides the source of information for Exhibit 1. The purpose of the analysis by the Bureau of Reclamation on behalf of the Secretary was to show that for 50 years into the future, there would be a surplus of water in the Missouri River totaling 1.2 million acre-feet annually and, therefore, the Secretary could market the 1.0 million acre-feet proposed.

Exhibit 1 shows the average annual flow with zero depletions (natural flow) at Sioux City, Iowa, at 28 million acre-feet annually. It also shows that the average annual flow during the historic severe drought (1931-1942) with existing reservoirs and zero depletions would be 16 million acre-feet annually. The Corps of Engineers provided the Bureau of Reclamation with its modeling results of the Missouri River mainstem reservoirs to arrive at the available water supply during the 1931-1942 drought years.

In the bottom half of the exhibit (green shading), historic depletions to the 1970 level of development were given at approximately 7.0 million acre-feet annually. Beyond 1970 levels of depletion to year 2060, the Bureau of Reclamation concluded that depletions would grow based on (1) future Bureau of Reclamation irrigation (not authorized by Pick Sloan); (2) Bureau of Reclamation irrigation (authorized by Pick Sloan); (3) private, state and Indian irrigation development; and (4) municipal, domestic, watershed, fish and wildlife, stock ponds and other miscellaneous uses. These future uses would increase depletions from 7 million acre-feet annually in 1970 to approximately 14 million acre-feet annually through year 2060.

But the telling feature of the Bureau of Reclamation conclusions was that Indian irrigation development would be included in a category of future irrigation development involving private and state interests, all of which would limited to less than 500,000 acre-feet annually. The Bureau of Reclamation was clearly ignoring Indian water rights in the Missouri River basin and concluding that those rights would not result in the development of more than

EXHIBIT 1



WATER NOT AVAILABLE ON SUSTAINED BASIS

SURPLUS

WATER AVAILABLE FOR MARKETING FROM PICK-SLOAN

HISTORIC & FUTURE DEPLETION

some undefined share of a 500,000 acre-feet block of water logically dominated by state and private interests. So frequent is the consistent treatment of Indian water rights by the agencies of the Secretaries of Interior and Defense that an unwritten policy to suppress and diminish Indian water rights clearly emerges.

5. Nature of National Attacks on Indian Water Rights in the Missouri River

Notwithstanding the favorable decisions of the United States Supreme Court, in practice, Congress, the executive branch and the judiciary have (1) limited Indian reserved water rights, (2) suppressed development of Indian reserved water rights, and (3) permitted reliance by state, federal, environmental and private interests on Indian water, contrary to trust obligations. The federal policy has clearly been .. *how best to transfer Indian lands and resources to non-Indians*... rather than to preserve, protect, develop and utilize those resources for the benefits of the Indians.

> *With an opportunity to study the history of the Winters rule as it has stood now for nearly 50 years, we can readily perceive that the Secretary of the Interior, in acting as he did, improvidently bargained away extremely valuable rights belonging to the Indians.... viewing this contract as an improvident disposal of three quarters of that which justly belonged to the Indians, it cannot be said to be out of character with the sort of thing which Congress and the Department of the Interior has been doing throughout the sad history of the Government's dealings with the Indians and Indian tribes. That history largely supports the statement: From the very beginnings of this nation, the chief issue around which federal Indian policy has revolved has been, not how to assimilate the Indian nations whose lands we usurped, but how best to transfer Indian lands and resources to non-Indians.* (*United States v Ahtanum Irrigation District*, 236 F. 2nd 321, 337)

The McCarran Amendment interpretation by the United States Supreme Court, if not in error, is a further example of the contemporary attack on Indian water rights. The discussion of the McCarran Amendment here is intended to show why tribes are (1) opposed to state court adjudications and (2) negotiated settlements under the threat of state court adjudication. In 1952 the McCarran Amendment, 43 U.S.C. 666 (a), was enacted as follows:

> *Consent is given to join the United States as a defendant in any suit (1) for the adjudication of rights to the use of water of a River system or other source, or (2) for the administration of such rights, where it appears that the United States is the owner or in the process of acquiring water rights by appropriation under State law, by purchase, by exchange or otherwise, and the United States is a necessary party to such suit.*

The McCarran Amendment has been interpreted by the U.S. Supreme Court to require the adjudication of Indian water rights in state courts. *Arizona v San Carlos Apache Tribe*, 463 U.S. 545, 564, 573 (1981) held:

> *We are convinced that, whatever limitation the Enabling Acts or federal policy may have originally placed on State Court jurisdiction over Indian water rights, those limitations were removed by the McCarran Amendment.*

In dissent, however, Justice Stevens stated:

To justify virtual abandonment of Indian water right claims to the State courts, the majority relies heavily on Colorado River Water Conservancy District, which in turn discovered an affirmative policy of federal judicial application in the McCarran Amendment. I continue to believe that Colorado River read more into that amendment that Congress intended... Today, however, on the tenuous foundation of a perceived Congressional intent that has never been articulated in statutory language or legislative history, the Court carves out a further exception to the virtually unflagging obligation of Federal courts to exercise their jurisdiction. The Court does not -- and cannot -- claim that it is faithfully following general principles of law... That Amendment is a waiver, not a command. It permits the United States to be joined as a defendant in state water rights adjudications; it does not purport to diminish the United States right to litigate in a federal forum and it is totally silent on the subject of Indian tribes rights to litigate anywhere. Yet today the majority somehow concludes that it commands the Federal Courts to defer to State Court water right proceedings, even when Indian water rights are involved.

In Arizona, Montana and other states, general water right adjudications to quantify *Winters* Doctrine rights are ongoing. For example in the state of Montana:

(1) the state of Montana sued all tribes in a McCarran Amendment proceeding.

(2) the State of Montana established a Reserved Water Rights Compact Commission. The purpose of the Commission was to negotiate the *Winters* Doctrine rights of the Montana tribes.

(3) the Department of Interior has adopted a negotiation policy for the settlement of Indian water rights. The United States Department of Interior has a negotiating team which works with the Montana Reserve Water Rights Compact Commission and Indian tribes, some forced by the adjudication in state court, to negotiate, while others are willing to negotiate.

(4) the Department of Interior makes all necessary funding available to any Tribe willing to undertake negotiations. A Tribe refusing to negotiate cannot obtain funding to protect and preserve its *Winters* Doctrine water rights.

(5) upon reaching agreement between the State of Montana and an Indian tribe, congressional staff are assigned to develop legislation in the form of an Indian water rights settlement that may or may not involve authorization of federal appropriations to develop parts of the amount of Indian water agreed upon between the Tribe and the State or for other purposes.

(6) in the absence of the desire of a Tribe to negotiate, the State of Montana will proceed to prosecute its McCarran Amendment case against the Tribe.

This process relies on ongoing litigation to accomplish negotiated settlements of *Winters* Doctrine Indian water rights. The process is held out to be a success by the state and federal governments. However, comparison with the taking of the Black Hills from the Great Sioux Nation, the taking of the Little Rocky Mountains from the Fort Belknap Indian Reservation and the taking of Glacier Park from the Blackfeet are valid comparisons. There are elements of force and extortion in the process.

In the Wind River adjudication, 753 P. 2nd 76, 94-100 (WY 1988), the State of Wyoming utilized the McCarran Amendment to drastically diminished the Arapaho and Shoshone *Winters* Doctrine water rights in the Big Horn River Basin. The Wyoming Supreme Court found as follows:

> *The quantity of water reserved is the amount of water sufficient to fulfill the purpose of the lands set aside for the Reservation.*
>
> ***
>
> *The Court, while recognizing that the tribes were the beneficial owners of the reservations timber and mineral resources... and that it was known to all before the treaty was signed that the Wind River Indian Reservation contained valuable minerals, nonetheless concluded that the purpose of the reservation was agricultural. The fact that the Indians fully intended to continue to hunt and fish does not alter that conclusion.... The evidence is not sufficient to imply a fishery flow right absent a treaty provision.... The fact that the tribes have since used water for mineral and industrial purposes does not establish that water was impliedly reserved in 1868 for such uses. The District Court did not err in denying a reserved water right for mineral and industrial uses... the District Court did not err in holding that the Tribes and the United States did not introduce sufficient evidence of a tradition of wildlife and aesthetic preservation that would justify finding this to be a purpose for which the Reservation was created or for which water was impliedly reserved... not a single case applying the reserved water right doctrine to groundwater is cited to us.... In Colville Confederated Tribes v. Walton, supra, 547 F 2d 42, there is slight mention of the groundwater aquifer and of pumping wells, Id at 52, but the opinion does not indicate that the wells are a source of reserved water or even discuss a reserve groundwater right.... The District Court did not err in deciding there was no reserved groundwater right.*

The statement by the Wyoming Supreme Court that *Colville* does not discuss a reserved water right to groundwater is in error, for Colville did decree reserved groundwater rights.

The *Wind River* case must be carefully examined by all tribes, including those of the Missouri River Basin. The single purpose of the Wind River Indian Reservation recognized by the Wyoming Supreme Court was limited to agriculture: severely limited relative to the... *Rights, Jurisdictions, Privileges, Prerogatives, Royalties, Liberties, Immunities, and Royal Rights and Temporal Franchises whatsoever, ... within the Region,* ..comprehending... *'all the soil, plains, woods, mountains, marshes, Lakes, Rivers, Days, and Straits, with the fishing of every kind, within the said limits'; all mines of whatsoever kind...*received by from the King by Lord Baltimore in the Proprietary of Maryland, which were, nevertheless, subject to purchase from the Native possessors. The Arapaho and Shoshone must have believed that the purpose of the reservation was to provide a permanent home and abiding place for their present and future generations to engage and pursue a viable economy and society. Despite existing oil and gas resources, they were denied reserved water for mineral purposes. Despite the need for industry in a viable economy, they were denied reserved water for industry. Despite a tradition of hunting and fishing, they were denied reserved water for wildlife and aesthetic preservation. Despite the existence of valuable forests, they were denied reserved water for this purpose. Despite the existence of valuable fisheries, established from time immemorial, they were denied a reserved water right to sustain their fisheries.

The United States Supreme Court reviewed the *Wind River* decision on the following question:

> *In the absence of any demonstrated necessity for additional water to fulfill reservation purposes and in presence of substantial state water rights long in use on the reservation, may reserved water rights be implied for all practicably irrigable lands within reservation set aside for specific Tribe?* 57 LW 3267 (Oct. 11, 1988).

Acting without a written opinion and deciding by tie vote, the United States Supreme Court affirmed the decision of the Supreme Court of the State of Wyoming and rejected the thought process presented in the question above that the Tribes needed no additional water than the amount they were using and that state created water rights with long use should not be subjected to future Indian water rights. But a change in vote by a single justice would have reversed the decision and severely constricted the benefits of the *Winters* Doctrine to the Indian people, a subject to be discussed further. The decision is limited to the State of Wyoming on critical issues, namely that Indian reserved rights do not apply to groundwater; the absence of a reserved water right for forest and mineral purposes; the absence of a reserved water right for fish, wildlife and aesthetic preservation; and a reduction of the Tribes claims to irrigation from 490,000 to less than 50,000 acres.

The acreage for irrigation finally awarded to the Wind River Tribes for future purposes was 48,097 acres involving approximately 188,000 acre-feet of water annually:

> *In determining the Tribes claims to practicably irrigable acreage, the United States [trustee for the tribes] began with an arable land-base of approximately 490,000 and relied on its experts to arrive at over 88,000 practicably irrigable acres. The claim was further "trimmed" by the United States to 76,027 acres for final projects. The acreage was further reduced during trial to 53,760 acres by Federal experts with a total annual diversion requirement of about 210,000 acre-feet.* (Teno Roncalio, Special Master. In Re: The General Adjudication of All Rights to the Use of Water in the Big Horn River System and All Other Sources, State of Wyoming, Concerning Reserved Water Right Claims by and on Behalf of the Tribes of the Wind River Indian Reservation, Wyoming, Dec. 15, 1982, pp. 154 and 157).

The *purposes* of reservation issue addressed by the Wyoming courts evolved from the 1978 United States Supreme Court case, *United States v. New Mexico* (438 U.S. 696), involving the water rights of the Gila National Forest:

> *The Court has previously concluded that Congress, in giving the President the power to reserve portions of the federal domain for specific federal purposes, impliedly authorized him to reserve "appurtenant water then unappropriated to the extent needed to accomplish the purpose of the reservation."... The Court has repeatedly emphasized that Congress reserved "only that amount of water necessary to fulfill the purpose of the reservation, no more."... Where water is only valuable for a secondary use of the reservation, however, there arises the contrary inference that Congress intended, consistent with its other views, that the United States would acquire water in the same manner as any other public or private appropriator .... The legislative debates surrounding the Organic Administration Act of 1897 and its predecessor bills demonstrate that Congress intended national forests to be reserved for only two purposes -- "to conserve the water flows, and to furnish a continuous supply of timber for the people."... Not only is the Government's claim that Congress intended to reserve water for recreation and wildlife preservation inconsistent with Congress's failure to recognize these goals as purposes of the national forest, it would defeat the*

very purpose for which Congress did intend the national forest system.... While Congress intended the national forest to be put to a variety of uses, including stockwatering, not inconsistent with the two principal purposes of the forest, stock watering was not, itself, a direct purpose of reserving the land.

There may be debate with respect to the purposes for which a national forest was created and for which purposes water was reserved, but it is a "slender reed" upon which to found a debate that when Indian reservations were established by the Indians or Great Britian or the United States, the purpose of establishment might vary among the Indian reservations; and, depending upon that purpose, the Indians would be limited in the beneficial uses to which water could be applied. Indian neighbors could apply water to any beneficial purpose generally accepted throughout the Western United States, but Indians could not. It is inconceivable that an Indian Reservation was established for any other "purpose" than an "Indian" reservation or that each Reservation was established for some arcane reason other than the pursuits of industry, self-government and all other activities associated with a modern, contemporary and ever-changing society embracing all of the ... *Rights, Jurisdictions, Privileges, Prerogatives,... and Temporal Franchises whatsoever, ... within the Region,* ..comprehending... *'all the soil, plains, woods, mountains, marshes, Lakes, Rivers, Days, and Straits, with the fishing of every kind, within the said limits'; all mines of whatsoever kind.*

Nevertheless, the Wyoming courts relied upon the "purposes" argument to exclude water reserved for the pursuit of many of the arts of civilization.... industry, mineral development, fish, wildlife, aesthetics... on the basis that the purpose of the Wind River Indian Reservation was limited to an agricultural purpose absent specific Treaty language to the contrary. As crude as this conclusion may be, however, Tribes of the Missouri River basin and throughout the Western United States are faced with the "purposes" limitation originally applied in 1978 to national forests.

If there may be a question that the issue ended in Wyoming, it is only necessary to examine the state court general adjudication process in Arizona. A June 2000 pretrial order by the Special Master in the *General Adjudication of All Rights to Use Water in the Gila River System and Source* summarizes the issues as follows:

... Does the "primary-secondary" purposes distinction, as announced by the U.S. Supreme Court in United States v. New Mexico, 438 U.S. 696 (1978), apply to the water rights claimed for the Gila River Indian Reservation?...

.... The State Litigants takes the position that the distinction does apply.

... If the "primary-secondary" purposes distinction does apply to the Gila River Indian Reservation, what were the primary and secondary purposes for each withdrawal or designation of land for the Gila River Indian Reservation? May the Reservation have more than one "primary" purpose?....

.... The State Litigants takes a position that the federal government withdrew or designated land to protect existing agriculture, create a buffer between the community and non-Indians who were settling in the area, provide substitute agricultural lands when non-Indians encroached on existing Indian agricultural lands, and provide for other specific economic activities such as grazing.

The restriction or limitation of Indian water rights in the Missouri River basin is not confined to a federal denial of them in federal actions, such as the Master Manual and endangered species consultation. The limitations are expected to grow and expand from these federal actions. Indian water right opponents will concentrate on the language of *United States v. New Mexico* that *"...only that amount of water necessary to fulfill the purpose of the reservation, no more...* has been reserved by the Tribes or the United States on behalf of the tribes. The effort will be to first limit the purposes for which an Indian reservation was established and second limit the amount of water necessary to fulfill that purpose. If, for example, opponents could successfully argue that the purpose of an Indian reservation in the Missouri River Basin was primarily a "permanent homeland" and that agriculture was secondary, they would further argue that the amount of water reserved was limited to domestic uses, and no water was reserved for irrigation.

Cappaert v. United States (426 U.S. 128, 1976) was the basis, in part, for the decision in *United States v. New Mexico* discussed above. Here again the purposes of a "federal" reservation (as distinguished from a reservation by Indians or a reservation by the United States on behalf of aIndians) and the use of water for that purpose is the subject. But the Cappaert decision is helpful in showing the extreme interpretations to which is the State Court in Wyoming went in its *Wind River* decision:

> *....The District Court then held that, in establishing Devil's Hole as a national monument, the President reserved appurtenant, unappropriated waters necessary to the purpose of the reservation; the purpose included preservation of the pool and pupfish in it.... The Court of Appeals for the Ninth Circuit affirmed... holding that the "implied reservation of water" doctrine applied to groundwater as well as surface water...*

The purpose of establishing the national monument was clearly limited -- to preserve the Devil's Hole pupfish, which rely on a pool of water that is a remnant of the prehistoric Death Valley Lake System and an object of historic and scientific interest. This is not an Indian reservation which embraces all of the purposes related to civilization, society and economy. Yet, Wyoming seized on the concept of an Indian reservation with purpose limited in the same manner as a national forest or a national monument. Note, however, that the Wyoming case (1988) grasps at the purposes argument to diminish the Indian water right but ignores the damaging aspect of *Cappaert* (1976) that reserved water concepts apply to groundwater as well as surface water. Not only did Wyoming ignore *Colville Confederated Tribes*, it ignored *Cappaert*. Recently, the Arizona Supreme Court, after considering the Wyoming decision, could not countenance a similar decision in Arizona, specifically rejected the Wyoming decision and found as follows:

> *...the trial court correctly determined that the federal reserved water rights doctrine applies not only to surface water but to groundwater...*and...*holders of federal reserved rights enjoy greater protection from groundwater pumping than do holders of state law rights...*

Similarly, Wyoming ignored *Cappaert*, a U.S. Supreme Court decision about <u>federally</u> reserved water rights in a National Monument in Nevada, where *Cappaert* specifically rejected the concept of "sensitivity" or balancing of equities when water is needed for the purpose of a federal or Indian Reservation. In *Cappaert* the Court cited the *Winters* decision as a basis for

rejecting the notion of Nevada that competing interests must be balanced between federal (or Indian) reserved water rights and competing non-federal (or non-Indian) water rights. Wyoming returned to the U.S. Supreme Court seeking a more favorable decision respecting "sensitivity" than provided by *Cappaert*:

> *Nevada argues that the cases establishing the doctrine of federally reserved water rights articulate an equitable doctrine calling for a balancing of competing interests. However, an examination of those cases shows they do not analyze the doctrine in terms of a balancing test. For example, in Winters v. United States, supra, the Court did not mention the use made of the water by the upstream landowners in sustaining an injunction barring their diversions of the water. The "Statement of the Case" in Winters notes that the upstream users were homesteaders who had invested heavily in dams to divert the water to irrigate their land, not an unimportant interest. The Court held that, when the Federal Government reserves land, by implication, it reserves water rights sufficient to accomplish the purposes of the reservation.*

The United States Supreme Court reviewed the decision of the Wyoming Supreme Court and upheld the decision by a tie vote as discussed above. However, the majority of the court had apparently been swayed by the Wyoming argument:... *In the absence of any demonstrated necessity for additional water to fulfill reservation purposes and in presence of substantial state water rights long in use on the reservation, may reserved water rights be implied for all practicably irrigable lands within reservation set aside for specific Tribe?...* and had prepared a draft opinion referred to by the Arizona Supreme Court as the "ghost" opinion. The draft opinion was apparently not issued because Justice Sandra Day O'Connor, author of the "ghost" opinion on behalf of the majority, disqualified herself because, reportedly, she had been named as a defendant in the Gila River adjudication in Arizona. Despite more than 350 years of understanding of justice and law relating to Indian property, the O'Connor opinion would have destroyed the basic tenets of the *Winters* Doctrine:

> *...The PIA standard is not without defects. It is necessarily tied to the character of land, and not to the current needs of Indians living on reservations....And because it looks to the future, the PIA standard, as it has been applied here, can provide the Tribes with more water than they need at the time of the quantification, to the detriment of non-Indian appropriators asserting water rights under state law....this Court, however, has never determined the specific attributes of reserve water rights – whether such rights are subject to forfeiture for nonuse or whether they may be sold or leased for use on or off the Reservation....Despite these flaws and uncertainties, we decline Wyoming's invitation to discard the PIA standard... The PIA standard provides some measure of predictability and, as explained hereafter, is based on objective factors which are familiar to courts. Moreover no other standard that has been suggested would prove as workable as the PIA standard for determining reserve water rights for agricultural reservations....we think Master Roncolio and the Wyoming Supreme Court properly identified three factors that must be considered in determining whether lands which have never been irrigated should be included as PIA: the arability of the lands, the engineering feasibility (based on current technology) of necessary future irrigation projects, and the economic feasibility of such projects (based on the profits from cultivation of future lands and the costs of the project... Master Roncolio found...that economic feasibility will turn on whether the land can be irrigated with a benefit-cost ratio of one or better....Wyoming argues that our post-Arizona I cases, specifically Cappaert and New Mexico, indicate that quantification of Indian reserved water rights must entail sensitivity to the impact on state and private appropriators of scarce water under state law.... Sensitivity to the impact on prior appropriators necessarily means that "there has to be some degree of pragmatism" in determining PIA....we think this pragmatism involves a "practical" assessment – a determination apart from the theoretical economic and engineering feasibility – of the reasonable likelihood that future irrigation projects, necessary to enable lands which have never been irrigated to obtain water, will actually be built....no court has held that the Government is under a general legal or*

fiduciary obligation to build or fund irrigation projects on Indian reservations so that irrigable acreage can be effectively used..... massive capital outlays are required to fund irrigation projects...and in today's era of budget deficits and excess agricultural production, government officials have to choose carefully what projects to fund in the West. ... Thus, the trier of fact must examine the evidence, if any, that additional cultivated acreage is needed to supply food or fiber to resident tribal members, or to meet the realistic needs of tribal members to expand their existing farming operations. The trier must also determine whether there will be a sufficient market for, or economically productive use of, any crops that would be grown on the additional acreage....we therefore vacate the judgment insofar as it relates to the award of reserved water rights for future lands and remand the case to the Wyoming Supreme Court for proceedings not inconsistent with this opinion.

