

MINUTES

**North Dakota State Water Commission
Dickinson, North Dakota**

October 26, 1993

The North Dakota State Water Commission held a meeting at the Elks Lodge in Dickinson, North Dakota, on October 26, 1993. Governor-Chairman, Edward T. Schafer, called the meeting to order at 12:00 Noon, Mountain Daylight Time, and requested State Engineer and Chief Engineer-Secretary, David Sprynczynatyk, to call the roll. The Chairman declared a quorum was present.

The State Water Commission meeting was preceded by a tour of the Southwest Pipeline Project facilities, which included the triple pump station and the operation and maintenance center at Dickinson, the Richardton pump station, and the Davis Butte Reservoir. The tour and a luncheon was hosted by the Southwest Water Authority.

MEMBERS PRESENT:

Governor Edward T. Schafer, Chairman
Sarah Vogel, Commissioner, Department of Agriculture, Bismarck
Mike Ames, Member from Williston
Judith DeWitz, Member from Tappen
Elmer Hillesland, Member from Grand Forks
Jack Olin, Member from Dickinson
Harley Swenson, Member from Bismarck
Robert Thompson, Member from Page
David Sprynczynatyk, State Engineer and Chief Engineer-Secretary, North Dakota State Water Commission

MEMBER ABSENT:

Florenz Bjornson, Member from West Fargo

OTHERS PRESENT:

State Water Commission Staff Members
Approximately 50 people in attendance interested in agenda items
(The attendance register is on file with the official minutes.)

The meeting was recorded to assist in compilation of the minutes.

CONSIDERATION OF AGENDA

There being no additional items for the agenda, the Chairman declared the agenda approved and requested Secretary Sprynczynatyk to present the agenda.

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CONSIDERATION OF MINUTES
OF AUGUST 26, 1993 MEETING -
APPROVED

The minutes of the August 26, 1993, State Water Commission meeting were approved by the following motion:

It was moved by Commissioner Swenson, seconded by Commissioner Ames, and unanimously carried, that the minutes of the August 26, 1993 State Water Commission meeting be approved as circulated.

AGENCY FINANCIAL STATEMENT -
AGENCY OPERATIONS

Charles Rydell, Assistant State Engineer, presented and discussed the Program Budget Expenditures, dated September 30, 1993, reflecting 12.5 percent of the 1993-1995 biennium. **SEE APPENDIX "A"**.

AGENCY FINANCIAL STATEMENT -
CONTRACT FUND

Dale Frink, Director of the State Water Commission Water Development Division, reviewed and discussed the Contract Fund expenditures for the 1993-1995 biennium. **SEE APPENDIX "B"**.

SOUTHWEST PIPELINE PROJECT -
PROJECT UPDATE AND
CONTRACT/CONSTRUCTION STATUS
(SWC Project No. 1736)

Tim Fay, Manager of the Southwest Pipeline Project, provided a status report on the following construction contracts:

Contracts 2-3E and 2-3F - Transmission Lines from Dickinson to Highway 21: Contract 2-3E is still undergoing hydrostatic testing. Leaks in the pipe have been located and repaired. The completion date for this contract was September 20, 1993, so the contract is now in the forfeiture period.

Contract 2-3F had its pre-final inspection on September 9, 1993. The contractor is now working on his final punch list.

Contract 2-6A - Transmission Piping from Highway 22 to Mott: Contract 2-6A is still inactive due to defective pipe. On September 28, 1993, a meeting was held with JM Manufacturing, George E. Haggart, and State Water Commission staff. At this meeting, JM proposed an extended warranty. If such a warranty was provided, they would make a television inspection of the pipe to

determine their own risk and remove any defective pieces. A proposal like this would be acceptable if we had good confidence in the installed pipe which did not exhibit visible defects. Since we suspect the pipe may have hidden defects, an accelerated stress regression test was begun on samples of this pipe.

Contract 2-7B - Transmission Piping from Davis Buttes to Richardton: Pipe installation for this contract is complete. Hydrostatic testing is in progress. Since the pipe for this contract is from the same manufacturer as the pipe for Contract 2-6A, it was also subjected to an accelerated stress regression test, which it did not pass. The pipe manufacturer must pass either this test or a sustained pressure test. The manufacturer has begun a sustained pressure test in which the pipe must withstand a stress for 1,000 hours, which is equivalent to about 42 days.

Contract 3-1B - Second Zap Reservoir: Construction work and painting on this contract are complete. Some of the items related to site restoration are not yet resolved.

Contract 4-3 - Dickinson Pump Station: Work on this contract has been delayed by wet weather during the summer construction season, however, progress is now at a state that will likely enable the contractor to catch up. Work to date has been concentrated on construction of the clearwell, which forms the building foundation. This concrete structure includes piping and electrical conduits embedded in the floor. The clearwell concrete has all been placed. The next phase is hydrostatic testing of the concrete vessel, repairs of any leaks, and backfilling. The building can then be erected.

Contract 5-3 - New England Reservoir: The welded steel tank is erected. The current work involves painting and installation of buried site piping.

Contract 5-13 - Davis Buttes Reservoir: The welded steel tank is erected. Some piping for the overflow is yet to be installed.

**SOUTHWEST PIPELINE PROJECT -
CONSIDERATION TO RESCIND SWC
ACTION FOR APPROVAL OF A DEMAND
SERVICE AMENDMENT FOR DUNN
CENTER'S WATER SERVICE AGREEMENT
(SWC Project No. 1736)**

At the August 26, 1993 meeting, the State Water Commission approved a request from the City of Dunn Center for demand service amendment to the water service contract.

Tim Fay stated that acting on that recommendation, design work was begun on the affected portion of the line to determine the modifications necessary. This work revealed that sizing the line to provide demand flow would add at least \$134,000 to the cost of that line. Mr. Fay said in view of this cost, it does not appear feasible to provide this type of service to Dunn Center, or any of the other cities north of the Knife River.

It was the recommendation of the State Engineer that the State Water Commission rescind its approval of a demand service amendment for the City of Dunn Center's water service agreement.

It was moved by Commissioner Olin and seconded by Commissioner Thompson that the State Water Commission rescind its approval of August 26, 1993 of a demand service amendment for the City of Dunn Center's water service agreement.

Commissioners Ames, DeWitz, Hillesland, Olin, Swenson, Thompson, Vogel, and Chairman Schafer voted aye. There were no nay votes. The Chairman declared the motion unanimously carried.

**SOUTHWEST PIPELINE PROJECT -
CONSIDERATION AND APPROVAL OF
REVISED PHASED DEVELOPMENT PLAN
(SWC Project No. 1736)**

At the June 24, 1991 meeting, the State Water Commission adopted the Phased Development Plan to direct future development of the Southwest Pipeline Project.

Since that time, Tim Fay stated that the conceptual design of the rural water service areas has identified individual rural water service areas. These service areas are the incremental components which will be built one after another. With this information, the Phased Development Plan has been revised, basing it on these service areas.

Mr. Fay presented and explained the revised Phased Development Plan, which is attached hereto as **APPENDIX "C"**.

Alfred Underdahl, Chairman of the Southwest Water Authority, indicated the Board has reviewed and approved the revised Phased Development Plan that is being presented to the State Water Commission for consideration.

It was the recommendation of the State Engineer that the State Water Commission adopt the revised Phased Development Plan.

It was moved by Commissioner Olin and seconded by Commissioner Vogel that the State Water Commission adopt the revised Phased Development Plan for the Southwest Pipeline Project.

Commissioners Ames, DeWitz, Hillesland, Olin, Swenson, Thompson, Vogel, and Chairman Schafer voted aye. There were no nay votes. The Chairman declared the motion unanimously carried.

**SOUTHWEST PIPELINE PROJECT -
CONSIDERATION AND APPROVAL OF
SCS PL-566 TAYLOR WATERSHED
PLAN AGREEMENT
(SWC Project No. 1736)**

Since 1992, the State Water Commission and the Soil Conservation Service, along with other parties, have been developing a pilot project whereby the Soil Conservation Service funding, under their PL-566 program, could be used to cost share in development of rural water delivery systems as part of the Southwest Pipeline Project.

Tim Fay explained that the advantages of this approach are expanding the funding base for the Southwest Pipeline Project and encouraging the use of water for stockwatering, which is a primary emphasis of the Soil Conservation Service in this context. The Soil Conservation Service has received very enthusiastic support for this project from their national office and some of the procedures and arrangements developed in this effort may be useful in other service areas.

The Soil Conservation Service has developed a watershed plan, which is the document they will submit for commitment to their national office. Mr. Fay said the watershed plan must receive the commitment of the sponsors in order to proceed.

The Taylor Watershed Plan agreement was presented to the Commission for consideration. The plan is attached hereto as **APPENDIX "D"**.

It was the recommendation of the State Engineer that the State Water Commission approve the Taylor Watershed Plan agreement as presented.

It was moved by Commissioner Vogel and seconded by Commissioner Swenson that the State Water Commission approve the Taylor Watershed Plan agreement.

Commissioners Ames, DeWitz, Hillesland, Olin, Swenson, Thompson, Vogel, and Chairman Schafer voted aye. There were no nay votes. The Chairman declared the motion unanimously carried.

**GARRISON DIVERSION PROJECT -
PROJECT UPDATE
(SWC Project No. 237)**

Warren Jamison, Manager of the Garrison Diversion Conservancy District, provided a status report on the Garrison Diversion

Project, and discussed the Fiscal Year 1994 budget. The Administration has recommended \$30 million for the project, although Mr. Jamison said \$32 million is currently being considered. The House and Senate Appropriations Committee report language attached to the appropriations bill was discussed. Mr. Jamison said the report language has been modified by the Senate Conference Committee to provide that funds in the appropriations bill be used in accordance with the 1986 Garrison Reformulation Act.

Mr. Jamison indicated that Commissioner Beard has agreed to work on new directions for the Garrison Project and has offered to take the lead role to bring the responsible parties to the table for this effort and to front-end it with the national environmental community.

**GARRISON DIVERSION PROJECT -
TURTLE LAKE IRRIGATION AND
WILDLIFE AREA CONCEPTUAL PLAN
(SWC Project No. 1846)**

The Turtle Lake Irrigation and Wildlife Area Conceptual Plan, dated September, 1993, was presented to the Commission. Warren Jamison presented the

plan, and portions of the report are attached hereto as **APPENDIX "E"**.

The Turtle Lake Irrigation Area (TLIA) is located in McLean County near the town of Turtle Lake in central North Dakota. The TLIA is adjacent to the McClusky Canal, a project feature of the Garrison Diversion Unit, which transports Missouri River water into the area. The Garrison Diversion Unit Reformulation Act of 1986 authorized the development of 13,700 acres of irrigation in the TLIA.

The purpose of the report is to present an innovative, conceptual, land-use development plan which enhances the Turtle Lake area for wildlife, irrigated agriculture, and economic development. The plan recommends development by a combination of groundwater management, use of Missouri River water from the already completed McClusky Canal, and land management practices.

The plan was prepared as a cooperative effort to determine the advantages which might be realized by including wildlife, recreation, and irrigation as equal partners in area development planning.

Representatives of interested agencies and organizations, which included the State Water Commission staff, held numerous planning meetings and were involved throughout the study process. The planning process itself was unique relative to traditional water project planning efforts in North Dakota.

The interagency planning team agreed upon the following findings and recommendations:

- 1) A project can be formulated which would develop irrigated agriculture in the TLIA and at the same time enhance wildlife, fish, recreation, and regional economic growth. Additional cost estimates, cost allocations, economic analyses, and financial analyses need to be completed.
- 2) The project can be divided into three blocks, each served by a separate intake from the McClusky Canal. Development of the area should proceed by block. Each block would include both irrigation and wildlife features.
- 3) Development within each block should proceed by farm unit based on landowner interest. Development by blocks, and by farm units within individual blocks, would provide an opportunity to demonstrate and evaluate the effectiveness and benefits of irrigation and wildlife enhancement features. It would also allow adjustments to be made to project features as development proceeds, and would allow time for landowners to become familiar with benefits of various project features.

**GARRISON DIVERSION PROJECT -
MR&I PRIORITY CRITERIA REVIEW
COMMITTEE REPORT
(SWC Project No. 237-3)**

At the July 1, 1993 meeting, concern was expressed regarding the criteria used to rank MR&I projects and address the needs.

It was the consensus of the State Water Commission members that the MR&I priority criteria used for making recommendations for funding the water supply projects be reviewed. Chairman Schafer had directed the State Engineer to appoint a committee of Commission members and the Manager of the Garrison Diversion Conservancy District to review the criteria.

The following were appointed to the MR&I Priority Criteria Review Committee: Commissioners Vogel, Swenson and DeWitz, and Secretary Sprynczynatyk. The Garrison Diversion Conservancy District is represented on the committee by Directors Rick Anderson and Frank Orthmeyer, and Manager Warren Jamison.

Secretary Sprynczynatyk reported the MR&I Priority Criteria Review Committee met on August 25, 1993 and on October 25, 1993. He summarized the committee's discussion of the meetings. The committee requested the staff provide additional information and develop alternative priority ranking schemes that could be considered at a future State Water Commission meeting.

In discussion, it was recommended by Chairman Schafer that the MR&I Priority Criteria Review Committee complete its review of the criteria used for making recommendations for funding the water supply projects prior to the Commission's December meeting. The Commission will consider the committee's recommendation during a telephone conference call, to be scheduled at the discretion of the Chairman and the State Engineer, or at its December, 1993, meeting.

**GARRISON DIVERSION PROJECT -
MR&I WATER SUPPLY PROGRAM
FISCAL YEAR 1993 FUNDING
(SWC Project No. 237-3)**

The Garrison Diversion Unit federal appropriation for Fiscal Year 1993 includes \$15,700,000 for the MR&I Water Supply Program. This includes \$1,150,000 of year-end Fiscal Year 1993 funds which have not been previously allocated. The unallocated funding of \$1,352,482 will be included in the Fiscal Year 1994 MR&I funding budget.

The State Engineer presented the following proposed Fiscal Year 1993 MR&I Water Supply Program budget for the Commission's consideration:

Southwest Pipeline Project	\$10,851,441
Ramsey County Rural Water	2,340,000
Missouri West Rural Water	2,497,235
Garrison Rural Water	1,300,000
Feasibility Study	0
Administration	149,568
Unallocated Funds	<u>1,352,482</u>
	\$18,490,726
FY 1993 Appropriation	\$15,700,000
FY 1992 Reprogrammed Appropriation	<u>2,790,726</u>
	\$18,490,726

It was moved by Commissioner Vogel and seconded by Commissioner Olin that the State Water Commission approve the MR&I Fiscal Year 1993 Water Supply Program budget as recommended by the State Engineer.

Commissioners Ames, DeWitz, Hillesland, Olin, Swenson, Thompson, Vogel, and Chairman Schafer voted aye. There were no nay votes. The Chairman declared the motion unanimously carried.

**GARRISON DIVERSION PROJECT -
MR&I WATER SUPPLY PROGRAM
FISCAL YEAR 1994 FUNDING
(SWC Project No. 237-3)**

The Garrison Diversion Unit federal appropriation for Fiscal Year 1994 is estimated to be \$30 million, which includes \$14,550,000 for the MR&I Water Supply Program and \$1,352,482 from Fiscal Year 1993 funding. The State Engineer presented and recommended tentative approval of the following projects that qualify for Fiscal Year 1994 funding, contingent upon approval of a federal Fiscal Year 1994 appropriation for the Garrison Diversion Project and subject to future revisions:

	<u>Project Cost</u>	<u>MR&I Grant</u>
Langdon Water Treatment	\$ 408,513	\$ 265,533
Grand Forks Water Treatment	1,453,248	944,611
Dickey Rural Water	5,200,000	3,380,000
Southwest Pipeline Project	7,275,000	7,275,000
Glenfield Water Supply	225,000	146,250
Hannaford Water Supply	232,000	150,800
Fargo Water Supply	5,387,800	3,502,070
Unallocated Funding	71,874	46,718
Feasibility Study	100,000	25,000
Administration	<u>222,000</u>	<u>166,500</u>
	\$20,575,435	\$15,902,482
FY 1994 Appropriation		\$14,550,000
FY 1993 Reprogrammed Appropriation		<u>1,352,482</u>
		\$15,902,482

Jon Lindgren, Mayor of the City of Fargo, and Pat Zavoral, Manager of the Public Works for the City of Fargo, provided information on the City of Fargo's request for MR&I funding for Fiscal Year 1994. The proposed MR&I grant for the City of Fargo is \$3,502,070 for water distribution.

Mayor Lindgren suggested that an indepth study be made on the federal water quality standards. He suggested the committee consider all of the issues of the priority system prior to recommending changes in the criteria.

Ken Vein, City Engineer of Public Works for the City of Grand Forks, addressed the Commission and provided information regarding the City of Grand Forks request for MR&I funds to modify the water treatment plant to meet the federal drinking water standards. Mr. Vein expressed concern about the possibility of revising the current point system used for prioritizing the Garrison MR&I projects. He said of specific concern to the City of Grand Forks is the change in priority for water systems that are in violation of the federal drinking water

standards. The federal standards are set by federal law through the Safe Drinking Water Act, which have been amended in the past and have additional amendments being proposed. He said these amendments will continue to be of concern not only to the City of Grand Forks but to all water systems in the state. If the city does not make the necessary changes to comply with the federal standards, the treatment system will be in violation of the federal law and the consequences are to either shut down the system or face fines up to \$25,000 per day.

Mr. Vein explained to the Commission that his understanding was that the purpose of the MR&I Water Supply Program, as outlined in the "Report on Garrison Municipal, Rural and Industrial Water Supply Program", dated February, 1987, is to solve the state's water supply and treatment problems. This report acknowledges the Safe Drinking Water Act and amendments. Mr. Vein said any change to the priority system which does not maintain a high priority on water treatment would be contrary to the original intent of this program.

Mr. Vein said any changes to the priority system should be closely scrutinized to determine their full impact. Those areas affected need to be given the opportunity to express their concerns prior to any changes being formally adopted.

Jacob Gust, former State Water Commission member, addressed the Commission members regarding the Garrison MR&I priority criteria system. Mr. Gust explained the background in developing the criteria and he said it provided a system of continuity and reason when ranking the project requests for MR&I funding. He said it is very important that the Commission review the criteria on a periodic basis so that the adjustments can be made with the least amount of adverse effect on those people who are applying for funds and are involved in the projects.

Commissioner Swenson expressed concern that it may be premature for the Commission to act on the Fiscal Year 1994 MR&I Water Supply Program budget until the committee has completed its review of the priority criteria used in ranking the project requests. Commissioners Vogel and DeWitz, members of the committee, concurred with Commissioner Swenson's comments.

It was moved by Commissioner Swenson, seconded by Commissioner DeWitz, and unanimously carried, that the State Water Commission defer action on the proposed Fiscal Year 1994 MR&I Water Supply Program budget.

Secretary Sprynczynatyk provided information regarding the MR&I Water Supply Program, through the use of a series of overhead slides, explaining the shortfalls in future funding for the MR&I Program. **SEE APPENDIX "F"**.

**GARRISON DIVERSION PROJECT -
MISSOURI WEST WATER SYSTEM
PROMISSORY NOTE AMENDMENT
(SWC Project No. 237-27)**

A request was presented for the Commission's consideration from the Missouri West Water System regarding the repayment structure for the construction loan.