The United States Supreme Court has unlimited power to arrive at decisions in support of the states (*Dred Scott)*. If the opinion cited above had been reached, the opinion of the minority would have had no force and effect in *Wyoming* as given by Justice Brennan:

...in the Court might well have taken as its motto for this case in the words of Matthew 25:29: "but from him that has not shall be taken away even that which he has." When the Indian tribes of this country were placed on reservations, there was, we have held, sufficient water reserved for them to fulfill the purposes of the reservations. In most cases this has meant water to irrigate their arable lands.... The Court now proposes, in effect, to penalize them for the lack of Government investment on their reservations by taking from them those water rights that have remained theirs, until now, on paper. The requirement that the tribes demonstrate a "reasonable likelihood" that irrigation projects already determined to be economically feasible will actually be built – gratuitously superimposed, in the name out "sensitivity" to the interests of those who compete with the Indians for water, upon a workable method for calculating practicably irrigable acreage that parallels government methods for determining the feasibility of water projects for the benefit of non-Indians – has no basis in law or justice.

Whether inspired by the "ghost" opinion of Justice O'Connor or not, the Arizona Supreme Court held arguments in February 2001 on the issue of: "what is the appropriate standard to be applied in determining the amount are water reserved for federal lands?", particularly Indian lands, which were not reserved by the United States for the Standing Rock Sioux Tribe but were, rather, reserved by the Tribe by its ancient ancestors from time immemorial. The outcome by the Arizona Supreme Court provides the question for review by the United States Supreme Court with full knowledge from the "ghost" opinion of the probable outcome. The Salt River Project and Arizona, principal losers in *Arizona v California I,* make the following arguments in *Gila* River against Indian reserved rights to use of water:

...Under the United States Supreme Court's decision in United States v New Mexico..., all federal land with a dedicated federal purpose "has reserved to it that minimum amount of water which is necessary to effectuate the primary purpose of the land set aside." Judge Goodfarb also found, however, that this "purposes" test does not apply to Indian reservations. Instead, he held that, for Indian reservations, "the courts have drawn a clear and distinct line"....that mandates that reserved rights for all Indian reservations must be quantified based on the amount of "water necessary to irrigate all of the practicably irrigable acreage (PIA) on that Reservation" without considering the specific purposes for which the Reservation was created....this interlocutory proceeding with respect to Issue 3 arose because Judge Goodfarb incorrectly ruled (as a matter of law and without the benefit of any factual record, briefing, or argument) that PIA applies to ***all*** *Indian reservations...*

....as shown below, the Supreme Court in that case [Arizona I] and the courts in all reported decisions since that time, have applied the following analysis: first, review the historical evidence

relating to the establishment of the Reservation and, from that evidence, determine the purposes for which the specific land in question was reserved (a question of fact). Second, determine, based upon the evidence, the minimum quantity of water necessary to carry out those purposes (a mixed question of law and fact). ...and in Colville Confederated Tribes V. Walton, for instance, the ninth circuit stated:. "to identify the purposes for which the Colville Reservation was created, we consider the document and circumstances surrounding its creation, and the history of the Indians for whom it was created. We also consider their need to maintain themselves under changed circumstances."

...the Zuni Reservation in northeastern Arizona, for example, was established by Congress expressly "for religious purposes."...the original 1859 creation of the Gila Reservation and each of the seven subsequent additions had different rationales and were intended to address different purposes or combinations of purposes (e.g. protecting existing farmlands, adding lands for grazing, including lands irrigated by Indians outside the Reservation as part of the Reservation...

....in addition to varying in size, Indian reservations also vary in location and terrain. Reservations in Arizona, for instance, run the gamut from desert low lands to the high mountains and everything in between. Certain reservations along the Colorado River include fertile but arid river bottom land and were created for the purpose of converting diverse groups of "nomadic" Indians to a "civilized" and agrarian way of life...other reservations, such as the Navajo Reservation in extreme northeastern Arizona, consist largely of "very high plateaus, flat-top mesas, inaccessible buttes and deep canyons. "....there can be little doubt that the PIA standard works to the advantage of tribes inhabiting alluvium plains or other relatively flat lands adjacent to stream courses. In contrast, tribes inhabiting mountainous or other agriculturally marginal terrains are at a severe disadvantage when it comes to demonstrating that their lands are practicably irrigable....

*...the special master [Arizona I] conducted a trial, accepted and reviewed substantial evidence regarding the purposes of the five Indian reservations at issue in that case, made factual findings as to purposes, and only then found that the minimum amount of water necessary to carry out those purposes was best determined by the amount of water necessary to irrigate all "practicably irrigable" acres on those reservations. ....the special master stated: "**moreover the 'practicably irrigable' standard is not necessarily a standard to be used in all cases and when it is used it may not have the exact meaning it holds in this case. The amount reserved in each case is the amount required to make each Reservation livable**."*

...although the United States Supreme Court affirmed the Wyoming court's decision in that case without opinion, events surrounding that review shed considerable light on the Supreme Court's concerns about the continued viability of PIA as a standard, at least in the form it was applied in Arizona I. ....several Justices challenged the United States's defense of PIA...."at this point, Chief Justice Rehnquist challenged the precedential validity of Arizona I by noting that the opinion 'contains virtually no reasoning' and the Court merely had accepted the special master's conclusion as to the PIA standard...arguing that Congress must of contemplated the size of the tribe that would live on the Wind River Reservation, ...the Chief Justice stated that he found it difficult to believe that 'in 1868 Congress...should be deemed have said we're giving up water to irrigate every – every inch of arable land. No matter how large the tribe they thought they were settling. Did they expect to make some tribes very rich so that they can have an enormous export business... in agricultural products?" (State Litigant's Opening Brief on Interlocutory Issue 3, Gila River Adjudication).

The decision of the Arizona Supreme Court (December 2001) was guided by the "ghost" opinion and expanded upon it. The arguments against irrigation quickly unfold in the opinion as set forth below:

"There can be little doubt that the PIA standard works to the advantage of tribes inhabiting alluvial plain or other relatively flat lands adjacent to stream courses. In contrast, tribes inhabiting mountainous or other agriculturally marginal lands are at a severe disadvantage when it comes to demonstrating that their lands are practicably irrigable...." citing *Martinez v. Lewis.* (Note that Martinez is Eluid Martinez, Commissioner of the Bureau of Reclamation during the Clinton Administration and State Engineer of New Mexico against the Apaches in the cited case.)

Another concern with PIA is that it forces tribes to pretend to be farmers in an era when "large agricultural projects... are risky, marginal enterprises. This is demonstrated by the fact that no federal project planned in accordance with the Principles and Guidelines... has been able to show a positive benefit/cost ratio in the last decade (1981 to 1991)."

Nor could Bureau of Reclamation projects in Arizona, including the Salt River Project, show a positive benefit/cost ratio if planned in accordance with the Principles and Guidelines. But the path is clear. A reading of *Martinez v. Lewis* (861 P 2d 235) is instructive. The specific reasons for the finding by the trial court in *Martinez* that the Tribe had not proved feasible projects included the following:

- the Tribe's reliance on specialty crops did not comport with appropriate economic procedures, which consider the proper ratio of specialty crops to basic crops;
- the Tribe's analysis of markets for these specialty crops was faulty;
- the Tribe's estimates of crop yields were overstated and unrealistic;
- the terrain and location of the reservation dictated high-quality, top-level management for which the Tribe failed to adequately budget;
- the Tribe failed to adequately address risks such as weather, insects, and disease;
- the Tribe failed to include factors such as storage, transportation, supply and demand, and market structure in its budget;
- the Tribe underestimated its labor costs;
- the Tribe did not address off reservation costs as required by the Principles and Guidelines of the Water Resources Council;
- the Tribe failed to use a reasonable discount rate;

Martinez also points to *Arizona v. California II* which specifically rejected as "misguided" special subsidies granted to the Tribe so that the analysis would be one from the financial point of view of the Indians.

Continuing on the opinion by the Arizona Supreme Court against irrigable acreage:

Limiting the applicable inquiry to PIA analysis not only creates a temptation for tribes to concoct inflated, unrealistic irrigation projects, but deters consideration of actual water needs based on realistic economic choices.... "... they may be irrigable academically, but not as a matter of practicality."

The PIA standard also potentially frustrates the requirement that federally reserved water rights be tailored to minimal need.....The court's function is to determine the amount of water necessary to effectuate this purpose, tailored to the reservation's minimal need. We believe that such a minimalist approach demonstrates appropriate sensitivity and consideration of existing water user's water rights, and at the same time provides a realistic basis for measuring tribal entitlements.

Federally reserved water rights may be tailored to a minimal need based on their purpose, but *Indian* water rights have never been tailored to a minimal need. In fact, the New Mexico court distinguished between a PIA analysis and an analysis that would afford a tribe their minimal needs or a moderate living *(Martinez v Lewis*, 861 Pacific 2d 235, 238) but did not issue an opinion on the subject. The dissenting opinion in *Martinez v. Lewis* distinguishes between federal reserved and Indian reserved water rights (p. 255). On the foregoing point, the Arizona Supreme Court moved beyond any previous decisions on Indian water rights. *Cappaert* argues against the minimal need or sensitivity concepts of the Issue 3 opinion:

Nevada argues that the cases establishing the doctrine of federally reserved water rights articulate an equitable doctrine calling for a balancing of competing interests. However, an examination of those cases shows they do not analyze the doctrine in terms of a balancing test. For example, in Winters v. United States, supra, the Court did not mention the use made of the water by the upstream landowners in sustaining an injunction barring their diversions of the water. The "Statement of the Case" in Winters notes that the upstream users were homesteaders who had invested heavily in dams to divert the water to irrigate their land, not an unimportant interest. The Court held that, when the Federal Government reserves land, by implication, it reserves water rights sufficient to accomplish the purposes of the reservation.... Cappaert v. United States (426 U.S. 128, 1976)

The attack by the Arizona Supreme Court on PIA continues:

The court should also consider the tribal lands geography, topography, and natural resources, including groundwater availability. As mentioned earlier, one of the biggest problems with PIA is that it does not allow for flexibility in this regard. It has also been observed that "irrigation is one of the most inefficient and ecologically damaging ways to use water.... Increasing the use of water for irrigation runs counter to a historic trend in western water use -- the transition from agricultural to less consumptive and higher-valued municipal and industrial uses."

... future irrigation projects are subject to a PIA type analysis: irrigation must be both practically and economically feasible.

Past water use on a reservation should also be considered when quantifying a tribe's rights. The historic use of water may indicate how a tribe has valued it.

The principles articulated by the Arizona Supreme Court on Issue 3 would impact on all future Indian projects. If, for example, the Principles and Guidelines are required as interpreted and applied by the Arizona Supreme Court, it would be necessary for a Missouri River basin

Tribes with ideal lands for irrigation to demonstrate that its crop production, of whatever mix, will not adversely impact the off-Reservation market. This will be a substantial burden. While the less than ideal lands may have other constraints, conventional crop production for livestock, for example, would compete with off-Reservation livestock growers.

In contemplation of the destruction of irrigable acreage as a measure of Indian water rights, the Arizona Supreme Court adopted "tribal homeland " as its basis for measuring those rights in Arizona. This brings municipal, rural and industrial water claims into the arena that the Court finds appropriate consistent with its "minimal" approach.

A future Indian population of 75,000 members would have a demand for diversion of 13,500 acre-feet annually for domestic, commercial and industrial purposes based on average daily demand of 160 gallons per person per day for those purposes as contrasted with a claim for 14 million acre feet for irrigation.

The Tribes have no options. To litigate their water rights or to settle their water rights as suggested by the Corps of Engineers is not workable for the reason that the courts, state and federal from the lower courts to the highest court, have become equally hostile and have altered irreparably the favorable body of law that protected Indian water rights through the 1960s. Likewise, Indian water settlements are highly unsatisfactory, and the record is demonstrating that the initial agreements are never fulfilled.

Therefore, the solution suggested by the Corps of Engineers is untenable for the Tribes. If smallpox were the hand of death in the 1830s, the current trend in Indian water rights, topped by the Master Manual Review and Update, is systematically destroying that invaluable property right of the Tribes.

6. Missouri River Pick Sloan Proposal

The Standing Rock Sioux and Oglala Sioux Tribes have developed a proposal to offset the damages caused by the implementation of a new water control plan for the Missouri River. The basic elements of the plan are (1) the creation of a "development fund" that would rely upon deposits from hydropower revenues and/or annual appropriations; (2) the purchase of existing generation capacity at the mainstem dams and federal transmission capacity carrying electricity to the existing or an improved power grid; and (3) the development of new generation and transmission capacity reliant on wind power, natural gas and other marketable forms of energy.

The proposal made by the Tribes is not a water rights settlement. Rather the proposal is intended to restore a part of the Indian economy lost between 1803 and present, all as described above, through the vehicle that has adversely impacted the Tribes and threatens a further deterioration of Indian water and other property rights, the Pick Sloan Project. The Tribes do not propose that the United States would grant but rather would sell generation and transmission facilities with operation of the dams continuing as authorized or as amended by Congress. Whatever unquantified, unsettled and unadjudicated water rights are held by the tribes would be unaffected by the proposal and would remain available for future use by the Tribes.

The proposal required to establish the development fund includes the following:

- Determination of the amount of increase in Western power rates necessary to create afund with deposits of $1 billion to $2 billion over the next 25 to 50 years. Preliminary analyses indicate that a rate increase of 3 mills per kilowatt hour (25% increase on wholesale power) would create deposits of $1 billion over a 40 year period.

- Determination of the impact of a rate increase on retail power rates of all classes of Western customers, including the impact on Tribes participating in the post-2000 and post-2005 resource pool allocations. Preliminary analysis shows the impact on the average Western customer at about 5%, including the impact on Tribes participating in Native American allocations. These impacts will be analyzed in conjunction with Western's projected wholesale power rate increases over the next 10 years.

- Determination of the current impact of Western accounting on firm, wholesale power rates. The authorization of Pick-Sloan contemplated a reimbursable component of capital costs of constructing hydropower, irrigation and municipal and industrial water supply facilities. Irrigation facility costs have been deferred in large part, and the United States has been unable to collect as much as $454 million in costs of power facilities and dams due to the fact that irrigation has not been developed to the level contemplated (Statement by Victor S. Rezendes, 1996, *Recovery of Federal Investment in Hydropower Facilities in the Pick-Sloan Program*, Testimony before the Subcommittee on Water and Power Resources, House of Representatives, Government Accounting Office, GAO/T-RCED-96-142). There is a need to determine how much of the current rate is based on recovery of debt on the Pick Sloan facilities and how much future debt recovery is contemplated. This will require a detailed examination of the Western rate structure and analysis and will require information from Western. The purpose of this examination will be to determine the potential for increasing or decreasing Western rates based on the future treatment of debt service given that the Tribes are seeking an increase in Western rates as a source of revenue for the "development fund." Examination of the rate structure is needed to determine if offsets to an increase in rates for the development fund are possible by reducing future debt recovery.

- The participants in the development fund require identification. As proposed here, the Tribes on the Missouri River mainstem and tributaries between Fort Peck and Gavin's Point dams were initially considered as eligible for participation in the development fund. Depending on tribal policy-making, examination may also be made of the need for participation by the states of South Dakota and North Dakota and how withdrawals from the development fund could be allocated. This part of the scope of work will involve meetings with the governing bodies of the Tribes and, if considered necessary, the State governors to establish a mechanism for participation.

- An analysis of S. 437, the Arizona Water Rights Settlement Act, will be undertaken and reported. S. 437 provides for the "Lower Colorado River Development Fund" to finance approximately $1 billion in investment in irrigation development on the Gila River Indian

Reservation. The fund was created by Congress in 1968 and receives deposits from rate increases on Western's firm, wholesale power rates in the Colorado River basin. Arizona and California rates were increased by 4.5 and 2.5 mills, respectively.

The development fund would be used to implement purchases of existing power production and generation facilities and planning for the implementation of new projects.

The Tribes will make contact with Western to determine the status of investigations on the upgrade of the electricinal transmission system in Pick-Sloan to export power to high use market areas outside the Missouri River Basin. In July 2002 Western published a report addressing the necessary improvements for the following developments (Montana-Dakotas Regional Study East Side (MAPP) Studies, Phase 1, July 26, 2002):

- Site 1 (Hettinger) - 500 MW coal and 500 MW of wind generation centered around Hettinger, ND, with power transfers to the Minneapolis/St. Paul, MN area (Twin Cities) and the Western Electricity Coordinating Council (WECC).
- Site 2 (Jamestown) - 1000 MW of wind generation centered around Jamestown, ND, with power transfers to the Twin Cities.
- Site 3 (Minot) - 1000 MW of wind generation centered around Minot, ND, with power transfers to the Twin Cities.
- Site 4 (Ft. Thompson) - 1000 MW of wind generation centered around Ft. Thompson, SD, with power transfers to the Twin Cities.
- Site 5 (Watertown) - 1000 MW of wind generation centered around Watertown, SD, with power transfers to the Twin Cities.

A Phase II study was also published July 26, 2002: "*In these Phase 2 East Side analyses transfers of power from the same 1000 MW of generation in the Dakotas are investigated, but the assumption is that this new generation is destined for Eastern Wisconsin and Iowa/Illinois markets instead of the Twin Cities markets assumed in the Phase 1 studies.*"

Therefore, the Phase II studies were based on a market in the Milwaukee and Chicago areas as distinguished from the Minneapolis area.

Technical literature review is needed to identify the published reports outlining the demand for power in the Midwest and the means of transporting power from the Southeast and the Great Plains. This technical literature should be compared with the Western Phase II study to determine how 5,000 MW of additional power from the Great Plains can be utilized in the Midwest and how it can be transported to that region.

The Western investigation is limited to five sites for new coal and wind generation projects. Investigation are needed to determine the potential for additional sites on Indian

reservations between Fort Peck and Gavins Point dams, along the mainstem and tributaries. The cost to connect these additional sites to the grid proposed by Western to serve the Minneapolis/Chicago area will be determined and reported.

Demand and potential for transporting new wind power from Indian reservations in the Northern Great Plains to the east slope of the Rockies in Colorado is needed.

Technical literature review is needed of the potential to develop wind energy in the Northern Great Plains, and the principles will be applied to the participating Indian Reservations to determine the level of wind energy supply that can reasonably be developed.

The construction and operation, maintenance and replacement costs of developing new transmission and generation facilities that are specific to the Tribes participating in the development fund need to be summarized and reported based on the foregoing investigations.

A summary report is needed to show the financial relationship of the deposits in the development fund to the life-cycle costs of building new energy and transmission projects on the Indian reservations of the Tribes participating in the development fund. This financial relationship must also identify the share of financing to be derived from the Missouri River development fund and the shared to be derived from other sources. Not all of the investment in the project will be derived from the development fund for the reason that some part of the investment can be financed from revenues from the sale of newly created energy. The relative shares of financing from the development fund and from sale of energy resources will be determined.

Based on the life-cycle costs of constructing new energy generation and transmission facilities to sell power in the Minneapolis/Chicago/Denver markets, retail rates can be established, including partial debt financing, to compare with current contracts with power suppliers in the market areas.

Meetings are required with power suppliers in the Minneapolis/Chicago/Denver markets to determine their need for an interest in newly generated wind power from the Northern Great Plains.