Dale Frink stated that the system had been scheduled to have water users on line during July of 1993. The weather caused delays in the pipeline construction and users are not being connected until this fall. The first payment for the State Water Commission loan is due October 15, 1993. Due to the construction delays, the Missouri West Water System has requested that the first payment for the construction loan be delayed until April 15, 1994, at which time revenues should be sufficient to start the loan repayment. The terms and the interest would remain the same and interest will continue to accrue from the date of disbursement of any funds. The loan repayment schedule would be 25 years from October 15, 1993.

Alfred Underdahl, Chairman of the Missouri West Water System, provided information regarding the project and requested the Commission's favorable consideration of the request.

It was moved by Commissioner Swenson and seconded by Commissioner Vogel that the Missouri West Water System promissory note be amended to start the first payment for the State Water Commission construction loan repayment on or before April 15, 1994.

Commissioners Ames, DeWitz, Hillesland, Olin, Swenson, Thompson, Vogel, and Chairman Schafer voted aye. There were no nay votes. The Chairman declared the motion unanimously carried.

**GARRISON DIVERSION PROJECT -
INTERBASIN WATER TRANSFER
STUDIES PROGRAM
(SWC Project No. 1828)**

Secretary Sprynczynatyk briefed the Commission members on a meeting of the Interbasin Water Transfer Studies Program Committee held on October 22, 1993.

Secretary Sprynczynatyk stated it was the first meeting of a committee that had been created to assist in providing guidance to the program. The purpose of the meeting was to review the program accomplishments and to discuss future directions in light of program accomplishments and changing times and circumstances. Notes summarizing the meeting are attached hereto as **APPENDIX "G"**.

**NORTHWEST AREA WATER
SUPPLY PROJECT
(SWC Project No. 237-4)**

Dale Frink provided a status report on the Northwest Area Water Supply Project. Work on the pre-final design is proceeding on schedule. Recent activity by the engineering consultants includes preparation of a draft report describing design and construction criteria; continuation of the evaluation of alternative water sources; pipeline routing; plan and profile drawings for the pipeline; and drafting an environmental assessment.

Within the next several weeks the engineering team anticipates completion of a draft technical memorandum on the evaluation of alternative groundwater sources; a memorandum on the analysis of the water treatment options for East NAWS comparing treatment at Lake Audubon to treatment at Minot; and a draft Environmental Assessment Report.

Mr. Frink stated the Advisory Committee will be meeting in November to discuss treatment options for East NAWS, eligibility and project purpose, and the institutional arrangement for management of the project after construction. A draft policy statement has been developed for review and discussion by the committee. Mr. Frink indicated it is anticipated this policy statement will eventually be forwarded to the State Water Commission with a recommendation to begin the process of promulgating administrative rules.

**NORTH DAKOTA COMPREHENSIVE
WETLANDS CONSERVATION PLAN -
PROJECT UPDATE
(SWC Project No. 1489-5)**

Secretary Sprynczynatyk provided the Commission members with a status report on the grants the US Environmental Protection Agency has awarded to the State Water Commission to aid in the development of the North Dakota Comprehensive Wetlands Conservation Plan. This information is attached hereto as **APPENDIX "H"**.

Secretary Sprynczynatyk stated the grant proposal for Fiscal Year 1994 funds is being prepared, which will be submitted in December, 1993, to the Environmental Protection Agency.

**FEDERAL WETLANDS POLICY
(SWC Project No. 1489)**

federal wetlands policy released in August, 1993, by the White House Office on Environmental Policy. The information, prepared by the National Wetlands Coalition, makes a comparison reference to the current wetlands law and proposals that have been made by the Administration as well as by members of Congress.

Secretary Sprynczynatyk provided the Commission members with information relating to the

**NORTH DAKOTA NO-NET
LOSS OF WETLANDS PROGRAM -
CONSIDERATION AND APPROVAL
OF RESOLUTION NO. 93-10-462
(SWC Project No. 1489-6)**

programs at the state and federal level and explore additional efforts that could be taken to make the North Dakota No-Net Loss of Wetlands Program successful.

At the July 1, 1993 meeting, the Commission discussed the North Dakota No-Net Loss of Wetlands Program. Commissioner Hillesland made the suggestion that we review the wetlands

At the August 26, 1993 meeting, a draft resolution was presented for the Commission's review and comments.

A revised draft resolution was presented for the Commission's consideration. In discussion, the following language was considered as item No. 5 under the Now, Therefore, Be It Resolved paragraph:

The 1995 Farm Bill should allow for the State's No-Net Loss of Wetlands Program to be implemented reflecting local circumstances and conditions.

Commissioner Thompson suggested the draft resolution be considered by the North Dakota Water Users Association and the North Dakota Water Resource Districts Association at their annual meeting in December, 1993. He stressed support of the state's rights on wetlands and said it is very important that the viewpoints of the locals on this issue be incorporated. He said "let's not suggest making North Dakota's No-Net Loss of Wetland Program a national law; let's explore additional efforts that could be taken to make North Dakota's No-Net Loss of Wetlands Program successful."

It was moved by Commissioner Hillesland and seconded by Commissioner Vogel that the State Water Commission approve Resolution No. 93-10-462, No-Net Loss of Wetlands.

In discussion of the motion, Commissioner Thompson stated that because of his concerns, he suggested the Commission defer action on the draft resolution until its December, 1993, meeting. He also suggested item No. 4 under Now, Therefore, Be It Resolved be deleted, which states: Requirements for mitigation under the Swampbuster provisions of the 1990 Farm Bill must be reviewed and recommendations for increased flexibility submitted to North Dakota's Congressional Delegation for consideration and inclusion in the 1995 Farm Bill. The following amended motion was offered by Commissioner Thompson:

It was moved by Commissioner Thompson that the State Water Commission defer action on draft Resolution No. 93-10-462 until its December, 1993 meeting, and that proposed item No. 4, stated above, be deleted. There was no second on the amended motion.

The Chairman declared the motion died for a lack of a second.

The Chairman called for a roll call vote on the original motion. Commissioners Ames, DeWitz, Hillesland, Olin, Swenson, Vogel, and Chairman Schafer voted aye. Commissioner Thompson voted nay. The Chairman declared the motion carried. SEE APPENDIX "I".

STATE ASSUMPTION OF CORPS OF ENGINEERS SECTION 404 PROGRAM OF THE CLEAN WATER ACT (SWC Project No. 1855)

1993. The meeting summary is attached hereto as **APPENDIX "J"**.

Secretary Sprynczynatyk briefed the Commission members on the organizational meeting of the State Assumption Advisory Committee held on September 3,

CONSIDERATION AND APPROVAL OF REQUEST FROM THE INTERNATIONAL COALITION FOR COST SHARING FOR SERVICES (SWC Project No. 1588-1)

A request was presented for the Commission's consideration from The International Coalition to enter into a contractual agreement in the amount of \$10,000 for the period beginning October 30, 1993 and ending June 30, 1994.

Gene Krenz, Director of the State Water Commission Water Planning and Education Division, presented the request. The International Coalition, headquartered in Moorhead, Minnesota, is a public interest group formed by the citizens of the Red River Basin to promote and encourage wise

water management on a basin-wide basis. One of its primary objectives is to help build consensus among basin residents about various water issues by assisting in providing residents with the best information base possible. Its rank-and-file membership, which includes residents of Manitoba, Minnesota and North Dakota, reflects a broad cross-section of backgrounds and interests.

The International Coalition's 11th annual conference, which will be held in Winnipeg, Manitoba, in mid-November, 1993, will focus on the role of "water retention" in coping with the basin's flooding and water supply problems.

The request from The International Coalition of entering into a contractual agreement will provide to the State Water Commission the following: 1) a master Red River Basin base map locating all retention structures and major wetlands in a Geographic Information System (GIS) format where available together with full documentation describing each structure; 2) a Retention Task Force Work Plan including an analysis of the timeframe and duration needed to perform each identified task; costs associated with each task; identification of financial resources to complete each task; the availability of information; the extent to which individuals, government agencies and other entities should be responsible for task performance; and the identification of coordination mechanisms; and 3) a detailed work plan, including timeframe and budget requirements for each of the high priority tasks identified by the Retention Task Force.

Karla Parkinson, Interim President of The International Coalition, provided the Commission members with information regarding the Coalition and requested favorable consideration of the request.

It was the recommendation of the State Engineer that the State Water Commission enter into a contract with The International Coalition to complete the tasks outlined above, and authorize the expenditure of \$10,000, of which \$5,000 is to be paid prior to November 15, 1993, and the remaining \$5,000 to be paid in December, 1993, or at such time as the tasks outlined in the contract are completed.

It was moved by Commissioner Vogel and seconded by Commissioner Olin that the State Water Commission enter into a contract with The International Coalition to complete the tasks outlined above; and that the State Water Commission authorize the expenditure of \$10,000, of which \$5,000 shall be paid prior

to November 15, 1993, and the remaining \$5,000 shall be paid in December, 1993, or at such time as the tasks outlined in the contract are completed.

Commissioners Ames, DeWitz, Hillesland, Olin, Swenson, Thompson, Vogel, and Chairman Schafer voted aye. There were no nay votes. The Chairman declared the motion unanimously carried.

**RED RIVER DIKES UPDATE
(SWC Project No. 1638)**

Secretary Sprynczynatyk provided background information on the Red River dikes along the Red River. He said that due to concerns about potential flooding, there were some dikes constructed this summer along the Red River in violation of the Interstate Compact on Agricultural Diking with the State of Minnesota. Minnesota has ordered the dikes removed on their side of the river and Secretary Sprynczynatyk said it appears that the majority of these dikes are, or have been voluntarily removed on the North Dakota side.

He said it is possible that on one or two cases, an order may have to be issued to modify the new dikes. The landowners do have the right to maintain existing dikes to a pre-determined elevation, and it is difficult in some cases to judge whether the work is maintenance or actually a raising of the dikes. Secretary Sprynczynatyk said the situation is being monitored closely and staff is working with the Grand Forks and Walsh County Water Resource Boards to find a solution.

**SHEYENNE RIVER FLOOD CONTROL -
SWC APPROVAL FOR ADDITIONAL
ENGINEERING STUDIES FOR BALDHILL
DAM POOL RAISE; AND SUPPORT FOR
OBTAINING CORPS VARIANCE FROM
300-FOOT RIGHT-OF-WAY REQUIRE-
MENT AROUND RESERVOIR
(SWC Project No. 300)**

Dale Frink provided the Commission members with background information on the Sheyenne River Flood Control Project. One of the authorized units of the project is the proposed Baldhill Dam flood control pool raise. Mr. Frink summarized a meeting held with the Corps of Engineers on September 2, 1993 regarding this issue which addressed the real estate requirements, the effects of the 1993 summer flood, and the requirements of a non-federal sponsor.

Mr. Frink explained the Corps of Engineers federal real estate requirements on flood pools, which requires the acquisition of all land within 300 feet horizontally from the edge of a reservoir's permanent pool to

assure that the public recreation value of the reservoir is maintained. Any variance from this federal policy must be approved at the Corps' headquarters level.

He said the proposed real estate for the Baldhill Dam flood pool raise does not include this 300-foot horizontal requirement because the public recreation values of the reservoir will not be affected. If the 300-foot requirement were to be applied, over 200 cabins and residences around the lake would have to be purchased, which would significantly increase the number of affected property owners. The Corps has indicated its justification to seek a variance from the 300-foot policy and is preparing a request to its headquarters for the variance.

Mr. Frink indicated that the variance from the 300-foot requirement would significantly reduce the number of lake-shore cabins that would be required to be relocated by a raise in the Baldhill Dam flood control pool from 200 to less than 40. The Corps has also recommended the 3,300 acres affected around the reservoir could be secured by a flood easement rather than be acquired in fee title. He said that in addition, almost all of the 40 cabins could be relocated or modified on their existing lots.

Mr. Frink discussed the cost requirements for the project. The estimated cost is \$18.3 million, including \$6.6 million non-federal costs. He said the main reason for the high non-federal share is that all costs for land and relocations must be paid by the non-federal sponsor. While this cost is very high, Mr. Frink said a five-foot raise would provide considerable flood control for Valley City and areas downstream. Because of the local opposition resulting primarily from the land and cabin relocation concerns, the proposed five-foot raise of Baldhill Dam was not implemented in the authorized Sheyenne River Flood Control Project. However, Mr. Frink said this summer's flooding problems coupled with the revised land and relocation impacts could generate additional support for the project.

Jacob Gust expressed his support for the raise in the Baldhill Dam flood pool and said it is important for Cass County. He stated that some of the flooding this past summer may have been alleviated had the flood pool level of Baldhill Dam been raised.

It was the recommendation of the State Engineer that the State Water Commission pass a motion of general support for further engineering studies for the proposed Baldhill Dam pool raise, and that the Commission support the Corps of Engineers in obtaining a variance from the 300-foot right-of-way requirement around the reservoir.

It was moved by Commissioner Ames and seconded by Commissioner Thompson that the State Water Commission approve a motion of general support for further engineering studies for the proposed Baldhill Dam pool raise; and that the State Water Commission support the Corps of Engineers in obtaining a variance from the 300-foot right-of-way requirement around the reservoir.

Commissioners Ames, DeWitz, Hillesland, Olin, Swenson, Thompson, Vogel, and Chairman Schafer voted aye. There were no nay votes. The Chairman declared the motion unanimously carried.

**DEVILS LAKE STABILIZATION
PROJECT
(SWC Project No. 1712)**

Dale Frink reported that the agreement between the State Water Commission and the Corps of Engineers was executed on October 6, 1993 for Phase I of the Devils Lake Feasibility Study. The \$273,000 study is scheduled for completion by November, 1994, with the main purpose to determine whether there is adequate federal interest for the Corps to do a feasibility study. Of this amount, approximately \$62,500 will be required from the allocation from the Contract Fund.

Mr. Frink said the US Geological Survey in Bismarck will complete the lake elevation frequency analysis for the study under contract with the State Water Commission. This will be part of the State Water Commission's contribution towards the overall study. The US Geological Survey will start the study November 1, 1993 and complete the analysis by May, 1994. This input will be used to evaluate the frequency of damage that may result from high lake levels.

Mr. Frink commented that the overall feasibility of an outlet was enhanced this summer by the lake rising nearly five feet. He said clearly the events of the past two years emphasizes the need for an inlet and an outlet to provide more stable lake levels.

**MISSOURI RIVER UPDATE
(SWC Project No. 1392)**

Secretary Sprynczynatyk briefed the Commission members on a hearing before the Senate Committee on Environment and Public Works on October 11, 1993, in Glendive, Montana, on the Missouri River Master Manual. United States Senator Max Baucus is the chairman of the committee. Attached hereto, as **APPENDIX "K"**, is the statement presented to the committee by State Engineer, David Sprynczynatyk. Commissioner Ames was also in attendance at the hearing.

Secretary Sprynczynatyk explained the Missouri River Master Manual review process, using a series of overhead slides.

**CANNONBALL RIVER BASIN
SPECIAL STUDY
(SWC Project No. 322)**

Linda Weispfenning, State Water Commission Planning and Education Division, briefed the Commission members on meetings with the State Water Commission staff, the Bureau of Reclamation and other interested entities concerning the possibility of conducting a detailed water management study involving the Cannonball River Basin. The information provided is attached hereto as **APPENDIX "L"**.

Secretary Sprynczynatyk reported he has met with Jesse Taken Alive, Tribal Chairman of the Standing Rock Sioux Tribe. Mr. Taken Alive expressed interest and a willingness to work with the State on water management issues.

**COMPREHENSIVE INFORMATION/
EDUCATION STRATEGY FOR THE
STATE WATER COMMISSION
(SWC Project No. 1864)**

Gene Krenz presented the Commission members with the report entitled A Comprehensive Information/Education Strategy for the State Water Commission, dated October, 1993.

Mr. Krenz indicated this report was recently completed by the Commission's Division of Education and Planning and was developed with the assistance and input of several state and federal agencies. Mr. Krenz said that among other things, the report summarizes the results of a random survey of a cross-section of North Dakotans regarding their awareness and attitudes about the role water plays in their lives. A second survey, undertaken in essentially the same timeframe, sought responses from water resource managers and others known to have an interest in sound water management about their perceptions of priority water education needs. The results of the surveys, combined with documentation from other sources, led to the preparation of the report.

The report has four main sections. Section I contains both near- and long-term "elements and recommendations" for the Adult Education, Communications Deficiency, and Water Education for Teachers components. Sections II - IV contain more detailed explanations of the program components summarized in Section I.

Mr. Krenz stated that hundreds of specific tasks are identified in the report, suggesting roles for not only the State Water Commission but the State Health Department, the State Game and Fish Department, the North Dakota Water Users Association, the North Dakota Water Management Districts Association, the North Dakota Water Education Foundation, several Native American tribes, The International Coalition, the Garrison Diversion Conservancy District, and others.

Plans are to hold a meeting of the State Water Commission Communications Planning Committee by mid-November, 1993 to begin the process of identifying those tasks which are of high priority and should be undertaken immediately. Mr. Krenz noted that it is readily apparent that the State Water Commission lacks the staff and financial resources to unilaterally undertake implementation of the strategy. He said implementation will be accomplished only by working in a coordinated manner with others and, even then, it will be necessary to prepare and submit several substantive grant proposals to a variety of granting entities.

Mr. Krenz said the strategy report is intended to serve primarily as a guide to Commission staff and others in undertaking various water education initiatives.

It was the recommendation of the State Engineer that the State Water Commission adopt the Comprehensive Strategy Report as the basis for guiding Commission staff in implementing the various tasks called for in the report and that a member of the Commission staff be designated to coordinate the activities of cooperating agencies and entities having an interest in implementing portions of the strategy.

It was moved by Commissioner Ames and seconded by Commissioner Olin that the State Water Commission adopt A Comprehensive Information/Education Strategy for the State Water Commission, dated October, 1993, as the basis for guiding Commission staff in implementing the various tasks called for in the report; and that a member of the Commission staff be designated to coordinate the activities of cooperating agencies and entities having an interest in implementing portions of the strategy.

Commissioners Ames, DeWitz, Hillesland, Olin, Swenson, Thompson, Vogel, and Chairman Schafer voted aye. There were no nay votes. The Chairman declared the motion unanimously carried.

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**NORTH DAKOTA WATER
MAGAZINE
(SWC Project No. 1863)**

Secretary Sprynczynatyk presented a request from the North Dakota Water Education Foundation for the Commission's con-

sideration to cooperate financially and participate in the publication of the Foundation's North Dakota Water magazine.

For several years, the State Water Commission has published a monthly Oxbow newsletter and an annual Oxbow magazine. The request before the Commission suggests that the Commission consider discontinuing publication of the Oxbow magazine and that the Oxbow newsletter be incorporated into North Dakota Water as a section in each edition. The request recommends that the Water Commission consider dedicating funds currently expended on the two Commission publications to the publication of North Dakota Water.

It was the recommendation of the State Engineer that the State Water Commission suspend publication of its annual Oxbow magazine, incorporate its monthly Oxbow newsletter into North Dakota Water, and contribute to the costs of publishing North Dakota Water in the amount of \$5,000 for 1994, which is the approximate cost of printing and postage associated with the Commission's current publications.

Secretary Sprynczynatyk said that if the Commission approves the recommendation, the Oxbow newsletter would be integrated into North Dakota Water beginning with the December, 1993 issue, and articles developed for this year's version of the Oxbow magazine would be published over time in North Dakota Water.