Charles W. Murphy
Chairman

Tom Iron
Vice Chairman

Sharon Two Bears
Secretary

AT LARGE

Jesse Taken Alive

Mike Claymore

Archie Fool Bear

Matt Lopez

Alma J. Mentz

Jesse McLaughlin

DISTRICTS

Carol White Eagle
Cannonball District

Verna Bailey
Long Soldier District

Milo Cadotte
Wakpala District

Frank White Bull
Kenel District

Avis Little Eagle
Bear Soldier District

Milton Brown Otter
Rock Creek District

Donel Takes The Gun
Running Antelope District

Randal White Sr.
Porcupine District

October 27, 2003

The Honorable Kent Conrad
United States Senate
Hart Senate Office Building, Room 530
Washington, DC 20510

Dear Senator Conrad:

The Standing Rock Sioux Tribe has prepared a resolution establishing its claim to waters of the Missouri River. This resolution was provided to the Corps of engineers for their consideration in the Master Plan immediately following enactment of the resolution over a year ago. I am requesting that the resolution become part of the record of the hearing that you chaired on behalf of the Senate Committee for Indian Affairs. The subject of the hearing was the inadequate and improper treatment of Indian water rights and other Indian resources in the Master Manual update.

Also, I am enclosing with this correspondence a report dated February 1979 entitled "Missouri River Basin Water Supply and Water Requirements of United Sioux Indian Reservations". I ask that the report be included in the hearing record or provided to the Corps of Engineers with the correspondence from the delegation. This document should be useful as a reference to the level of cumulative claims to water rights by tribes in the Missouri River Basin. Information with respect to any single tribe should not be construed as a claim to water rights. No tribe has accepted or approved the report as their basis for claim. The usefulness of the report is to show the order of magnitude of Indian water right claims aggregated for groups of Tribes. I have spoken with Mr. Clarence Sky of the United Sioux Tribes, who approves the use of this document in the hearing record. You may wish to confirm this approval.

I express once more my sincere appreciation for your chairing the excellent hearing on the critical issue of the treatment of Indian water rights in the Missouri River Master Manual update. Without the exceptional representation that you provide the Tribes in North Dakota and throughout the region, our concerns would not be heard.

Sincerely,

Charles W. Murphy, Chairman
Standing Rock Sioux Tribe

RESOLUTION NO. 106-01

FORMALLY ESTABLISHES THE STANDING ROCK SIOUX TRIBE'S POLICY ON ITS ABORIGINAL, TREATY AND WINTERS RIGHTS TO THE USE OF WATER IN THE MISSOURI RIVER TO MEET ALL PRESENT AND FUTURE USES; AMONG OTHER THINGS

WHEREAS, the Standing Rock Sioux Tribe is an unincorporated Tribe of Indians, having accepted the Indian Reorganization Act of June 18, 1934, with the exception of Article 16, and the recognized governing body of the Tribe is known as the Standing Rock Sioux Tribal Council; and

WHEREAS, the Standing Rock Sioux Tribal Council, pursuant to the Constitution of the Standing Rock Sioux Tribe, Article IV, Section(s) 1 (a,b,c,h and j), is authorized to negotiate with Federal, State and local governments and others on behalf of the Tribe, is further authorized to promote and protect the health, education and general welfare of the members of the Tribe and to administer such services that may contribute to the social and economic advancement of the Tribe and its members; and is further empowered to authorize and direct subordinate boards, committees or Tribal officials to administer the affairs of the Tribe and to carry out the directives of the Tribal Council; and is empowered to manage, protect, and preserve the property of the Tribe and natural resources of the Standing Rock Sioux Reservation; and

Master Manual EIS Specifically Excludes Consideration of Indian Water Rights

WHEREAS, the United States Army Corps of Engineers makes the following statement describing how the Corps fails to recognize or consider Indian water rights in its Master Water Control Manual for the future operation of the Missouri River, thereby committing Missouri River water to operational priorities and creating an insurmountable burden for the future exercise of the rights to the use of water by the Standing Rock Sioux Tribe as reserved from time immemorial:

> *The Missouri River basin Indian tribes are currently in various stages of quantifying their potential future uses of Mainstem System water. It is recognized that these Indian tribes may be entitled to certain reserve or aboriginal Indian water rights in streams running through and along reservations. Currently, such reserved or aboriginal rights of tribal reservations have not been quantified in an appropriate legal forum or by compact with three exceptions.... The Study considered only existing consumptive uses and depletions; therefore, no potential tribal water rights were considered. Future modifications to system operation, in accordance with pertinent legal requirements, will be considered as tribal water rights are quantified in accordance with applicable law and actually put to use. Thus, while existing depletions are being considered, the Study process does not prejudice any reserved or aboriginal Indian water rights of the Missouri River basin Tribes.* (PDEIS 3-64); and

WHEREAS, the failure of the United States, acting through the Corps, to recognize and properly consider the superior rights of the Standing Rock Sioux Tribe must be rejected by the Tribe for the reason that the Master Manual revision and update is making irretrievable commitments to (1) navigation in the lower basin, (2) maintenance of reservoir levels in the upper basin and (3) fish, wildlife and endangered species throughout the upper and lower basins. These commitments are violations of the constitutional, civil, human and property rights of the Tribe; and

Endangered Species Guidance Specifically Excludes Consideration of Indian Water Rights in Missouri River Basin

WHEREAS, the Working Group on the Endangered Species Act and Indian Water Rights, Department of Interior, published recommendations for consideration of Indian water rights in Section 7 Consultation, in national guidance for undertakings such as the Master Manual, as follows:

> *The environmental baseline used in ESA Section 7 consultations on agency actions affecting riparian ecosystems should include for those consultations the full quantum of: (a) adjudicated (decreed) Indian water rights; (b) Indian water rights settlement act; and (c) Indian water rights otherwise partially or fully quantified by an act of Congress... Biological opinions on proposed or existing water projects that may affect the future exercise of senior water rights, including unadjudicated Indian water rights, should include a statement that project proponents assume the risk that the future development of senior water rights may result in a physical or legal shortage of water. Such shortage may be due to the operation of the priority system or the ESA. This statement should also clarify that the FWS can request reinitiation of consultation on junior water projects when an agency requests consultation on federal actions that may affect senior Indian water rights.*

The Working Group recommendations further the failure to address unadjudicated Indian water rights. It is unthinkable that the United States would proceed with water resource activities, whether related to endangered species, water project implementation or Missouri River operation in the absence of properly considering Indian water rights that are not part of an existing decree – presuming, in effect, that the eventual quantification of Indian water rights will be so small as to have a minimal impact on the operation of facilities in a major river, such as the Missouri River, or so small as to be minimally impacted by assignment of significant flow to endangered species. The flows required to fulfill or satisfy Indian water rights are, in fact, not small nor minimal but are significant; and

Final Indian Water Right Agreements and Claims of the United States on Behalf of Tribes Are Denigrated by Master Manual and Other Regional Water Allocation Processes

WHEREAS, failures of federal policy to properly address Indian water rights in planning documents such as the Master Manual is underscored by example. Tribes in Montana

have water right compacts with the State that are complete and final but have not been incorporated into a decree. Incorporation is certain, however, and will be forthcoming. It is not a matter of "if", it is a matter of "when". The water rights agreed upon by compact are substantial, but neither the Corps of Engineers' Master Manual nor the Secretary of Interior's ESA guidance, as currently constituted, will consider these rights – they presume the rights do not exist -- until they become part of a decree. At such time as the decree in Montana is complete, the Master Manual conclusions will be obsolete and any assignment of Missouri River flows to upstream reservoirs, downstream navigation or endangered species, relied upon by the various special interest groups, will be in conflict with the decree; and

WHEREAS, in Arizona, as another example, these same flawed federal policies to ignore Indian water rights in the allocation of regional water supplies are manifest. The United States is in the process of reallocating part of approximately 1.4 million acre-feet of water diverted from the Colorado River and carried by aqueduct system in the Central Arizona Project for the Phoenix area. The reallocation is purportedly for the purpose, in part, of resolving Indian water right claims in Arizona, but careful review of the reallocation demonstrates that only two Indian tribes are involved. The Bureau of Reclamation, agent for the trustee in the reallocation process, has given short shrift to other Indian concerns that the EIS should address the impacts of the reallocation on all affected tribes and on all non-Indian claimants that will be impacted by ongoing adjudication of Indian water rights. In response Reclamation describes claims filed by the Department of Justice on behalf of the tribes as *speculative*. Thus, Arizona tribes are in the same dilemma as Missouri River basin tribes, but the process to determine the magnitude of Indian claims in Arizona is much further advanced. The United States is, on the one hand, pursuing a claim for adjudication of Indian water rights; and the United States, on the other hand, is reallocating water necessary to supply non-Indian interests impacted by Indian water rights-- but is refusing to recognize any potential for Indian water rights success in ongoing adjudications. This denigrates the claims of the United States on behalf of the tribes and draws into question the intent and commitment of the Department of Justice in the proper advancement of Indian claims, claims which at least some tribes consider deficient and poorly prosecuted by the Department of Justice; and

WHEREAS, the Standing Rock Sioux Tribe cannot tolerate these policies: cannot permit reliance by wide and diverse interest groups in the Missouri River – states, environmental, federal agencies and economic sectors– on conclusions associated with the preferred alternative in the Master Manual when the conclusions are based on the presumption of no Indian water rights and insignificant future Indian water use throughout the Basin; cannot expect future courts to undo investments, undertakings, mortgages and economies that build on the basis of the Master Manual conclusions; cannot expect future Congresses to act more favorably than future courts; and

Importance of Master Manual Process is Underscored by Congressional and

Other Activity

WHEREAS, the Master Manual of the Corps of Engineers is the name presently given to the operating procedures for the mainstream dams and reservoirs. The Corps of Engineers has responsibility for those operations as directed by the 1944 Flood Control Act, the controlling legislation for the Pick-Sloan Project. Since 1944, all dams (except Fort Peck Dam) were constructed and have been operated by the Corps of Engineers or the Bureau of Reclamation. The current Master Manual revision is the first public process update of Corps of Engineers operating procedures, and its importance to future exercise of the Tribe's water rights cannot be ignored by the Tribe; and

WHEREAS, the Master Manual is intended by the federal courts and Congress to resolve issues between the upper and lower basin states, irrespective of tribal issues. The federal courts have dismissed cases brought by the states over the last decade and a half, cases designed to settle issues of maintenance of water levels in the reservoirs in North and South Dakota and the conflicting release of water for downstream navigation; and

WHEREAS, most recently, the Energy and Water Resource Development appropriations for FY 2001 were vetoed by the President because upstream senators supported by the President opposed language by downstream senators in the appropriations bill, which contained controversial language as follows:

> *Sec. 103. None of the funds made available in this Act may be used to revise the Missouri River Master Water Control Manual when it is made known to the Federal entity or official to which the funds are made available that such revision provides for an increase in the springtime water release program during the spring heavy rainfall and snow melt period in States that have rivers draining into the Missouri River below the Gavins Point Dam.*

The provisions cited above require the Corps of Engineers or any other official to refrain from using any funds to revise the Master Manual if it is determined that the revision would cause any increase in water releases below Gavin's Point Dam in springtime. There is apparently concern by downstream members of Congress that the Master Manual will recommend an increase in releases to the detriment of downstream navigation, environmental values or flood control. Upstream members of Congress stopped the approval of appropriations over this controversy until the above-cited language was omitted from the bill; and

WHEREAS, given the importance of the Master Manual revision and update to the States, the Congress and Courts, the Standing Rock Sioux Tribe cannot tolerate the exclusion of proper consideration of their water rights, nor can the Tribe tolerate the inadequate representation of the Trustee on this matter; and

Brief Historical Review of Indian Water Rights

WHEREAS, the right of the Crown of Great Britain to the territory of North America was derived from the discovery of that continent by Sebastian Cabot, who in 1498 explored a greater part of the Atlantic Coast under a Commission from King Henry VII and took formal possession of the continent as he sailed along the coast. But those commissioned by the Crown to settle in North America were cognizant of the rights, titles and interests of the original possessors. In the proprietary of Maryland, granted to George Calvert, Lord Baltimore, in 1632, for example, it was recognized by English law evolving from invasions against the Celtic tribes and their successors by the Romans, Anglo-Saxons and Normans, among others, over a period of 1,500 years prior to the discovery of America that the rights of the ancient possessors were specific and could not be ignored by a just occupier. The following was the rationale:

> *The roving of the erratic tribes over wide extended deserts does not formed a possession which excludes the subsequent occupancy of immigrants from countries overstocked with inhabitants. The paucity of their numbers in their mode of life, render them unable to fulfill the great purposes of the grant [by the King to the Proprietary of Maryland]. Consistent, therefore, with the great Charter to mankind, they (Tribes) may be confined within certain limits. Their rights to the privileges of man nevertheless continue the same: and the Colonists who conciliated the affections of the aborigines, and gave a consideration for their territory, have acquired the praise due to humanity and justice. Nations, with respect to the several communities of the earth, possessing all the rights of man, since they are aggregates of man, are governed by similar rules of action. Upon those principles was founded the right of emigration of old: upon those principles the Phenicians and Greeks and Carthagenians settled Colonies in the wilds of the earth.... In a work treating expressly of original titles to Land it has been thought not amiss to explain... the manner in which an individual obtaining from his Sovereign an exclusive licence, with his own means, to lead out and plant a Colony in a region of which that Sovereign had no possession, proceeded to avail himself of the privilege or grant, and to reconcile or subject to his views the people occupying and claiming by natural right that Country so bestowed... in particular, an history, already referred to, of the Americans settlements, written in 1671, after speaking of the acquisition of St. Mary's continues 'and it hath been the general practice of his Lordship and those who were employed by him in the planting of the said province, rather to purchase the natives' interest... than to take from them by force that which they seem to call their right and inheritance, to the end all disputes might be removed touching the forcible encroachment upon others, against the Law of nature or nations... When the earth was the general property of mankind, mere occupancy conferred on the possessor such an interest as it would have been unjust, because contrary to the Law of Nature, to take from him without his consent: and this state has been happily compared to a theatre, common to all; but the individual, having appropriated a place, acquires a privilege of which he cannot be dispossessed without injustice'. ... the Grant [to Lord Baltimore] comprehended 'all Islands and Islets within the limits aforesaid, and all Islands and etc. within ten marine leagues of the Eastern Shore, with all Ports, Harbors, Bays, Rivers, and Straits, belonging to the region or Islands aforesaid, and all the soil, plains, woods, mountains, marshes, Lakes, Rivers, Days, and Straits, with the fishing of every kind, within the said limits'; all mines of whatsoever kind, and patronage and advowson of all Churches. Lord Baltimore ... was invested with all the Rights, Jurisdictions, Privileges, Prerogatives, Royalties, Liberties, Immunities, and Royal Rights and Temporal Franchises whatsoever, as well by sea as by land, within the Region, Islands, Islets, and limits aforesaid...*(Source: John Kilty. *Land Holder's Assistant and Land Office Guide.*

Islands, Islets, and limits aforesaid...(Source: John Kilty. *Land Holder's Assistant and Land Office Guide.*
Baltimore: G. Dobbin & Murphy, 1808. MSA SC 5165-1-1).; and

WHEREAS, 130 years later the Proclamation of 1763 by King George III recognized title to the land and resources reserved by the American Indians of no lesser character or extent than the Charter to Lord Baltimore:

And whereas it is just and reasonable, and essential to our Interest, and the Security of our Colonies, that the several Nations or Tribes of Indians with whom We are connected, and who live under our Protection, should not be molested or disturbed in the Possession of such Parts of Our Dominions and Territories as, not having been ceded to or purchased by Us, are reserved to them, or any of them, as their Hunting Grounds -- We do therefore, with the Advice of our Privy Council, declare it to be our Royal Will and Pleasure, that no... Governor or Commander in Chief in any of our other Colonies or Plantations in America do presume for the present, and until our further Pleasure be known, to grant Warrants of Survey, or pass Patents for any Lands beyond the Heads or Sources of any of the Rivers which fall into the Atlantic Ocean from the West and North West, or upon any Lands whatever, which, not having been ceded to or purchased by Us as aforesaid, are reserved to the said Indians, or any of them. And We do further declare it to be Our Royal Will and Pleasure, for the present as aforesaid, to reserve under our Sovereignty, Protection, and Dominion, for the use of the said Indians, ... all the Lands and Territories lying to the Westward of the Sources of the Rivers which fall into the Sea from the West and North West as aforesaid. And We do hereby strictly forbid, on Pain of our Displeasure, all our loving Subjects from making any Purchases or Settlements whatever, or taking Possession of any of the Lands above reserved, without our especial leave and Licence for that Purpose first obtained. And We do further strictly enjoin and require all Persons whatever who have either wilfully or inadvertently seated themselves upon any Lands within the Countries above described. or upon any other Lands which, not having been ceded to or purchased by Us, are still reserved to the said Indians as aforesaid, forthwith to remove themselves from such Settlements. And whereas great Frauds and Abuses have been committed in purchasing Lands of the Indians, to the great Prejudice of our Interests. and to the great Dissatisfaction of the said Indians: In order, therefore, to prevent such Irregularities for the future, and to the end that the Indians may be convinced of our Justice and determined Resolution to remove all reasonable Cause of Discontent, We do, with the Advice of our Privy Council strictly enjoin and require, that no private Person do presume to make any purchase from the said Indians of any Lands reserved to the said Indians, within those parts of our Colonies where We have thought proper to allow Settlement: but that, if at any Time any of the Said Indians should be inclined to dispose of the said Lands, the same shall be Purchased only for Us, in our Name, at some public Meeting or Assembly of the said Indians, to be held for that Purpose by the Governor or Commander in Chief of our Colony respectively within which they shall lie: and in case they shall lie within the limits of any Proprietary Government, they shall be purchased only for the Use and in the name of such Proprietaries, conformable to such Directions and Instructions as We or they shall think proper to give for that Purpose....

Given at our Court at St. James's the 7th Day of October 1763, in the Third Year of our Reign.

GOD SAVE THE KING; and

WHEREAS, after the American Revolution and consistent with the foregoing, the United States Supreme Court by 1832 relied upon the ancient concepts of its predecessor Great Britain and recognized the property rights of Indians in the classical case of *Worcester v. the State of Georgia:*

> *America, separated from Europe by a wide ocean, was inhabited by a distinct people, divided into separate nations, independent of each other and of the rest of the world, having institutions of their own and governing themselves by their own laws. It is difficult to comprehend the proposition, that the inhabitants of either quarter of the globe could have rightful original claims of dominion over the inhabitants of the other, or over the lands they occupied; or that the discovery of either by the other should give the discoverer rights in the country discovered, which annulled the pre-existing rights of its ancient possessors.* (6 P 515, p. 543)
>
> *... This principle, acknowledged by all Europeans, because it was the interest of all to acknowledge it, gave to the nation making the discovery, as its inevitable consequence, the sole right of acquiring the soil and making settlements on it. It was an exclusive principle which shut out the right of competition among those who had agreed to it; not one which could annul the previous rights of those who had not agreed to it. It regulated the right given by discovery among the European discovers; but could not affect the rights of those already in possession, either as aboriginal occupants, or as occupants by virtue of a discovery made before the memory of man.....*
>
> *... This soil was occupied by numerous and warlike nations, equally willing and able to defend their possessions. The extravagant and absurd idea, that the feeble settlements made on the sea-coast, or the companies under whom they were made, acquired legitimate power by them to govern the people, or occupy the lands from sea to sea, did not enter the mind of any man. They were well understood to convey the title which, according to the common law of European sovereigns respecting America, they might rightfully convey, and no more. This was the exclusive right of purchasing such lands as the natives were willing to sell. The Crown could not be understood to grant what the Crown did not effect to claim; nor was it so understood.*
> (6 P 515, p. 544-545) (Emphasis supplied); and

WHEREAS, the principles in the case of *Worcester v. Georgia* are ancient as shown above and are the foundation of the principles announced by the U. S. Supreme Court three quarters of a century later relating to the Yakima Indian Nation in the case of *United States v. Winans (198 U.S.* 371). Title of the Indians in their property rights was fully acknowledged, and the Treaty was interpreted as a grant of property to the United States in the area not reserved by the Tribe to itself.