Commissioner Olin commented that North Dakota Water will assist in getting information to the public and requested that future budgets of the Commission provide for an increased cost sharing in the publication.

It was moved by Commissioner Vogel and seconded by Commissioner Hillesland that the State Water Commission suspend publication of its annual Oxbow magazine, incorporate its monthly Oxbow newsletter into North Dakota Water, and authorize the expenditure of \$5,000 for 1994 for North Dakota Water, which is the approximate cost of printing and postage associated with the Commission's current publications.

Commissioners Ames, DeWitz, Hillesland, Olin, Swenson, Thompson, Vogel, and Chairman Schafer voted aye. There were no nay votes. The Chairman declared the motion unanimously carried.

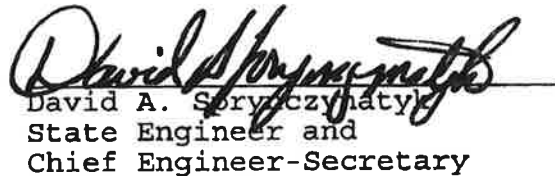
**NEXT STATE WATER
COMMISSION MEETING**

The next meeting of the State Water Commission is scheduled for December 8, 1993, in Minot, ND, in conjunction with the North Dakota Water Users Association and the North Dakota Water Resource Districts Association annual convention. (Due to a conflict in Governor Schafer's schedule, the meeting will be scheduled for either December 6 or 8, 1993.)

There being no further business to come before the State Water Commission, it was moved by Commissioner Vogel, seconded by Commissioner Hillesland, and unanimously carried, that the State Water Commission meeting adjourn at 5:00 PM, Mountain Daylight Time.


Edward T. Schafer
Governor-Chairman

SEAL


David A. Stryczynaty
State Engineer and
Chief Engineer-Secretary



North Dakota State Water Commission

900 EAST BOULEVARD • BISMARCK, ND 58505-0850 • 701-224-2750 • FAX 701-224-3696

Southwest Pipeline Project Tour and State Water Commission Meeting

Dickinson, North Dakota
October 26, 1993

7:00 AM, Mountain Daylight Time -- Continental Breakfast at
Hospitality Inn, Dickinson, ND

8:00 AM, Mountain Daylight Time -- Tour of Southwest Pipeline
Project Facilities and Construction -
Depart from Hospitality Inn, Dickinson, ND

11:30 AM, Mountain Daylight Time -- Luncheon at Elks Lodge,
Dickinson, ND

* * * * *

1:30 PM, Mountain Daylight Time -- State Water Commission Meeting
at Elks Lodge, Armstrong Room, Dickinson, ND

AGENDA

- A. Roll Call
- B. Consideration of Agenda
- C. *Consideration of Minutes of August 26, 1993 Meeting* **
- D. Financial Statement:
 - 1) Agency Operations **
 - 2) Contract Fund ** ***
- E. Southwest Pipeline Project:
 - 1) Project/Construction Status Report **
 - 2) *Water Service Contract* **
 - 3) *Phased-Development Plan* **
 - 4) *Taylor Watershed Project PL-566* **

GOVERNOR EDWARD T. SCHAFER
CHAIRMAN

DAVID A. SPRYNCZYNYATYK, P.E.
SECRETARY & STATE ENGINEER

AGENDA - PAGE 2

- F. Garrison Diversion Project:
 - 1) Project Update
 - 2) Turtle Lake Irrigation and Wildlife Area **
 - 3) *MR&I Funding for Fiscal Years 1993 and 1994* **
 - 4) *Missouri West Water System Promissory Note Amendment* **
 - 5) MR&I Priority Criteria Review Committee Report
 - 6) Interbasin Water Transfer Studies Program ***
- G. Northwest Area Water Supply Project **
- H. Comprehensive State Wetlands Conservation Plan:
 - 1) Plan Update **
 - 2) *North Dakota No-Net Loss of Wetlands* ** ***
 - 3) State Assumption of Section 404 **
- I. *Consideration of Request from The International Coalition* **
- J. Red River Dikes Update **
- K. *Sheyenne River Flood Control* **
- L. Devils Lake Stabilization Update **
- M. Missouri River Update **
- N. Cannonball River Study **
- O. *Statewide Water Communications Plan* **
- P. *North Dakota Water Magazine* **
- Q. Other Business:
 - 1) December 8, 1993 State Water Commission Meeting, Minot
- R. Adjournment

* * * * *

** MATERIAL PROVIDED IN BRIEFING BINDER

** *ITALICIZED, BOLD-FACED ITEMS REQUIRE SWC ACTION*

*** MATERIAL PROVIDED IN TODAY'S FOLDER

If auxiliary aids or services such as readers, signers, or Braille material is required, please contact the North Dakota State Water Commission, 900 East Boulevard, Bismarck, North Dakota 58505; or call (701) 224-4940 at least five (5) working days prior to the meeting. TDD telephone number is (701) 224-3696.

NORTH DAKOTA STATE WATER COMMISSION

REGISTER

ATTENDANCE AT State Water Commission Meeting

DATE October 26, 1993 PLACE Dickinson, ND

PROJECT NO. _____

Your Name	Your Address	Who do you Represent? (Or Occupation)
Linda Weisfenning	Bismarck	State Water Commission
James Leyman	Mott	Representative (Farmer)
James Odehman	Belfield	Southwest Water Authority
Adolph Miller	Stanton	Southwest Water Authority
Walter E. Sailer	Hazen	Southwest Water Authority
Marianne Bubigen	New Salem	Southwest Water Authority
Joe M. Brown	Carson	Southwest Water Authority
Gene A. Davison	Hettinger	Southwest Water Authority
Ronald Sando	Bismarck	USDA - Soil Conservation Service
Ken Thompson	Dickinson	Southwest Water Authority
Mike Geyer	Bismarck	Southwest Water Authority ND Water Users
Bruce F. McCollom	Bismarck, ND	Bartlett West/Boyle Engineering
Arnold Rotering	Amidon N.D.	Southwest Water Authority
Daniel Nordgren	Bowman ND	SWA
Joseph Steier	Beulah ND	SWA

NORTH DAKOTA STATE WATER COMMISSION

REGISTER

ATTENDANCE AT _____

DATE _____ PLACE _____

PROJECT NO. _____

Your Name	Your Address	Who do you Represent? (Or Occupation)
Michael Schaefer	Ken Ullin	Morton County
Pat Baumgartner	City of Dickinson	---
Chris Torgo	New England	Hettinger County
Joe Schneider	Dickinson	Spink Co.
Tom Brown	Taylor	SWA
Ken DeKart	Dickinson	City of Dickinson
Willie Masten	Dickinson	SWWA
William A. Sooy	Dickinson	---
Edna E. Reising	McCluskey	
Tilmer Reising	" "	J.D.C.D.
Dred Helberg	Harwood, N.D.	J.E. Cass W.P.D.
Mary Thompson	Page ND	
Jeffrey Volk	West Fargo	SE Cass / Cass Co J.E. W.P.D.
Frank Orthmeier	Grand Forks	ND Garrison C District
Kenneth Vein	Grand Forks	City of Grand Forks

NORTH DAKOTA STATE WATER COMMISSION
REGISTER

ATTENDANCE AT _____

DATE _____ PLACE _____

PROJECT NO. _____

Your Name	Your Address	Who do you Represent? (Or Occupation)
CHARLES VEIN	GRAND FORKS	ADVANCED ENGINEERING
Harold Amern	Richardton	Southwest water authority
VARN FAHY	Bismarck	GDCD
Jake Gust	Fargo	South East Cross WIND
DON FLYNN	SCRANTON	S.W.A. Bowman County
Dodey Manley	Dickinson	SUPP State Water Commission
Milt Lochow	Jamestown	GDCD
Dorothy Lochow	Jamestown	
Warren Camison	Carrington	GDCD
Steph M. Hedges	Bismarck	AMERICAN ENG

APPENDIX "A"

October 26, 1993 - 151

STATE WATER COMMISSION
PROGRAM BUDGET EXPENDITURES SEPTEMBER 30, 1993
BIENNIAL TIME 12.5%

FINANCIAL STATEMENT
SWC File #05-1.4
10-14-1993

AGENCY PROGRAM	SALARIES & WAGES	INFORMATION SERVICES	OPERATING EXPENSE	EQUIPMENT	CONTRACTS	PROGRAM TOTAL
Administration						
Budget	\$633,590	\$75,792	\$293,465	\$3,000	\$0	\$1,005,847
Expended	\$72,173	\$8,700	\$26,871	\$62	\$0	\$107,806
Percent	11	11	9	2	0	11
Water Education						
Budget	\$624,858	\$0	\$142,264	\$12,750	\$25,000	\$804,872
Expended	\$68,295	\$0	\$5,569	\$59	\$0	\$73,954
Percent	11	0	4	0	0	9
Water Appropriation						
Budget	\$2,178,891	\$3,955	\$408,500	\$33,000	\$660,000	\$3,284,346
Expended	\$282,748	\$181	\$46,658	\$0	\$9,863	\$339,449
Percent	13	5	11	0	1	10
Water Development						
Budget	\$2,486,884	\$2,500	\$316,700	\$57,100	\$8,612,509	\$11,475,693
Expended	\$314,748	\$0	\$32,518	\$0	\$625,259	\$972,525
Percent	13	0	10	0	7	8
Atmospheric Resources						
Budget	\$384,452	\$11,500	\$1,700,701	\$10,500	\$3,050,000	\$5,157,153
Expended	\$58,261	\$383	\$216,311	\$0	\$332,932	\$607,886
Percent	15	3	13	0	11	12
Southwest Pipeline						
Budget	\$736,047	\$0	\$4,617,020	\$110,000	\$26,600,000	\$32,063,067
Expended	\$71,412	\$0	\$418,036	\$750	\$1,357,842	\$1,848,040
Percent	10	0	9	1	5	6
Contract Carryover						
Budget	\$0	\$0	\$0	\$0	\$500,000	\$500,000
Expended	\$0	\$0	\$0	\$0	\$0	\$0
Percent	0	0	0	0	0	0
Agency Totals						
Budget	\$7,044,722	\$93,747	\$7,478,650	\$226,350	\$39,447,509	\$54,290,978
Expended	\$867,638	\$9,263	\$745,963	\$901	\$2,325,896	\$3,949,661
Percent	12	10	10	0	6	7
FUNDING SOURCE:	APPROPRIATION	EXPENDITURES	BALANCE	FEDERAL FUND REVENUE:	\$882,780	
General Fund	\$5,532,084	\$441,121	\$5,090,963	SPECIAL FUND REVENUE:	\$1,782,400	
Federal Fund	\$32,775,404	\$2,152,553	\$30,622,851	GENERAL FUND REVENUE:	\$486	
Special Fund	\$15,983,490	\$1,355,986	\$14,627,504	TOTAL:	\$2,665,667	
TOTAL	\$54,290,978	\$3,949,660	\$50,341,318			

STATE WATER COMMISSION
1993 - 1995 Grants/Contract Fund

Approved by SWC: 07-02-93

25-OCT-1993

	RTP	General Funds	Federal Funds	Other Funds	Carryover	Totals
Biota Transfer	\$0	\$25,000				\$25,000
Hydrologic Investigation	\$600,000			\$60,000		\$660,000
MR&I Program	\$3,106,110				\$500,000	\$3,606,110
EPA Wetlands Grant	\$0				\$154,867	\$154,867
NAMS	\$50,000					\$50,000
Devils Lake	\$500,000					\$500,000
Maple River Dam	\$326,610					\$326,610
Southwest Pipeline	\$1,525,678					\$1,525,678
General Projects	\$2,879,244			\$70,000		\$2,949,244
SWC Grants Totals	\$8,987,642	\$25,000	\$0	\$120,000	\$654,867	\$9,797,509

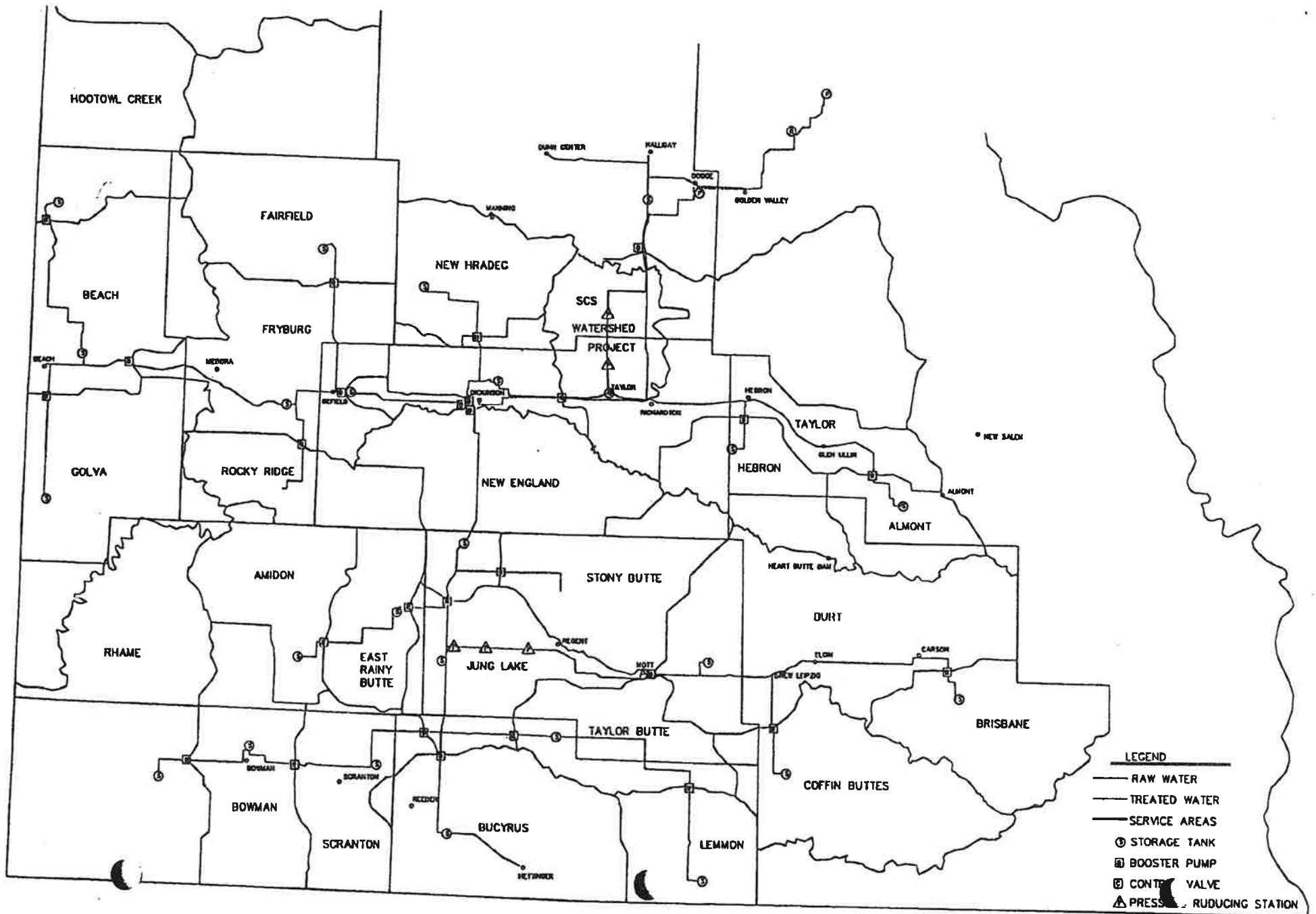
APPROVED BY	SWC No.	NAME	Date Approved	Amount Approved	Payments	Balance
SWC	1628	Biota Transfer		\$25,000	\$0	\$25,000
SWC	1395	Hydrologic Investigations USGS Data Collections: FY '94 & FY '95		\$660,000	\$0	\$660,000
SWC	237-5	MR&I Program Ramsey Co Rural Water	9-15-92	\$536,759	\$77,487	\$859,272
SWC	237-27	Missouri West	9-15-92	\$1,473,949	\$405,267	\$1,068,582
SWC	237-36	Stanley	10-21-91	\$671,172	\$160,285	\$502,887
SWC	237-42	Garrison Rural Water	9-15-92	\$524,230	\$204,300	\$219,930
		MR&I SUBTOTAL		\$3,606,110	\$955,439	\$2,650,671
SWC	1489-5	EPA WETLANDS GRANT Wetlands Education	9-15-92	\$25,552	\$0	\$25,952
		Technical Services		\$7,800	\$0	\$7,800
		Water Quality Analysis		\$14,325	\$0	\$14,325
		Grand Harbor		\$69,723	\$0	\$69,723
		Private Lands		\$18,104	\$0	\$18,104
		Devils Lake Basin		\$18,963	\$4,631	\$14,332
		EPA SUBTOTAL		\$154,867	\$4,631	\$150,236
SWC	237-4	NAMS	2-04-92	\$50,000	\$0	\$50,000
SWC	416	Devils Lake Flood Control	2-04-92	\$500,000	\$7,800	\$492,200
SWC	1344	Maple River Flood Control	2-04-92	\$326,610	\$0	\$326,610
SWC	1736	Southwest Pipeline Project	2-04-92	\$1,525,678	\$0	\$1,525,678

APPROVED BY	SWC No.	NAME	Date Approved	Amount Approved	Payments	Balance
GENERAL PROJECTS						
		Shortfall		\$397,653	\$0	\$397,653
SWC	227	Garrison Consultant	7-02-93	\$40,000	\$6,078	\$33,922
SE	263	Patterson Lake Management (Stark)	8-24-93	\$500	\$500	\$0
SE	266	Tolna Dam (Nelson)	9-28-93	\$2,000	\$0	\$2,000
SWC	300	Baldhill Dam (Harnes)	9-15-92	\$184,000	\$0	\$184,000
SE	543	North Lennon Lake Dam (Adams)	7-08-93	\$9,933	\$0	\$9,933
SWC	662	Park River Snagging & Clearing (Walsh)	4-02-92	\$10,117	\$0	\$10,117
SWC	662	Park River #2 Snagging & Clearing (Walsh)	5-23-92	\$4,625	\$0	\$4,625
SWC	1292	Willow Road Floodway (Morton)	8-26-93	\$27,106	\$0	\$27,106
SE	1311	Elm CAT (Traill)	9-15-92	\$5,550	\$0	\$5,550
SE	1311	Bingham CAT (Traill)	9-15-92	\$4,900	\$0	\$4,900
SWC	1346	Mount Carmel (Cavalier)	4-02-92	\$4,395	\$0	\$4,395
SE	1392	Missouri River Operations		\$1,000	\$1,000	\$0
SWC	1496	Lake Elsie (Richland)	8-05-92	\$11,500	\$0	\$11,500
SE	1751-G	Williston Floodplain (Williston)	2-24-93	\$1,000	\$0	\$1,000
SE	1751-H	Lower Forest River FP (Walsh)	1-26-93	\$5,200	\$0	\$5,200
SWC	1804	Grand Harbor #1 (Ramsey)	4-06-93	\$20,640	\$0	\$20,640
SWC	1803	Belfield Flood Control (Stark)	12-20-91	\$38,800	\$0	\$38,800
SE	1813	Cass County Snagging & Clearing	11-25-91	\$325	\$0	\$325
SWC	1815-4	Sheyenne River Snagging & Clearing	12-09-92	\$4,826	\$0	\$4,826
SWC	1832	Hammar - Sullivan (Ramsey)	7-02-93	\$21,231	\$0	\$21,231
SWC	1840	North Lona (Cavalier)	7-09-93	\$7,960	\$0	\$7,960
SWC	1842-4	Wild Rice Snagging & Clearing	12-09-92	\$725	\$0	\$725
SWC	1865	Belfield Dam (Stark)	4-02-92	\$9,969	\$0	\$9,969
APPROVED GENERAL PROJECTS SUBTOTAL				\$814,005	\$7,578	\$806,427
Unallocated Balance (Total-Approved-Shortfall)				\$1,737,586		
SWC GRANTS TOTALS				\$9,797,509	\$975,448	\$8,822,061

**SOUTHWEST PIPELINE PROJECT
PHASED DEVELOPMENT PLAN**

SERVICE AREA	ZONE	PRIORITY	ESU *	EST. COST
7-1B Taylor w/o PL-566	North	0	36.00	\$883,200
Davis Butte	North	0	308.50	\$2,848,600
New Hradec	North	0	122.90	\$2,815,400
Belfield	West	1	76.65	\$2,195,400
New England	South	2	227.75	\$3,914,200
Remaining Taylor w/o PL-566	North	3	238.41	\$3,494,200
East Rainy Butte	South	4	49.25	\$1,826,600
Jung Lake w/o NE Grant Co.	South	5	72.00	\$4,623,800
Bucyrus	South	6	361.19	\$5,492,600
Taylor Butte	South	7	65.50	\$3,057,900
Lemmon	South	8	50.88	\$1,707,200
Scranton	South	9	92.40	\$3,685,500
Bowman	South	10	245.56	\$3,471,800
Fryburg	West	11	137.66	\$4,766,800
Beach	West	12	243.70	\$5,624,200
Golva	West	13	90.65	\$2,525,500
Burt w/o NE Grant Co.	South	14	205.00	\$4,760,100
Stony Butte	South	15	71.75	\$2,442,800
Amidon	South	16	37.63	\$1,653,900
Rhame	South	17	63.38	\$2,086,900
Rocky Ridge	West	18	8.50	\$761,300
Fairfield	West	19	2.50	\$500,400
Coffin Buttes	South	20	87.50	\$3,568,800
Hebron	North	21	15.25	\$992,200
Almont	North	22	16.50	\$726,100
TOTALS			2927.0	\$70,425,400

* ESU = Equivalent Service Unit



- LEGEND**
- RAW WATER
 - - - TREATED WATER
 - SERVICE AREAS
 - ⊙ STORAGE TANK
 - ⊠ BOOSTER PUMP
 - ⊞ CONTROL VALVE
 - △ PRESS. REDUCING STATION

**TAYLOR WATERSHED
WATERSHED PLAN - ENVIRONMENTAL ASSESSMENT
DUNN and STARK COUNTIES, NORTH DAKOTA**

Abstract: This document describes a plan to provide a safe and dependable agricultural water supply to land users in the Taylor Watershed. Alternative water sources considered for improving water quality and quantity include deep wells, spring developments, surface impoundments, and no action. The recommended plan consists of taking treated water from the Southwest Water Authority pipeline and transmitting it to 108 land users through 601,800 linear feet of main and lateral pipelines. A total of 58,500 linear feet of pasture pipeline, 28 tanks, 26,000 linear feet of cross and protective fence will be installed, and 1,500 acres of permanent vegetative cover will be established.

Total project costs are \$2,134,400. \$937,200 will be paid from Public Law (P.L.) 566 funds and \$1,197,200 from other funds. Major impacts include an improved agricultural water supply and distribution, improved grassland management, improved livestock health and production, and improved water quality. Other impacts include a slight reduction of sediment and associated nutrients deposited in existing surface water impoundments, and improved upland habitat for wildlife cover and feed. This document is pursuant to authorization under P.L. 566 funding and to fulfill requirements of the National Environmental Policy Act.

Prepared under the Authority of the Watershed Protection and Flood Prevention Act, Public Law 83-566, as amended (16 U.S.C. 1001-1008) and in accordance with Section 102(2)(c) of the National Environmental Policy Act of 1969, Public Law 91-190, as amended (42 U.S.C. 4321 et seq.).

Prepared by the: Central Stark Soil Conservation District
Dunn County Soil Conservation District
Dunn County Water Resource District
Stark County Water Resource District
Southwest Water Authority
North Dakota State Water Commission

For additional information contact: Ronnie L. Clark, State Conservationist, Soil Conservation Service, P.O. Box 1458, Bismarck, ND, 58502
Phone (701) 250-4421.

WATERSHED AGREEMENT

between the

Central Stark Soil Conservation District

Dunn County Soil Conservation District

Dunn County Water Resource District

Stark County Water Resource District

Southwest Water Authority

North Dakota State Water Commission

(Referred to herein as sponsors)
and the

Soil Conservation Service
United States Department of Agriculture
(Referred to herein as SCS)

Whereas, application has heretofore been made to the Secretary of Agriculture by sponsors for assistance in preparing a plan for works of improvement for the Taylor Watershed, State of North Dakota, under the authority of the Watershed Protection and Flood Prevention Act (16 U.S.C. 1001-1008); and

Whereas, the responsibility for administration of the Watershed Protection and Flood Prevention Act, as amended, has been assigned by the Secretary of Agriculture to SCS; and

Whereas, there has been developed through the cooperative efforts of the sponsors and SCS a plan for works of improvement for the Taylor Watershed, State of North Dakota, hereinafter referred to as the Watershed Plan - Environmental Assessment, which plan is annexed to and made a part of this agreement;

Now, therefore, in view of the foregoing considerations, the Secretary of Agriculture, through SCS, and the sponsors hereby agree on this plan and that the works of improvement for this project will be installed, operated, and maintained in accordance with the terms, conditions, and stipulations provided for in this watershed plan and including the following:

LANDRIGHTS

1. The sponsors will acquire, with other than P.L. 566 funds, 100 percent of such landrights as will be needed in connection with the works of improvement. (Estimated cost \$12,500).

RELOCATION PAYMENTS and ASSURANCES

2. The sponsors hereby agree that they will comply with all of the policies and procedures of the Uniform Relocation Assistance and Real Property Acquisition Policies Act (42 U.S.C. 4601 et. seq. as implemented by 7 C.F.R. Part 21) when acquiring real property interests for this federally assisted project. If the sponsors are legally unable to comply with the real property acquisition requirements of the Act, they agree that, before any federal financial assistance is furnished, they will provide a statement to that effect, supported by an opinion of the chief legal officer of the State containing a full discussion of the facts and law involved. This statement may be accepted as constituting compliance. In any event, the sponsors agree that it will reimburse owners for necessary expenses as specified in 7 C.F.R. 21.1006(c) AND 21.1007.

The cost of relocation payments in connection with the displacements under the Uniform Act will be shared by the sponsors and SCS as follows:

	Sponsors	SCS	Estimated Relocation
	(percent)	(percent)	Payment Costs (dollars)
Relocation Payments	56.1	43.9	0 ^{1/}

^{1/} Investigation of the watershed project area indicates that no displacements will be involved under present conditions. However, in the event that displacement becomes necessary at a later date, the cost of relocation assistance will be cost shared in accordance with the percentages shown.

WATER RIGHTS

3. The sponsors will acquire or provide assurance that landowners or water users have acquired such water rights pursuant to state law as may be needed in the installation and operations of the works of improvement.

PERMITS

4. The sponsors will obtain all necessary federal, state, and local permits required by law, ordinance, or regulation for installation of the works of improvement.

CONSTRUCTION COSTS

5. The percentages of construction costs to be paid by the sponsors, land users, and SCS are as follows:

WORKS OF IMPROVEMENT	ESTIMATED CONSTRUCTION COSTS			
	SCS (PERCENT)	SPONSORS (PERCENT)	LAND USERS (PERCENT)	(DOLLARS)
Structural ^{1/}	38.5	61.5	0.0	1,325,900
Nonstructural				
- Pasture Pipelines	65	0	35	81,100
- Tanks	65	0	35	42,000
- Cross & Protective Fence	50	0	50	45,000
- Grass Seeding	65	0	35	9,600
Mitigation	0	100	0	7,000
Hook-up Costs	0	0	100	54,000
Cult. Res. Survey	50	50	0	30,000

ENGINEERING SERVICES COSTS

6. The percentages of engineering services for structural measures to be borne by the sponsors, land users and SCS are as follows:

WORKS OF IMPROVEMENT	ESTIMATED ENGINEERING COSTS			
	SCS (PERCENT)	SPONSORS (PERCENT)	LAND USERS (PERCENT)	(DOLLARS)
Structural ^{1/} ^{2/}	38.5	61.5	0	198,900
Nonstructural				
- Pasture Pipelines	65	0	35	7,900
- Tanks	65	0	35	4,100
- Cross & Protective Fence	50	0	50	4,400
- Grass Seeding	65	0	35	700
Mitigation	0	100	0	1,100

^{1/} Includes all main, laterals, and appurtenances.

^{2/} The sponsors and the SCS will bear the cost of construction inspection each incurs.

PROJECT ADMINISTRATION

7. The sponsors and SCS will each bear the costs of project administration each incurs, estimated to be \$96,800 and \$63,900, respectively.

OTHER ITEMS

8. The sponsors will request landowners and operators to operate and maintain land treatment measures for the protection and improvement of the watershed resources, by providing technical assistance for the development and implementation of resource management systems.
9. The sponsors agree to participate in and comply with applicable Federal laws before construction starts.
10. The sponsors will be responsible for the operation, maintenance, and replacement of the works of improvements (mains and laterals) and mitigation features by actually performing the work or arranging for such work, in accordance with agreements to be entered into before issuing invitations to bid for construction work.
11. The individual land users will be responsible for the operation, maintenance, and replacement of the works of improvements (tanks, pasture pipelines, grass seeding, fence, and wildlife enhancement) in accordance with the Long-Term Contract (LTC) entered into with the Soil Conservation Service and soil conservation district.
12. The costs shown in this plan are preliminary estimates. Final costs to be borne by the parties hereto, will be the actual costs incurred in the installation of works of improvement.
13. This agreement is not a fund-obligating document. Financial and other assistance to be furnished by SCS in carrying out the plan is contingent upon the fulfillment of applicable laws and regulations and the availability of appropriations for this purpose.
14. A separate agreement will be entered into between SCS and sponsors before either party initiates work involving funds of the other party. Such agreements will set forth in detail the financial and working arrangements and other conditions that are applicable to the specific works of improvement.
15. This plan may be amended or revised only by mutual agreement of the parties hereto, except that SCS may deauthorize or terminate funding at any time it determines that the sponsor has failed to comply with the conditions of this agreement. In this case, SCS shall promptly notify the sponsor in writing of the determination and the reasons for the deauthorization of project funding, together with the effective date. Payments made to the sponsors or recoveries by SCS shall be in accord with the legal rights and liabilities of the parties when project funding has been deauthorized. An amendment to incorporate changes affecting a specific measure may be made by mutual agreement between SCS and the sponsor(s) having specific responsibilities for the measure involved.

16. No member of or delegate to Congress, or resident commissioner, shall be admitted to any share or part of this plan, or to any benefit that may arise therefrom; but this provision shall not be construed to extend to this agreement if made with a corporation for its general benefit.
17. The program conducted will be in compliance with all requirements respecting nondiscrimination, as contained in the Civil Rights Act of 1964, as amended, and the regulations of the Secretary of Agriculture (7 C.F.R. 15), which provide that no person in the United States shall, on the grounds of race, color, national origin, sex, age, handicap, or religion, be excluded from participation in, be denied the benefits of, or otherwise be subjected to discrimination under any program or activity conducted or assisted by the Department of Agriculture.
18. Certification Regarding Drug-Free Workplace Requirements (7 CFR 3017, Subpart F).

By signing this watershed agreement, the sponsors are providing the certification set out below. If it is later determined that the sponsors knowingly rendered a false certification, or otherwise violated the requirements of the Drug-Free Workplace Act, the SCS, in addition to any other remedies available to the Federal Government, may take action authorized under the Drug-Free Workplace Act.

Controlled substance means a controlled substance in Schedules I through V of the Controlled Substances Act (21 U.S.C. 812) and as further defined by regulation (21 CFR 1308.11 through 1308.15);

Conviction means a finding of (including a plea of nolo contendere) or imposition of sentence, or both, by any judicial body charged with the responsibility to determine violations of the Federal or State criminal drug statutes;

Criminal drug statute means a Federal or non-Federal criminal statute involving the manufacturing, distribution, dispensing, use, or possession of any controlled substance;

Employee means the employee of a grantee directly engaged in the performance of work under a grant, including: (i) all direct charge employees; (ii) all indirect charge employees unless their impact or involvement is insignificant to the performance of the grant; and, (iii) temporary personnel and consultants who are directly engaged in the performance of work under the grant and who are on the grantee's payroll. This definition does not include workers not on the payroll of the grantee (e.g., volunteers, even if used to meet a matching requirement; consultants or independent contractors not on the grantees' payroll; or employees of subrecipients or subcontractors in covered workplaces).

Certification:

- A. The sponsors certify that they will or will continue to provide a drug-free workplace by:

- (1) Publishing a statement notifying employees that the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance is prohibited in the grantee's workplace and specifying the actions that will be taken against employees for violation of such prohibition;
- (2) Establishing an ongoing drug-free awareness program to inform employees about --
 - (a) The danger of drug abuse in the workplace;
 - (b) The grantee's policy of maintaining a drug-free workplace;
 - (c) Any available drug counseling, rehabilitation, and employee assistance programs; and
 - (d) The penalties that may be imposed upon employees for drug abuse violations occurring in the workplace
- (3) Making it a requirement that each employee to be engaged in the performance of the grant be given a copy of the statement required by paragraph (1);
- (4) Notifying the employee in the statement required by paragraph (1) that, as a condition of employment under the grant, the employee will -
 - (a) Abide by the terms of the statement; and
 - (b) Notify the employer in writing of his or her conviction for a violation of a criminal drug statute occurring in the workplace no later than five calendar days after such conviction;
- (5) Notifying the SCS in writing, within ten calendar days after receiving notice under paragraph (4) (b) from an employee or otherwise receiving actual notice of such conviction. Employers of convicted employees must provide notice, including position title, to every grant officer or other designee on whose grant activity the convicted employee was working, unless the Federal agency has designated a central point for the receipt of such notices. Notice shall include the identification number(number(s) of each affected grant;
- (6) Taking one of the following actions, within 30 calendar days of receiving notice under paragraph (4) (b), with respect to any employee who is so convicted--
 - (a) Taking appropriate personnel action against such an employee, up to and including termination consistent with the requirements of the Rehabilitation Act of 1973, as amended; or

(b) Requiring such employee to participate satisfactorily in a drug abuse assistance or rehabilitation program approved for such purposes by a Federal, State, or local health, law enforcement, or other appropriate agency.

(7) Making a good faith effort to continue to maintain a drug-free workplace through implementation of paragraphs (1), (2), (3), (4), (5), and (6)

B. The sponsors may provide a list of the site(s) for the performance of work done in connection with a specific project or other agreement.

C. Agencies shall keep the original of all disclosure reports in the official files of the agency.

19. **Certification Regarding Lobbying (7 CFR 3018) (applicable if this agreement exceeds \$100,000).**

(1) The sponsors certify to the best of their knowledge and belief, that:

(a) No Federal appropriated funds have been paid or will be paid, by or on behalf of the sponsors, to any person for influencing or attempting to influence an officer or employee of an agency, Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan or cooperative agreement.

(b) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form - LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

(c) The sponsors shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.

(2) This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for

making or entering into this transaction imposed by Section 1j352, Title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

20. **Certification Regarding Debarment, Suspension, and Other Responsibility Matters - Primary Covered Transactions (7 CFR 3017).**

(1) The sponsors certify to the best of their knowledge and belief, that they and their principals:

(a) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal department or agency.

(b) Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State, or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;

(c) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State, or local) with commission of any of the offenses enumerated in paragraph (1)(b) of this certification; and

(d) Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State, or local) terminated for cause or default.

(2) Where the primary sponsors are unable to certify to any of the statements in this certification such prospective participant shall attach an explanation to this agreement.

SIGNATURE BLOCKS

Central Stark Soil Conservation District
1173 3rd Avenue West
Dickinson, ND 58601

By _____
NAME, Chairperson

Date _____

The signing of this plan was authorized by a resolution of the governing body of the Central Stark Soil Conservation District adopted at a meeting held on _____.

1173 3rd Avenue West
Dickinson, ND 58601

By _____
NAME, Secretary

Date _____

Dunn County Soil Conservation District
210 Central Avenue
Killdeer, ND 58640

By _____
NAME, Chairperson

Date _____

The signing of this plan was authorized by a resolution of the governing body of the Dunn County Soil Conservation District adopted at a meeting held on _____.

210 Central Avenue
Killdeer, ND 58640

By _____
NAME, Secretary

Date _____

Dunn County Water Resource District
Box 508
Killdeer, ND 58640

By _____
NAME, Chairperson

Date _____

The signing of this plan was authorized by a resolution of the governing body of the Dunn County Water Resource District adopted at a meeting held on _____.

Box 508
Killdeer, ND 58640

By _____
NAME, Secretary

Date _____

Stark County Water Resource District
780 11th Avenue West
Dickinson, ND 58601

By _____
NAME, Chairperson

Date _____

The signing of this plan was authorized by a resolution of the governing body of the Stark County Water Resource District adopted at a meeting held on _____.

780 11th Avenue West
Dickinson, ND 58601

By _____
NAME, Secretary

Date _____

Southwest Water Authority
West Industrial Park
4665 Second Street West
Dickinson, ND 58601

By _____
NAME, Chairperson

Date _____

The signing of this plan was authorized by a resolution of the governing body of the Southwest Water Authority, adopted at a meeting held on _____.

Southwest Water Authority
West Industrial Park
4665 Second Street West
Dickinson, ND 58601

By _____
NAME, Secretary

ND State Water Commission
900 E. Blvd. Ave.
Bismarck, ND 58505

By _____
NAME, Chairperson

Date _____

The signing of this plan was authorized by a resolution of the State Water Commission, adopted at a meeting held on _____.

ND State Water Commission
900 E. Blvd. Ave,
Bismarck, ND 58505

By _____
NAME, Secretary

Date _____

United States Department of Agriculture
Soil Conservation Service

220 E. Rosser Avenue
Bismarck, ND 58501

Approved By:

RONNIE L. CLARK
State Conservationist

Date _____

TURTLE LAKE IRRIGATION
AND WILDLIFE AREA

U.S. Department of the Interior
Bureau of Reclamation
Missouri-Souris Projects Office
Bismarck, North Dakota

In Cooperation With:

U.S. Fish and Wildlife Service
Soil Conservation Service
North Dakota State Water Commission
North Dakota Game and Fish Department
North Dakota State University Extension Service
Garrison Diversion Conservancy District
Turtle Lake Irrigation District
City of Turtle Lake
Turtle Lake Park Board
Turtle Lake Development Corporation
North Dakota Action Group
Mercer-Brush Lake Community Association
Brush Lake Cabin Owners Association
Crooked Lake Cabin Owners Association
Blue Lake Cabin Owners Association

SEPTEMBER 1993

CONCEPTUAL PLAN

TURTLE LAKE IRRIGATION AND WILDLIFE AREA

CONCEPTUAL PLAN

SEPTEMBER 1993

I. INTRODUCTION

The Turtle Lake Irrigation Area (TLIA) is located in McLean County near the town of Turtle Lake in central North Dakota. The TLIA is adjacent to the McClusky Canal, a project feature of the Garrison Diversion Unit (GDU), which transports Missouri River water into the area. The GDU Reformulation Act of 1986 authorized the development of 13,700 acres of irrigation in the TLIA.