> *The right to resort to the fishing places in controversy was a part of larger rights possessed by the Indians, upon the exercise of which there was not a shadow of impediment, and which were not less necessary to the existence of the Indians than the atmosphere they breathed. New conditions came into existence, to which those rights had to be accommodated. Only a limitation of them, however, was necessary and intended, not a taking away. In other words the Treaty was not a grant of rights to the Indians, but a grant of rights from them - a reservation of those not granted.*

(Emphasis supplied); and

WHEREAS, the Supreme Court case of *Henry Winters v. United States* (207 US 564) found that reservation of water for the purposes of civilization was implied in the establishment of the Reservations:

> *The Reservation was a part of a very much larger tract which the Indians had the right to occupy and use and which was adequate for the habits and wants of a nomadic and uncivilized people. It was the policy of the Government, it was the desire of the Indians, to change those habits and to become a pastoral and civilized people. If they should become such the original tract was too extensive, but a smaller tract would be adequate with a change of conditions. The lands were arid and, without irrigation, were practically valueless.*
>
> *... That the Government did reserve them we have decided, and for a use which would be necessarily continued through years. This was done May 1, 1888, [at Fort Belknap] and it would be extreme to believe that within a year later [when the state of Montana was created] Congress destroyed the Reservation and took from the Indians the consideration of their grant, leaving them a barren waste - took from them the means of continuing their old habits, yet did not leave them the power to change to new ones."* (207 U S 574, p. 576 577); and

WHEREAS, the case of *United States v. Ahtanum Irrigation District* (236 Fed 2nd 321, 1956) applied the *Worcester-Winans-Winters* concepts on Ahtanum Creek, tributary to the Yakima River and northern boundary of the Yakima Indian Reservation:

> *The record here shows that an award of sufficient water to irrigate the lands served by the Ahtanum Indian irrigation project system as contemplated in the year 1915 would take substantially all of the waters of Ahtanum Creek. It does not appear that the waters decreed to the Indians in the Winters case operated to exhaust the entire flow of the Milk River, but, if so, that is merely the consequence of it being a larger stream. As the Winters case, both here and in the Supreme Court, shows, the Indians were awarded the paramount right regardless of the quantity remaining for the use of white settlers. Our Conrad Inv. Co. Case, supra, held that what the non-Indian appropriators may have is only the excess over and above the amounts reserved for the Indians. It is plain that if the amount awarded the United States for the benefit of the Indians in the Winters Case equaled the entire flow of the Milk River, the decree would have been no different.* (236 F. 2nd 321, p. 327) (Emphasis supplied); and

WHEREAS, these concepts were further advanced in *Arizona v California*, 373 U.S. 546, 596-601 (1963):

> *The Master found as a matter of fact and law that when the United States created these reservations or added to them, it reserved not only land but also the use of enough water from the Colorado [River] to irrigate the irrigable portions of the reserved lands. The aggregate quantity of water which the Master held was reserved for all the reservations is about 1,000,000 acre-feet to be used on around 135,000 irrigable acres of land....*

It is impossible to believe that when Congress created the Great Colorado River Indian reservation and when the Executive Department of this Nation created the other reservations they were unaware that most of the lands were of desert kind -- hot scorching sands -- and the water from the River would be essential to the life of the Indian people and to the animals they hunted and crops they raised. We follow it [Winters] now and agree that the United States did reserve the water rights for the Indians effective as of the time Indian Reservations were created. This means, as the Master held, that these water rights, having vested before the Act [Boulder Canyon Project Act] became effective on June 25, 1929, are present perfected rights and as such are entitled to priority under the Act. We also agree with the Master's conclusion as to the quantity intended to be reserved. He found that water was intended to satisfy the future as well as present needs of the Indian reservations.... We have concluded, as did the Master, that the only feasible and fair way by which reserved water for the reservations can be measured is irrigable acreage. The various acreage of irrigable land which the Master found to be on the different reservations we find to be reasonable; and

General Nature of Attacks on Winter Doctrine

WHEREAS, notwithstanding the injunctions of Lord Baltimore, King George III and favorable decisions of the United States Supreme Court, in practice, Congress, the executive branch and the judiciary have (1) limited Indian reserved water rights, (2) suppressed development of Indian reserved water rights, and (3) permitted reliance by state, federal, environmental and private interests on Indian water, contrary to trust obligations. The federal policy has clearly been .. *how best to transfer Indian lands and resources to non-Indians*... rather than to preserve, protect, develop and utilize those resources for the benefits of the Indians.

With an opportunity to study the history of the Winters rule as it has stood now for nearly 50 years, we can readily perceive that the Secretary of the Interior, in acting as he did, improvidently bargained away extremely valuable rights belonging to the Indians.... viewing this contract as an improvident disposal of three quarters of that which justly belonged to the Indians, it cannot be said to be out of character with the sort of thing which Congress and the Department of the Interior has been doing throughout the sad history of the Government's dealings with the Indians and Indian tribes. That history largely supports the statement: From the very beginnings of this nation, the chief issue around which federal Indian policy has revolved has been, not how to assimilate the Indian nations whose lands we usurped, but how best to transfer Indian lands and resources to non-Indians. (*United States v Ahtanum Irrigation District*, 236 F. 2nd 321, 337); and

WHEREAS, the McCarran Amendment interpretation by the United States Supreme Court, if not in error, is a further example of the contemporary attack on Indian water rights. The discussion of the McCarran Amendment here is intended to show why tribes are (1) opposed to state court adjudications and (2) negotiated settlements under the threat of state court adjudication. In 1952 the McCarran Amendment, 43 U.S.C. 666 (a), was enacted as follows:

> *Consent is given to join the United States as a defendant in any suit (1) for the adjudication of rights to the use of water of a River system or other source, or (2) for the administration of such rights, where it appears that the United States is the owner or in the process of acquiring water rights by appropriation under State law, by purchase, by exchange or otherwise, and the United States is a necessary party to such suit;* and

WHEREAS, the McCarran Amendment has been interpreted by the U.S. Supreme Court to require the adjudication of Indian water rights in state courts. *Arizona v San Carlos Apache Tribe*, 463 U.S. 545,564,573 (1981) held:

> *We are convinced that, whatever limitation the Enabling Acts or federal policy may have originally placed on State Court jurisdiction over Indian water rights, those limitations were removed by the McCarran Amendment.*

In dissent, however, Justice Stevens stated:

> *To justify virtual abandonment of Indian water right claims to the State courts, the majority relies heavily on Colorado River Water Conservancy District, which in turn discovered an affirmative policy of federal judicial application in the McCarran Amendment. I continue to believe that Colorado River read more into that amendment that Congress intended... Today, however, on the tenuous foundation of a perceived Congressional intent that has never been articulated in statutory language or legislative history, the Court carves out a further exception to the virtually unflagging obligation of Federal courts to exercise their jurisdiction. The Court does not -- and cannot -- claim that it is faithfully following general principles of law... That Amendment is a waiver, not a command. It permits the United States to be joined as a defendant in state water rights adjudications; it does not purport to diminish the United States right to litigate in a federal forum and it is totally silent on the subject of Indian tribes rights to litigate anywhere. Yet today the majority somehow concludes that it commands the Federal Courts to defer to State Court water right proceedings, even when Indian water rights are involved;* and

WHEREAS, in Arizona, Montana and other states, general water right adjudications to quantify *Winters* Doctrine rights are ongoing. For example in the state of Montana:

(1) the state of Montana sued all tribes in a McCarran Amendment proceeding.

(2) the State of Montana established a Reserved Water Rights Compact Commission. The purpose of the Commission was to negotiate the *Winters* Doctrine rights of the Montana tribes.

(3) the Department of Interior has adopted a negotiation policy for the settlement of Indian water rights. The United States Department of Interior has a negotiating team which works with the Montana Reserve Water Rights Compact Commission and Indian tribes, some forced by the adjudication in

state court, to negotiate, while others are willing to negotiate.

(4) the Department of Interior makes all necessary funding available to any Tribe willing to undertake negotiations. A Tribe refusing to negotiate cannot obtain funding to protect and preserve its *Winters* Doctrine water rights.

(5) upon reaching agreement between the State of Montana and an Indian tribe, congressional staff are assigned to develop legislation in the form of an Indian water rights settlement that may or may not involve authorization of federal appropriations to develop parts of the amount of Indian water agreed upon between the Tribe and the State or for other purposes.

(6) in the absence of the desire of a Tribe to negotiate, the State of Montana will proceed to prosecute its McCarran Amendment case against the Tribe; and

WHEREAS, this process relies on ongoing litigation to accomplish negotiated settlements of *Winters* Doctrine Indian water rights. The process is held out to be a success by the state and federal governments. However, comparison with the taking of the Black Hills from the Great Sioux Nation, the taking of the Little Rocky Mountains from the Fort Belknap Indian Reservation and the taking of Glacier Park from the Blackfeet are valid comparisons. There are elements of force and extortion in the process; and

WHEREAS, in the Wind River adjudication, 753 P. 2nd 76, 94-100 (WY 1988), the State of Wyoming utilized the McCarran Amendment to drastically diminished the Arapaho and Shoshone *Winters* Doctrine water rights in the Big Horn River Basin. The Wyoming Supreme Court found as follows:

> *The quantity of water reserved is the amount of water sufficient to fulfill the purpose of the lands set aside for the Reservation.*
>
> ***
>
> *The Court, while recognizing that the tribes were the beneficial owners of the reservations timber and mineral resources... and that it was known to all before the treaty was signed that the Wind River Indian Reservation contained valuable minerals, nonetheless concluded that the purpose of the reservation was agricultural. The fact that the Indians fully intended to continue to hunt and fish does not alter that conclusion.... The evidence is not sufficient to imply a fishery flow right absent a treaty provision.... The fact that the tribes have since used water for mineral and industrial purposes does not establish that water was impliedly reserved in 1868 for such uses. The District Court did not err in denying a reserved water right for mineral and industrial uses... the District Court did not err in holding that the Tribes and the United States did not introduce sufficient evidence of a tradition of wildlife and aesthetic preservation that would justify finding this to be a purpose for which the Reservation was created or for which water was impliedly reserved... not a single case applying the*

> *reserved water right doctrine to groundwater is cited to us.... In Colville Confederated Tribes v. Walton, supra, 547 F 2d 42, there is slight mention of the groundwater aquifer and of pumping wells, Id at 52, but the opinion does not indicate that the wells are a source of reserved water or even discuss a reserve groundwater right.... The District Court did not err in deciding there was no reserved groundwater right;* and

WHEREAS, the statement by the Wyoming Supreme Court that *Colville* does not discuss a reserved water right to groundwater is in error, for Colville did decree reserved groundwater rights; and

WHEREAS, the *Wind River* case must be carefully examined by all tribes, including those of the Missouri River Basin. The single purpose of the Wind River Indian Reservation recognized by the Wyoming Supreme Court was limited to agriculture: severely limited relative to the... *Rights, Jurisdictions, Privileges, Prerogatives, Royalties, Liberties, Immunities, and Royal Rights and Temporal Franchises whatsoever, ... within the Region,* ..comprehending... *'all the soil, plains, woods, mountains, marshes, Lakes, Rivers, Days, and Straits, with the fishing of every kind, within the said limits'; all mines of whatsoever kind...*received by from the King by Lord Baltimore in the Proprietary of Maryland, which were, nevertheless, subject to purchase from the Native possessors. The Arapaho and Shoshone must have believed that the purpose of the reservation was to provide a permanent home and abiding place for their present and future generations to engage and pursue a viable economy and society. Despite existing oil and gas resources, they were denied reserved water for mineral purposes. Despite the need for industry in a viable economy, they were denied reserved water for industry. Despite a tradition of hunting and fishing, they were denied reserved water for wildlife and aesthetic preservation. Despite the existence of valuable forests, they were denied reserved water for this purpose. Despite the existence of valuable fisheries, established from time immemorial, they were denied a reserved water right to sustain their fisheries; and

WHEREAS, the United States Supreme Court reviewed the *Wind River* decision on the following question:

> *In the absence of any demonstrated necessity for additional water to fulfill reservation purposes and in presence of substantial state water rights long in use on the reservation, may reserved water rights be implied for all practicably irrigable lands within reservation set aside for specific Tribe?* 57 LW 3267 (Oct. 11, 1988); and

WHEREAS, acting without a written opinion and deciding by tie vote, the United States Supreme Court affirmed the decision of the Supreme Court of the State of Wyoming and rejected the thought process presented in the question above that the Tribes needed no additional water than the amount they were using and that state created water rights with long use should not be subjected to future Indian water rights. But a change in vote by a single justice would have reversed the decision and severely

constricted the benefits of the *Winters* Doctrine to the Indian people, a subject to be discussed further. The decision is limited to the State of Wyoming on critical issues, namely that Indian reserved rights do not apply to groundwater; the absence of a reserved water right for forest and mineral purposes; the absence of a reserved water right for fish, wildlife and aesthetic preservation; and a reduction of the Tribes claims to irrigation from 490,000 to less than 50,000 acres; and

WHEREAS, the acreage for irrigation finally awarded to the Wind River Tribes for future purposes was 48,097 acres involving approximately 188,000 acre-feet of water annually:

> *In determining the Tribes claims to practicably irrigable acreage, the United States [trustee for the tribes] began with an arable land-base of approximately 490,000 and relied on its experts to arrive at over 88,000 practicably irrigable acres. The claim was further "trimmed" by the United States to 76,027 acres for final projects. The acreage was further reduced during trial to 53,760 acres by Federal experts with a total annual diversion requirement of about 210,000 acre-feet.* (Teno Roncalio, Special Master. In Re: The General Adjudication of All Rights to the Use of Water in the Big Horn River System and All Other Sources, State of Wyoming, Concerning Reserved Water Right Claims by and on Behalf of the Tribes of the Wind River Indian Reservation, Wyoming, Dec. 15, 1982, pp. 154 and 157); and

WHEREAS, the *purposes* of reservation issue addressed by the Wyoming courts evolved from the 1978 United States Supreme Court case, *United States v. New Mexico* (438 U.S. 696), involving the water rights of the Gila National Forest:

> *The Court has previously concluded that Congress, in giving the President the power to reserve portions of the federal domain for specific federal purposes, impliedly authorized him to reserve "appurtenant water then unappropriated to the extent needed to accomplish the purpose of the reservation."... The Court has repeatedly emphasized that Congress reserved "only that amount of water necessary to fulfill the purpose of the reservation, no more."... Where water is only valuable for a secondary use of the reservation, however, there arises the contrary inference that Congress intended, consistent with its other views, that the United States would acquire water in the same manner as any other public or private appropriator.... The legislative debates surrounding the Organic Administration Act of 1897 and its predecessor bills demonstrate that Congress intended national forests to be reserved for only two purposes -- "to conserve the water flows, and to furnish a continuous supply of timber for the people."... Not only is the Government's claim that Congress intended to reserve water for recreation and wildlife preservation inconsistent with Congress's failure to recognize these goals as purposes of the national forest, it would defeat the very purpose for which Congress did intend the national forest system.... While Congress intended the national forest to be put to a variety of uses, including stockwatering, not inconsistent with the two principal purposes of the forest, stock watering was not, itself, a direct purpose of reserving the land;* and

WHEREAS, there may be debate with respect to the purposes for which a national

forest was created and for which purposes water was reserved, but it is a "slender reed" upon which to found a debate that when Indian reservations were established by the Indians or Great Britian or the United States, the purpose of establishment might vary among the Indian reservations; and, depending upon that purpose, the Indians would be limited in the beneficial uses to which water could be applied. Indian neighbors could apply water to any beneficial purpose generally accepted throughout the Western United States, but Indians could not. It is inconceivable that an Indian Reservation was established for any other "purpose" than an "Indian" reservation or that each Reservation was established for some arcane reason other than the pursuits of industry, self-government and all other activities associated with a modern, contemporary and ever-changing society embracing all of the ... *Rights, Jurisdictions, Privileges, Prerogatives,... and Temporal Franchises whatsoever, ... within the Region,* ..comprehending... *'all the soil, plains, woods, mountains, marshes, Lakes, Rivers, Days, and Straits, with the fishing of every kind, within the said limits'; all mines of whatsoever kind*; and

WHEREAS, nevertheless, the Wyoming courts relied upon the "purposes" argument to exclude water reserved for the pursuit of many of the arts of civilization.... industry, mineral development, fish, wildlife, aesthetics... on the basis that the purpose of the Wind River Indian Reservation was limited to an agricultural purpose absent specific Treaty language to the contrary. As crude as this conclusion may be, however, Tribes of the Missouri River basin and throughout the Western United States are faced with the "purposes" limitation originally applied in 1978 to national forests; and

WHEREAS, if there may be a question that the issue ended in Wyoming, it is only necessary to examine the state court general adjudication process in Arizona. A June 2000 pretrial order by the Special Master in the *General Adjudication of All Rights to Use Water in the Gila River System and Source* summarizes the issues as follows:

> *... Does the "primary-secondary" purposes distinction, as announced by the U.S. Supreme Court in United States v. New Mexico, 438 U.S. 696 (1978), apply to the water rights claimed for the Gila River Indian Reservation?...*
>
> *.... The State Litigants takes the position that the distinction does apply.*
>
> *... If the "primary-secondary" purposes distinction does apply to the Gila River Indian Reservation, what were the primary and secondary purposes for each withdrawal or designation of land for the Gila River Indian Reservation? May the Reservation have more than one "primary" purpose?....*
>
> *.... The State Litigants takes a position that the federal government withdrew or designated land to protect existing agriculture, create a buffer between the community and non-Indians who were settling in the area, provide substitute agricultural lands when non-Indians encroached on existing Indian agricultural lands, and provide for other specific economic activities such as grazing;* and

WHEREAS, the restriction or limitation of Indian water rights in the Missouri River basin is not confined to a federal denial of them in federal actions, such as the Master Manual and endangered species consultation. The limitations are expected to grow and expand from these federal actions. Indian water right opponents will concentrate on the language of *United States v. New Mexico* that *"...only that amount of water necessary to fulfill the purpose of the reservation, no more...* has been reserved by the Tribes or the United States on behalf of the tribes. The effort will be to first limit the purposes for which an Indian reservation was established and second limit the amount of water necessary to fulfill that purpose. If, for example, opponents could successfully argue that the purpose of an Indian reservation in the Missouri River Basin was primarily a "permanent homeland" and that agriculture was secondary, they would further argue that the amount of water reserved was limited to domestic uses, and no water was reserved for irrigation; and

WHEREAS, *Cappaert v. United States* (426 U.S. 128, 1976) was the basis, in part, for the decision in *United States v. New Mexico* discussed above. Here again the purposes of a "federal" reservation (as distinguished from a reservation by Indians or a reservation by the United States on behalf of Indians) and the use of water for that purpose is the subject. But the Cappaert decision is helpful in showing the extreme interpretations to which the State Court in Wyoming went in its *Wind River* decision:

> *....The District Court then held that, in establishing Devil's Hole as a national monument, the President reserved appurtenant, unappropriated waters necessary to the purpose of the reservation; the purpose included preservation of the pool and pupfish in it.... The Court of Appeals for the Ninth Circuit affirmed... holding that the "implied reservation of water" doctrine applied to groundwater as well as surface water...*and

WHEREAS, the purpose of establishing the national monument was clearly limited -- to preserve the Devil's Hole pupfish, which rely on a pool of water that is a remnant of the prehistoric Death Valley Lake System an object of historic and scientific interest. This is not an Indian reservation which embraces all of the purposes related to civilization, society and economy. Yet, Wyoming seized on the concept of an Indian reservation with purpose limited in the same manner as a national forest or a national monument. Note, however, that the Wyoming case (1988) grasps at the purposes argument to diminish the Indian water right but ignores the damaging aspect of *Cappaert* (1976) that reserved water concepts apply to groundwater as well as surface water. Not only did Wyoming ignore *Colville Confederated Tribes*, it ignored *Cappaert*. Recently, the Arizona Supreme Court, after considering the Wyoming decision, could not countenance a similar decision in Arizona, specifically rejected the Wyoming decision and found as follows:

> *...the trial court correctly determined that the federal reserved water rights doctrine applies not only to surface water but to groundwater...*and*...holders of federal reserved rights enjoy greater protection from groundwater pumping than do holders of state law rights...*; and

WHEREAS, similarly, Wyoming ignored *Cappaert*, a U.S. Supreme Court decision about federally reserved water rights in a National Monument in Nevada, where *Cappaert* specifically rejected the concept of "sensitivity" or balancing of equities when water is needed for the purpose of a federal or Indian Reservation. In *Cappaert* the Court cited the *Winters* decision as a basis for rejecting the notion of Nevada that competing interests must be balanced between federal (or Indian) reserved water rights and competing non-federal (or non-Indian) water rights. Wyoming returned to the U.S. Supreme Court seeking a more favorable decision respecting "sensitivity" than provided by *Cappaert*:

> *Nevada argues that the cases establishing the doctrine of federally reserved water rights articulate an equitable doctrine calling for a balancing of competing interests. However, an examination of those cases shows they do not analyze the doctrine in terms of a balancing test. For example, in Winters v. United States, supra, the Court did not mention the use made of the water by the upstream landowners in sustaining an injunction barring their diversions of the water. The "Statement of the Case" in Winters notes that the upstream users were homesteaders who had invested heavily in dams to divert the water to irrigate their land, not an unimportant interest. The Court held that, when the Federal Government reserves land, by implication, it reserves water rights sufficient to accomplish the purposes of the reservation;* and