The purpose of this report is to present an innovative, conceptual, land-use development plan which enhances the Turtle Lake area for wildlife, irrigated agriculture, and economic development. The plan recommends development by a combination of groundwater management, use of Missouri River water from the already completed McClusky Canal, and land management practices.

Agriculture and wildlife coexist at all levels in North Dakota. However, extensive agricultural development, while increasing the food base for some species of wildlife, is often at the expense of wildlife habitat. Conversely, increased wildlife production in an area can result in problems for landowners. For example, increased crop depredation, loss of production on lands dedicated to wildlife habitat, and potential trespass and property damage problems may all occur as a result of increased wildlife populations.

Development of the TLIA allows a unique opportunity for utilizing land for its best suited and most easily developed purpose. Proper planning, design, and construction practices will permit development of a balanced project. Lands that lend themselves to irrigation development, with minimal effect on wetlands and other habitats, would be developed. Lands requiring extensive modification to allow for successful irrigation would be used for other purposes such as wildlife habitat and/or dryland farming.

This plan was prepared as a cooperative effort to determine the advantages which might be realized by including wildlife, recreation, and irrigation as equal partners in area development planning. Irrigation development in the TLIA has been previously investigated and, therefore, the document contains more detailed information relative to the irrigation component. The location of the TLIA, combined with the concepts included in this plan, address many of the following issues which impede development of irrigation on other portions of the GDU:

1. Potential impacts to Canada.
 - o The TLIA lies entirely within the Missouri River basin, therefore, development will not impact Canada.
2. Impacts to national wildlife refuges (NWRs).
 - o Two NWRs are associated with the TLIA. Audubon NWR is impacted by current GDU operations, and efforts are underway to mitigate those impacts. Development of the TLIA would not cause additional impacts to Audubon NWR.
 - o Lake Nettie NWR is located within the boundaries of the TLIA. No adverse impacts will result from development of the TLIA. Some enhancement features are included for the refuge.
3. Traditional irrigation development involves off-site mitigation for wetland impacts at a significant acquisition, development and annual operation and maintenance (O&M) cost.
 - o Off-site mitigation for wetland impacts requires purchase of 4 acres of land for each wetland acre lost. Experience to date indicates acquisition and development costs of approximately \$800 for each acre purchased. That means each acre of wetland lost costs about \$3,200 to mitigate. Additionally, all lands acquired and developed are transferred to other agencies at a continuing annual O&M cost of \$13 per acre (October 1992 prices).
 - o In October 1990, the cost for off-site mitigation for potential wetland impacts in the TLIA was estimated at \$7,556,000. These costs would be eliminated if development would proceed as recommended in the Conceptual Plan, although there would be some costs associated with on-site mitigation and enhancement features.
4. Purchase of lands for off-site mitigation undermines county tax bases because Federal agencies do not pay full taxes.
 - o A goal of the Conceptual Plan is to eliminate the need for off-site mitigation and, therefore, land acquisition.
5. GDU development will negatively impact South Dakota and the James River.
 - o Development of the TLIA will not impact South Dakota or the James River.

The Planning Process

The planning process itself was unique relative to traditional water project planning efforts in North Dakota. An interagency planning team was formed to aid in preparation of this document. Representatives of interested agencies and organizations held numerous planning meetings and were involved throughout the study process.

The following statement was agreed upon to describe the group's purpose:

"To formulate and present an innovative, conceptual, land-use development plan which enhances the Turtle Lake project area equally for wildlife, irrigated agriculture, and economic development."

Organizations represented at one or more of the planning meetings included:

Bureau of Reclamation
U.S. Fish and Wildlife Service
Soil Conservation Service
North Dakota State Water Commission
North Dakota Game and Fish Department
North Dakota State University Extension Service
Garrison Diversion Conservancy District
Turtle Lake Irrigation District
City of Turtle Lake
Turtle Lake Park Board
Turtle Lake Development Corporation
ND Action Group (North American Waterfowl Management Plan)
Mercer-Brush Lake Community Association
Brush Lake Cabin Owners Association
Crooked Lake Cabin Owners Association
Blue Lake Cabin Owners Association

II. FINDINGS AND RECOMMENDATIONS OF THE PLANNING TEAM

In addition to the Conceptual Plan discussed in the remainder of this document, the interagency planning team agreed upon the following findings and recommendations:

1. A project can be formulated which would develop irrigated agriculture in the TLIA and at the same time enhance wildlife, fish, recreation, and regional economic growth. Additional cost estimates, cost allocations, economic analyses, and financial analyses need to be completed.

2. The project can be divided into three blocks, each served by a separate intake from the McClusky Canal. Development of the area should proceed by block. Each block would include both irrigation and wildlife features.

3. Development within each block should proceed by farm unit based on landowner interest. Development by blocks, and by farm units within individual blocks, would provide an opportunity to demonstrate and evaluate the effectiveness and benefits of irrigation and wildlife enhancement features. It would also allow adjustments to be made to project features as development proceeds, and would allow time for landowners to become familiar with benefits of various project features.

III. UNIQUE PROJECT FEATURES

The Conceptual Plan is the first step in a process to develop a project which places equal emphasis on wildlife, irrigation and economic development in the TLIA. The planning process and the Conceptual Plan emphasize sharing of wildlife and agricultural benefits on the same parcels of land, avoidance of impacts, development of enhancement features, and on-site mitigation. Following are processes and concepts which are unique relative to other project planning efforts and project features in North Dakota.

1. Formation of an interagency planning team allowed an earlier and greater public involvement in the planning process. It also allowed proactive rather than the traditional reactive agency participation.

2. Project development would result in greater use of the McClusky Canal and the Snake Creek Pumping Plant, existing GDU features. Additionally, development of wildlife enhancement features would complement existing public wildlife areas in the vicinity.

3. Implementation of the TLIA Conceptual Plan would result in an increase in wildlife habitat and habitat management capabilities, and an increase in agricultural productivity and diversity.

4. The plan recommends formation of an Irrigation and Wildlife Advisory Team (Advisory Team), with representation by Reclamation, U.S. Fish and Wildlife Service, ND Game and Fish Department, Garrison Diversion Conservancy District, and the Turtle Lake Irrigation District, and the NDSU Extension Service. This team, in consultation with the Soil Conservation Service, would work with landowners to develop wildlife and irrigation plans for individual farm units.

5. Mitigation is proposed to be accomplished by avoidance and by on-site mitigation features within the TLIA. This eliminates the need for acquisition and development of lands in other areas of North Dakota for mitigation.

6. Avoidance of impacts would be accomplished, in part, by managing the groundwater table on approximately 3200 acres of Class 4 lands for the benefit of both agriculture and wildlife.

7. Horizontal well and drain systems would be used to manage the groundwater in conjunction with surface water from the project supply system to maximize water use for the benefits of both wildlife and agriculture. The open canals provide a means to deliver water to the project areas, deliver and store water for wetland habitat, control the water table, and remove excess water during wet periods.

8. Best Management Practices for irrigated agriculture would be developed for the TLIA and implemented through a cooperative Advisory Team.

9. Recreation and fisheries benefits would be derived from stabilization of Brush and Crooked Lakes. Joint use of supply systems will increase efficiency by utilizing the system during off-peak periods to provide water to Crooked Lake. The pipeline constructed to supply water to Brush Lake could potentially deliver water to hundreds of acres of wetlands along the pipeline route in dry years.

10. Water would be delivered to the Lake Nettie NWR as requested by the refuge manager.

11. The plan recommends a long-term water management plan for Lake Williams, which is part of a large saline wetland complex that supports the United States largest concentration of piping plovers, a threatened species.

IV. THE PROJECT AREA

The project area is located near the town of Turtle Lake, McLean County, in central North Dakota. Existing water quality, water quantity, and land use are described below.

Water Quantity

The Turtle Creek basin encompasses 310 square miles, of which 195 square miles are considered to be non-contributing. Turtle Creek is an intermittent stream which usually flows only in the spring after snowmelt and spring rains. Three natural lakes - Mud Lake, Turtle Lake and Lake Ordway - collect and contain most of the creek's flow. Lake Nettie, on the Lake Nettie NWR, receives water from Turtle Creek during flood stage. The headwaters of Turtle Creek periodically receive flood overflows from Long Lake and Crooked Lake. The creek outlets into the Missouri River south of Washburn, North Dakota.

Turtle Creek was formed by glacial meltwater erosion and re-deposition. Glacial till deposits, which usually contain numerous potholes (closed basins) which are non-contributing to runoff, surround Turtle Creek and comprise the predominant landform in the basin. Most of the ponded surface water on glacial till is consumed by evapotranspiration. The glacial outwash sediment deposits consist of sand and gravel in the TLIA with silt and clay sediments in and around the lakes and large sloughs. Most of the surface water infiltrates the sand and gravel deposits and is stored in the soil or becomes groundwater.

The quantity of usable groundwater in the Turtle Creek basin is variable. Major aquifers underlying the area include the Lake Nettie, Turtle Lake, Horse Shoe Valley, and Strawberry Lake aquifers. Most of the buried valley aquifers are confined or partially confined and often are under artesian pressures. Unconfined water table aquifers near the ground surface are found in most of the glacial outwash deposits in the TLIA. Large areas of wetlands are supported by this near surface water table.

Considerable evapotranspiration occurs from the near surface groundwater and contributes to water table fluctuations. Drought conditions from 1988 to 1991 caused the water table to decline an average of 3 feet more than the normal seasonal fluctuations of about 3 feet. As a result large areas of wetlands and many stock water dugouts were dry. The water table elevations and decline at 37 observation wells in the TLIA are shown in Appendix C.

Water Quality

The quality of the surface water varies and reflects the amount of seasonal inflow/outflow and the geologic landform. Fresh water is found in areas where there are greater amounts of inflow and outflow and less evapotranspiration. Saline and slightly saline water occurs in closed basins and areas with small amounts of outflow.

Water samples have been collected periodically from both surface water and groundwater at various locations in the Turtle Lake area. A summary of water quality is included in Appendix A. More detailed water quality data are available upon request.

The first 21 miles of the McClusky Canal, a GDU project feature completed in 1975, are within the Turtle Creek basin. The canal is the major source of water for the uses described in this report. The quality of the water in the McClusky Canal is excellent for all proposed uses.

Farm Practices

Both livestock and cultivated crops are important to the agricultural economy of the Turtle Lake area. Dryland farming is dominant. Only about 1,000 of the approximately 19,000 arable acres in the area are currently irrigated. Prior to the inception of the Conservation Reserve Program (CRP), approximately 60 percent of the land in the Turtle Lake area was devoted to cultivated crops.

At present, approximately 66 percent of the irrigable lands in the area are enrolled in the CRP. These contracts will begin to terminate in 1996 and the following acreages represent approximate amounts of the land base that could be removed from the CRP program: 19 percent in 1996, 66 percent in 1997, 13 percent in 1998, and the remaining 2 percent in 1999. Much of the land in the Turtle Lake area is classified as highly erodible land (HEL), and must be cultivated in accordance with an approved conservation plan. Before CRP lands may be returned to cultivation and irrigation development, a conservation plan will be required.

One of the primary agricultural products in the TLIA is livestock. About 50 percent of the total farm income is derived from livestock and livestock products, and about 6,000 head of livestock are produced annually. For many farms the income from livestock provides the majority of farm income. Prior to the CRP, approximately 25 percent of the land in the area was hayland, pasture, or rangeland. Many of the crops grown in the area are used for livestock feed.

The main dryland crops being grown in the Turtle Lake area are wheat, barley, corn, and hay crops. Wheat, both hard red spring wheat and durum, is the predominate dryland crop grown. Yields for both varieties average from 16 to 20 bushels per acre compared to a State average of about 27 bushels per acre. Hay crops, barley, and corn, rank second, third and fourth, respectively. Approximate yields for dryland alfalfa hay average 1.5 tons per acre and all other hay yields average 1.2 tons per acre. The barley yield averages between 27 and 35 bushels per acre, the corn grain average is 39 to 45 bushels per acre, and the corn silage average is about 5 tons per acre.

Approximately 1,000 acres are currently being irrigated in the Turtle Lake area. Approximately 156 acres are irrigated with water from the McClusky Canal under temporary water service contracts with the Bureau of Reclamation. The remainder is irrigated with groundwater.

Irrigated yields are 2 to 3 times greater than dryland yields. Irrigated wheat yields average 42 bushels per acre, barley averages 73 bushels per acre, corn averages 120 bushels per acre of grain with silage at 17 tons per acre, and alfalfa averages 4.5 tons per acre.

Wetlands and Wildlife

The TLIA is a glacial outwash area located within the Prairie Pothole Region (PPR) of North Dakota. The average density of wetlands to uplands within the boundary of the TLIA is approximately 14 percent wetlands. This is slightly higher than the 10.5 percent average for the PPR. Density per section in the

TLIA ranges from 2 percent (lowest), which would be considered highly desirable for conventional irrigation, to 48 percent (highest), which is highly suitable for wildlife habitat and "subirrigated" livestock forage. The density of wetlands within the TLIA is related to the groundwater gradient and topography. Land above elevation 1850 has a relatively low wetland density and is generally an area of high infiltration and groundwater recharge. Land below elevation 1850 has a higher density of wetlands and often is an area of groundwater discharge or has groundwater near the ground surface. The groundwater elevation is also related to the water surface elevation in Turtle Creek, lakes, and wetlands in the area.

The water surface within wetland areas varies with the water table fluctuations, surface runoff, and evapotranspiration. The water table normally fluctuates about 3 feet from seasonal high to low. The water table declined an additional 3 feet during the 1988-91 drought, causing large numbers of wetlands and stock water dugouts to go dry.

Wetlands and wetland complexes are a vital part of the environment and are a link in the continuous hydrologic cycle. Wetlands provide temporary storage of runoff and flood flows which are gradually released either into the atmosphere or groundwater. The temporary storage of runoff from rainfall and snowmelt in wetlands and its gradual release reduces soil erosion and damage to agricultural lands, roads, and bridges. Wetlands improve water quality by trapping sediments, recycling nutrients, and transforming pollutants, resulting in a higher quality of water reaching aquifers, streams, and reservoirs.

Wetlands are also beneficial to agriculture, especially for animal production. Many wetland grasses and sedges annually yield high quality forage for grazing and haying. Wetlands provide an emergency source of forage and hay during drought periods. Wetlands provide a dispersed supply of drinking water for livestock and wildlife. Erosion control and crop protection from flooding are additional benefits to agriculture provided by wetlands.

Many recreational values are also associated with wetlands. Hunters, trappers, birdwatchers, artists, photographers, cross country skiers, canoeists, and many other people enjoy the benefits of wetland complexes, and their activities contribute to the North Dakota economy.

The prairie wetland complex is the most important wildlife habitat in the TLIA. Nearly all wildlife in the area benefit directly or indirectly from this type of habitat. Wetland habitat, with associated uplands, is essential to breeding, nesting, rearing, feeding, and protection of various species of waterfowl, shorebirds, fish, and furbearers (mink, muskrat, beaver). Other upland wildlife which utilize the wetland habitat for food and cover include the white-tailed deer, pheasant, sharp-tailed grouse, Hungarian partridge, raccoon, songbirds, raptors, and fox.

Lake Williams is a 1,000-acre saline wetland, located within a chain of wetlands near the TLIA. This wetland complex has been listed as a natural area because of its value for the California gull, piping plover, Caspian tern, lesser sandhill crane, and whooping crane. Lake Williams is best known as a fall staging ground, where each year as many as 15,800 cranes congregate before migrating south. A small island in the center of Lake Williams is used by nesting California gulls when suitable water conditions exist, and is the site of the only recorded nesting of the Caspian tern in North Dakota. The surrounding shoreline has salt-encrusted bare areas of sand and gravel which the threatened piping plover utilizes for breeding, nesting, and rearing of young. The Lake Williams/Peterson/Pelican Chain-of-Lakes area supports the largest concentration of piping plovers in the United States.

Table 1 shows the wildlife habitat summary by covertime within the survey boundary of the TLIA. The original survey area included approximately 31,800 acres, within which were about 4,450 acres of wetlands. Because the project area included in this Conceptual Plan is much smaller, not all of the wetlands identified in the original survey are in the project area. The acreages included in the table were compiled from a Geographic Information System (GIS) database generated from 1985 color-infrared aerial photography at a scale of 1:12,000. National Wetlands Inventory photography was utilized to identify basins and potential wetlands in determining interpretations of the 1985 aerial photography. Wetlands were classified using the Circular 39 (Shaw and Fredine 1956) classification system.

Land Use Summary

Definitions of Land Use Descriptions

Wetlands

Wetlands are subdivided into types depending on water quality, water permanency, and vegetation. Wetland types found in the TLIA, according to Circular 39 (Shaw and Fredine, 1956) classification system, are described as follows:

1. Type 1 wetlands are seasonally flooded basins.
2. Type 2 wetlands are described as inland fresh meadows usually without standing water, but the soil is waterlogged within a few inches of its surface.
3. Type 3 wetlands are inland shallow fresh marshes in which the soil is usually waterlogged during the growing season and often covered with 6 inches or more of water.
4. Type 4 wetlands are covered with 6 inches to 3 feet of water during the growing season.
5. Type 5 wetlands usually have water less than 10 feet deep with emergent vegetation.
6. Type 9 wetlands are saline flats in which the soil is without standing water except after periods of heavy precipitation.
7. Drain - Ditch dug to release water from wetlands.
8. Dugout - Manmade pond most often used to water livestock.
9. Canal - An artificial manmade waterway for irrigation (McClusky Canal).
10. Intermittent stream - Stream which does not have a continuous surface water flow.
11. Tilled - Wetlands disturbed by tillage to the extent that the central zone is open water, bare soil or tilled crops.
12. Drained - Wetlands with a ditch to lower the water level.
13. Fluvial - Wetlands associated with major drainages.

TABLE 1¹
LAND USE SUMMARY

<u>COVERTYPE</u>	<u>DESCRIPTION²</u>	<u>AREA (AC)</u>	<u>PERCENT</u>
WETLANDS	TYPE 1	76.4	0.2
	TYPE 1-TILLED	123.1	0.4
	TYPE 1-TILLED DRAINED	1.0	0.0
	TYPE 2 ³	1,154.3	3.6
	TYPE 2-TILLED	0.6	0.0
	TYPE 3	595.6	1.9
	TYPE 3-TILLED	247.3	0.8
	TYPE 3-DRAINED	21.6	0.1
	TYPE 3-FLUVIAL	22.0	0.1
	TYPE 3-TILLED DRAINED	1.4	0.0
	TYPE 3-FLUVIAL TILLED	2.0	0.0
	TYPE 4	1,764.2	5.6
	TYPE 4-DRAINED	11.2	0.0
	TYPE 4-FLUVIAL	138.3	0.4
	TYPE 5	180.3	0.6
	TYPE 9	1.9	0.0
	DRAIN	4.8	0.0
	DUGOUT	9.7	0.0
	CANAL	82.6	0.3
	INTERMITTENT STREAM	10.2	0.0
	TOTAL WETLANDS	4,448.5	14.0
UPLANDS	MIXED SHRUB	15.0	0.0
	MIXED WOODLAND	12.6	0.0
	SHELTERBELT	191.8	0.6
	WINDBREAK	197.6	0.6
	NATIVE GRASSLAND	3,114.8	9.8
	TAME GRASSLAND	4,108.9	12.9
	CROPLAND	18,213.9	57.3
	IRRIGATED CROPLAND	801.5	2.5
	FARMSTEAD	257.3	0.8
	MINE/GRAVEL PIT	19.6	0.1
	FACILITY	5.6	0.0
	PAVED ROAD	6.7	0.0
	GRAVEL ROAD	130.8	0.4
	TRAIL	255.1	0.8
		TOTAL UPLANDS	27,331.3
TOTAL LANDS		===== 31,779.8	===== 100.0

¹ Acreages presented in this table are based on the original survey area of approximately 31,800 acres. This Conceptual Plan includes only 13,700 acres plus approximately 3,200 acres of Class 4 lands.

² Definitions of land-use descriptions used in this table are on the following pages.

³ This wetland type was identified using National Wetland Inventory photos and Geographical Information Systems to produce maps and represents an approximation of the acreage of Type II wetlands. The actual acreage of Type II wetlands will be determined during the next phase of the development.

Uplands

1. Mixed shrub - Areas having woody plant communities composed predominantly of shrubs which have been established by means other than plantings by man.
2. Mixed Woodland - Areas having woody plant communities composed predominantly of trees which have been established by means other than plantings by man.
3. Shelterbelt - Single, double, or multiple rows of trees planted at intervals across crop fields. Protect cropland and crops from wind and hold snow on the fields.
4. Windbreak - Multiple rows of trees often planted in L or U shapes encircling farm buildings to provide protection against wind and drifting snow.
5. Native grassland - Areas having plant communities composed predominantly of upland native grass and forb species. The plant community may be naturally occurring or have developed through secondary succession and abandoned cropland.
6. Tame grassland - Areas having plant communities composed predominantly of upland introduced grass species with little or no interspersions of forbs or shrubs except for alfalfa and/or sweet clover. Tame grass habitat has been established through direct seeding by man.
7. Cropland - Areas used primarily for the production of small grains, row crops or domestic annual forage crops. These areas are subjected to an annual disturbance by either harvesting and/or cultivation.
8. Irrigated cropland - Areas receiving artificial applications of water to increase production of crops.
9. Farmstead - Area which indicates a building complex, usually comprised of a house, garage, barn and related out buildings.
10. Mine/gravel pit - Predominately extraction sites used for construction materials.
11. Facility - Areas with a building or groups of building.
12. Paved road - Roads with dark surface material often paralleled by ditching and introduced grasses in the right of way.
13. Gravel road - Roads with loose rock material often paralleled by ditching and introduced grasses in the right of way.
14. Trail - Characterized by parallel tracks made by wheeled vehicles and usually overgrown by vegetation in places.

Fisheries

The North Dakota Game and Fish Department (GFD) currently manages Crooked Lake and Brush Lake for sport fishery purposes. Crooked Lake is a 650-acre lake located 10 miles north of the town of Turtle Lake. The lake typically has a maximum depth of 16 feet with approximately 14 miles of shoreline. However, due to the drought conditions of the past several years, the lake's maximum depth has declined to less than 10 feet.

The primary inlet to Crooked Lake is from the north via overflow from Long Lake. When lake levels are high enough, water exits Crooked Lake through a small tributary to Turtle Creek at the southwest corner of the lake. Approximately 60 cabins surround the south and west portions of the lake. Nonpoint source pollution has contributed to excessive nutrient concentrations in the lake, which has facilitated periodic winterkill situations, especially under low water level conditions.

Fishery investigations in Crooked Lake date back to 1953. The primary species present at that time included northern pike, walleye, yellow perch, and black bullhead. Over the years, the lake has experienced periodic partial winter-kills. Aggressive restocking efforts have been necessary to maintain a quality sport fishery in the lake. The recent low lake level has increased the likelihood of a total winter-kill in Crooked Lake.

Brush Lake is a 200-acre lake located 3 miles northwest of the town of Mercer. The lake usually has a maximum depth of 19 feet and about 12 miles of shoreline. It is not uncommon for the water level to drop several feet in years of drought which subjects the lake to fish winter-kill conditions. The GFD and cabin owners have attempted to alleviate the extent of these occurrences by operating an aeration system during the winter months.

Runoff enters the lake from two small tributaries on the northeast and southeast portions of the lake. If lake levels are high enough, water can exit the west end of Brush Lake. Sewage effluent from over 100 cabin sites which surround the lake, combined with agricultural runoff, contribute excessive nutrients which subsequently result in water quality problems and an increased potential for fish kills.

The GFD actively manages Brush Lake as a sport fishery for species such as northern pike, walleye, and bluegill. Management is, however, complicated by periodic low lake levels, nutrient loading, and the threat of winterkill.

V. CONCEPTUAL PLAN - THE ADVISORY PROGRAM

One of the unique features of this Conceptual Plan is the establishment of an Advisory Program to assist each landowner participating in the TLIA with the design of an integrated irrigation and wildlife plan. An Advisory Team, referred to throughout this document, would be formed to implement the Advisory Program.

The Advisory Team (Table 2) would consist of eight members--one Irrigation Specialist, one Wildlife Specialist, and designated agency representatives from the Turtle Lake Irrigation District, Garrison Diversion Conservancy District, North Dakota Game and Fish Department, North Dakota State University, Bureau of Reclamation, and the U.S. Fish & Wildlife Service.

TABLE 2

TURTLE LAKE ADVISORY TEAM

STAFF

DUTIES

Irrigation Specialist

Full-time employee dedicated to assisting landowners with development of irrigated agriculture and BMPs for irrigated agriculture. Responsible for consolidating plans for individual farm units into overall plan for the TLIA.

Wildlife Specialist

Full-time employee dedicated to assisting landowners with development of wildlife enhancement features and management practices to promote high quality wildlife habitat. Responsible for consolidating plans for individual farm units into overall plan for TLIA.

Agency Representatives

During initial development of TLIA, the Turtle Lake Irrigation District, Garrison Diversion Conservancy District, North Dakota Game and Fish Department, North Dakota State University, Fish and Wildlife Service, and Bureau of Reclamation would each provide an employee to assist the Irrigation and Wildlife Specialists with development of plans for each farm unit, and consolidation of individual farm unit plans into the overall development plan for TLIA. After construction, would serve in a technical assistance and oversight role to the Irrigation and Wildlife Specialists.

The Advisory Team has an important role in ensuring that the concepts proposed in this plan are carried forth in the development and operation of the TLIA. The Irrigation and Wildlife Specialists would be dedicated full time to the Advisory Program during development and would continue to work with landowners during operation of the project. Agency representatives would dedicate a significant amount of time during development of the TLIA. After development, agency representatives would serve in an oversight/support role to the Irrigation and Wildlife Specialists.

A Memorandum of Understanding (MOU) would be executed by the cooperating agencies to formalize the Advisory Team and agency commitment to the Advisory Program. The MOU would provide a detailed description of the program, agency responsibilities, work plans, and program guidance. The MOU would also establish the employing agency for the Irrigation and Wildlife Specialists and provide descriptions for these positions.

Following acceptance of the Conceptual Plan, development of the TLIA would proceed through four stages:

(1) Design data collection and detailed planning. This step would involve completing detailed field surveys for topography mapping, land classification, drainage investigations, habitat inventories, wildlife inventories, and determining the actual acreage of Type II wetlands. Much of this work has already been completed for the TLIA. Detailed cost estimates would be developed, and economic and financial analyses would be completed during this stage. Compliance with environmental regulations would be initiated. During this stage, the Advisory Team would make landowner contacts and would work individually with participating landowners to assist with the development of alternative irrigation and wildlife enhancement plans.

(2) Design of project features. This phase would examine alternatives for irrigation development within the three blocks, and would involve preparation of final designs for all project features. The Advisory Team would assist the participating landowners in selecting alternatives that best meet the individual's needs, as well as meeting the goals of the Conceptual Plan. Several factors would be considered such as the landowner's current operations, benefits from development, impact of development, amount of irrigable land, irrigation equipment and layout options, wildlife enhancement opportunities, irrigation and conservation management practices, wetlands and wildlife management practices, on-farm development and operation costs, etc. The Advisory Team would consolidate plans for the individual farm units into an overall plan for the TLIA. Plans for enhancement of wildlife on public lands, fisheries and recreation enhancement features would also be incorporated into the overall plan. The overall plan would be reviewed and changes recommended by the Advisory Team based on minimizing impacts to wetlands and achieving optimum benefits from irrigation and wildlife developments. The Advisory Team would provide liaison between landowners, interested agencies and organizations, and the project designers.

(3) Project construction. Recreation, wildlife, and irrigation features would be constructed on a block development basis. The Advisory Team would continue to work with landowners to ensure that construction of project features meets the needs of individual landowners, and that optimum irrigation and wildlife benefits are realized while meeting the goals of the Conceptual Plan. The Advisory Team would also provide guidance on construction of enhancement features on public lands.

(4) Project operation. During this stage, the Wildlife and Irrigation Specialists would be the primary participants, and would work with landowners to fine tune irrigation and wildlife features. Some of the tasks, functions, and responsibilities of the two specialists include:

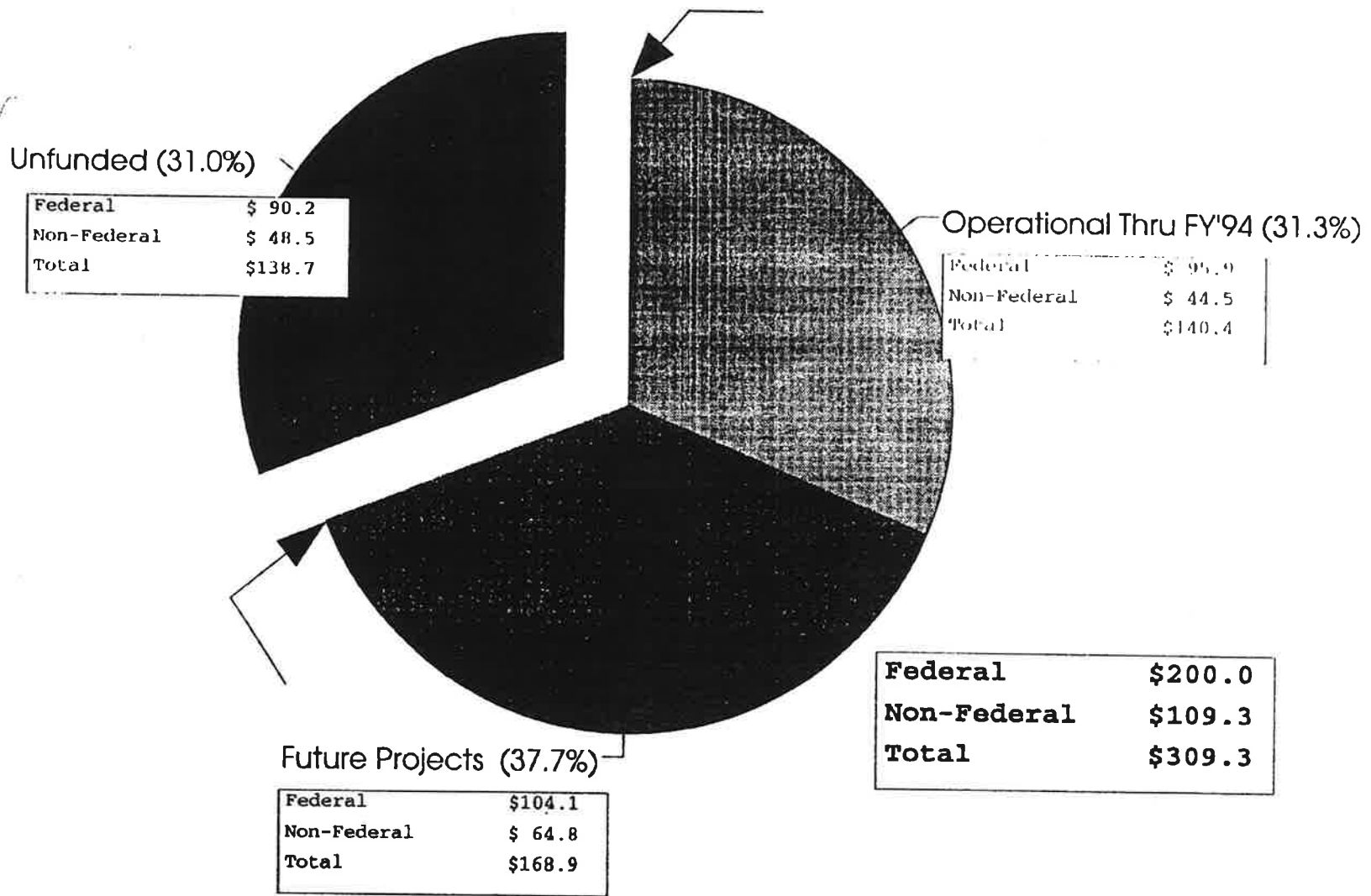
1. Provide leadership, guidance, and direction for the overall education on the goals for irrigation and wildlife development under the Conceptual Plan.
2. Work with landowners on the transition from dryland agriculture to irrigated agriculture with associated wildlife features.
3. Assist landowners with implementing sound management practices in their operations which benefit both the landowner and wildlife. These management practices would consider irrigation, soil conservation, wildlife, and wetlands.
4. Develop a habitat based accounting system for fish and wildlife habitat to assure mitigation concurrency throughout the life of the project.
5. Serve as liaisons between landowners, local interest organizations, cooperating agencies, university extension programs, and other resource management agencies.
6. Work with cooperating agencies and local interest organizations on proposed fisheries and recreational enhancement opportunities.
7. Ensure the overall objectives of the Conceptual Plan are maintained through operations of the TLIA. Meet with the agency representatives on a regular basis to discuss operations and accomplishments. Prepare annual reports on operations and benefits received.
8. Continue to work with cooperative landowners and the Advisory Team on new developments as they occur.
9. Stay abreast of new technical developments which may have beneficial application in the TLIA. Maintain professional competency and interest.

Oversight, guidance, and technical assistance to the Wildlife and Irrigation Specialists would be provided by the agency representatives.

It is not expected that all landowners will proceed with development at the same time. Rather a more moderate rate of development over a period of years is expected. As development occurs and project water is made available, the Irrigation and Wildlife Specialists will continue to work with participating landowners as part of the routine operations.

STATE OF NORTH DAKOTA MRI PROGRAM

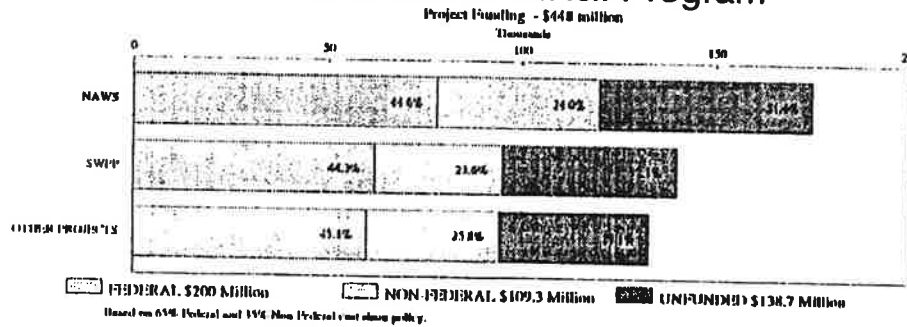
TOTAL FUNDING REQUIRED - \$448 MILLION



Oct 5, 1993

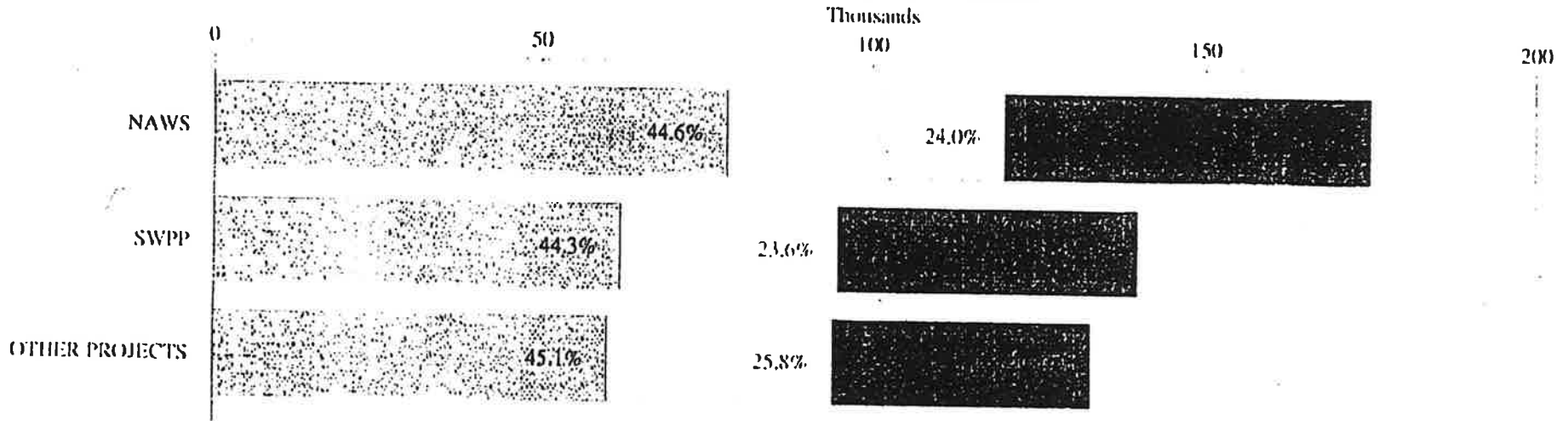
	FEDERAL	NON-FEDERAL	FUTURE	TOTAL
NAWS	78000	42000	55000	175000
SWPP	62000	33000	45000	140000
OTHER PROJECTS	60000	34302	38698	133000
total	200000	109302	138698	448000
NAWS	44.6%	24.0%	31.4%	100.0%
SWPP	44.3%	23.6%	32.1%	100.0%
OTHER PROJECTS	45.1%	25.8%	29.1%	100.0%