WHEREAS, the United States Supreme Court reviewed the decision of the Wyoming Supreme Court and upheld the decision by a tie vote as discussed above. However, the majority of the court had apparently been swayed by the Wyoming argument:... *In the absence of any demonstrated necessity for additional water to fulfill reservation purposes and in presence of substantial state water rights long in use on the reservation, may reserved water rights be implied for all practicably irrigable lands within reservation set aside for specific Tribe?...* and had prepared a draft opinion referred to by the Arizona Supreme Court as the "ghost" opinion. The draft opinion was apparently not issued because Justice Sandra Day O'Connor, author of the "ghost" opinion on behalf of the majority, disqualified herself because she learned that her ranch had been named as a defendant in the Gila River adjudication in Arizona. Despite more than 350 years of understanding of justice and law relating to Indian property, the O'Connor opinion would have destroyed the basic tenets of the *Winters* Doctrine:

> *...The PIA standard is not without defects. It is necessarily tied to the character of land, and not to the current needs of Indians living on reservations....And because it looks to the future, the PIA standard, as it has been applied here, can provide the Tribes with more water than they need at the time of the quantification, to the*

> *detriment of non-Indian appropriators asserting water rights under state law....this Court, however, has never determined the specific attributes of reserve water rights – whether such rights are subject to forfeiture for nonuse or whether they may be sold or leased for use on or off the Reservation....Despite these flaws and uncertainties, we decline Wyoming's invitation to discard the PIA standard... The PIA standard provides some measure of predictability and, as explained hereafter, is based on objective factors which are familiar to courts. Moreover no other standard that has been suggested would prove as workable as the PIA standard for determining reserve water rights for agricultural reservations....we think Master Roncolio and the Wyoming Supreme Court properly identified three factors that must be considered in determining whether lands which have never been irrigated should be included as PIA: the arability of the lands, the engineering feasibility (based on current technology) of necessary future irrigation projects, and the economic feasibility of such projects (based on the profits from cultivation of future lands and the costs of the project... Master Roncolio found...that economic feasibility will turn on whether the land can be irrigated with a benefit-cost ratio of one or better....Wyoming argues that our post-Arizona I cases, specifically Cappaert and New Mexico, indicate that quantification of Indian reserved water rights must entail sensitivity to the impact on state and private appropriators of scarce water under state law.... Sensitivity to the impact on prior appropriators necessarily means that "there has to be some degree of pragmatism" in determining PIA....we think this pragmatism involves a "practical" assessment – a determination apart from the theoretical economic and engineering feasibility – of the reasonable likelihood that future irrigation projects, necessary to enable lands which have never been irrigated to obtain water, will actually be built....no court has held that the Government is under a general legal or fiduciary obligation to build or fund irrigation projects on Indian reservations so that irrigable acreage can be effectively used..... massive capital outlays are required to fund irrigation projects...and in today's era of budget deficits and excess agricultural production, government officials have to choose carefully what projects to fund in the West. ... Thus, the trier of fact must examine the evidence, if any, that additional cultivated acreage is needed to supply food or fiber to resident tribal members, or to meet the realistic needs of tribal members to expand their existing farming operations. The trier must also determine whether there will be a sufficient market for, or economically productive use of, any crops that would be grown on the additional acreage....we therefore vacate the judgment insofar as it relates to the award of reserved water rights for future lands and remand the case to the Wyoming Supreme Court for proceedings not inconsistent with this opinion;* and

WHEREAS, the United States Supreme Court has virtually unlimited power to arrive at unjust decisions as evidenced by the *Dred Scott* decision, and the opinion of the minority would have had no force and effect in *Wyoming* as given by Justice Brennan:

> *...in the Court might well have taken as its motto for this case in the words of Matthew 25:29: "but from him that has not shall be taken away even that which he has." When the Indian tribes of this country were placed on reservations, there was, we have held, sufficient water reserved for them to fulfill the purposes of the reservations. In most cases this has meant water to irrigate their arable lands.... The Court now proposes, in effect, to penalize them for the lack of Government investment on their reservations by taking from them those water rights that have remained theirs, until now, on paper. The requirement that the tribes demonstrate a "reasonable likelihood" that irrigation*

> *projects already determined to be economically feasible will actually be built – gratuitously superimposed, in the name out "sensitivity" to the interests of those who compete with the Indians for water, upon a workable method for calculating practicably irrigable acreage that parallels government methods for determining the feasibility of water projects for the benefit of non-Indians – has no basis in law or justice;* and

WHEREAS, whether inspired by the "ghost" opinion of Justice O'Connor or not, the Arizona Supreme Court held arguments in February 2001 on the issue of: "what is the appropriate standard to be applied in determining the amount are water reserved for federal lands?", particularly Indian lands, which were not reserved by the United States for the Standing Rock Sioux Tribe but were, rather, reserved by the Tribe by its ancient ancestors from time immemorial. The outcome by the Arizona Supreme Court is immaterial but provides the question for review by the United States Supreme Court with full knowledge from the "ghost" opinion of the probable outcome. The Salt River Project and Arizona, principal losers in *Arizona v California I*, make the following arguments in *Gila* River against Indian reserved rights to the use of water:

> *...Under the United States Supreme Court's decision in United States v New Mexico..., all federal land with a dedicated federal purpose "has reserved to it that minimum amount of water which is necessary to effectuate the primary purpose of the land set aside." Judge Goodfarb also found, however, that this "purposes" test does not apply to Indian reservations. Instead, he held that, for Indian reservations, "the courts have drawn a clear and distinct line"....that mandates that reserved rights for all Indian reservations must be quantified based on the amount of "water necessary to irrigate all of the practicably irrigable acreage (PIA) on that Reservation" without considering the specific purposes for which the Reservation was created....this interlocutory proceeding with respect to Issue 3 arose because Judge Goodfarb incorrectly ruled (as a matter of law and without the benefit of any factual record, briefing, or argument) that PIA applies to all Indian reservations...*
>
> *....as shown below, the Supreme Court in that case (Arizona I) and the courts in all reported decisions since that time, have applied the following analysis: first, review the historical evidence relating to the establishment of the Reservation and, from that evidence, determine the purposes for which the specific land in question was reserved (a question of fact). Second, determine, based upon the evidence, the minimum quantity of water necessary to carry out those purposes (a mixed question of law and fact). ...and in Colville Confederated Tribes V. Walton, for instance, the ninth circuit stated:. "to identify the purposes for which the Colville Reservation was created, we consider the document and circumstances surrounding its creation, and the history of the Indians for whom it was created. We also consider their need to maintain themselves under changed circumstances."*
>
> *...the Zuni Reservation in northeastern Arizona, for example, was established*

by Congress expressly "for religious purposes."...the original 1859 creation of the Gila Reservation and each of the seven subsequent additions had different rationales and were intended to address different purposes or combinations of purposes (e.g. protecting existing farmlands, adding lands for grazing, including lands irrigated by Indians outside the Reservation as part of the Reservation...

....in addition to varying in size, Indian reservations also vary in location and terrain. Reservations in Arizona, for instance, run the gamut from desert low lands to the high mountains and everything in between. Certain reservations along the Colorado River include fertile but arid river bottom land and were created for the purpose of converting diverse groups of "nomadic" Indians to a "civilized" and agrarian way of life...other reservations, such as the Navajo Reservation in extreme northeastern Arizona, consist largely of "very high plateaus, flat-top mesas, inaccessible buttes and deep canyons. "....there can be little doubt that the PIA standard works to the advantage of tribes inhabiting alluvium plains or other relatively flat lands adjacent to stream courses. In contrast, tribes inhabiting mountainous or other agriculturally marginal terrains are at a severe disadvantage when it comes to demonstrating that their lands are practicably irrigable....

...the special master [Arizona I] conducted a trial, accepted and reviewed substantial evidence regarding the purposes of the five Indian reservations at issue in that case, made factual findings as to purposes, and only then found that the minimum amount of water necessary to carry out those purposes was best determined by the amount of water necessary to irrigate all "practicably irrigable" acres on those reservations. ....the special master stated: "moreover the 'practicably irrigable' standard is not necessarily a standard to be used in all cases and when it is used it may not have the exact meaning it holds in this case. The amount reserved in each case is the amount required to make each Reservation livable."

...although the United States Supreme Court affirmed the Wyoming court's decision in that case without opinion, events surrounding that review shed considerable light on the Supreme Court's concerns about the continued viability of PIA as a standard, at least in the form it was applied in Arizona I. ....several Justices challenged the United States's defense of PIA...."at this point, Chief Justice Rehnquist challenged the precedential validity of Arizona I by noting that the opinion 'contains virtually no reasoning' and the Court merely had accepted the special master's conclusion as to the PIA standard...arguing that Congress must of contemplated the size of the tribe that would live on the Wind River Reservation, ...the Chief Justice stated that he found it difficult to believe that 'in 1868 Congress...should be deemed have said we're giving up water to irrigate every – every inch of arable land. No matter how large the tribe they thought they were settling. Did they expect to make some tribes very rich so that they can have an enormous export business... in agricultural products?" (State Litigant's Opening Brief on

Interlocutory Issue 3, Gila River Adjudication); and

Historical Analysis of Thought Processes Embraced by Master Manuall

WHEREAS, the means employed by the Corps of Engineers to deny consideration of Indian water rights in the preparation of the Master Manual and those same means employed by the Department of Interior to deny consideration of Indian water rights in baseline environmental studies of endangered species have been presented. Also, presented was the favorable body of law supporting the proper consideration of Indian water rights followed by the denigration of that law in state court adjudications, namely in Wyoming and, more recently, in Arizona. Briefly examined here are historical examples of the diminishment of property rights by a superior force and the strikingly similar arguments in support of that diminishment, and

WHEREAS, the concepts and techniques for diminishing the water rights of the Standing Rock Sioux Tribe in the Missouri River, its tributaries and aquifers are not novel. The colonization of Ireland by the English (*circa* 1650), for example, was justified in a manner that provides insight in the federal treatment of Indian water rights in the Missouri River Basin. Sir Thomas Macaulay, a prominent English politician in the first half of the 19th-century and one of the greatest writers of his or any other era, rationalized the taking of land from the native Irish and the overthrow of King James II in 1692, which overthrow was due, in part, to the King's efforts to restore land titles to the native Irish: (Sir Thomas Macaulay, 1848, *The History of England,* Penguin Classics, pp 149-151)

> *To allay national animosity such as that which the two races [Irish and English] inhabiting Ireland felt for each other could not be the work of a few years. Yet it was a work to which a wise and good Prince might have contributed much; and King James II would have undertaken that work with advantages such as none of his predecessors or successors possessed. At once an Englishman and a Roman Catholic, he belonged half to the ruling and half to the subject cast, and was therefore peculiarly qualified to be a mediator between them. Nor is it difficult to trace the course which he ought to have pursued. He ought to have determined that the existing settlement of landed property should be in violable; and he ought to have announced that determination in such a manner as effectually to quiet the anxiety of the new proprietors, and to extinguish any wild homes which the old proprietors might entertain. Whether, in the great transfer of estates, injustice had or had not been committed, was immaterial. The transfer, just or unjust, had taken place so long ago, that to reverse it would be to unfix the foundations of society. There must be a time limitation to all rights. After thirty-five years of actual possession, after twenty-five years of possession solemnly guaranteed by statute, after innumerable leases and releases, mortgages and devises, it was too late to search for flaws in titles. Nevertheless something might have been done to heal the lacerated feelings and to raise the fallen fortunes of the Irish gentry. The colonists were in a thriving condition. They had greatly improved their property by building, planting and fencing..... There was no doubt that the next Parliament which should meet at Dublin, though representing almost exclusively the English interest, would, in return for the King's promise to maintain that interest in all its legal rights, willingly grant to him a considerable sum for the purpose of indemnifying, at*

least in part, such native families as had been wrongfully despoiled.

*Having done this, he should have labored to reconcile the hostile races to each other by impartially protecting the rights and restraining the excesses of both. He should have punished with equal severity that native who indulges in the license of barbarism and the colonists who abused the strength of civilization..... no man who was qualified for office by integrity and ability should have been considered as disqualified by extraction or by creed for any public trust. It is probable that a Roman Catholic King, with an ample revenue absolutely at his disposal, would, without much difficulty, have secured the cooperation of the Roman Catholic prelates and priests in the great work of reconciliation. Much, however, might still have been left to the healing influence of time. The native race might still have had to learn from the colonists industry and forethought, arts of life, and the language of England. There could not be equality between men who lived in houses and men who lived in sties, between men who were fed on bread and men who were fed on potatoes, between men who spoke the noble tongue of great philosophers and poets and men who, with the perverted pride, boasted that they could not writhe their mouths into chattering such a jargon as that in which the Advancement of Learning and the Paradise Lost were written. Yet it is not unreasonable to believe that if the gentle policy which has been described had been steadily followed by the government, all distinctions would gradually have been effaced, and that there would now have been no more trace of the hostility which has been the curse of Ireland ...*and

WHEREAS, the Master Manual rationale... *Currently, such reserved or aboriginal rights of tribal reservations have not been quantified in an appropriate legal forum or by compact with three exceptions.... The Study considered only existing consumptive uses and depletions; therefore, no potential tribal water rights were considered....* or the ESA rationale.... *The environmental baseline used in ESA Section 7 consultations on agency actions affecting riparian ecosystems should include for those consultations the full quantum of: (a) adjudicated (decreed) Indian water rights; (b) Indian water rights settlement act; and (c) Indian water rights otherwise partially or fully quantified by an act of Congress... Biological opinions on proposed or existing water projects that may affect the future exercise of senior water rights, including unadjudicated Indian water rights, should include a statement that project proponents assume the risk that the future development of senior water rights may result in a physical or legal shortage of water....* does not represent a significant step forward from that advanced by Macaulay given the opportunity of 150 years for refinement in America. There cannot be significant differences between the statement of the Corps of Engineers and the Macaulay logic; and

WHEREAS, it is material, not immaterial, whether there has been injustice or a fitting of the law to the purpose in the transfer of Standing Rock waters of the Missouri River, its tributaries and its aquifers to non-Indians in the Master Manual update. It is rejected as correct ... that after the new proprietor's (downstream navigation, upstream recreation and endangered species) have enjoyed the Indian "estate" for a period of 25 to 35 years, the wild hopes of the Indian proprietors for participation must be extinguished. It is rejected as correct that the lacerated Indian feelings be healed, or for a considerable sum, despoiled Indian families can be made whole and the new possessors of Standing Rock Sioux water rights can be indemnified. It is rejected as proper that this be justified on the basis that the new possessor has greater industry, forethought, arts of life, language, diet, and housing. It is rejected

as untrue that after numerous leases, releases, and mortgages by non-Indians relying upon unused Indian *Winters* doctrine water rights, it is too late to search for flaws in titles. It is accepted as true that the Master Manual promotes reliance by non-Indians upon unused Indian *Winters* doctrine water rights; and

WHEREAS, the rationale of Supreme Court Justices, Master Manual and ESA is but a limited improvement from historical examples even earlier than Macaulay. Over 400 years ago, the sovereigns of England and Scotland, upon their union, sought possession of the borderlands between the two nations and to dispossess the native tribal inhabitants. The following provides the rationale of the Bishop of Glasgow against those ancient inhabitants as they sought (in vain) to stay in possession of their ancient lands:

> *I denounce, proclaim and declare all and sundry acts of the said murders, slaughters,... thefts and spoils openly upon daylight and under silence of night, all within temporal lands as Kirklands; together with their partakers, assistants, suppliers, known receivers and their persons, the goods reft and stolen by them, art or part thereof, and their counselors and defenders of their evil deeds generally CURSED, execrated, aggregate and re-aggregate with the GREAT CURSING.*
>
> *I curse their head and all their hairs on their head; I curse their face, their eye, their mouth, their nose, their tongue, their teeth, their crag, their shoulders, their breast, their heart, their stomach, their back, their wame (belly), their arms, their legs, their hands, their feet, and every part of their body, from the top of their head to the sole of their feet, before and behind, within and without.*
>
> *I curse them going and I curse them are riding; I curse them standing, and I curse them sitting; I curse them eating, I curse them drinking; I curse them walking, I curse them sleeping; I curse them arising, I curse them laying; I curse them at home, I curse them from home; I curse them within the house, I curse them without the house; I curse their wives, their barns, and their servants participating with them in their deeds. I wary their corn, their cattle, their wool, their sheep, their horses, their swine, their geese, their hens, and all their livestock. I wary their halls, their chambers, their kitchens, their storage bins, their barns, their cowsheds, their barnyards, their cabbage patches, their plows, their harrows, and the goods and houses that is necessary for their sustenance and welfare.*
>
> *The malediction of God that lighted upon Lucifer and all his fellows, that struck them from the high heaven to the deep hell, must light upon them. The fire in the sword that stopped Adam from the gates of Paradise, must stop them from the glory of heaven until they forbear and make amends;* and

WHEREAS, truly, the rationale of the Master Manual may be a slight improvement in the techniques that were used to justify dispossession 400 years ago and represents progress, Standing Rock and other tribes have repeatedly encountered equally effective, if less colorful, opposition to their efforts to preserve, protect, administer and utilize their water rights; and

WHEREAS, the distinguishing feature for the Standing Rock Sioux Tribe, however, is

the fact that the water right "estate" in the Missouri River has not been taken from them, even though it is under attack in the Master Manual. It is proposed in the Master Manual to commit water away from the Indians, but the process is not accomplished, and those who would rely on unused Indian water rights have not yet taken possession and executed mortgages, leases and releases on the basis of them. The Standing Rock Sioux Tribe remain in position to retain its "estate" in the Missouri River by rejecting the Master Manual and taking affirmative action to protect its ancient and intact possessions; and

WHEREAS, by taking steps to protect their ancient possessions the Standing Rock Sioux Tribe recognizes that it cannot expect support from the United States or its agencies acting as Trustee. Strong reaction can be expected from any current attempt to do so, including strong reaction by the Trustee. First, the Trustee has no funds for litigation of Indian water right issues. Second, the Trustee has considerable funds for settlement of Indian water right issues, but the Indian costs in lost property are great. Third, the Trustee has considerable technical criteria and requirements to impose on the Indian tribes as a basis for limiting the Indian water right "estate": irrigable land criteria, water requirement criteria, limitation on beneficial uses and, most limiting, economic feasibility criteria that few, if any, existing non-Indian water projects could survive.

NOW THEREFORE BE IT RESOLVED THAT, the Tribal Council of the Standing Rock Sioux Tribe rejects the Master Manual Review and Update by the U. S. Army Corps of Engineers for the express reason that it establishes a plan for future operation of the Missouri River addressing inferior downstream navigation, upstream recreation and endangered species water claims of the States and Federal interests and specifically denies proper consideration or any consideration of the superior, vested water rights of the Standing Rock Sioux Tribe while committing reservoir releases to purposes and interests in direct opposition to those of the Tribe.

BE IT FURTHER RESOLVED THAT, the Tribal Council of the Standing Rock Sioux Tribe, seeking to protect and preserve its valuable rights to the use of water in the Missouri River, its tributaries and aquifers upon which the Tribe relies and has relied since ancient times for its present and future generations, directs the Chairman to take all reasonable steps, through the appointment of himself, Tribal Council members and staff to working groups to petition members of Congress and officials at the highest levels in the Bush Administration, including the Department of Justice, among other proper steps, for the single purpose of ensuring a full rejection and re-constitution of the Master Manual as now proposed for action by the Corps to properly reflect the rights, titles and interests of the Standing Rock Sioux Tribe.

BE IT FURTHER RESOLVED THAT, the Tribal Council of the Standing Rock Sioux Tribe proclaims its continued dominion over all of the lands within the boundaries of the Standing Rock Sioux Indian Reservation as reserved from time immemorial including

but not limited to rights, jurisdictions, privileges, prerogatives, liberties, immunities, and temporal franchises whatsoever to all the soil, plains, woods, wetlands, lakes, rivers, aquifers, with the fish and wildlife of every kind, and all mines of whatsoever kind within the said limits; and the Tribal Council declares its water rights to irrigate not less than 303,650 arable acres with an annual diversion duty of 4 acre feet per acre, to supply municipalities, commercial and industrial purposes and rural homes with water for not less than 30,000 future persons having an annual water requirement of 10,000 acre feet annually, to supply 50,000 head of livestock of every kind on the ranges having an annual water requirement of 1,500 acre feet annually: such proclamation made on the basis of the status of knowledge at the start of the third millennia and subject to change to include water for other purposes, such as oil, gas, coal or other minerals, forests, recreation, and etc; and such proclamation for the purposes and amount of water required to be adjustable in the future to better reflect improved knowledge and changing conditions.