North Dakota MR&I Program



North Dakota MR&I Program

Project Funding - \$448 million



FEDERAL \$200 Million

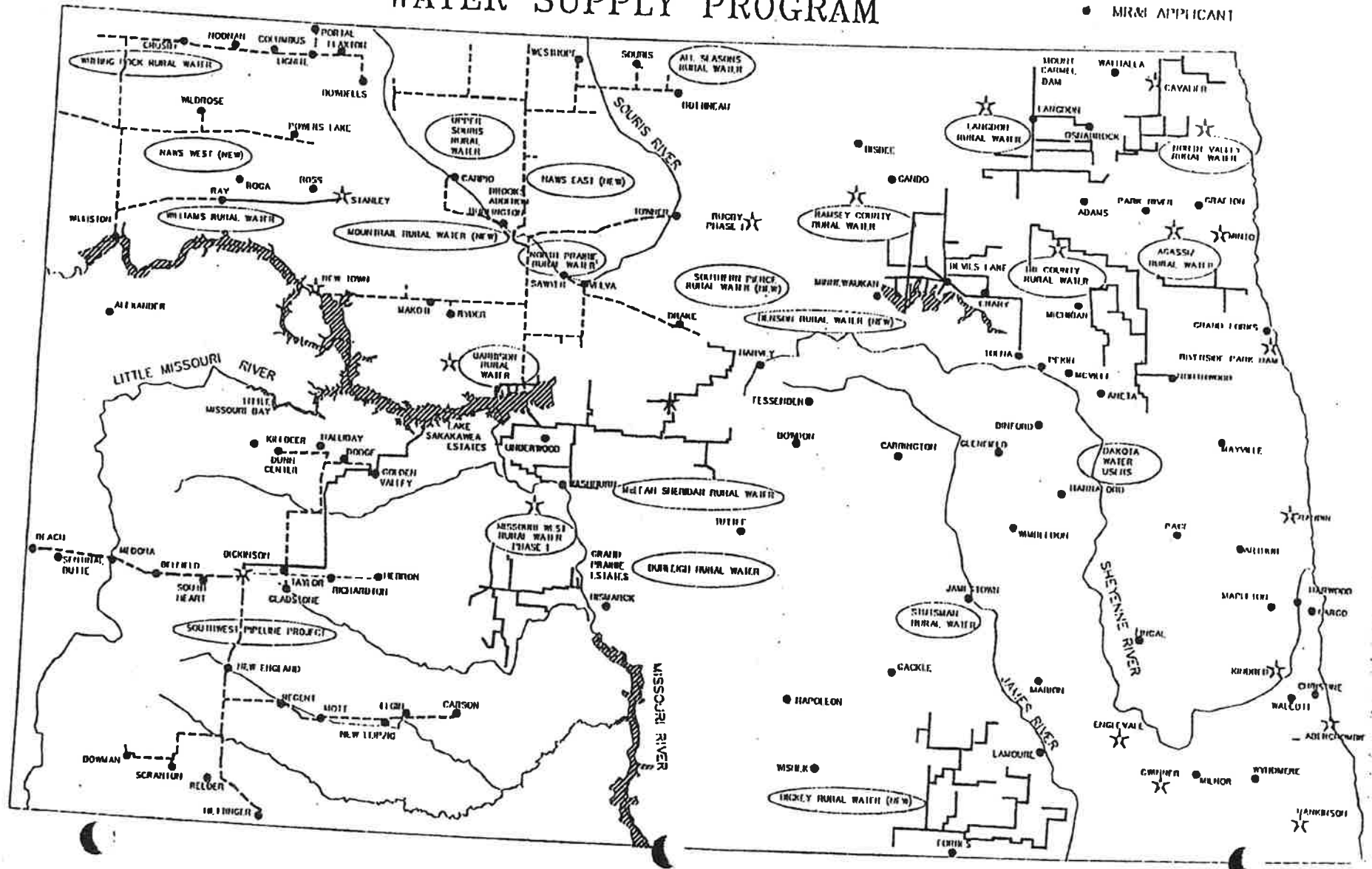
NON-FEDERAL \$109.3 Million

UNFUNDED \$138.7 Million

Based on 65% Federal and 35% Non-Federal cost share policy.

GARRISON DIVERSION UNIT MUNICIPAL RURAL & INDUSTRIAL WATER SUPPLY PROGRAM

- ★ COMPLETED PROJECTS
- REGIONAL WATER PROJECT
- COMPLETED PIPELINE
- - - PROPOSED PIPELINE
- MR&I APPLICANT



October 26, 1993 - 157

NOTES REGARDING
MEETING OF THE
INTERBASIN WATER TRANSFER STUDIES PROGRAM
COMMITTEE

Room 380, Loftsgard Hall
North Dakota State University
Fargo, North Dakota (October 22, 1993)

State Engineer David A. Sprynczynatyk called the meeting of the Interbasin Water Transfer Studies Program (IWTSP) Committee to order at 10:30 a.m. The following committee members (*) and others were in attendance:

David A. Sprynczynatyk*, State Engineer and
Committee Chairman.
Dr. Mario Biondini, Technical Advisory Team member.
Warren L. Jamison*, Garrison Diversion Conservancy
District.
Francis Schwindt*, North Department Health Department.
Dr. Jay A. Leitch*, Technical Advisory Team member and
Project Leader.
Tim Keller, U.S. Bureau of Reclamation.
Dr. Greg McCarthy*, ND Water Resources Research Institute.
Dr. Gary K. Clambey, Technical Advisory Team member.
Dr. Isaac Schlosser*, University of North Dakota.
Terry Steinwand, ND Game and Fish Department.
Joel Medlin, US Fish and Wildlife Service.
David Givers, ND Water Resources Research Institute.
Gene Krenz, ND State Water Commission and Program
Coordinator.

CALL TO ORDER & INTRODUCTIONS

Chairman David Sprynczynatyk called the meeting to order, noting that it was the first meeting of a committee that had been created to assist in providing guidance to the Interbasin Water Transfer Studies Program. He distributed copies of an agenda (Attachment 1) and noted that the purpose of the meeting was to review program accomplishments and to discuss future directions in light of program accomplishments and changing times and circumstances.

HISTORICAL BACKGROUND

Gene Krenz briefly described the chronology of events leading up to the creation of the Interbasin Water Transfer Studies Program by former Governor George Sinner. He noted that the basic charge made to the Interbasin Water Transfer Studies Program was to undertake the necessary scientific research to determine the merit or lack of merit of Canadian concerns, and to identify potential mitigation measures which might be implemented to make possible the transfer of additional quantities of water in addition to the amount contemplated for M&I use.

A first step in activating the Interbasin Water Transfer Studies program was the creation of a Technical Advisory Team to assist in defining program objectives and to participate in determining the nature of a series of "requests for proposals" and to select from responses which had sufficient merit to warrant funding. Another initial step in the process was to affirm the specific fish species, viral pathogens, and parasites believed to remain as concerns to Canada and to enlist participation by Canadian scientists on the Technical Advisory Team.

PROJECT STATUS REPORT

Dr. Jay Leitch, who administers the Interbasin Water Transfer Studies Program on the University level, summarized activities undertaken to date, program costs, research proposal selection process rationale, the status of currently active research activities, and remaining contractual commitments. Attachment 2 to these notes graphically summarizes his comments.

'THE ROLE OF SCIENCE IN ENVIRONMENTAL PROBLEM-SOLVING'

David Givers, ND Water Resources Research Institute, summarized a paper developed by himself and Dr. Leitch dealing with the role and limitations of science in dealing with various environmental and natural resources problems. The paper is made a part of these Notes as Attachment 3.

FUTURE DIRECTIONS DISCUSSION

As a backdrop for discussion of the future of the Interbasin Water Transfer Studies Program, Warren Jamison, Manager of the Garrison Diversion Conservancy District, briefly described the contents of discussion paper he had prepared recently describing his "vision" of a redirected Garrison

Project. Phase 1 calls for completion of the principal supply works with a pipeline connection between the McClusky and New Rockford Canals, an inlet/outlet feature for Devils Lake, the James River Feeder Canal, and a component involving aquifer recharge both within and beyond the borders of the Missouri River Basin.

Phase 2 calls for de-emphasizing the irrigation component of the project and emphasizing, instead, rural economic development.

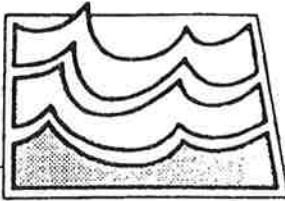
He suggested that it may now be appropriate to begin shifting the emphasis of the Interbasin Water Transfer Program away from biota transfer and to begin focusing on water quality considerations, including treatment technologies which would preclude biota transfer. A copy of his "Discussion Paper" is made a part of these Notes as Attachment 4.

RECOMMENDATIONS

After several hours of discussion, which afforded those in attendance an opportunity to voice their opinions, the Oversight Committee agreed to the following:

- (1) Projects currently underway should be completed.
- (2) The Technical Advisory Team should continue.
- (3) The Oversight Committee should meet at least annually, with the first meeting being held on March 30, 1994, in conjunction with the Water Quality Seminar to be held March 30-31 in Fargo.
- (4) Consideration should be given to expanding the membership on the Oversight Committee.
- (5) A short paper should be developed summarizing the Committee's view of a re-directed program and that paper should be communicated to the Technical Advisory Team in writing at an early date to serve as a broad guide in implementing the changed program.

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North Dakota State Water Commission

900 EAST BOULEVARD • BISMARCK, ND 58505-0850 • TEL 701-224-2750 • FAX 701-224-3696

MEMORANDUM

TO: Governor Edward T. Schafer
State Water Commission Members

FROM: *DA* David A. Sprynczynatyk, State Engineer

SUBJECT: State Wetland Conservation Plan

DATE: October 14, 1993

This memo provides an update on FY '92 EPA grant, #CD998003-01, and an outline of progress made to date on our FY '93 grant, #CD998003-2. These EPA grants have been provided to the state to aid the development of a North Dakota Comprehensive Wetland Conservation Plan. The budget totals for FY '92 and FY '93 grants are \$606,290 and \$253,334, respectively. These amounts include a required 25 percent nonfederal cost-share provided largely through in-kind services.

Work accomplished on each task covered under the FY '92 grant is summarized as follows:

Wetland Education Program - The North Dakota Water Users Association has continued development of the state's wetlands education program.

The North Dakota Wetlands Institute created with support of this grant has produced educational materials (see attached "A Guide to Wetlands in North Dakota"), conducted teacher writing workshops, and held wetland field trips. The Institute is currently developing grant proposals asking support to produce a number of North Dakota Water Magazine articles. Grants will be sought to continue wetland demonstration field days, distribute and implement use of the discovery guides developed under the current grant, and develop additional wetland education support materials for use in classrooms.

The current contract for services expires on December 31, 1993.

Section 404 Assumption - The State Water Commission has worked with the State Attorney General's office to position North Dakota to assume Section 404 regulatory responsibilities. The major objective is to identify and initiate necessary administrative changes associated with assuming the Section 404 permit program. A public outreach program has been designed to develop and

GOVERNOR EDWARD T. SCHAFER
CHAIRMAN

DAVID A. SPRYNCZYNATYK, P.E.
SECRETARY & STATE ENGINEER

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facilitate review of state Section 404 rules and regulations. A committee has been named and has begun a series of meetings. All work associated with this task will lead to development of agreements for North Dakota to assume administration of Section 404 regulations. In the next few months a final decision to consummate those agreements must be made. This work will be concluded near the end of the EPA, FY '92 grant period.

GIS Development and Evaluation - The State Water Commission's objective in this task is to evaluate the ability to enhance wetland regulatory programs with computer mapping and geoprocessing capabilities, also known as a geographic information system (GIS). Specifically, the ability to improve tracking wetland losses and gains which would result in better and more objective decision-making in the management of wetlands.

The work called for under the initial phase of this program has been completed. All equipment and software budgeted for has been acquired. The system currently contains extensive digital data for the selected test site, Stutsman County. This data includes National Wetland Inventory, Public Land Survey and Boundary, Hydrology, Soils, Transportation, Vegetation, Hypsography (contours), Census Mapping Data (TIGER) Transportation, and Digital Elevation Models. This digital data was obtained through the GIS laboratory in the North Dakota Geological Survey. Some of this data is also available on the system for most of the counties in North Dakota.

State Wetland Water Quality Standards - The North Dakota Department of Health and Consolidated Laboratories is conducting this work.

All work associated with this agreement has been completed. The final report has been developed and includes the results of an extensive literature review of wetland classification systems. Information from every known author has been tabulated.

The current contract for services expires on December 31, 1993.

State Private Lands Initiative Program - The North Dakota Game and Fish Department is conducting this work.

The Department has stationed a person at the Chase Lake Project, Woodworth, ND. His work has involved coordinating the numerous private lands program for the various agencies in the project area, including the new \$186,000 North American Waterfowl grant for wetland projects on private lands.

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The current contract for services expires on December 31, 1993.

Grand Harbor Watershed Demonstration Project - A three-way agreement was signed between the State Water Commission, North Dakota Wetland Trust, and the Ramsey County Water Resources Board to continue negotiations on development of the Grant Harbor Water and Wetlands Management Project. The Wetland Trust has been responsible for leadership in performing the work associated with this task.

The current contract for services expires on December 31, 1993.

Devils Lake Basin Demonstration Project - The State Water Commission contracted with Ray Horne as a Coordinator to work with the special Devils Lake Task Force in developing a Devils Lake Basin Water Management Plan. An agreement between the State Water Commission and the Delta Waterfowl Group provided assistance to the Devils Lake Task Force in setting up demonstration sites to portray the mutual advantages that can occur to agriculture, wildlife, and water quality through preservation of wetland habitat.

Thus far the Coordinator has been instrumental in helping draft reports which will ultimately result in a Comprehensive Water Management Plan for the Devils Lake Basin. The Coordinator was extensively involve in flood-fight this summer. Work is continuing with local water boards and county commissioners to promote a cooperative, balanced approach to natural resource management.

The current contract for Ray Horne's services expires on October 31, 1993. Delta Waterfowl's contract for services expires on December 31, 1993. We anticipate that funding to continue local coordination through Ray Horne will be forthcoming from EPA under their FY '93 Emergency Supplemental Operating Plan.

Grant Administration. This task is preformed by State Water Commission staff and includes development of necessary agreements, financial accounting, reporting to EPA and general oversight of the various tasks.

Due to delays in starting some tasks and shifting of work responsibilities, the agreement period with EPA was extended from August 31, 1993 to July 1, 1994.

The FY '93 grant will address the following tasks. A brief description of the task follows with a current status statement.

Wetland Education and Information Program - Phase IV. This will be the fourth year of an ongoing wetland education program. Under previous grants the Water Users Association has developed educational materials, held workshops across the state and created

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the Wetland Education Institute.

The EPA grant has budgeted a total of \$66,667 for continued development of the Wetland Education Institute and education materials. Consistent with the required 75-25 cost-share, the Water Users will receive \$50,000 EPA funds to be matched by \$16,667 of in-kind services and/or dollars from the Water Users.

Status: This task will be preformed under an agreement between the State Water Commission and the North Dakota Water Users Association. A formal agreement should be finalized and signed prior to the October 26th, State Water Commission meeting.

Wetland Identification and Inventory with Assessment of Geographic Information System Technology. This task will be accomplished by State Water Commission staff. It will include funds for a system operator and enhancements in equipment and software.

The amount budgeted includes \$46,800 for an operator; \$1,500 for travel; and \$10,000 for equipment and software enhancements. The total is split \$43,725 EPA and \$14,575 State Water Commission in-kind services.

Status: Much of the additional system hardware has been secured and placed into service. The GIS work station has been moved to the Regulatory Section area of the building.

Water Quality Standards - Field Testing. Work will expand the water quality database for wetlands, test/verify the methodology that was developed for numeric criteria for wetlands and for applying biological criteria to wetlands for protection of aquatic life, and develop implementation criteria and procedures for water quality standard compliance of the state Section 404 program.

The total budgeted is \$36,000, which is split \$27,000 EPA and \$9,000 State Department of Health and Consolidated Laboratories.

Status: This task will be preformed under an agreement between the State Water Commission and the Department of Health and Consolidated Laboratories. A formal agreement should be finalized and signed prior to the October 26th, State Water Commission meeting.

Prioritization of CRP Tracts Critical to Wetland Watershed Protection and Migratory Bird Production. Work will include utilization of a Waterfowl Population Model developed by Northern Prairie Wildlife Research Center to identify which tracts of CRP offer the greatest benefits for waterfowl production, and thus are important for wildlife and watershed protection.

Memorandum
Page 5
October 14, 1993

The grant budget provides a total of \$22,667, which is split \$17,000 EPA and \$5,667 Game and Fish Department.

Status: This task will be preformed under an agreement between the State Water Commission and the Game and Fish Department. A formal agreement should be finalized and signed prior to the October 26th, State Water Commission meeting.

Private Lands Initiative. This task will be performed under an agreement between the State Water Commission and the Game and Fish Department. Work will continue in the agency's Private Lands Initiative program which is developing a system of partnerships and incentives to protect wetland resources. This program provides advice and consultation to landowners in determining the best options for landowners under the many available support programs.

The grant budget provides a total of \$45,333, which is split \$34,000 EPA and \$11,333 Game and Fish Department.

Status: This task will be performed under an agreement between the State Water Commission and the Game and Fish Department. A formal agreement should be finalized and signed prior to the October 26th, State Water Commission meeting.

Grant Administration. This task is preformed by State Water Commission staff and includes development of necessary agreements, financial accounting, reporting to EPA, and general oversight of the various tasks. A total of \$15,600 is provided for staff, \$500 for travel and \$8,267 for supplies, printing, and miscellaneous. The total is split \$18,275 EPA and \$6,092 State Water Commission in-kind services.

Status: This work has commenced.

DAS:LK:dm/1489-5



North Dakota State Water Commission

900 EAST BOULEVARD · BISMARCK, ND 58505-0850 · 701-224-2750 · FAX 701-224-3696

RESOLUTION NO. 93-10-462

No-Net Loss of Wetlands

WHEREAS, North Dakota's no-net loss of wetlands law was enacted by the North Dakota Legislature in 1987; and

WHEREAS, as a part of the no-net loss of wetlands program, the North Dakota Legislature authorized the development of a uniform wetland classification system for North Dakota, upgraded wetland drainage enforcement laws, established wetlands policy for North Dakota, and established a wetlands mitigation banking system; and

WHEREAS, wetlands conservation objectives of the North American Waterfowl Management Plan, the North Dakota Wetlands Trust, the North Dakota Game and Fish Department, the Partners for Wildlife Program, the Adopt-A-Pothole Program, the Water Bank Program, and other wetland protection and enhancement initiatives depend on the cooperation and support of landowners and local governments; and

WHEREAS, no-net loss of wetlands is an essential component of the wetlands protection strategy in North Dakota and in the United States, and provides an opportunity to achieve solutions for long-term wetlands conservation objectives; and

WHEREAS, landowners are willing to mitigate for wetland losses, but regulations applicable to the prairie pothole region in North Dakota make it extremely difficult to comply with the requirements for mitigation of wetland conversion under the Swampbuster provisions of the 1990 Farm Bill; and

WHEREAS, the State of North Dakota has entered into a series of agreements with the United States Fish and Wildlife Service on wetland management that have provided a basis for on-going dialogue between the State and the Service; and

WHEREAS, the Clinton Administration, through the White House office on Environmental Policy, has proposed a wetlands policy that supports the goal of no-net loss of the nation's remaining wetlands; and, emphasizes that regulatory programs must be efficient, fair, flexible, and predictable, and must avoid unnecessary impacts upon private property and the regulated public.

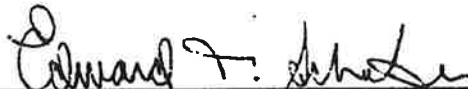
RESOLUTION NO. 93-10-462 - PAGE 2

NOW, THEREFORE, BE IT RESOLVED by the North Dakota State Water Commission, at a meeting held on October 26, 1993, in Dickinson, North Dakota, that:

- 1) No-net loss of wetlands is an important component of North Dakota's wetland conservation strategy.
- 2) Cooperation of landowners, wildlife interests, and local governments is essential to achieve wetlands conservation objectives.
- 3) North Dakota's no-net loss of wetlands law should be allowed to function as originally intended.
- 4) Requirements for mitigation under the Swampbuster provisions of the 1990 Farm Bill must be reviewed and recommendations for increased flexibility submitted to North Dakota's Congressional Delegation for consideration and inclusion in the 1995 Farm Bill.
- 5) The 1995 Farm Bill should allow the State's No-Net Loss of Wetlands Program to be implemented reflecting local circumstances and conditions.


BE IT FURTHER RESOLVED that the Governor's Wetlands Management Committee be reconvened to promote the recommendations of this resolution.

FOR THE NORTH DAKOTA STATE WATER COMMISSION:



Edward T. Schafer
Governor-Chairman

SEAL



David A. Sprynczynatyk
State Engineer and
Chief Engineer-Secretary

October 26, 1993 - 160

MEMORANDUM

TO: David A. Sprynczynatyk, State Engineer
FROM: C Cary Backstrand, Chief, Regulatory Section
SUBJECT: State Assumption of Section 404
DATE: October 14, 1993

An organizational meeting of the Section 404, State Assumption Advisory Committee, was held on September 3, 1993. The Advisory Committee consists of representatives from the National Wildlife Federation, the North Dakota Chapter of the Wildlife Society, the North Dakota Farm Bureau, the North Dakota Farmers Union, the North Dakota Water Resource Districts Association, and the North Dakota Water Users. Representatives from all groups attended with the exception of the North Dakota Water Users Association and the National Wildlife Federation. Also in attendance were representatives from the U.S. Fish and Wildlife Service, the Soil Conservation Service, and the Corps of Engineers. The federal agencies act as technical advisors to the Advisory Committee. Representatives from the Department of Health and Consolidated Laboratories, Attorney General's office, Agriculture Department, and the State Water Commission/State Engineer's office were also in attendance. A representative from the Game and Fish Department did not attend.

Attached is an attendance sheet and a copy of the September 3rd agenda. The meeting participants discussed the requirements for state assumption of the 404 program, North Dakota's enabling legislation (HB 1142), and the proposed outreach program. The participants were also given a proposed time-line for state assumption. The proposed time-line calls for the first draft of

rules to be completed in October and submitted to the Advisory Committee for review and comments. The first draft is being developed by the Attorney General's office under the direction of Julie Krenz. Although Julie has been on maternity leave the last few weeks, it is my understanding that she has been working on the initial draft of the rules; therefore, we should be able to stay on schedule in accordance with the proposed time-line. As soon as I receive copies of the initial draft, I will send them to the members of the Advisory Committee, the Federal Technical Advisors, and the state agencies involved in this effort. I will also work with Mike Dwyer and others to accomplish the goals of the outreach program.

It is my intent to schedule the second meeting of the Advisory Committee sometime in November to review their comments and concerns on the first draft of the rules. The proposed time-line calls for the final draft to be completed in June 1994.

CB:dm/1489-4

Time Line for State Assumption
of the 404 Program

- * State Agencies Coordination Committee
SE/SWC, SHD, G&F, Ag, AG July 1993
- * Section 404 Advisory Committee
(Start Outreach Program) September 1993
- * Develop First Draft (Rules) October 1993
- * Final Draft (Rules) June 1994
- * Decision to/not to Proceed July 1994
- * Public Hearing on Rules October 1994
- * Official Request to EPA November 1994
- * Draft Legislation to Continue Program January-April 1995
- * Funds Available to Run Program July 1995
- * EPA Approval November 1995

Prepared Statement by

**David A. Sprynczynatyk
North Dakota State Water Commission**

**The Committee on Environment and Public Works
United States Senate**

**The Honorable Max Baucus
United States Senator, Montana
Chairman**

**October 11, 1993
The Holiday Lodge
Glendive, Montana**

Mr. Chairman and Members of the Committee. My name is David Sprynczynatyk and I serve as the State Engineer for the State of North Dakota and as Secretary to the State Water Commission.

First of all, thank you Senator Baucus and Senator Conrad for taking time to listen to our concerns on how the Army Corps of Engineers operates the Missouri River. My testimony will focus primarily on the Missouri River Master Water Control Manual and its review.

Record high precipitation and runoff this summer have ended much of the severe drought that has plagued the Missouri River basin for the past six years, but the effects of the drought linger. Unfortunately, the upper basin states have incurred a disproportionate share of the adverse impacts generated by lingering drought conditions. Especially hard hit are the three largest reservoirs: Fort Peck, Garrison, and Cahe.

Because of the low reservoir levels maintained during the drought, the upper basin states experienced substantial losses of water for authorized uses such as water supply, agriculture, recreation, hydropower generation, and fish and wildlife. Below normal rainfall and snowfall were mostly responsible for the adverse impacts, but the Corps' reservoir management decisions, which are based on the Missouri River Master Water Control Manual, had severe consequences.

The Master Water Control Manual, better known as the Master Manual, provides the general guidelines the Corps follows in its development of the Annual Operating Plan. It is apparent that rules included in the Master Manual are inappropriate during a drought. Until recently, however, it was "business as usual" for the Corps. The outdated Master Manual, last reviewed in 1979, was used by the Corps as the basis for operating the system during drought just as it had been in normal years.

In response to concerns raised over the dramatic reduction in main stem reservoir water levels, the Corps' Missouri River Division in Omaha began the comprehensive update of its Master Manual in November of 1989. The purpose of the review was to determine if the current water control plan identified in the Master Manual appropriately met the contemporary needs of the basin.

The original water control plan was selected because its use would ensure that the system would not be drawn down below the permanent pool levels during another drought similar to the one experienced in the 1930's. To put the potential drawdown in perspective, it is important to understand that under provisions of an unrevised manual, each of the big three reservoirs could be drawn down, on average, 70 feet from normal operating levels.

Basically, the Master Manual is the same document that was in place in 1960, although the contemporary uses of the river and the reservoirs have changed dramatically. In the face of these changes, which include conflicting objectives, interests, and varying hydrologic conditions, the need for an updated Master Manual became an urgent concern.

The Master Manual review consisted of a two-phase study. Phase I was a limited effort initiated in November of 1989 and completed in May 1990. Phase I focused on the economic evaluation of a number of alternative operational changes to the plan. Three operational changes were evaluated: 1) increases in the permanent pool storage, 2) changes in the navigation season length, and 3) maintenance of various minimum flow ranges when navigation was not occurring on the river. Phase I provided the impetus and justification for proceeding with a more detailed review in Phase II. Phase I supported the upstream states' belief that a revised Master Manual could provide greater economic and environmental benefits than the present Master Manual.

Phase II was initiated in July 1990 and was to be completed by December 1991. As of today, the Missouri River Basin states are anxiously waiting for Phase II final results. Repeated postponements mean that the earliest the Phase II review will be complete is 1995. Phase II identifies in more detail the hydrologic, economic, social, and environmental impacts of 307 alternatives. Phase II will determine the national economic development benefits and costs, and will provide estimates of regional economic gains and losses. Phase II will also include all environmental studies and coordination required by the National Environmental Policy Act and other environmental laws, including the preparation of an environmental impact statement (EIS). It appears that the draft EIS for the Master Manual will be circulated for public comment in March 1994.

After 3-1/2 years of work, the Corps has released an 8 volume, 5000 page, Preliminary Draft Environmental Impact Statement (PDEIS) for the Master Manual. The Corps has received more than 500 comments from federal agencies, the states, and the Indian tribes on the PDEIS. The following are several of our most important concerns that must be addressed before public release.

1. We urge the Corps to identify a preferred alternative in the Draft EIS document. It is important for the Corps to commit to choosing a preferred alternative in their release of the draft EIS to the public. This provides the public knowledge of which alternative the Corps believes provides direction for and reflects the current needs to the entire Missouri River Basin.

2. In an effort to move toward balancing the benefits, we have taken the position that the preferred alternative will need to provide a permanent pool level of no less than 44 million acre-feet. In other words, the preferred alternative be selected from the "E" series in the PDEIS.
3. Study conclusions thus far are biased because they are compared to the existing water control plan. The current water control plan is heavily weighted towards navigation and its tremendous water demands; therefore, any modification to higher permanent levels would obviously impact navigation. Instead, the Corps needs to give equal consideration to all uses by maximizing the benefits, and then determining the best mix of optimized benefits.
4. Navigation on the Mississippi River is not an authorized purpose of the Missouri River system, but we are pleased to note the results show that Missouri River operations do not impact Mississippi River navigation. Navigation on the Mississippi was curtailed only once in the fall of 1939 during the 93-year period of study.
5. The PDEIS is flawed because the navigation analysis is in error and we feel that the Corps must modify its analysis. Also, we believe the Corps must expeditiously make the necessary changes to improve the PDEIS and more equally distribute the contemporary benefits.

In the Master Manual review process, the environmental concerns may likely dictate a preferred alternative. We believe it is apparent that virtually any change from the current Water Control Plan (baseline) would benefit the overall environmental community.

It is also apparent that the Corps will have to meet legal environmental considerations throughout the Missouri River Basin such as the Endangered Species Act and water quality standards; and should maximize the output of the natural resource categories. A primary concern is the troubled status of the coldwater fishery caused by the low lake levels. Steps must be taken to enhance reservoir coldwater habitat by obtaining higher lake elevations.

The North Dakota State Department of Health and Consolidated Laboratories is concerned that any proposed operating plan be in compliance with the North Dakota Water Quality Standards and the Federal Clean Water Act. Information obtained from the department indicates that if the level of Lake Sakakawea is lowered below 1830 msl during the summer stratification period of June through August, state standards could be violated. Dissolved oxygen levels of less than the state standard of 5.0 mg/l have been detected.

Since the completion of the Missouri River main stem reservoirs, the net loss of land due to bank erosion along the river in the upper basin has increased substantially. Congress appropriated \$1.5 million in both FY '92 and FY '93 under the Section 33 authorization for the Corps to alleviate bank erosion and related problems. However, the Corps has not provided any relief from the erosion. We hope one of the considerations of the Corps is to address and correct the bank erosion problems.

The last point I would like to make is that the preliminary results show that it is possible to regulate the main stem reservoirs in such a manner to have significantly higher lake levels while still meeting all downstream water requirements. In fact, higher reservoir levels actually provide additional security for both upstream and downstream water users during periods of extreme drought.

In closing, we are asking for fairness and equity and insist that the Corps modify its analysis in this regard. We feel the Corps can expeditiously make the necessary changes to improve the PDEIS and more equally distribute the contemporary benefits.



Office of the State Engineer

M E M O R A N D U M

TO: Governor Edward T. Schafer
North Dakota State Water Commission Members

FROM: David A. Sprynczynatyk, State Engineer

SUBJECT: Preliminary Discussion on the Cannonball River Basin
Special Study

DATE: October 15, 1993

Planning and Education Division staff members have had several meetings with the Bureau of Reclamation (Bureau) staff and other interested entities concerning the possibility of conducting a detailed water management study involving the Cannonball River Basin.

The study is envisioned to be an expansion of the 1992 State Water Management planning effort, focusing on the Cannonball River Basin. The Cannonball River is a tributary of the Missouri River located in southwestern North Dakota. The total drainage area of the Cannonball River is approximately 4,310 square miles and includes portions of 9 counties (see attached map).

The Cannonball River Basin presents its very own unique set of circumstances to a water management study. The river basin presents some very exciting and interesting possibilities primarily from the stand point that there is very little development in the basin and there currently is a moratorium on any additional water appropriation from the Cannonball River and Cedar Creek.

Presently, the study is envisioned to be a 3 year effort; probably including a model of water quality/quantity needs within the basin; identifying uses of available water supplies including conservation planning; and developing alternatives to meet water needs. The study should involve a thorough documentation of what is currently in the river basin. The participation of other state natural resource agencies would make this effort more comprehensive, which would include a biological analysis as well as a hydrological analysis while assessing and recognizing the concerns and needs of the other interests in the basin. The actual scope of the study will be determined by those participating, based upon what each participant hopes to gain from the effort, but it is anticipated that the study will address a variety of integrated management issues including environmental preservation and economic development.

The State Water Commission has obtained technical assistance from the Bureau in the past, and this may be another opportunity to do so. The Bureau has indicated a desire to participate and if involved would be considered the lead agency in this effort. In addition, several State natural resource agencies have been contacted to discuss their desire to participate and become involved in the potential study effort. The State agencies have also indicated an interest in the study effort. However, at the present time it is uncertain to what degree the agencies would be participating. This would be determined at a later date after the decision is made to pursue such a study and funding sources have been identified.

The Bureau has also discussed the possibilities with the Standing Rock Sioux Tribe (Tribe). The Tribe had recently discussed with the Bureau a similar study for the Cannonball River. It would appear that a cooperative effort could be developed that could potentially involve the Bureau, the State Water Commission, the Standing Rock Sioux Tribe, and several other State natural resource agencies as well as local entities. The Tribe has expressed an interest in a cooperative effort and the Bureau will continue discussions with the Tribe to determine the extent of Tribal interest and participation.

Since this proposal is in the very early discussion stages, total cost of the study have not been determined. Typically study efforts of this type would require a 50-50 federal/state cost share. The State contribution could be either actual dollars or in-kind services or any combination thereof. Initially it was thought that the study proposal would go through the Bureau budgeting process, in which case, if the project made it through the Bureau reviewal stages, the earliest the study could have been initiated would be in the fall of 1995. However, since the Tribe has indicated a desire to be involved, the Bureau has available funds, for a study in their planning program for the Tribal planning efforts under their current budget. Therefore, if the Tribe is involved, the study could begin in late November or December of 1993. This would also result in a different cost share scenario, in which case, the Tribe's contribution would be anticipated to be, 50 percent of the total.

At this time, it is anticipated that the State Water Commission contribution to the potential study effort would be 100 percent in-kind services. The actual amount would be determined by the scope of the study, the details of which would be identified if the study is pursued.

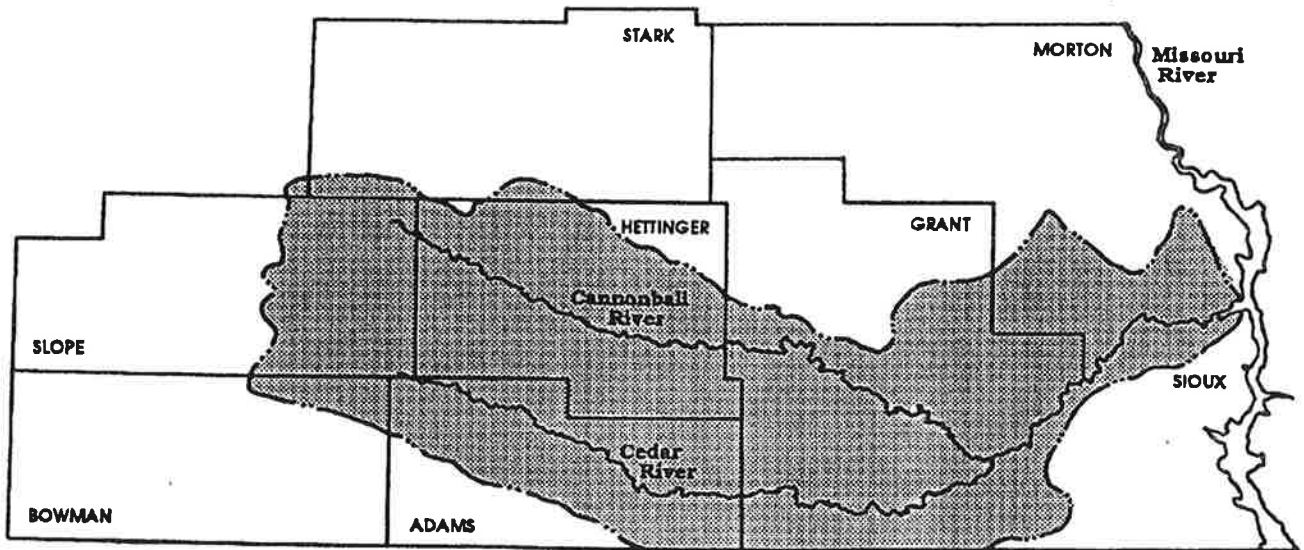
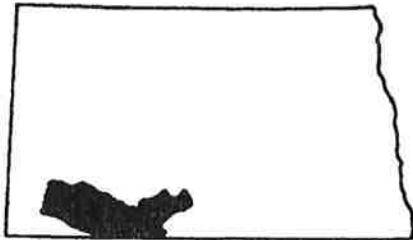
Should this study effort be initiated, the study would involve local interests such as the local water resource district and other concerned groups. Every effort would be made to make this study effort as broad-based and comprehensive as possible.

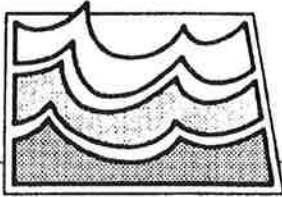
This study is viewed as a spin-off of the 1992 State Water Management Plan. The study effort could actually serve as an in-depth prototype for the analysis of other river basins in the State.

DAS:LW:dp/322

Enclosure

CANNONBALL RIVER BASIN





North Dakota State Water Commission

900 EAST BOULEVARD • BISMARCK, ND 58505-0850 • 701-224-2750 • FAX 701-224-3696

Telephone Conference Call Meeting
Governor's Conference Room - Ground Floor
State Capitol
Bismarck, North Dakota

November 19, 1993
1:45 PM, Central Standard Time

AGENDA

- A. Roll Call
- B. Consideration of Agenda
- C. Garrison Diversion Project:
 - 1) *MR&I Priority Criteria Review Committee Report* **
 - 2) *MR&I Funding for Fiscal Year 1994* **
- D. *Consideration of Belfield Dam Project Cost Arrangement* **
- E. *Consideration of Southwest Pipeline Project Contract 2-7C* **
- F. *Consideration of Request for Extension of Devils Lake-Ray Horne Agreement (Memo Mailed Under Separate Cover)* **
- G. Other Business
- H. Adjournment

* * * * *

** MATERIAL PROVIDED IN BRIEFING FOLDER

** *ITALICIZED, BOLD-FACED ITEMS REQUIRE SWC ACTION*

If auxiliary aids or services such as readers, signers, or Braille material is required, please contact the North Dakota State Water Commission, 900 East Boulevard, Bismarck, North Dakota 58505; or call (701) 224-4940 at least five (5) working days prior to the meeting. TDD telephone number is (701) 224-3696.

GOVERNOR EDWARD T. SCHAFER
CHAIRMAN

DAVID A. SPRYNCZYNATYK, P.E.
SECRETARY & STATE ENGINEER

NORTH DAKOTA STATE WATER COMMISSION

REGISTER

ATTENDANCE AT State Water Commission
~~Telephone Conference Call Meeting~~
 DATE Nov. 19, 1993 PLACE Bismarck, ND

PROJECT NO. _____

Your Name	Your Address	Who do you Represent? (Or Occupation)
Judy DeWitz	Joppen, ND	SWC
Tim Fay	Bis	SWC Staff
Rob Fink	"	" "
Jeffrey Matten	Bismarck	" "
DAVID SPYRZYNISKI	Bismarck	STATE ENGINEER
Edward Straker	Bismarck	boteknox
Sharon Paalen	"	SWC Staff