BE IT FURTHER RESOLVED THAT, the Tribal Council of the Standing Rock Sioux Tribe directs the Chairman to take all reasonable steps, through the appointment of himself, Tribal Council members and staff to working groups to petition members of Congress and officials at the highest levels in the Bush Administration to support and promote legislation that would, among other things, enable the Standing Rock Sioux Tribe to exercise its rights to the use of water in the Missouri River, in part, by purchasing the generators and transmission facilities of the United States at Oahe Dam at fair market value, subject to such offsets as may be agreed upon, with provisions to sell power generated at Oahe Dam at rates necessary to honor all existing contracts for the sale of pumping power and firm, wholesale power during their present term and sufficient to retire debts of the United States that may be agreed upon; provided, however, that the Tribe may increase power production at the dam by feasible upgrades and market the new power at market rates and after expiration of current contracts market power at rates reflective of the market; and provided further that legislation to purchase generators and transmission facilities will also include provisions to finance wind and/or natural gas power generation on the Standing Rock Indian Reservation to combine with hydropower production, thereby using Tribe's water and land resources effectively for the benefit of the Tribe without further erosion, diminishment and denigration of Tribe's water right claims.

BE IT FURTHER RESOLVED THAT, the Standing Rock Sioux Tribal Council rejects all reports and investigations of the Bureau of Reclamation on the Cannonball and Grand Rivers watersheds and any and all proposals by Bureau of Reclamation for an Indian Small Water Projects Act and that all ongoing efforts of the Bureau of Reclamation respecting these specific efforts will cease by this directive of the Tribal Council.

BE IT FURTHER RESOLVED THAT, the Tribal Council of the Standing Rock Sioux Tribe directs the Chairman to take all reasonable steps, through the appointment of himself, Tribal Council members and staff to working groups, to petition members of Congress,

United States Supreme Court, when engaged in a Whiggish course, to subject the least powerful to the will of the States in matters involving property rights as evidenced by the *Dred Scott*, the *O'Connor Ghost* and comparable decisions of expediency.

BE IT FURTHER RESOLVED THAT, the Chairman and Secretary of the Tribal Council are hereby authorized and instructed to sign this resolution for and on behalf of the Standing Rock Sioux Tribe.

CERTIFICATION

We, the undersigned, Chairman and Secretary of the Tribal Council of the Standing Rock Sioux Tribe, hereby certify that the Tribal Council is composed of (17) members, of whom __12__ constituting a quorum, were present at a meeting thereof, duly and regularly, called, noticed, convened and held on the __5th__ day of April, 2001, and that the foregoing resolution was duly adopted by the affirmative vote of __11__ members, with __0__ opposing, and with __1__ not voting. THE CHAIRMAN'S VOTE IS NOT REQUIRED, EXCEPT IN CASE OF A TIE.

DATED THIS __5th__ DAY OF APRIL, 2001.

Charles W. Murphy, Chairman
Standing Rock Sioux Tribe

ATTEST:

Randall J. White for
Elaine McLaughlin, Secretary
Standing Rock Sioux Tribe

(OFFICIAL TRIBAL SEAL)

MISSOURI RIVER BASIN WATER SUPPLY AND WATER REQUIREMENTS OF UNITED SIOUX INDIAN RESERVATIONS

(Final)

February 1979

United Sioux Indian Tribes
Pierre, South Dakota

Technical Assistance
Morrison-Maierle, Inc.
Helena, Montana

MM-1662-01-01-33

1. INTRODUCTION

1.1 ORGANIZATION OF REPORT

The report was prepared for the United Sioux Tribes of South Dakota pursuant to contract No. MM-1662-01-33. General requirements of the contract were to provide information relating to the water supply of the Missouri River Basin, the extent of existing depletions, and the extent of future depletions as proposed by upstream water users. A comparison of water availability accounting for proposed depletions and the present water requirements of the United Sioux Tribes was to be presented.

In this chapter of the report a brief history of land ownership of the United Sioux Tribes is presented. Particular emphasis was placed on identification of the treaties, congressional acts, and executive orders that created the reservations and the cessation of lands within the reservations that followed. Aside from investigation of the division of allotted lands into Indian and non-Indian ownership, it was intended that the summary of documents affecting land title would assist the United Sioux Tribes in quickly tracing the history of land ownership. The chapter concludes with statistics summarizing land status within each reservation. Statistics of population and employment are also provided.

The remaining four chapters of the report center on water availability of the Missouri River under existing and proposed future levels of development, water requirements of the United Sioux Tribes for irrigation and other purposes, and the plan (Pick-Sloan) developed by the federal government for development of the Missouri River Basin.

It was intended that the report will initiate the development of a framework for the beneficial use, management, and control of Indian water resources. Clearly, the Tribes have prior and paramount rights to the use of water. However, the exercise of those rights has historically been suppressed as evidenced by the minimal development of irrigation and other uses of water. A continual fracturing of the title to land has contributed substantially to this absence of development historically, but more recent governmental decisions such as water marketing and water policy of the executive branch of the federal government, if implemented, will result in new and serious limitations to the actual use of water by the Tribes.

Through the development of sound water resources policy by the Tribes and implementation of projects under their planning, management, and control, the current federal water policy can be overcome, and Indian water rights can be put to use for the benefit of the Tribes.

1.2 HISTORY OF REDUCTION IN INDIAN LAND HOLDINGS WITHIN RESERVATION BOUNDARIES.

Table 1-1 summarizes the treaties, congressional acts and executive orders establishing the United Sioux Indian Reservations. Also included are the federal actions which resulted in the sale of surplus and unallotted lands within the United Sioux Indian Reservations, lands which were ceded to the United States by the Tribes. The summary of Table 1-1 includes the principal laws related to Indian ownership within the reservations. Additional executive orders and congressional acts account for changes in title for relatively small areas.

Table 1-2 summarizes acreage of land within each reservation according to 1972 statistics gathered by the U.S. Department of Commerce. The acreage in allotted land, as presented in Table 1-2, is in both Indian and non-Indian ownership. The distribution of ownership into Indian allotted and non-Indian allotted was not investigated further. The "total" acreage for each reservation reflects the cessation of land within the reservation boundaries as summarized in Table 1-1.

1.3 INDIAN POPULATION AND EMPLOYMENT STATISTICS

Population and employment statistics are summarized in Table 1-3 for the United Sioux Reservations. Water resources development within the reservations by the tribes would provide sound employment and income opportunities that have not existed previously.

TABLE 1-1

UNITED SIOUX INDIAN RESERVATIONS
PRINCIPAL CHANGES IN LAND OWNERSHIP
SINCE ESTABLISHMENT OF RESERVATION

RESERVATION	DATE	CONGRESSIONAL ACT, TREATY, OR EXECUTIVE ORDER	SUBJECT	REFERENCE TO KAPPLER	
				VOLUME	PAGE
Standing Rock	March 2, 1889	Treaty	Reservation established.	1	328
	May 29, 1908	Congressional Act	Sale of portion of surplus and unallotted land.		
	February 14, 1913	Congressional Act	Sale of surplus and unallotted land.		675
Lower Brule	March 2, 1889	Treaty	Reservation established.	1	328
	March 3, 1889	Congressional Act	120,000 acres ceded.	1	688
	February 13, 1901	Congressional Act	Open ceded lands to settlement.	1	714
	April 21, 1906	Congressional Act	Sale of reservation portion.	3	167
	September 24, 1913	Executive Order	Auction of undisposed lands pursuant to Act of April 21, 1906.	4	1194
Fort Totten	February 19, 1887	Treaty	Establishment of reservation.		
	April 27, 1904	Congressional Act	Lands ceded within reservation.	3	83
	April 26, 1916	Executive Order	Sale of undisposed land.	5	965
Flandreau	June 18, 1934	Congressional Act	Authority to purchase lands for Indian reservations.		
	August 13, 1936	Secretarial Order	Purchase lands to establish reservation.		
	December 12, 1972	Secretarial Order	Add to reservation.		
Rosebud	March 2, 1889	Treaty	Reservation established.	1	328
	April 23, 1904	Congressional Act	Ceded unallotted lands.		
	March 2, 1907	Congressional Act	Sale of portion of surplus or unallotted lands.	3	307
	March 30, 1910	Congressional Act	Sale of portion of surplus and unallotted lands.	-	459
Santee	March 2, 1889	Congressional Act	Reservation established.	1	328
Crow Creek	March 2, 1889	Congressional Act	Reservation established.	1	328
Pine Ridge	March 2, 1889	Treaty	Reservation established.	1	328
	May 13, 1910	Congressional Act	Sale of surplus and unallotted land in Bennett County.	3	455
Cheyenne River	March 2, 1889	Treaty	Reservation established.	1	328
	May 29, 1908	Congressional Act	Sale of portion of surplus and unallotted lands.		
Sisseton	February 19, 1867	Treaty	Reservation established.		
	1891	Congressional Act	Cede unallotted lands.	1	428
Yankton	April 19, 1858	Treaty	Reservation established.	2	776
	May 20, 1875	Executive Order	Reservation added to.		898
	December 31, 1892	Congressional Act	Ceded unallotted lands in area of 1858 Treaty.		
	February 13, 1929	Congressional Act	Reinvest title in Indians to about 1000 acres.	5	77

TABLE 1-2

LAND STATUS
UNITED SIOUX INDIAN RESERVATIONS.

RESERVATION	TOTAL	TRIBAL	ALLOTTED	GOVERN-MENT	PAGE(1)
Standing Rock	847,799	294,840	542,700	10,258	433
Lower Brule	119,944	74,863	31,872	13,209	496
Fort Totten	244,507(2)	473	47,640	1,800	430
Flandreau	2,356	2,180	-	176	494
Rosebud	978,230	409,321	540,112	28,797	500
Santee	5,791	3,599	2,192	-	291
Crow Creek	122,531	31,111	72,339	19,079	492
Pine Ridge	2,778,710(3)	372,243	1,089,077	48,231	498
Cheyenne River	1,419,504	911,467	503,483	4,554	489
Sisseton	106,210	876	105,171	161	502
Yankton	434,932(4)	5,560	29,372	-	505
TOTAL	7,060,514	2,106,533	2,963,958	126,265	

(1) (U.S. Department of Commerce, 1974)

(2) Non-Indian = 192,794
F & W 1,800

(3) Non-Indian = 1,269,159

(4) Non-Indian = 400,000

TABLE 1-3

1972 POPULATION AND EMPLOYMENT STATISTICS
UNITED SIOUX INDIAN RESERVATIONS

RESERVATION	1972 POPULATION	LABOR FORCE TOTAL	LABOR FORCE UNEMPLOYED	UNEMPLOYMENT RATE
Standing Rock	4,690	1,159	399	34%
Lower Brule	701	152	35	23%
Fort Totten	1,990	462	273	59%
Flandreau	267	87	8	9%
Rosebud	7,488	1,833	472	26%
Santee	357	119	71	60%
Crow Creek	1,230	375	257	69%
Pine Ridge	11,353	2,787	1,157	42%
Cheyenne River	4,308	1,075	292	27%
Sisseton	2,434	475	201	42%
Yankton	1,338	289	190	66%
TOTAL	36,156	8,813	3,355	38%

SOURCE: (U.S. Department of Commerce, 1974)

REFERENCES

Kappler, Charles J., 1904-1941; Indian Affairs, Laws and Treaties, Volumes 1 through 5, (U.S. Government Printing Office, Washington, D.C.).

U.S. Department of Commerce, 1974; Federal and State Indian Reservations and Indian Trust Areas, (U.S. Government Printing Office, Washington, D.C.).

CHAPTER 2

MISSOURI RIVER AT SIOUX CITY, IOWA: UPSTREAM DEPLETIONS, DOWNSTREAM DEMANDS, AND REMAINING WATER SUPPLY

2.1 INTRODUCTION

This chapter sets out statistics compiled principally by the U.S. Bureau of Reclamation and the U.S. Army Corps of Engineers related to the available streamflow of the Missouri River at Sioux City, Iowa. The statistics are presented for both the historic period from 1865 to 1970 and the future - 1970 to ultimate development of the Missouri River Basin as projected by the Missouri River Basin Commission.

The purpose in presenting statistics developed by the federal agencies - principally the Bureau of Reclamation (USBR) and Corps of Engineers (COE) - is to provide an understanding of the data that are most frequently provided to the U.S. Congress and to the Missouri River Basin states for decision-making related to water resources development such as industrial marketing, inter-basin transfer, and downstream navigation. The chapter reports the investigation of the assumptions upon which the federal statistics are predicated. The inconsistencies in the federal statistics are reported, and the conflicts in conclusions regarding future water availability are identified.

In discussing the statistics developed by the federal agencies, it was not intended to endorse those statistics. An independent study to derive an information base comparable to USBR and COE is a massive undertaking. While independent study may be necessary to ultimately resolve water availability issues in the Missouri River Basin, the investigation reported here does not develop independent basic data. However, the conclusions from independent study of that basic data will assist in identification of subject areas needing further work. Previous work by the federal agencies has not addressed the conflicts of future development in the Missouri River Basin with Indian water requirements. The conclusions reported in this chapter do address those conflicts.

The chapter is organized to first describe the statistics related to historic and future depletions above Sioux City, Iowa. These depletions are the upstream demands on the river. Downstream demands, which consist of water requirements for water quality, municipal supplies, and navigation are then discussed. The streamflows at Sioux City, Iowa, reflecting various levels of upstream depletion, are reported from the detailed operation studies of the COE. More attention is given to the conflicts between competing uses of water during moderate and extreme drought conditions than has been presented in previous federal reports. The chapter concludes with discussion of water availability as it relates to Indian water requirements of the United Sioux and other Missouri River Basin tribes.

2.2 DEPLETIONS

This section focuses on the historic and future depletion estimates for the Missouri River above Sioux City, Iowa. The principal source of data for the historic depletions (prior to 1970) is the Missouri River Basin Comprehensive Framework Study (Missouri Basin Inter-Agency Committee, June 1969). Future depletions were also prepared for Framework Study, but those statistics have been subsequently modified by the U.S. Bureau of Reclamation, as will be shown. The USBR is currently working on a revised depletion study, but the work is not completed (Rick Gold, USBR, November 1978).

2.2.1 Historic Depletions

Depletion estimates for the period 1865 through 1970 are summarized in Table 2-1. The difference between the depletion estimate provided by the Missouri River Basin Comprehensive Framework Study and the depletions used by the Corps of Engineers (COE) is 1,591,000 acre-feet. The COE in its early operation studies gave the following basis for using 2,219,000 acre-feet:

> "4. The Task Force on Streamflow Depletions of the Missouri River Basin Comprehensive Framework Study made a detailed examination of water resource development that has taken place in the basin and developed estimates of the effects of this development upon historical streamflow. The current (or 1970) development level was selected as a base to reflect these effects through the historical period and for extending the effects to future levels of water resource development." (COE, March 1970, p.2)

TABLE 2-1

HISTORIC DEPLETION ESTIMATES
MISSOURI RIVER BASIN ABOVE SIOUX CITY, IOWA

PERIOD	DEPLETION (ACRE-FEET PER YEAR)	REFERENCE(1)
1865-1910	2,721,300	MBI-AC, June 1969, p.136
1910-1949	1,038,900	" , " " , "
1949-1970	2,772,000	" , " " , "
1910-1970	3,810,900	" , " " , "
	2,219,000	COE, 6-69, p.3
	2,219,000	COE, 12-75, p.4

(1) Sources: MBI-AC is Missouri River Basin Comprehensive Framework Study, Vol. 6, Hydrologic Analyses and Projections (June 1969); COE, 6-69 is Corps of Engineers, Main Stem Reservoir Operation Studies (March 1970); and COE 12-75 is Corps of Engineers, Main Stem Reservoir Regulation Studies, Series 12-75, (February 1976).

TABLE 2-2

MISSOURI RIVER ABOVE SIOUX CITY, IOWA
MAJOR PROJECTS AT 1970 DEVELOPMENT LEVEL

Subbasin	Major Reservoirs Affecting 1970 Flows				Major Irrigation Projects Assumed Depleting By 1970			
	Name	Agency	Capacity (Acre-Feet)	Year of Closure	Name	Agency	Acres	Remarks
Upper Missouri	Clark Canyon	BR	257,000	1964	East Bench	BR	49,800	
	Kennison	BR	9,000	Future	West Bench	BR	6,800	1
	Tiber	BR	1,368,000	1956	Lower Marias	BR	0[2]	1
	Ruby	Mont.	39,000	1938	Ruby R. Stor. Proj.	MSWB	34,000	
	Willow Creek	Mont.	17,000	1938	W. Cr. Stor. Proj.	MSWB	3,500	
	Hyalite	Mont.	8,000	1950	Middle Creek	MSWB	2,700	
	Deadman's Basin	Mont.	57,000	1941	Deadman's B. Proj.	MSWB	15,000	
	Canyon Ferry	BR	2,051,000	1954	Helena Valley	BR	13,000	
					Crow Creek	BR	5,000	
	Fort Peck	CE	19,100,000	1937				
					Broadwater-Mo.	MSWB	7,100	
Yellowstone	Bull Lake	BR	152,000	1938	Riverton	BR	60,000	
	Boysen	BR	952,000	1951	Hanover-Bluff	BR	6,500	
	Anchor	BR	17,000	1960	Owl Creek	BR	13,000	1
	Yellowtail	BR	1,375,000	1965	Lower Yellowstone	BR	44,300	
	Lodge Grass	BIA	23,000	1942	Crow Irrig. Proj.	BIA	30,600	
					Shoshone	BR	80,000	
	Tongue River	Mont.	68,000	1936	Buffalo Rapids	BR	21,000	
Western Dakota	Bowman-Haley	CE	73,900	1966				
	Cold Brook	CE	7,200	1952				
	Cottonwood Springs	CE	8,340	1969				
	Dickinson	BR	6,700	1950	Dickinson Unit	BR	400	
	Heart Butte	BR	226,000	1949	Heart River Unit	BR	4,000	
	Shadehill	BR	357,000	1951	Shadehill	BR	0[2]	1
	Keyhole	BR	340,000	1952	Belle Fourche	BR	57,100	
	Angostura	BR	160,000	1949	Angostura Unit	BR	12,000	
	Pactola	BR	99,000	1956	Rapid Valley	BR	8,900	
Eastern Dakota	Jamestown	BR	221,000	1953	Fort Clark Unit	BR	2,000	

1. No depletion before 1970.

Source: MBI-AC, June 1969, Vol. 6, Hydrologic Analyses and Projections, p.73.

TABLE 2-3

MISSOURI RIVER ABOVE SIOUX CITY, IOWA
DETAILED HISTORIC DEPLETION ESTIMATES

Area No.	Subbasin and General Area Description	Gaging Station[1]	Total 1910 to 1970	1910 to 1949	1949 to 1970	Depletions 1949 to 1970 by Function: Irrigation Farming	Large[2] Reservoir Evap.	Forestry[3] Practices	Watershed[4] Treatment and Ponds	Other Uses
			(Thousand Acre-Feet)							
UPPER MISSOURI										
1	Beaverhead River Basin	6-185	91.2	14.0	77.2	70.7	6.8	- 0.7	0.4	
2	Ruby River Basin	6-230	40.6	40.9	- 0.3			- 0.3		
3	Bighole River Basin	6-255	- 7.3		- 7.3			- 7.3		
5	Jefferson River Valley Area	6-345	4.7		4.7	4.7				
6	Madison River Basin	6-410	- 1.6		- 1.6	7.6		- 9.4	0.2	
7	Gallatin River Basin	6-525	24.1		24.1	28.0		- 4.3	0.4	
9	Missouri Valley Area above Toston	6-545	70.1	45.0	25.1	25.1				
11	Smith and Dearborn Rivers Area		9.4	-25.0	34.4	23.0		10.0	1.4	
10	Sun River Basin	6-890	112.1	96.3	15.8	5.8	10.0	- 0.2	0.2	
13	Marias-Teton River Basins	6-1095	135.7	34.0	101.7	53.7	40.0	- 1.1	9.1	
14	Arrow-Judith River Basins	6-1150	11.3		11.3	5.6		- 0.8	6.5	
15	Musselshell River Basin	6-1305	46.1	20.0	26.1	23.1		- 2.8	5.8	
17	Missouri Valley Area to Fort Peck	6-1320	145.2	- 9.0	154.2	30.0	95.0		29.2	
	Evaporation from Fort Peck		441.0	441.0						
	Subtotal above Fort Peck Dam		1122.6	657.2	465.4	277.3	151.8	-16.9	53.2	
35	Milk River Basin	6-1745	77.8		77.8	36.9	1.0		39.9	
36	Poplar River Basin	6-1810	3.7		3.7	0.6			3.1	
37	Missouri Valley Area to Williston	6-3300	40.2	16.0	24.2	12.0			12.2	
	Subtotal Fort Peck to Garrison		135.7	16.0	119.7	49.5	1.0		55.2	14.0
	Total		1258.3	673.2	585.1	326.8	152.8	-16.9	108.4	14.0[5]
YELLOWSTONE										
18	Yellowstone River above Livingston	6-1925	6.8		6.8	8.0		- 1.3	0.1	
19	Stillwater River Basin	6-2050	3.5		3.5	3.5				
20	Clarks Fork River Basin	6-2085	4.3		4.3	4.7		- 1.8	1.4	
21	Shields-Boulder-Rock Creek	6-2145	30.2	5.5	24.7	20.2		- 1.4	5.9	
22	Wind River Basin	6-2590	193.9	104.3	89.6	36.2	53.8	- 6.4	6.0	
23	Greybull River Basin	6-2775	10.7	10.0	0.7			0.1	0.6	
24	Bighorn Valley Area above Kane		28.1	0.3	27.8	21.3			6.5	
25	Shoshone River Basin	6-2850	112.9	36.2	76.7	76.3	0.9	- 1.6	1.1	
26	Bighorn Valley Area to St. Xavier	6-2870	26.4		26.4		25.8	- 0.2	0.8	
28	Tongue River	6-3035	16.2	4.5	11.7	7.6	1.8	- 1.9	4.2	
29	Yellowstone Valley to Miles City	6-3090	35.6	10.4	25.2	16.6		- 3.0	9.9	1.7
30	Upper Powder River Basin	6-3170	13.4	3.5	9.9	3.0		- 0.6	7.5	
31	Middle Powder River Basin	6-3245	4.3	1.2	3.1			1.1	2.0	
32	Lower Powder River Basin	6-3265	14.2	2.9	11.3	3.6		1.1	6.6	
33	Lower Yellowstone to Sidney	6-3295	105.1	80.3	24.8	12.1			12.7	
	Total		629.9	268.9	361.0	213.1	82.3	-15.9	65.3	16.2[6]

TABLE 2-3 - continued

WESTERN DAKOTA									
1 Little Missouri River Basin	6-3370	28.7	5.0	23.7	8.2		1.5	14.0	
Subtotal above Garrison Dam		28.7	5.0	23.7	8.2		1.5	14.0	
2 Knife River Basin	6-3405	5.2	0.9	4.3	1.9			2.4	
3 Heart River Basin	6-3490	23.8	1.4	22.4	9.5	8.0	0.1	3.3	1.5
4 Cannonball River Basin	6-3540	9.4	1.2	8.2	4.2		0.1	3.9	
5 Grand River Basin	6-3580	51.5	3.2	48.3	25.8	14.3	0.2	5.0	3.0
6 Moreau River Basin	6-3610	20.8	5.8	15.0	7.8			7.2	
7 Upper Cheyenne River Basin	6-4015	75.8	4.2	71.6	47.4	9.7	0.1	14.4	
8 Belle Fourche River Basin (Wyo.)	6-4285	1.8	0.4	1.4		7.0	-11.1	5.5	
9 Lower Cheyenne Basin	6-4395	76.2	3.0	73.2	51.0	1.3		15.5	5.4
Subtotal Garrison to Oahe		264.5	20.1	244.4	147.6	40.3	-10.6	57.2	9.9
10 Bad River Basin	6-4415	15.8	7.5	8.3	2.0		0.4	5.9	
Subtotal Oahe to Big Bend		15.8	7.5	8.3	2.0		0.4	5.9	
11 White River Basin	6-4520	56.5	14.3	42.2	19.4		0.6	22.2	
Subtotal Big Bend to Ft. Randall		56.5	14.3	42.2	19.4		0.6	22.2	
Total		365.5	46.9	318.6	177.2	40.3	- 8.1	99.3	9.9[7]
EASTERN DAKOTA									
1 Missouri Valley Williston to Bismarck		78.5	9.4	69.1	54.0			4.7	10.4
Subtotal above Garrison Dam		68.1	9.4	58.7	54.0			4.7	
Subtotal below Garrison Dam		10.4		10.4					10.4
2 Missouri Valley Bismarck to Mobridge		16.7	6.3	10.4	5.1			3.2	2.1
3 Missouri Valley Mobridge to Pierre		27.0	7.8	19.2	14.7			2.5	2.0
Subtotal Garrison to Oahe		54.1	14.1	40.0	19.8			5.7	14.5
7 Missouri Valley Pierre to Sioux City		77.8	17.2	60.6	44.2		0.7	10.7	5.0
Subtotal of Oahe to Gavins Point			17.2	59.8	44.2		0.7	9.9	5.0
4 James River Basin	6-4785	62.3	4.4	57.9	48.2	2.4		2.3	5.0
5 Vermillion River Basin	6-4790	12.3	0.6	11.7	10.2			0.5	1.0
6 Big Sioux River Basin	6-4855	40.9	3.6	37.3	27.0			2.9	7.4
Total		315.5[9]	49.3	266.2	203.4	2.4	0.7	26.8	32.9[8]

1-Location of gaging stations on plates 12 and 17.
2-Includes FWL developments causing depletions during the period of record. They are generally insignificant, but exceptions are U-L Bend in Area 17 of Upper Missouri Subbasin and Area 1 of Eastern Dakota Subbasin associated with Garrison Diversion Unit. Neither is completed to date, but will evaporate 50.0 and 60.0 thousand AF, respectively.
3-Includes selective cutting, thinning, and management practices which increase runoff.
4-Effects on all lands (Federal and private) from: land treatment (contouring, terracing, drainage and water spreading); minor impoundments (farm ponds, dugouts, erosion control, fisheries, recreation ponds and small irrigation reservoirs of all agencies, groups and individuals); and upstream watershed structural measures.
5-Rural domestic and livestock - 10.4 Mining - 0.1 M&I - 3.5
6-Rural domestic and livestock - 7.5 Mining - 2.5 M&I - 4.5 Thermal power - 1.7
7-Rural domestic and livestock - 1.3 Mining - 1.4 M&I - 7.2
8-Rural domestic and livestock - 22.5 Thermal power - 10.4
9-Evaporation from five main-stem reservoirs in this reach will deplete another 1.1 million acre-feet.

Source: MBI-AC, June 1969, Volume 6, Hydrologic Analyses and Projections, p.76.

In its later investigations, the COE made precisely the same statement, (COE, February 1976, p.3) but further qualified its depletion estimates as follows:

> "B-5. The depletion estimates referred to in the preceding paragraph were made in the mid-1960's. After reviewing these estimates in some detail in connection with their current Northern Great Plains Resource Program, the USBR concluded that the 1970-level estimates presented in the Framework study were satisfactory for continued use." (COE, February 1976, p.4)

Large reservoir evaporation apparently accounts for the difference between the Framework Study and COE depletion estimates for the period 1910 to 1970. The Comprehensive Framework Study provided estimates of large reservoir evaporation as a component of the 3,810,900 acre-feet depletion estimate for the 1910-1970 period. The COE estimated large reservoir evaporation on a monthly basis in its reservoir operation studies. Therefore, the two depletion estimates should be compatible.

The Missouri River Basin Comprehensive Framework Study provides a list of the major projects in operation prior to 1970. Those projects are listed in Table 2-2. While the projects may account for some of the larger depletions, the table does not include all federal projects, and many private projects are not included.

The detailed depletions estimates of the Comprehensive Framework Study are presented in Table 2-3. These data are consistent with the statistics summarized in Table 2-1 for the depletions credited to the Framework Study.

2.2.2 Future Depletions

The Missouri River Basin Comprehensive Framework Study provides estimates of future depletions above Sioux City, Iowa as summarized in Table 2-4. Future depletions from 1970 to 2020 were projected to total 8,725,200 acre-feet per year.

TABLE 2-4

FUTURE STREAMFLOW DEPLETIONS ABOVE SIOUX CITY, IOWA

Time Period	Depletion (1000 Ac-Ft Per Year)
1970-1980	2267.5
1980-2000	2886.7
2000-2020	3571.0
1970-2020	8725.2

Source: MBI-AC, June 1969, Vol. 6, Hydrologic Analyses and Projection, p.136.

More detailed summaries of future depletions from the Framework Study are presented in Table 2-5. The sum of the 2020 depletion levels for each subbasin is 8,160,400 acre-feet, apparently in disagreement with the total of 8,725,200 acre-feet given in Table 2-4. An explanation for the difference in depletion estimates was not discovered.

Special attention is drawn to the "forestry management" and precipitation management" entries in Table 2-5. In the Upper Missouri and Yellowstone subbasins it was projected the negative depletions (streamflow gains) will be developed from these watershed management theories. By year 2020 the expected increase in streamflow in the two headwater subbasins would total 947,500 acre-feet according to the projection. While some improvement in watershed management may increase runoff in the future, the speculation and conjecture necessary to arrive at projections of this nature should be recognized.

The Corps of Engineers in its 6-69 series of operation studies of the Missouri River used depletion estimates presented in the Comprehensive Framework Study. For the period 1970 to 2000 the COE used growth in average annual depletions of 5,415,000 acre-feet while citing the "Task Force on Streamflow Depletions of the Missouri River Basin Comprehensive Framework Study" as its source, (COE, 6-69, March 1970, pp. 2&3). In its more recent operation studies, series 12-75, the COE used revised depletion estimates citing the USBR as its source of information:

> "B-5. The depletion estimates referred to in the preceding paragraph were made in the mid-1960's. After reviewing these estimates in some detail in connection with their current Northern Great Plains Resource Program, the USBR concluded that the 1970-level estimates presented in the Framework study were satisfactory for continued use. However, revised estimates for expected post-1970 depletions were developed by that agency and have been incorporated in the current series of long range regulation studies. Essentially these revisions consisted of a significant slowdown in the rate of depletion growth for all areas above Sioux City." (COE, 12-75, February 1976, p.4)

The revised depletions utilized by the COE in its operation studies are summarized in Table 2-6. For the period 1970 to 2000 the COE used a "revised" projected growth in annual depletions above Sioux City of 2,588,000 acre-feet, a reduction of 2,827,000 acre-feet per year from the depletions used in the 6-69 operation studies. Ultimate depletion upstream from Sioux City totaled 6,809,000 acre-feet greater than the 1970 depletion level in the most recent operation studies.

The USBR in its draft environmental impact statement on water for energy cited the depletions estimates in the 12-75 series of COE operation studies. In other words, the COE cites USBR as its source of depletion estimates in the 12-75 series operation studies (COE, 12-75, February 1976), and the USBR cites the COE in its impact statement on water marketing (USBR, October 1976, p.2-40). The revisions consisting of a "significant slow down in the rate of depletion growth for all areas above Sioux City" are not published.

TABLE 2-5

FUTURE AVERAGE ANNUAL STREAMFLOW DEPLETIONS ABOVE 1970 LEVEL
BY SUBBASIN AND USE OF WATER
MISSOURI RIVER ABOVE SIOUX CITY, IOWA
(1000 ACRE-FEET)

Type of Use	Upper Missouri			Yellowstone		
	1980	2000	2020	1980	2000	2020
Cropland Irrigation - Full Service	263.0	512.2	671.2	272.5	683.6	975.6
Cropland Irrigation - Supplemental	43.0	116.0	150.5	53.4	102.5	122.0
Irrigation Systems Rehabilitation	0	0	0	-19.4	-44.5	-64.2
Municipal and Rural Domestic Use	11.4	24.0	30.7	124.7	106.0	116.0
Industrial and Mineral	0	0	0	195.4	355.2	694.7
Thermal-Electric Power	4.4	19.1	45.4	7.6	41.6	87.8
Large Reservoir Evaporation	31.7	70.0	77.6	11.0	21.7	62.1
Small Reservoir Evaporation	8.0	17.7	34.5	17.9	37.3	43.4
Minor Ponds Evaporation	4.1	14.8	24.1	17.8	35.2	30.8
Livestock	11.5	24.2	42.2	10.5	23.7	40.0
Watershed Treatment and Protection	8.4	25.8	42.9	4.5	10.4	16.8
Wetlands and FWL Areas	15.3	60.8	92.9	11.2	26.9	49.0
Forestry Management	-13.0	-42.0	-70.5	-45.0	-136.0	-145.0
Importations	0	0	0	0	0	0
Exportations(1)	0	45.0	45.0	0	0	0
Precipitation Management	-19.6	-78.4	-196.0	-89.0	-267.0	-536.0
Total	368.2	809.2	990.5	573.1	996.6	1493.0

Type of Use	Western Dakota			Eastern Dakota(2)		
	1980	2000	2020	1980	2000	2020
Cropland Irrigation - Full Service	215.0	455.0	818.0	224.6	803.4	1910.6
Cropland Irrigation - Supplemental	0	0	0	0	0	0
Irrigation Systems Rehabilitation	1.0	2.0	5.0	0	0	0
Municipal and Rural Domestic Use	3.0	6.0	9.0	9.0	16.1	23.7
Industrial and Mineral	0	0	0	0	0	0
Thermal-Electric Power	15.0	30.0	53.0	5.0	15.8	36.0
Large Reservoir Evaporation	1.0	28.0	30.0	82.1	95.3	99.8
Small Reservoir Evaporation	75.0	143.0	186.0	8.6	12.3	15.8
Minor Ponds Evaporation	3.0	10.0	15.0	0	6.4	14.8
Livestock	13.0	26.0	45.0	23.5	52.5	91.5
Watershed Treatment and Protection	20.0	63.0	112.0	10.0	33.0	71.0
Wetlands and FWL Areas	0	0	0	60.7	64.3	148.9
Forestry Management	0	-8.0	-8.0	0	0	0
Importations	0	0	0	0	0	0
Exportations	0	0	0	410.6(3)	1086.6(3)	1999.8(3)
Precipitation Management	0	0	0	0	0	0
Total	346.0	755.0	1265.0	834.1	2185.7	4411.9

(1) Upstream depletion of Milk River by Canada.
(2) Accounts for both initial and ultimate stages of the Garrison Diversion Unit, Oahe Diversion Unit, other Federal and private irrigation units diverting from the Missouri River, and return flow to the Missouri River:

1980	2000	2020
776.0	2022.6	4047.4

(3) Export to Souris and Red Rivers via Garrison Diversion Unit.
Source: MIB-AC, June 1969, Volume 6, Hydrologic Analyses and Projections, pp.130-132

TABLE 2-6

PROJECTED GROWTH IN ANNUAL
DEPLETIONS ABOVE SIOUX CITY, IOWA
(1000 ACRE-FEET)

Reach	1970 - 2000	1970 - Ultimate
Above Fort Peck	266	1040
Fort Peck to Garrison	1392	3949
Garrison to Oahe	773	1450
Oahe to Fort Randall	42	160
Fort Randall to Gavins Point	48	180
Gavins Point to Sioux City	67	30
Total Above Sioux City	2588	6809

Source: COE, 12-75, February 1976, p.4.

2.3 DOWNSTREAM DEMANDS

The discussion of historic and future depletions set forth above deals with the magnitude of streamflow reductions upstream from Sioux City, Iowa. The depletions are the result of upstream demands for water. Below Sioux City the COE has identified the magnitude of streamflows needed to satisfy downstream demands. Those demands are summarized in Table 2-7.

TABLE 2-7

STREAMFLOWS AT SIOUX CITY, IOWA
TO SATISFY DOWNSTREAM DEMANDS
IN THE MAINSTEM MISSOURI RIVER

Purpose	Period of Use	Streamflow CFS	Streamflow Acre-Feet For Period
Navigation	April 1 to December 1	29,000(1)	14,035,250
Municipal Supply	Annual	6,000(2)	4,343,900
Water Quality	Annual	1,000(3)	724,000

(1) 29,000 cfs is the lower end of the range for navigation requirements. The upper end, 35,000 cfs, is equivalent to 16,939,090 acre-feet. (COE, 12-75, February 1976, p.15)
(2) (COE, 12-75, February 1976, p.14)
(3) (COE, 12-75, February 1976, p.13)

The downstream demand for navigation is the quantity of streamflow considered necessary by the COE for navigation in the "9-foot" channel below Sioux City:

> "C-7. Water Supply for Navigation. The authorized 9-feet deep by 300-feet wide navigation channel on the Missouri River from Sioux City to the mouth is still under construction. Until this construction is completed and sufficient time elapses to complete the formation of the navigation channel, the exact magnitude of flows required for satisfactory navigation cannot be determined. Operating experience to date has indicated that progressively higher flow levels are required to maintain similar loading depths from upstream to downstream portions of the navigation project. While no increase appears necessary between Sioux City, and Omaha, the increase amounts to 6,000 cfs between Omaha and Nebraska City and 4,000 cfs between Nebraska City and Kansas City. The main stem reservoirs are currently being regulated to provide these increased flow levels and these studies assume the requirements will continue. As yet, no flow increase other than that which naturally occurs has been established for locations below Kansas City. The studies utilize navigation target flow rates of 25,000 to 31,000 cfs at Sioux City and Omaha, 31,000 to 37,000 cfs at Nebraska City and 35,000 to 41,000 cfs at Kansas City, depending on the amount of storage in the main stem reservoir system. While flows above these levels could possibly benefit navigation by minimizing dredging and permitting greater loading depths, they were utilized in the studies only as a storage evacuation measure." (COE, 12-75, February 1976, p.14)

After accounting for tributary inflows below Sioux City, the COE determined that 29,000 to 35,000 cfs would be required at Sioux City to meet target navigation flows below Omaha.

During the navigaiton season streamflows would be adequate to meet water quality requirements and downstream needs for municipal supply. However, during the non-navigation season (December 1 to April 1), municipal needs would be met by a minimum flow of 6,000 cfs at Sioux City, provided problems of diversion due to lowered water levels in the river were overcome:

> "C-6. Municipal Water Supply. It was assumed that minimum releases from each project and from the system (usually 6,000 cfs or more from Gavins Point) in combination with system releases necessary to maintain downstream water quality at acceptable levels, would be sufficient to provide for downstream municipal needs. While such an assumption would result in an adequate supply for these needs, problems of access would probably occur, requiring modification in supply intakes, particularly at future development levels." (COE, 12-75, February 1976, p.14)

With 29,000 cfs minimum flow during the navigation season and 6,000 cfs during the non-navigation season, the minimum annual downstream demand would total 15,475,250 acre-feet per year.

2.4 MISSOURI RIVER STREAMFLOWS AT SIOUX CITY UNDER VARIOUS UPSTREAM DEVELOPMENT CONDITIONS

The previous sections have summarized the depletions above Sioux City from the Missouri River and tributaries and the downstream demands on the main stem. This section summarizes the findings of the COE on the impacts of upstream development and downstream demand on streamflows at Sioux City.

2.4.1 Natural Streamflow

The natural streamflow estimated by the USBR at Sioux City, Iowa, is given as 28.4 million acre-feet (USBR, October 1976, p.1-3). The USBR refers to the value as the "average annual flow with zero depletions".

Although the basis for the USBR estimate was not given, the value can be checked using COE streamflows adjusted to the 1949 level of development and adding historic depletions prior to 1949:

TABLE 2-8

NATURAL, AVERAGE ANNUAL STREAMFLOW AT SIOUX CITY, IOWA, BASED ON FEDERAL STATISTICS

Average annual streamflow, Sioux City, Iowa, 1949 Depletion Level, 1898 to 1975(1)	=	24,778,000 acre-feet
1865 to 1910 Depletion Level(2)	=	2,721,300 acre-feet
1910 to 1949 Depletions(3)	=	1,038,900 acre-feet
Average Annual Flow With Zero Depletions	=	28,538,200 acre-feet

(1) From COE, May 1977, unpublished computer runs, #457105
(2) MBI-AC, June 1969, Volume 6, Hydrologic Analyses and Projections, p.136
(3) Ibid, p.78

2.4.2 Projected Future Streamflows

The primary purpose of the COE operation study cited so frequently, (COE, 6-69, March 1970, and COE, 12-75, February 1976) was to determine the impact of future developments in the Missouri River Basin on streamflows.

The operation studies were simulations of future conditions based on systematic operation of the main stem Missouri River reservoirs: Fort Peck, Garrison, Oahe, Big Bend, Fort Randall and Gavins Point. The main stem reservoir system would be operated as it is today to fulfill the following objectives:

(1) Flood control
(2) Power production
(3) Navigation
(4) Water supply
(5) Water quality control
(6) Fish, wildlife, and environmental enhancement

Numerous assumptions are incorporated in the simulation studies. Discussion of those assumptions and assessments of the effects of those assumptions is beyond the purpose of this chapter, but careful evaluation of the assumptions and simulation techniques may be necessary to totally evaluate the impact on Indian water right issues.

The most recent COE operation studies were performed to evaluate the impact on streamflow of future water marketing for industrial purposes. The series of operation studies examined four alternative futures as described below: (See COE, 12-75, February 1976, pp. 1&2)

(1) base study for the year 2000, no coal development; see Table 2-6, 1970-2000 for future depletions used in operation study.
(2) base study including withdrawals of 500,000 acre-feet for coal by year 2000; depletions equal values in Table 2-6 plus 500,000 acre-feet per year.
(3) base study the same as above but including withdrawals for coal at 1,000,000 acre-feet per year by 2000.
(4) base study using "ultimate depletions" (see Table 2-6), and no additional withdrawals for coal.

For the purpose of the investigation for the United Sioux Tribes, reported here, unpublished computer printouts of the COE study of "ultimate depletions" were obtained and evaluated. The ultimate depletions used by COE were revised by USBR from earlier ultimate depletion estimates (see section 2.2.2). Purportedly the ultimate depletions represent the highest foreseeable demand in the Missouri Basin above Sioux City. The demands for ultimate depletions are greater than the demands for year 2000 development with additional withdrawals of up to 1,000,000 acre-feet for coal.

In the Missouri River Basin Comprehensive Framework Study depletions beyond year 2020 were not addressed, but depletions beyond 1970 to year 2020 were given as 8,725,200 acre-feet (see Table 2-4), which depletions are substantially higher than the ultimate depletions used by COE of 6,809,000 acre-feet (see Table 2-6). The COE does not address the time for ultimate depletions to be in use. The USBR uses the year 2060 rather than 2020 in its environmental impact statement on water marketing (USBR, October 1976, p.1-3). USBR has revised ultimate depletions downward by 1,916,200 acre-feet from the 2020 depletion figure in the Framework Study and has moved the date of achieving the lower depletion figure from year 2020 to year 2060.

On the basis of the COE simulation studies using ultimate depletions, the streamflows of Table 2-9 were determined available at Sioux City depending on the period of record.

TABLE 2-9

COMPARISON OF AVAILABLE STREAMFLOWS
WITH DOWNSTREAM DEMANDS
MISSOURI RIVER AT SIOUX CITY, IOWA
(1000 ACRE-FEET)

Period	Average Streamflow(1)	Downstream Demand(2)	Deficit
1898 - 1975	14,965	15,475	510
1957 - 1961	10,419	15,475	5056
1932 - 1942	6,520	15,475	8955

(1) From COE 12-75 Series Computer Runs, Ultimate Depletions, 1898-1975, unpublished.
(2) See Section 2.3.

Over the long period of historic streamflows, the difference in average streamflow and downstream demand would be small, 510,000 acre-feet. However, in a moderate drought period such as the period 1957 to 1961 the shortage in meeting downstream demands would average 5,056,000 acre-feet or approximately 33 percent of the downstream demand. In a severe drought, 1932 to 1942, the available streamflows would average more than 50 percent of the downstream demand.

The COE evaluated the downstream shortages somewhat differently. The COE assessed the effect of projected depletions on navigation as summarized in Table 2-10. Unfortunately, most of the years with little or no navigation potential would occur in a succession of dry years such as the period from 1932 to 1942. It is questionable as to how workable navigation of the Missouri River could be considered with risk of such a prolonged duration of non-navigable streamflows.

2.5 INDUSTRIAL WATER MARKETING AND POTENTIAL CONFLICTS WITH INDIAN WATER REQUIREMENTS

The USBR in its most recent evaluation of the Missouri River Basin, considered the availability of water for industrial marketing. The agency used

TABLE 2-10

EFFECTS ON PROJECTED ULTIMATE DEPLETIONS ON NAVIGATION

Season Length (Months)	Years of Service
8.00	42
6.25	2
6.00	2
5.75	11
5.50	2
5.00	1
4.75	1
4.25	2
4.00	3
No Navigation	12
Total Years	78
Average Season	5.96 Months

Source: (COE, 12-75, February 1976, p.21)

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the natural flow and ultimate depletion statistics cited earlier in this chapter. Table 2-11 is considered a reasonably accurate summary of the streamflow depletion statistics summarized in the draft environmental impact statement on water marketing plan.

TABLE 2-11

USBR WATER MARKETING STATISTICS

Average annual streamflow with Zero Depletions at Sioux(1)	=	28,400,000 acre-feet
Ultimate Depletions		
1865 - 1910	=	2,721,300 acre-feet
1910 - 1970	=	3,810,900 acre-feet
1970 - Ultimate	=	6,809,000 acre-feet
Total(1)	=	13,341,200 acre-feet
Apparent Surplus	=	15,058,800 acre-feet

(1) See USBR, October 1976, p.1-3.

The principal technical difficulties related to the USBR analysis are as follows:

(1) The apparent average surplus is insufficient to satisfy downstream demands.

(2) The apparent average surplus is substantially reduced in drought periods, and the deficit in downstream navigation requirements becomes greater.

(3) USBR did not consider that the marketing of surplus water from the projected growth in federal projects includes water requirements on Indian lands throughout the Missouri River Basin. (See Chapter 5)

(4) USBR did not consider water requirements on Indian lands outside federally designated projects. (See Chapter 4)

REFERENCES

Corps of Engineers, (COE), March 1970; Missouri River, Mainstem Reservoir Operation Studies, 6-69, (Office of the Division Engineer, Omaha, Nebraska), 35 pp plus tables and plates.

Corps of Engineers, (COE), February 1976; Missouri River Mainstem Reservoir Regulation Studies, Series 12-75, (Office of the Division Engineer, Omaha, Nebraska) 25 pp plus tables and plates.

Corps of Engineers, May 1977; unpublished computer printout MRD-Reservoir Control Center.

Corps of Engineers, date unknown; unpublished computer printout, 12-75 ultimate.

Gold, Rick, U.S. Bureau of Reclamation, Billings, Montana, November 1978; telephone conversation with Mike Watson, Morrison-Maierle, Inc.

Missouri Basin Inter-Agency Committee, June 1969; Missouri River Basin Comprehensive Framework Study, Volume 6, Hydrologic Analyses and Projections (Published December 1971) 143 pp.

U.S. Bureau of Reclamation (USBR), October 1976; Draft Environmental Impact Statement, Water for Energy, Missouri River Reservoirs, Pick-Sloan Missouri Basin Program (Upper Missouri Region, Billings, Montana).

CHAPTER 3

IRRIGATION WATER REQUIREMENTS

3.1 INTRODUCTION

The chapter presents determinations of water requirements for irrigation for the United Sioux Indian Reservations. Irrigation water requirements have been used in major litigations in the past as a measure of Indian water rights. Notable examples are Henry Winter v. United States (207 US 564, 1908) and Arizona v. California (373 U.S. 546). Findings of the U.S. Supreme Court in Arizona v. California were as follows in reference to the five Colorado River Indian Reservations[1]:

> "The Master found both as a matter of fact and law that when the United States created these reservations or added to them, it reserved not only land but also the use of enough water from the Colorado to irrigate the irrigable portions of the reserved lands. The aggregate quantity of water which the master held was reserved for all the reservations is about 1,000,000 acre-feet, to be used on around 135,000 irrigable acres of land." (Arizona v. California, 373 U.S. 546, p. 596, June 3, 1963).

The Supreme Court found that the five Indian Reservations adjacent to the Colorado River were entitled to "about 1,000,000 acre-feet" for irrigation "on around 135,000" acres of irrigable land.

The Supreme Court was presented with many arguments and alternatives for measuring the extent of the Indian water rights. It rejected all arguments except the use of irrigable acreage as the measure. A pertinent section of the opinion states:

> "How many Indians there will be and what their future needs will be can only be guessed. We have concluded, as did the Master, that the only feasible and fair way by which reserved water for the reservations can be measured is irrigable acreage." (Arizona v. California, 373 U.S. 546, p. 601, June 3, 1963).

On the strength of the direction established by the U.S. Supreme Court, the investigations of irrigation water requirements for the United Sioux Indian Reservation have concentrated on the determination of the irrigation water requirements per acre of irrigable land, the total area of irrigable land, and the total irrigation water requirement for the irrigable lands.

Findings of this investigation, which are supported in detail in the chapter, are presented in Table 3-1.

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1 The reservations were Chemhuevi, Cocopah, Yuma, Colorado River and Fort Mohave, which were created by Acts of Congress and Executive Orders.

TABLE 3-1

SUMMARY OF IRRIGATION WATER REQUIREMENTS
FOR UNITED SIOUX INDIAN RESERVATIONS
(MAY-SEP, SPRINKLER IRRIGATION)

RESERVATION	UNIT WATER REQUIREMENT (ACRE-FEET PER ACRE)	TOTAL IRRIGABLE ACREAGE	TOTAL IRRIGATION WATER REQUIREMENT (ACRE-FEET PER YEAR)
Standing Rock	4.35	303,650	1,320,870
Lower Brule	4.94	38,246	188,935
Devils Lake	3.94	142,465	561,312
Flandreau	4.13	2,179	8,999
Rosebud	4.85	445,474	2,160,549
Santee	4.68	31,822	148,920
Crow Creek	4.94	81,561	402,911
Pine Ridge	4.51	670,549	3,024,180
Cheyenne	4.80	377,860	1,813,730
Sisseton	4.25	605,902	2,575,084
Yankton	4.68	273,023	1,277,748
TOTALS	4.54	2,972,731	13,483,238

3.2 DEFINITION OF TERMS

To facilitate discussion of irrigation water requirements, several terms and concepts require definition. This section is devoted to those terms and concepts.

3.2.1 Crop Water Requirement

Crop water requirement is the basis of determining irrigation water requirements. Crop water requirements are synonomous with terms such as evapotranspiration and consumptive use.

- Crop Evapotranspiration (consumptive use) - the quantity of water consumed or utilized by crops (or evaporated from soil surfaces) in the production of plant tissue and in photo respiration.

- Potential Evapotranspiration - the quantity of water consumed by the crop environment if the water supply to the plant is not limited. If less than the water needed for potential evapotranspiration is supplied, the crop will not produce optimum yields. Water in excess of potential evapotranspiration cannot be used beneficially in photosynthesis or photo respiration processes.

Potential evapotranspiration becomes a basic factor in determining irrigation water requirements for establishment of a water right. It is the maximum amount of water than can be beneficially used by the crop in food production. Establishment of crop water requirements for less than potential evapotranspiration results in limitations of crop productivity.

Crop water requirements to satisfy potential evapotranspiration can be supplied by effective precipitation, groundwater and irrigation. In semi-arid areas such as the Northern Great Plains, a substantial percentage of potential evapotranspiration must be supplied from irrigation.

- Effective Precipitation - the amount of total annual precipitation falling either as rain or snow that is stored in the soil moisture of the crop root zone and utilized by the crop in evapotranspiration. Effective precipitation does not include precipitation that runs over the surface and consequently does not infiltrate the soil. And effective precipitation does not include precipitation that migrates downward through the soil and to depths beyond the range of plant root system.

In the absence of groundwater available to the root system of the crop, irrigation is required to supply the difference between evapotranspiration and effective precipitation.

3.2.2 Leaching Requirements

Depending on the quality of irrigation water and the chemistry of the soil, application of water may be required in addition to crop water requirements. Additional water may be required for "leaching" or the removal of undesirable chemicals that build up in the root zone of the crop. Chemicals are deposited by the plant and accumulate if not periodically removed. By applying water in addition to evapotranspiration requirements, chemicals are dissolved and migrate in solution with the excess water away from the crop root zone.

3.2.3 Farm Irrigation Water Requirements

In order to provide that portion of the crop water requirement needed from irrigation, a farm application system is necessary. Examples of farm application systems include contour ditch, border dike, rill and sprinkler. Because each of the farm application systems is not totally perfect in delivering only the amount of water needed by the crop, and consequently some water is lost in application, the amount of water available to the irrigation system must be greater than the crop water requirements.

- Farm Water Requirements - amount of water needed for the farm irrigation system to satisfy crop water requirements; the amount of water to be delivered by canal, pipeline, or other conveyance system to the edge of the field where irrigation application takes place.

The efficiency of the farm (field) application system is the basis for determining the farm irrigation requirements. For a crop to utilize irrigation water it must be made available to the root zone of the plant. Efficient application of water to the root zone requires that water must be applied at a rate slow enough as not to exceed the infiltration capability of the soil surface. Also, the duration of the irrigation must be timed not to exceed the moisture holding capacity of the soil within the root zone.

- Crop Root Zone - the area of soil, generally ranging from two to six feet in depth depending on crop, from which the crop is effective in drawing water.

- Deep percolation - water which exceeds the moisture holding capacity of the soil in the crop root zone and consequently migrates to depths below the crop root zone.

- Soil Moisture Capacity - the amount of water held by the soil within the crop zone when the soil has been saturated and water percolating downward by gravity has drained away.

Generally contours, ditches, rills, and borders are less efficient in the application of water than sprinkler systems. From the edge of the field to the crop root zone, more water is lost to surface runoff or deep percollation using surface irrigation methods than with sprinkler irrigation methods.

- Farm Irrigation Efficiency - the amount of water required to satisfy crop requirements as a percentage of the water delivered to the edge of the field. The amount of water delivered to the field's edge is sufficient to cover losses in the application of water to the field.

Waters applied by the farm irrigation system and not utilized by the crop are either permanently or temporarily lost to the source of supply. If the source is a stream, for example, excess water may be discharged back to the stream either as surface water runoff or groundwater return. In either case the returning water is referred to as "return flow". Some water migrating back to a stream system or an aquifer may be intercepted by the root zone of non-crop vegetation and consumed. In the case of sprinkler irrigation, some water is lost before reaching the ground to wind and spray evaporation.

- Return Flow - water not utilized by the irrigated crop or non-crop vegetation that re-enters the source of supply and is available for use. In the case of return flow to a stream, the return flows are available for downstream diversion. In the case of return flow to an aquifer, the return flows add to storage and are available for pumping. The time required for migration of return flows may range from hours to many months.

- Beneficial Consumptive Use - that portion of farm delivery which is utilized by a crop for the beneficial production of food and fibre.

- Non-Beneficial Consumptive Use - that portion of farm delivery which is consumed by non-crop vegetation, evaporated from free water surfaces or lost to wind and spray evaporation (in the case of sprinklers).

- Total Consumptive Use - the sum of beneficial and non-beneficial consumptive use.

- Depletion - the amount of water permanently lost to a source stream or aquifer including total consumptive use and that portion of return flows captured by adjacent streams or non-tributary subsurface formations.

3.2.4 Irrigation Diversion Requirements

In some cases the source of water supply flows through or lies beneath the irrigated area. In other cases the source of supply is removed from the irrigated area, and a conveyance system is used to transport water from the source to the farm. Conveyance losses between the diversion point and the farm are experienced in the latter case. The size of the conveyance loss is dependent on the type and length of the system.

The two basic sources of loss of water in the conveyance system are seepage and evapotranspiration. In unlined canals seepage losses are often high, and vegetation along the canal banks accounts for non-beneficial consumptive use of water. Evaporation from the water surface of a canal is

generally small. Lined canals may be effective in reducing seepage losses. Pipelines are the most efficient and expensive means of conveyance.

- Irrigation Diversion Requirement - the amount of water required at the source of supply to provide farm irrigation requirements and replace conveyance losses in transport.

- Conveyance System Efficiency - the ratio of farm irrigation requirements to irrigation diversion requirements expressed as a percentage.

Losses of water in the irrigation conveyance system generally contribute to non-beneficial consumptive use, return flows and depletions, all as defined in the previous section.

The considerations necessary for the determination of irrigation diversion requirements are summarized as follows:

$$IDR = \frac{(PET - EP + SI + L)\ A}{(FE)\ (CE)}$$

where

IDR = Irrigation diversion requirements, acre-feet
PET = Potential Crop Evapotranspiration, feet
EP = Effective Precipitation, feet
A = Project irrigated acres
FE = Farm irrigation efficiency, fraction
CE = Conveyance efficiency, fraction

3.3 POTENTIAL EVAPOTRANSPIRATION

Potential evapotranspiration of crops is determined in the field by measurements of actual water use with scientific instruments, such as lysimeters or neutron probes. The methods are complex and beyond the scope of this discussion. Because the expense of measurements in the field is high, and the measurements require carefully controlled data collection, the measurements are almost exclusively made at agricultural experiment stations. There are only a few locations in the Western United States where long-termed measurements of evapotranspiration have been observed and collected. Notable examples are San Juan Branch Agricultural Experiment Station, New Mexico; Central Washington Agricultural Experiment Station, Prosser, Washinton; and Snake River Conservation Research Center, Kimberly, Idaho.

Researchers in the field of irrigation have developed numerous equations for the estimation of potential evapotranspiration in areas where measurements are not available. The equations predict evaportranspiration based on climatic factors such as temperature, solar radiation, humidity, and wind speed. The equations are adjusted by numerical coefficients to reflect differences in the evapotranspiration by crops.

This section of the chapter presents background information on evapotranspiration measurements in South Dakota and North Dakota and estimates of potential evapotranspiration as derived for the United Sioux Indian Reservations. The estimates were derived using the modified Blaney-Criddle and Jensen-Haise equations.

3.3.1 Evapotranspiration Equations

Numerous methods for prediction of evapotranspiration have been developed. Notable examples, named after the researchers, are the Penman, Jensen-Haise, Blaney-Criddle, and Thornwaite methods. These and other methods are discussed and evaluated by the American Society of Civil Engineers, (ASCE, September 1973). The principal method discussed here is the Modified Blaney-Criddle (USDA, SCS, September 1970). A brief description of Jensen-Haise (ASCE, September 1973) is also given.

The Blaney-Criddle equation was the first widely accepted method of computing evapotranspiration by crops. The method was subsequently modified by the Soil Conservation Service. The modified equation of the Soil Conservation Service is given as follows: (USDA, SCS, September, 1970)

$$U = k_c \, k_t \, f$$

where

U = monthly evapotranspiration, inches.
k_c = crop growth stage coefficient
k_t = $.0173t - .314$
t = mean monthly air temperature, (^oF)
f = $(t \times p)/100$
p = monthly percentage of daylight hours in the year

During the growing season, monthly computations of evapotranspiration are made and totaled to determine seasonal amounts of evapotranspiration. Computations for the United Sioux Indian Reservations were performed using the equation. Crop coefficients for alfalfa, which consumes more water than other crops in the Northern Great Plains, were used. Temperature and precipitation data were used from the weather stations considered most representative of each reservation. Table 3-2 summarizes values used in the computation and the results for the principal months of the growing season, May through September.

Evapotranspiration for the principal months of the growing season, according to the Modified Blaney-Criddle estimating procedure, varies as shown in Table 3-2. Additional water is evapotranspirated during the non-growing season. Sufficient data are not presently available to derive estimates of that amount. The probable magnitude of evapotranspiration during the non-growing season is 5 to 10 inches.

TABLE 3-2

SUMMARY OF EVAPOTRANSPIRATION
ESTIMATES FOR ALFALFA FOR UNITED SIOUX INDIAN
RESERVATIONS USING MODIFIED BLANEY-
CRIDDLE METHOD OF COMPUTATION.
(INCHES)

RESERVATION	WEATHER STATION	PRINCIPAL MONTHS OF GROWING SEASON					SEASON TOTAL
		MAY	JUN.	JUL.	AUG.	SEPT.	
Standing Rock	McIntosh, SD	3.89	6.10	7.90	6.70	3.51	28.10
Lower Brule	Kennebec, SD	4.44	6.76	8.55	7.33	4.04	31.12
Devils Lake	Devils Lake, ND	3.53	5.82	7.26	6.00	3.04	25.65
Flandreau	Flandreau, SD	4.24	6.58	7.83	6.61	3.63	28.89
Rosebud	Winner, SD	4.65	6.97	8.78	7.47	4.19	32.06
Santee	Tyndall, SD	4.80	7.25	8.69	7.37	4.16	32.27
Crow Creek	Kennebec, SD	4.44	6.76	8.55	7.33	4.04	31.12
Pine Ridge	Martin, SD	4.06	6.19	8.10	6.94	3.84	29.13
Cheyenne	Dupree, SD	4.10	6.25	8.26	7.07	3.74	29.42
Sisseton	Sisseton, SD	4.21	6.51	7.86	6.64	3.65	28.87
Yankton	Tyndall, SD	4.80	7.25	8.69	7.37	4.16	32.27
Crop Coefficients (1)		1.10	1.13	1.11	1.06	1.00	-

(1) (U.S.D.A., SCS, September 1970, p.66)

The Jensen-Haise equation was developed in the 1960's and has gained popularity. The data requirements for application include solar radiation data, which is not available at most locations. Consequently, use of the method generally depends on estimates of solar radiation. The Jensen-Haise equation is given as follows:

$$ET = k_c \times E_{tp}$$

$$E_{tp} = C_t\ (T-Tx)\ Rs \times .000673 \times \text{days/period}$$

Where

E_{tp} = potential evapotranspiration

ET = actual evapotranspiration in inches

Ct and Tx are constants adjusted to climate and elevation

T = mean air temperature, ^{o}F

Rs = solar radiation langleys per day

Kc = adjustment coefficient for alfalfa based on three cuttings.

Computations using the Jensen-Haise method were not performed.

3.3.2 Measurements of Evapotranspiration

The only measurements of crop evapotranspiration in South Dakota, which were discovered during this investigation were taken between 1950 and 1953 at the South Dakota Agricultural Experiment Station, Redfield, South Dakota, (Erie, Leonard J. and Dimick, Neil A., June, 1954). The measurements were collected and compared with results of estimated evapotranspiration using the Blaney-Criddle equation (Blaney, Harry F. and Criddle, Wayne D., 1950), which was just coming into use.

The methods of consumptive use measurements were not reported, and the reliability of the data cannot be assessed. From the measurements the agricultural experiment station concluded that seasonal evapotranspiration computations using the Blaney-Criddle equation were correct.

Measurements by the South Dakota Experiment Station are summarized by crop and by year in Table 3-3.